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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2018

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ________________ to ________________

Commission File Number: **001-38386**

CARDLYTICS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**26-3039436**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
675 Ponce de Leon Ave. NE, Ste 6000, Atlanta, GA 30308	**(888) 798-5802**
(Address of principal executive offices, including zip code)	(Registrant’s telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a small reporting company)	Small reporting company	☐
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of August 13, 2018, there were 21,297,150 shares outstanding of the registrant’s common stock, par value $0.0001.

CARDLYTICS, INC.
QUARTERLY REPORT ON FORM 10-Q

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PART I. FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

CARDLYTICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(Amounts in thousands, except par value amounts)

	December 31, 2017	June 30, 2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 21,262	$ 50,468
Restricted cash	—	20,000
Accounts receivable, net	48,348	40,488
Other receivables	2,898	3,073
Prepaid expenses and other assets	2,121	3,430
Total current assets	$ 74,629	$ 117,459
PROPERTY AND EQUIPMENT, net	7,319	7,829
INTANGIBLE ASSETS, net	528	366
CAPITALIZED SOFTWARE DEVELOPMENT COSTS, net	433	1,070
DEFERRED FI IMPLEMENTATION COSTS, net	13,625	12,425
OTHER LONG-TERM ASSETS	4,224	1,097
Total assets	$ 100,758	$ 140,246
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 1,554	$ 918
Accrued liabilities:		
Accrued compensation	4,638	4,305
Accrued expenses	4,615	4,510
FI Share liability	23,914	20,729
Consumer Incentive liability	7,242	5,834
Deferred billings	132	174
Short-term warrant liability	—	16,055
Current portion of long-term debt:		
Capital leases	44	22
Total current liabilities	$ 42,139	$ 52,547
LONG-TERM LIABILITIES:		
Deferred liabilities	$ 3,670	$ 3,437
Long-term warrant liability	10,230	—
Long-term debt, net of current portion:		
Lines of credit	25,081	27,477
Term loans	31,830	19,972
Capital leases	57	47
Total long-term liabilities	$ 70,868	$ 50,933

CARDLYTICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(Amounts in thousands, except par value amounts)

	December 31, 2017	June 30, 2018
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
COMMITMENTS AND CONTINGENCIES (Note 8)		
REDEEMABLE CONVERTIBLE PREFERRED STOCK:		
Series G' preferred stock, $0.0001 par value—5,339 shares authorized and 1,296 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	$ 44,672	$ —
Series G preferred stock, $0.0001 par value—1,385 shares authorized and 346 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	5,110	—
Series F-R preferred stock, $0.0001 par value—5,000 shares authorized and 1,199 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	58,449	—
Series E-R preferred stock, $0.0001 par value— 7,400 shares authorized and 795 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	29,972	—
Series D-R preferred stock, $0.0001 par value—5,787 shares authorized and 1,396 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	32,728	—
Series C-R preferred stock, $0.0001 par value—6,032 shares authorized and 1,508 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	18,366	—
Series B-R preferred stock, $0.0001 par value—9,596 shares authorized and 2,247 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	5,288	—
Series A-R preferred stock, $0.0001 par value—7,528 shares authorized and 1,857 shares issued and outstanding as of December 31, 2017, no shares authorized, issued or outstanding as of June 30, 2018	1,852	—
Total redeemable convertible preferred stock	$ 196,437	$ —
STOCKHOLDERS' (DEFICIT) EQUITY:		
Common stock, $0.0001 par value—83,000 and 100,000 shares authorized and 3,439 and 20,316 shares issued and outstanding as of December 31, 2017 and June 30, 2018, respectively	$ —	$ 7
Additional paid-in capital	58,693	336,874
Accumulated other comprehensive income	1,066	1,438
Accumulated deficit	(268,445)	(301,553)
Total stockholders' (deficit) equity	(208,686)	36,766
Total liabilities and stockholders' (deficit) equity	$ 100,758	$ 140,246

See notes to the condensed consolidated financial statements

CARDLYTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(Amounts in thousands, except per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	**2018**	**2017**	**2018**
REVENUE	$ 32,812	$ 35,570	$ 59,693	$ 68,283
COSTS AND EXPENSES:				
FI Share and other third-party costs	19,680	19,747	36,357	41,167
Delivery costs	1,896	2,559	3,449	4,502
Sales and marketing expense	7,920	10,247	15,152	18,463
Research and development expense	3,093	4,888	6,106	8,347
General and administration expense	4,773	8,979	9,462	15,561
Depreciation and amortization expense	767	784	1,532	1,694
Total costs and expenses	38,129	47,204	72,058	89,734
OPERATING LOSS	(5,317)	(11,634)	(12,365)	(21,451)
OTHER INCOME (EXPENSE):				
Interest expense, net	(2,020)	(992)	(4,664)	(2,741)
Change in fair value of warrant liabilities, net	(1,466)	1,611	(1,793)	(7,561)
Change in fair value of convertible promissory notes	(861)	—	(1,244)	—
Change in fair value of convertible promissory notes—related parties	8,436	—	6,213	—
Other income (expense), net	580	(2,038)	742	(1,355)
Total other income (expense)	4,669	(1,419)	(746)	(11,657)
LOSS BEFORE INCOME TAXES	(648)	(13,053)	(13,111)	(33,108)
INCOME TAX BENEFIT	—	—	—	—
NET LOSS	$ (648)	$ (13,053)	$ (13,111)	$ (33,108)
Adjustments to the carrying value of redeemable convertible preferred stock	(4,789)	—	(5,033)	(157)
Net loss attributable to common stockholders	$ (5,437)	$ (13,053)	$ (18,144)	$ (33,265)
Net loss per share attributable to common stockholders:				
Basic	$ (1.69)	$ (0.64)	$ (6.18)	$ (1.99)
Diluted	$ (3.48)	$ (0.64)	$ (6.18)	$ (1.99)
Weighted-average common shares outstanding:				
Basic	3,221	20,300	2,935	16,716
Diluted	3,875	20,300	2,935	16,716

See notes to the condensed consolidated financial statements

CARDLYTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (UNAUDITED)
(Amounts in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	**2018**	**2017**	**2018**
NET LOSS	$ (648)	$ (13,053)	$ (13,111)	$ (33,108)
OTHER COMPREHENSIVE (LOSS) INCOME:				
Foreign currency translation adjustments	(448)	880	(568)	372
TOTAL COMPREHENSIVE LOSS	$ (1,096)	$ (12,173)	$ (13,679)	$ (32,736)

See notes to the condensed consolidated financial statements

CARDLYTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' (DEFICIT) EQUITY (UNAUDITED)
(Amounts in thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
	Shares	Amount				
BALANCE–December 31, 2017	3,439	$ —	$ 58,693	$ 1,066	$ (268,445)	$ (208,686)
Exercise of common stock options	64	—	144	—	—	144
Exercise of common stock warrants	349	—	—	—	—	—
Stock-based compensation	—	—	11,251	—	—	11,251
Issuance of common stock in connection with our IPO	5,821	1	66,100	—	—	66,101
Vesting of performance-based common stock warrants	—	—	2,519	—	—	2,519
Conversion of preferred stock to common stock	10,643	6	196,588	—	—	196,594
Conversion of preferred stock warrants to common stock warrants	—	—	1,736	—	—	1,736
Accretion of redeemable convertible preferred stock to redemption value	—	—	(157)	—	—	(157)
Other comprehensive income	—	—	—	372	—	372
Net loss	—	—	—	—	(33,108)	(33,108)
BALANCE–June 30, 2018	20,316	$ 7	$ 336,874	$ 1,438	$ (301,553)	$ 36,766

See notes to the condensed consolidated financial statements

CARDLYTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(Amounts in thousands)

	Six Months Ended June 30,	
	2017	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (13,111)	$ (33,108)
Adjustments to reconcile net loss to net cash used in operating activities:		
Change in allowance for doubtful accounts	78	(16)
Depreciation and amortization	1,532	1,694
Amortization and impairment of deferred FI implementation costs	745	758
Amortization of financing costs charged to interest expense	281	229
Accretion of debt discount and non-cash interest expense	4,012	2,326
Stock compensation expense	2,225	11,245
Change in the fair value of warrant liabilities, net	1,793	7,561
Change in the fair value of convertible promissory notes	1,244	—
Change in the fair value of convertible promissory notes - related parties	(6,213)	—
Other non-cash (income) expense, net	(612)	3,873
Settlement of paid-in-kind interest	—	(8,311)
Change in operating assets and liabilities:		
Accounts receivable	6,100	7,701
Prepaid expenses and other assets	(370)	(1,509)
Deferred FI implementation costs	(3,000)	(2,250)
Recovery of deferred FI implementation costs	1,952	2,692
Accounts payable	(183)	(839)
Other accrued expenses	(1,521)	(237)
FI Share liability	(808)	(3,185)
Customer Incentive liability	(261)	(1,409)
Total adjustment	6,994	20,323
Net cash used in operating activities	$ (6,117)	$ (12,785)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Acquisition of property and equipment	$ (488)	$ (1,492)
Acquisition of patents	(23)	(12)
Capitalized software development costs	—	(657)
Net cash used in investing activities	$ (511)	$ (2,161)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of debt	$ 12,500	$ 47,435
Principal payments of debt	(49)	(51,811)
Proceeds from issuance of common stock	564	70,527
Proceeds from issuance of Series G preferred stock	11,940	—
Equity issuance costs	(994)	(1,897)
Debt issuance costs	(142)	(48)
Net cash from financing activities	$ 23,819	$ 64,206
EFFECT OF EXCHANGE RATES ON CASH, CASH EQUIVALENTS AND RESTRICTED CASH	176	(54)
NET INCREASE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	17,367	49,206
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—beginning of period	22,968	21,262
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—end of period	$ 40,335	$ 70,468
Supplemental schedule of non-cash investing and financing activities:		
Cash paid for interest	$ 392	$ 8,704
Amounts accrued for property and equipment	$ 191	$ 1,225
Amounts accrued for capitalized software development costs	$ —	$ 86
Stock-based compensation capitalized for software development	$ —	$ 6

See notes to the condensed consolidated financial statements

CARDLYTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. OVERVIEW OF BUSINESS AND BASIS OF PRESENTATION

Cardlytics, Inc. (“we,” “our,” “us,” the “Company,” or “Cardlytics”) is a Delaware corporation and was formed on June 26, 2008. We make marketing more relevant and measurable through our purchase intelligence platform. Using one of the largest aggregations of purchase data through our partnerships with banks and credit unions, we have a secure view into where and when consumers are spending their money. By applying advanced analytics to this massive aggregation of anonymized purchase data, we make it actionable, helping marketers identify, reach and influence likely buyers at scale, and measure the true sales impact of their marketing spend.

We operate in the United Kingdom through Cardlytics UK Limited, a wholly-owned and operated subsidiary registered as a private limited company in England and Wales.

Initial Public Offering

On February 13, 2018, we closed our initial public offering (“IPO”), in which we issued and sold 5,400,000 shares of common stock at a public offering price of $13.00 per share, resulting in gross proceeds of $70.2 million. On February 14, 2018, pursuant to the underwriters’ partial exercise of their over-allotment option to purchase up to an additional 810,000 shares from us, we issued and sold an additional 421,355 shares of our common stock, resulting in additional gross proceeds to us of $5.5 million. In total, we issued 5,821,355 shares of common stock and raised $75.7 million in gross proceeds, or $66.1 million in net proceeds after deducting underwriting discounts and commissions of $5.3 million and offering costs of $4.3 million. Upon the closing of the IPO, all of the outstanding shares of redeemable convertible preferred stock automatically converted into shares of common stock and all warrants to purchase shares of redeemable convertible preferred stock were automatically converted into warrants to purchase shares of common stock. Subsequent to the closing of the IPO, there were no shares of preferred stock or warrants to purchase shares of redeemable convertible preferred stock outstanding. The consolidated financial statements as of December 31, 2017, including share and per share amounts, do not give effect to the IPO or conversion of the redeemable convertible preferred stock, as the IPO and such conversions were completed subsequent to December 31, 2017.

Upon the completion of our IPO, our amended and restated certificate of incorporation authorized us to issue up to 100,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of preferred stock, $0.0001 par value per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time.

Reverse Stock Split

On January 26, 2018, our board of directors approved an amended and restated certificate of incorporation to (1) effect a reverse split on outstanding shares of our common stock and redeemable convertible preferred stock on a one-for-four basis (the “Reverse Stock Split”), (2) modify the threshold for automatic conversion of our preferred stock into shares of our common stock in connection with an initial public offering to eliminate the requirement of gross proceeds to the Company of not less than $70.0 million and (3) authorize us to issue up to 100,000,000 shares of common stock, $0.0001 par value per share and 25,000,000 shares of redeemable convertible preferred stock, $0.0001 par value per share (collectively, the “Charter Amendment”). The authorized shares and par values of our common stock and redeemable convertible preferred stock were not adjusted as a result of the Reverse Stock Split. The Charter Amendment was approved by the Company’s stockholders on January 26, 2018 and became effective upon the filing of the Charter Amendment with the State of Delaware on January 26, 2018. All issued and outstanding common stock and preferred stock and related share and per share amounts contained in these financial statements have been retroactively adjusted to reflect the Reverse Stock Split for all periods presented.

Unaudited Interim Results

The accompanying unaudited interim condensed consolidated financial statements and information have been prepared in accordance with generally accepted accounting principles in the United States (“U.S. GAAP”) and in accordance with the rules and regulations of the Securities and Exchange Commission. Accordingly, they do not include all of the information and disclosures required by U.S. GAAP for complete financial statements. In the opinion of management, these financial statements contain all normal and recurring adjustments considered necessary to present fairly the financial position, results of operations, and cash flows for the periods presented. The results for interim periods presented are not necessarily indicative of the results to be expected for the full year due to the seasonality of our business which has been historically impacted by higher consumer spending during the fourth quarter. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes thereto included on our Annual Report on Form 10-K ("Annual Report") for the fiscal year ended December 31, 2017.

There have been no material changes to our accounting policies from those disclosed in the audited consolidated financial statements and related notes thereto included in our Annual Report for year ended December 31, 2017.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. Significant items subject to such estimates and assumptions include revenue recognition, internal-use software development costs, income taxes, stock-based compensation, derivative instruments, income tax valuation allowance, contingencies and changes in fair value of our convertible promissory notes. We base our estimates on historical experience and also on assumptions that we believe are reasonable. Changes in facts or circumstances may cause us to change our assumptions and estimates in future periods and it is possible that actual results could differ from our current or revised future estimates.

2. SIGNIFICANT ACCOUNTING POLICIES AND RECENT ACCOUNTING STANDARDS

Consumer Incentives

Our Cardlytics Direct solution is our proprietary native bank advertising channel that enables marketers to reach consumers via their trusted and frequently visited online and mobile banking channels as well as email. Working with the marketer, we design a campaign that targets customers based on their purchase history. The consumer is offered an incentive to make a purchase from the marketer within a specified period. We use a portion of the fees that we collect from marketers to provide these consumer incentives to our FIs’ customers after they make qualifying purchases, which we refer to as Consumer Incentives.

We report our revenue on our condensed consolidated statements of operations net of Consumer Incentives. We generally pay Consumer Incentives only with respect to our Cardlytics Direct service. We do not provide the goods or services that are purchased by our FIs’ customers from the marketers to which the Consumer Incentives relate. Accordingly, the marketer is deemed to be the principal in the relationship with the customer and, therefore, the Consumer Incentive is deemed to be a reduction in the purchase price paid by the customer for the marketer’s goods or services. While we are responsible for remitting Consumer Incentives to our FI partners for further payment to their customers, we function solely as an agent of marketers in these arrangements.

Accounts receivable is recorded at the amount of gross billings to marketers, net of allowances, for the fees and Consumer Incentives that we are responsible to collect. Our accrued liabilities also include the amount of Consumer Incentives due to FI partners. As a result, accounts receivable and accrued liabilities may appear large in relation to revenue, which is reported on a net basis. Consumer Incentives totaled $14.8 million and $15.8 million during the three months ended June 30, 2017 and 2018 and totaled $28.0 million and $31.9 million during the six months ended June 30, 2017 and 2018, respectively.

Concentrations of Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable. Our cash and cash equivalents are held with two financial institutions, which we believe are of high credit quality. We believe that our accounts receivable credit risk exposure is limited as a result of being diversified among a large number of marketers segregated by both geography and industry. Historically, we have not experienced significant write-downs of our accounts receivable. No marketer represented a significant concentration of our accounts receivable as of December 31, 2017 or June 30, 2018. During the six months ended June 30, 2017 and 2018, a marketer in the U.S. accounted for 7% and 10% of our revenue, respectively. No other marketer accounted for over 10% of revenue during the six months ended June 30, 2017 and 2018.

Our business is substantially dependent on a limited number of FI partners. We require participation from our FI partners in Cardlytics Direct and access to their purchase data in order to offer our solutions to marketers and their agencies. We must have FI partners with a sufficient number of customers and levels of customer engagement to ensure that we have robust purchase data and marketing space to support a broad array of incentive programs for marketers. Our agreements with a substantial majority of our FI partners have terms of three to five years but are terminable by the FI partner on 90 days or less prior notice. If an FI partner terminates its agreement with us, we would lose that FI as a source of purchase data and online banking customers.

During both the six months ended June 30, 2017 and 2018, our largest FI partner in the U.S. accounted for approximately 67% of FI Share. During the six months ended June 30, 2017 and 2018, an FI partner in the U.K. accounted for 9% and 10% of FI Share, respectively. No other FI partners accounted for over 10% of FI Share during the six months ended June 30, 2017 and 2018.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents consist of cash held in checking accounts, upon which we earn up to a 1.0% annual rate of interest. Restricted cash as of June 30, 2018 represents deposits held in a blocked account in favor of the lender as additional security for our payment obligations under our 2018 Term Loan, upon which we earn a 0.9% annual rate of interest. See Note 3—Debt, for additional information regarding our 2018 Term Loan.

Cash, cash equivalents and restricted cash as presented on our condensed consolidated statements of cash flows consists of the following (in thousands):

	December 31,		June 30,	
	2016	2017	2017	2018
Cash and cash equivalents	$ 22,838	$ 21,262	$ 40,335	$ 50,468
Restricted cash	130	—	—	20,000
Cash, cash equivalents and restricted cash	$ 22,968	$ 21,262	$ 40,335	$ 70,468

Deferred Offering Costs

Deferred offering costs consist of incremental costs directly attributable to equity offerings. Deferred offering costs are included in other long-term assets on our condensed consolidated balance sheets. Upon completion of an offering, these amounts are offset against the proceeds of the offering.

	Six Months Ended June 30,	
	2017	2018
Beginning balance	$ —	$ 3,144
Deferred costs	1,745	1,135
Recognized against offering proceeds	—	(4,279)
Ending balance	$ 1,745	$ —

Fair Value of Financial Instruments

When required by U.S. GAAP, assets and liabilities are reported at fair value on our condensed consolidated financial statements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Valuation inputs are arranged in a hierarchy that consists of the following levels:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.
- Level 2 inputs are inputs other than Level 1 inputs such as quoted prices for similar assets or liabilities; quoted prices in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 inputs are unobservable inputs for the asset or liability.

Our nonfinancial assets that we recognize or disclose at fair value on our condensed consolidated financial statements on a nonrecurring basis include property and equipment, intangible assets, capitalized software development costs and deferred FI implementation costs. The fair values for these assets are evaluated when events or changes in circumstances indicate the carrying value may not be recoverable.

Preferred Stock Warrants

Outstanding warrants to purchase shares of our redeemable convertible preferred stock are accounted for as derivative liabilities in accordance with ASC Topic 815, *Derivatives and Hedging* ("ASC 815") due to the terms of the warrants and related agreements. We have determined that these warrants do not meet the scope exception of a contract indexed to our stock because of fair value protections contained in agreements governing our redeemable convertible preferred stock. We record preferred stock warrant liabilities on our condensed consolidated balance sheets at their fair value. We record the changes in fair value of such instruments as non-cash gains or losses on our condensed consolidated statements of operations. Upon our IPO, all warrants to purchase shares of our redeemable convertible preferred stock were converted to warrants to purchase shares of our common stock. See Note 6—Fair Value Measurements, for additional information regarding the valuation of warrants to purchase shares of our redeemable convertible preferred stock.

Common Stock Warrants Issued in Connection with the Series G Stock Financing

In connection with the Series G Stock financing, we issued warrants to purchase shares of our common stock that are accounted for as liabilities in accordance with ASC Topic 480, *Distinguishing Liabilities From Equity* due to the terms of the warrants and related agreements. We record these common stock warrant liabilities in our consolidated balance sheets at their fair value. We record the changes in fair value of such instruments as non-cash gains or losses in our statements of operations. See Note 6—Fair Value Measurements, for additional information regarding the valuation of the warrants issued in connection with the Series G Stock financing.

Convertible Promissory Notes

The redemption features included in the terms of the convertible promissory notes were determined to be derivative liabilities as a result of a significant discount within the redemption features for the note holders. Embedded derivatives that are not clearly and closely related to the host contract are required to be bifurcated and recorded at fair value unless the fair value option is elected on the host contract. Under the fair value option, bifurcation of the embedded derivative is not necessary as all related gains (losses) on the host contract and derivative will be reflected in the consolidated statements of operations. We elected the fair value option for the convertible promissory notes upon their issuance. The convertible promissory notes are measured using unobservable inputs that required a high level of judgment to determine fair value, and are therefore classified as Level 3. See Note 6—Fair Value Measurements for additional information regarding the valuation of the convertible promissory notes.

Income Taxes

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (“Tax Act”) was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease to 21% effective for tax years beginning after December 31, 2017. This change in tax rate resulted in a reduction in our net U.S. deferred tax assets, which was fully offset by a reduction in our valuation allowance. The other provisions of the Tax Act, including the one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings, did not have a material impact on our financial statements as of December 31, 2017.

As of December 31, 2017, pursuant to guidance provided in Staff Account Bulletin No. 118, we had not completed our accounting for the effects of the Tax Act; however, we made a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax, including a provisional reduction in U.S. deferred tax assets, which was fully offset by a reduction in our valuation allowance. We have completed our accounting for the Tax Act and no changes were made to the provisional adjustments recorded as of December 31, 2017.

Recently Adopted Accounting Pronouncements

In May 2017, the FASB issued ASU 2017-09, *Scope of Modification Accounting*, which amends the scope of modification accounting for share-based payment arrangements, provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC Topic 718, *Compensation—Stock Compensation*. For all entities, the ASU is effective prospectively for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. We adopted this ASU on January 1, 2018 and it did not have an impact on our condensed consolidated financial statements.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-09, *Revenue from Contracts with Customers (Topic 606).* ASU 2014-09 supersedes the recognition guidance in ASC Topic 605 and most industry specific revenue guidance and requires an entity to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. In addition, this ASU requires disclosures of the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. This ASU supersedes most existing GAAP revenue recognition principles, and it permits the use of either the retrospective or modified retrospective transition method. For public entities, this ASU is effective for fiscal years beginning after December 15, 2017, including interim periods within those annual periods. For non-public entities, this ASU is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We have made the election to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) of the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"), therefore we will be required to apply this ASU for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Retrospective application will be required for each period presented through either the recasting of the prior periods for the effects of the adoption of this ASU or retrospectively through a cumulative catch up recognized at the date of adoption. During the first quarter of 2018, we began assessing the impacts, if any, that this ASU may have on our results of operations, current accounting policies, processes, controls, systems and financial statement disclosures. Based on our initial assessment, we expect to adopt this new standard using the modified retrospective transition method, which would result in a cumulative adjustment as of the date of the adoption. We are continuing to assess the impact of this standard on our financial position, results of operations and related disclosures and have not yet determined whether the effect will be material.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which is intended to enhance the reporting model for financial instruments to provide users of financial statements with more decision-useful information. This ASU requires equity investments to be measured at fair value with changes in fair values recognized in net earnings, (public entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes), simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment and eliminates the requirement to disclose fair values, the methods and significant assumptions used to estimate the fair value of financial instruments measured at amortized cost. This ASU also clarifies that management should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale debt securities in combination with other deferred tax assets. For public business entities, this ASU is effective for fiscal years beginning after December 15, 2017, including interim periods within those annual periods. For non-public business entities, this ASU is effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted. We have made the election to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) of the JOBS Act, therefore we will be required to apply this ASU for annual reporting periods beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. We are currently evaluating the potential impact of this recently issued guidance on our condensed consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which supersedes ASC Topic 840, *Leases*. The ASU does not significantly change the lessees' recognition, measurement and presentation of expenses and cash flows from the previous accounting standard. The ASU's primary change is the requirement for lessee entities to recognize a lease liability for payments and a right of use asset representing the right to use the leased asset during the term on operating lease arrangements. Lessees are permitted to make an accounting policy election to not recognize the asset and liability for leases with a term of twelve months or less. Lessors' accounting under the ASU is largely unchanged from the previous accounting standard. In addition, the ASU expands the disclosure requirements of lease arrangements. Lessees and lessors will use a modified retrospective transition approach. For public entities, this ASU is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. For non-public entities, this ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. We have made the election to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) of the JOBS Act, therefore we will be required to adopt this ASU for annual reporting periods beginning after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted. Although we are currently evaluating the impact of this guidance on our condensed consolidated financial statements, we expect that most of our operating lease commitments will be recognized as operating lease liabilities and right-of-use assets upon adoption of the new guidance.

3. DEBT

Our debt consists of the following (in thousands):

	December 31, 2017	June 30, 2018
Lines of credit	$ 25,081	$ 27,477
Term loans, net of unamortized discount and debt issuance costs of $1,058 and $28 at December 31, 2017 and June 30, 2018, respectively	31,830	19,972
Capital leases	101	69
Convertible promissory notes (converted into Series G' Stock in May 2017)	—	—
Total debt	$ 57,012	$ 47,518
Less current portion of long-term debt	(44)	(22)
Long-term debt, net of current portion	$ 56,968	$ 47,496

Accrued interest included in debt totaled $6.2 million and less than $0.1 million as of December 31, 2017 and June 30, 2018, respectively.

New Loan Facility

On May 21, 2018, we entered into a New Loan Facility consisting of a $30.0 million asset-based revolving line of credit ("2018 Line of Credit") and a $20.0 million term loan ("2018 Term Loan") maturing on May 21, 2020. We used the entire $20.0 million in proceeds from the 2018 Term Loan and an advance of $27.4 million under the 2018 Line of Credit to repay all outstanding obligations under our 2016 Line of Credit and 2016 Term Loan. Upon repayment, both the 2016 Line of Credit and the 2016 Term Loan were terminated. We deferred $0.1 million of debt issuance costs associated with obtaining the New Loan Facility and deferred $0.1 million of unamortized debt issuance costs attributed to our 2016 Line of Credit and 2016 Term Loan.

Under the terms of the New Loan Facility relating to the 2018 Line of Credit, we are able to borrow up to the lesser of $30.0 million or 85% of the amount of our eligible accounts receivable. Interest on advances under the 2018 Line of Credit varies depending on the amount of unrestricted cash deposits we maintain with the lender on the last day of the month. The interest rate is equal to the prime rate minus 0.75% if our unrestricted deposits exceed $40.0 million, the prime rate minus 0.50% if our unrestricted deposits are between $40.0 million and $20.0 million, and the prime rate if our unrestricted deposits are below $20.0 million. As of June 30, 2018, the indicative rate for advances on the 2018 Line of Credit was the prime rate minus 0.75%, or 4.25%. In addition, we are required to pay an unused line fee of 0.15% per annum on the average daily unused amount of the $30.0 million revolving commitment. We are also required to pay the lender a one-time success fee of $75,000 in the event that we achieve trailing twelve month revenue of $200.0 million or more at the end of any month after the closing date of the New Loan Facility. Interest accrues on the 2018 Term Loan at an annual rate of interest equal to the prime rate minus 2.75%, or 2.25%, as of June 30, 2018.

All of our obligations under the New Loan Facility are also secured by a first priority lien on substantially all of our assets. Under the terms of the New Loan Facility, we are required to maintain a deposit of $20.0 million in a blocked account in favor of the lender as additional security for our payment obligations. The New Loan Facility contains a moving minimum trailing twelve month revenue covenant, which was $127.0 million for the period ended June 30, 2018. The New Loan Facility also requires us to maintain a total cash balance plus liquidity under the 2018 Line of Credit of not less than $5.0 million.

The New Loan Facility includes customary representations, warranties and covenants (affirmative and negative), including restrictive covenants that include restrictions on mergers, acquisitions and dispositions of assets, incurrence of indebtedness and encumbrances on our assets and a prohibition from the payment or declaration of dividends; in each case subject to specified exceptions.

The New Loan Facility also includes standard events of default, including in the event of a material adverse change. Upon the occurrence of an event of default, the lender may declare all outstanding obligations immediately due and payable and take such other actions as are set forth in the New Loan Facility and increase the interest rate otherwise applicable to the 2018 Term Loan or advances under the 2018 Line of Credit by an additional 3.00%.

As of June 30, 2018, we had $2.5 million of unused available borrowings under our 2018 Line of Credit. We were in compliance with all financial covenants as of June 30, 2018.

2016 Line of Credit

In September 2016, we entered into a $50.0 million loan and security agreement ("2016 Line of Credit") maturing on March 14, 2019. The 2016 Line of Credit facility was repaid and terminated in May 2018 in connection with obtaining our New Loan Facility. We recognized a $0.1 million loss on extinguishment of debt related to the unamortized debt issuance costs. This expense is included within other income, net in our condensed consolidated statements of operations and is presented in other non-cash expenses on our condensed consolidated statement of statement of cash flows.

2016 Term Loan

In July 2016, we entered into a $24.0 million credit agreement ("2016 Term Loan") maturing on July 21, 2019. The 2016 Term Loan was repaid and terminated in May 2018 in connection with obtaining our New Loan Facility. We recognized a $0.8 million loss on extinguishment of debt related to the unamortized discount and unamortized debt issuance costs. This expense is included within other income, net in our condensed consolidated statements of operations and is presented in other non-cash expenses on our condensed consolidated statement of statement of cash flows.

Convertible Promissory Notes

During 2016, we issued unsecured convertible promissory notes with an aggregate principal amount of $50.7 million. In May 2017, we issued and sold shares of Series G redeemable convertible preferred stock, which resulted in the conversion of the convertible promissory notes into either shares of our common stock or shares of our Series G' Stock. See Note 5—Redeemable Convertible Preferred Stock for a description of the Series G Stock financing that resulted in the conversion of the convertible promissory notes.

The redemption features included in the terms of the convertible promissory notes were determined to be derivative liabilities as a result of a significant discount within the redemption features for the note holders. Embedded derivatives that are not clearly and closely related to the host contract are required to be bifurcated and recorded at fair value unless the fair value option is elected on the host contract. Under the fair value option, bifurcation of the embedded derivative is not necessary as all related gains (losses) on the host contract and derivative will be reflected in the consolidated statements of operations. We elected the fair value option for the convertible promissory notes and recognized losses from their initial measurement during the second and third quarters of 2016. Subsequent changes in fair value of the convertible promissory notes are included in change in fair value of convertible promissory notes on our condensed consolidated statements of operations. See Note 6—Fair Value Measurements for additional information regarding the valuation of the convertible promissory notes.

Paid-in-kind interest related to the convertible promissory notes is recognized in interest expense, net on our condensed consolidated statements of operations and totaled $1.7 million during the six months ended June 30, 2017.

Future Payments

Aggregate future payments of principal and interest due upon maturity are as follows (in thousands):

Years Ending December 31,	Debt	Capital leases	Total debt
2018 (remainder of year)	$ —	$ 12	$ 12
2019	—	20	20
2020	47,477	24	47,501
2021	—	13	13
Total principal payments	$ 47,477	$ 69	$ 47,546
Less unamortized debt issuance costs	(28)	—	(28)
Less unamortized debt discount	—	—	—
Total debt	$ 47,449	$ 69	$ 47,518

4. STOCK-BASED COMPENSATION

In May 2017, our board of directors and stockholders approved an increase in the total number of shares of common stock issuable under our 2008 Stock Plan ("2008 Plan") from 3,120,000 to 3,495,000 shares. In January 2018, our board of directors and stockholders approved an increase in the total number of shares of common stock issuable under our 2008 Plan to 4,020,000 shares.

Our board of directors has adopted and our stockholders have approved our 2018 Equity Incentive Plan ("2018 Plan"). Our 2018 Plan became effective on February 8, 2018, the date our registration statement in connection with our IPO was declared effective. We do not expect to grant any additional awards under the 2008 Stock Plan. Any awards granted under the 2008 Plan will remain subject to the terms of our 2008 Plan and applicable award agreements.

Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2018 Plan is the sum of (i) 1,875,000 shares plus (ii) 61,247 shares reserved, and remaining available for issuance, under our 2008 Plan at the time our 2018 Plan became effective and (iii) the number of shares subject to stock options or other stock awards granted under our 2008 Plan that would have otherwise returned to our 2008 Plan (such as upon the expiration or termination of a stock award prior to vesting). The number of shares of our common stock reserved for issuance under our 2018 Plan will automatically increase on January 1 of each year, beginning on January 1, 2019 and continuing through and including January 1, 2028, by 5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors.

The 2018 Plan provides for the grant of stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards and other forms of equity compensation, which are collectively referred to as stock awards. Additionally, the 2018 Plan provides for the grant of performance cash awards.

The following table summarizes the allocation of stock-based compensation in the consolidated statements of operations (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
Delivery costs	$ 43	$ 183	$ 84	$ 268
Sales and marketing expense	522	2,668	866	3,611
Research and development expense	239	1,756	410	2,226
General and administration expense	438	3,738	865	5,140
Total stock-based compensation expense	$ 1,242	$ 8,345	$ 2,225	$ 11,245

Common Stock Options

Options to purchase shares of common stock generally vest over four years and expire 10 years following the date of grant. A summary of common stock option activity is as follows (in thousands, except per share amounts):

	Shares	Weighted-Average Exercise Price
Options outstanding — December 31, 2016	2,137	$ 15.00
Granted	468	21.13
Exercised	(148)	3.80
Forfeited	(34)	21.41
Cancelled	(81)	11.31
Options outstanding — June 30, 2017	2,342	$ 16.97

	Shares	Weighted-Average Exercise Price
Options outstanding — December 31, 2017	2,514	$ 18.42
Granted	29	24.24
Exercised	(64)	6.40
Forfeited	(128)	24.95
Cancelled	(119)	18.24
Options outstanding — June 30, 2018	2,232	$ 18.48

The weighted-average grant-date fair value of options granted during the six months ended June 30, 2017 and 2018 was $13.61 and $10.00, respectively. The total fair value of options vested during the six months ended June 30, 2017 and 2018 was approximately $2.2 million and $4.0 million, respectively. As of June 30, 2018, $9.0 million of unrecognized compensation expense related to unvested options will be recognized over a weighted-average period of 2.5 years.

Restricted Stock Units

A summary of restricted stock unit activity is as follows (in thousands, except per share amounts):

	Shares	Weighted-Average Grant Date Fair Value
Unvested — December 31, 2017	—	$ —
Granted	1,243	20.64
Vested	—	—
Forfeited	(11)	16.77
Unvested — June 30, 2018	1,232	$ 20.68

During the first quarter of 2018, we granted 335,562 restricted stock units ("RSUs") to employees and our non-employee directors, which have annual vesting periods ranging from one to four years.

We also granted two separate tranches of performance-based restricted share units ("PSUs"), each to receive 437,500 shares of common stock, to employees. The vesting of the 875,000 PSUs was contingent upon the completion of our IPO and includes other performance-based conditions. The performance condition in the first tranche will be satisfied if we attain 70.0 million of FI monthly active users ("FI MAUs") within three years of the grant date. The performance condition in the second tranche will be satisfied if we attain 85.0 million of FI MAUs within five years of the grant date. FI MAUs is a performance metric defined within "Management's Discussion and Analysis of Financial Condition and Results of Operations." As a result of entering into an agreement with JPMorgan Chase Bank, National Association, we refined the expected timing of achieving the performance conditions of the PSUs, resulting in a $5.6 million increase in stock compensation expense during the second quarter of 2018.

During the second quarter of 2018, we granted 32,070 RSUs to employees, which have annual vesting periods of four years. The unamortized stock-based compensation expense related to these RSUs is $0.5 million.

As of June 30, 2018, there was approximately $17.7 million of unrecognized compensation expense related to restricted stock units, which is expected to be recognized over a weighted-average period of 1.2 years.

Subsequent to June 30, 2018, we granted 26,590 RSUs to employees, which have annual vesting periods of four years. The unamortized stock-based compensation expense related to these RSUs is $0.5 million.

Restricted Securities Units

During 2016, we granted $1.0 million of restricted securities units to certain executives in lieu of cash bonuses. Upon issuance, the restricted securities units were indexed to the convertible promissory notes. As a result of the Series G Stock financing, the restricted securities units became indexed to our Series G' Stock on the same terms as the Series G' Stock issued upon conversion of the convertible promissory notes. Upon the completion of our IPO in February 2018, the restricted securities units became indexed to our common stock.

Vesting requirements include both a service-based condition and a performance-based condition. The service-based condition requires each recipient to remain employed until the earlier of i) the date 6 months from the restricted securities unit grant date, ii) the date of a qualified liquidity event, or iii) date of termination without cause. The performance-based condition requires a sale of the Company or IPO event within a fixed period of time not more than 5 years from the restricted securities units grant date. The restricted securities units are considered liability classified awards, but due to the performance condition relating to sale of the Company or IPO, no compensation cost was recognized until one of these events occurred. These units vested upon the completion of our IPO in February 2018 resulting in a non-cash expense of $0.5 million.

Employee Stock Purchase Plan

Our board of directors has adopted and our stockholders have approved our 2018 Employee Stock Purchase Plan ("2018 ESPP"). Our 2018 ESPP became effective on February 8, 2018, the date our registration statement in connection with our IPO was declared effective and enables eligible employees to purchase shares of our common stock at a discount. Purchases will be accomplished through participation in discrete offering periods. On each purchase date, eligible employees will purchase our common stock at a price per share equal to 85% of the lesser of the fair market value of our common stock on the first trading day of the offering period or the date of purchase. No shares of common stock have been purchased under the 2018 ESPP as the initial offering period has not yet ended.

The maximum number of shares of our common stock that may be issued under our 2018 ESPP is 375,000 shares. Additionally, the number of shares of our common stock reserved for issuance under our 2018 ESPP will automatically increase on January 1 of each year, beginning on January 1, 2019 and continuing through and including January 1, 2026, by the lesser of (i) 1% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, (ii) 500,000 shares of our common stock or (iii) such lesser number of shares of common stock as determined by our board of directors. Shares subject to purchase rights granted under our 2018 ESPP that terminate without having been exercised in full will not reduce the number of shares available for issuance under our 2018 ESPP.

5. REDEEMABLE CONVERTIBLE PREFERRED STOCK

Upon the consummation of our IPO, all of the outstanding shares of redeemable convertible preferred stock were automatically converted into shares of common stock. See Note 1—Overview of Business and Basis of Presentation for additional information regarding our IPO.

A summary of the change in carrying amount of the outstanding redeemable convertible preferred stock is as follows (in thousands):

	Series G' Stock		Series G Stock	
	Shares	**Amount**	**Shares**	**Amount**
Balance — December 31, 2017	1,296	$ 44,672	346	$ 5,110
Accretion of redeemable convertible preferred stock	—	—	—	108
Conversion of preferred stock to common stock	(1,296)	(44,672)	(346)	(5,218)
Balance — June 30, 2018	—	$ —	—	$ —

	Series F-R Stock		Series E-R Stock		Series D-R Stock	
	Shares	**Amount**	**Shares**	**Amount**	**Shares**	**Amount**
Balance — December 31, 2017	1,199	$ 58,449	795	$ 29,972	1,396	$ 32,728
Accretion of redeemable convertible preferred stock	—	38	—	1	—	7
Conversion of preferred stock to common stock	(1,199)	(58,487)	(795)	(29,973)	(1,396)	(32,735)
Balance — June 30, 2018	—	$ —	—	$ —	—	$ —

	Series C-R Stock		Series B-R Stock		Series A-R Stock	
	Shares	**Amount**	**Shares**	**Amount**	**Shares**	**Amount**
Balance — December 31, 2017	1,508	$ 18,366	2,247	$ 5,288	1,857	$ 1,852
Accretion of redeemable convertible preferred stock	—	3	—	—	—	—
Conversion of preferred stock to common stock	(1,508)	(18,369)	(2,247)	(5,288)	(1,857)	(1,852)
Balance — June 30, 2018	—	$ —	—	$ —	—	$ —

During the second quarter of 2016, we issued convertible promissory notes to our founders and the existing holders of our redeemable convertible preferred stock. Shares of redeemable convertible preferred stock held by investors that participated in the financing were exchanged for shares of replacement preferred stock. These replacement shares have rights and preferences equal to their corresponding original series and are designated as Series A-R Stock, Series B-R Stock, Series C-R Stock, Series D-R Stock, Series E-R Stock and Series F-R Stock. Shares of redeemable convertible preferred stock held by investors that did not participate in the financing were converted to common stock.

In February 2017, we amended and restated our certificate of incorporation reducing the authorized number of shares of our redeemable convertible preferred stock to 82,683,212 and cancelled Series A Stock, Series B Stock, Series C Stock, Series D Stock, Series E Stock and Series F Stock. Pursuant to our convertible promissory note financing, these series of preferred stock were either exchanged for shares of replacement preferred stock with rights and preferences equal to their corresponding original series or converted to common stock.

Series G Stock Financing

In May 2017, we amended and restated our certificate of incorporation and increased the authorized number of shares of our common stock to 83,000,000 and increased the authorized number of shares of our redeemable convertible preferred stock to 96,131,002. In May 2017, we issued and sold, for aggregate consideration of $11.9 million, an aggregate of 346,334 shares of Series G redeemable convertible preferred stock, par value $0.0001 per share with a stated price of $34.4758 per share ("Series G Stock"), and warrants to purchase shares of our common stock. Issuance costs incurred in connection with the sale of Series G Stock totaled $0.1 million.

Conversion of Convertible Promissory Notes into Series G' Stock

In connection with the Series G Stock financing in May 2017, certain convertible promissory notes converted into 1,295,746 shares of Series G' redeemable convertible preferred stock, par value $0.0001 per share ("Series G' Stock"), at a price per share of $2.758.

Common Stock Warrants Issued in Connection with the Series G Stock Financing

In connection with the Series G Stock financing, we issued warrants to purchase an aggregate of number of shares of common stock equal to the product obtained by multiplying 346,334 by a fraction, the numerator of which is the difference between $68.9516 and the volume weighted average closing price of our common stock over the 30 trading days (or such lesser number of days as our common stock has been traded on the Nasdaq Global Market) prior to the date on which such warrants vest and become exercisable and the denominator of which is such volume weighted average closing price, which warrants will become vested and exercisable upon the earlier to occur of the date (i) August 8, 2018, which is 180 days following the date of our IPO and (ii) 10 days prior to a sale of our company, at an exercise price of $0.0004 per share. See Note 6—Fair Value Measurements, for additional information regarding the valuation of the warrants issued in connection with the Series G Stock financing.

Beneficial conversion feature

The aggregate proceeds of $11.9 million from the Series G Stock financing were first allocated to the warrants to purchase shares of our common stock, which qualify as liabilities under ASC 480 and are recorded at fair value, with the residual value of $4.5 million allocated to our Series G Stock. As a result of this allocation, Series G Stock was determined to contain a beneficial conversion feature with an intrinsic value of $6.1 million. The amount assigned to the beneficial conversion feature was limited to the $4.5 million residual value allocated to Series G Stock and is classified as a component of additional paid-in capital. During the second quarter of 2017, we recorded a deemed dividend of $4.5 million related to the beneficial conversion feature, which is reflected below net loss to arrive at net loss available to common stockholders.

6. FAIR VALUE MEASUREMENTS

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The following table summarizes our liabilities measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Liabilities:				
Preferred stock warrants	$ —	$ —	$ 2,285	$ 2,285
Common stock warrants	—	—	7,945	7,945
Convertible promissory notes	—	—	—	—
Total liabilities	$ —	$ —	$ 10,230	$ 10,230

	June 30, 2018			
	Level 1	Level 2	Level 3	Total
Liabilities:				
Preferred stock warrants	$ —	$ —	$ —	$ —
Common stock warrants	—	—	16,055	16,055
Convertible promissory notes	—	—	—	—
Total liabilities	$ —	$ —	$ 16,055	$ 16,055

Instruments Recorded at Fair Value Using Level 3 Inputs

Our redeemable convertible preferred stock warrants, common stock warrants issued in connection with the Series G Stock financing and our convertible promissory notes are measured and recorded at fair value on a recurring basis using Level 3 inputs. The table below provides a roll forward of the changes in fair value of Level 3 financial instruments (in thousands):

	Preferred Stock Warrants	Common Stock Warrants	Convertible Promissory Notes
Balance at December 31, 2016	$ 2,197	$ —	$ 72,332
Conversion of convertible promissory notes to Series G' preferred stock	—	—	(44,672)
Conversion of convertible promissory notes to common stock	—	—	(24,392)
Accrued interest on convertible promissory notes	—	—	1,701
Issuance of common stock warrants	—	7,452	—
Changes in fair value	97	1,696	(4,969)
Balance at June 30, 2017	$ 2,294	$ 9,148	$ —

	Preferred Stock Warrants	Common Stock Warrants	Convertible Promissory Notes
Balance at December 31, 2017	$ 2,285	$ 7,945	$ —
Changes in fair value	(549)	8,110	—
Conversion of preferred stock warrants to common stock warrants	(1,736)	—	—
Balance at June 30, 2018	$ —	$ 16,055	$ —

In valuing our instruments recorded at fair value using Level 3 inputs, our board of directors determined the equity value of our business generally using a combination of the income approach and the market approach valuation methods.

The income approach estimates value based on the expectation of future cash flows that a company will generate, such as cash earnings, cost savings, tax deductions and the proceeds from disposition. These future cash flows are discounted to their present values using a discount rate derived based on an analysis of the cost of capital of comparable publicly traded companies in similar lines of business, as of each valuation date, and is adjusted to reflect the risks inherent in our cash flows.

The market approach estimates the fair value of a company by applying market multiples of comparable publicly traded companies in a similar line of business. The market multiples are based on relevant metrics implied by the price that investors have paid for the equity of publicly traded companies. Given our significant focus on investing in and growing our business, we primarily utilized the forward-looking revenue multiple when performing valuation assessments under the market approach and considered both trading and transaction multiples. When considering which companies to include as our comparable industry peer companies, we focused on U.S.-based publicly traded companies that were broadly comparable to us based on consideration of industry, market and line of business. From the comparable companies, a representative market value multiple was determined and applied to our operating results to estimate the value of our company. The market value multiple was determined based on consideration of multiples of revenue to each of the comparable companies' historical and forecasted revenue. In addition, the market approach considers IPO and merger and acquisition transactions involving companies similar to the company's business being valued. Multiples of revenue are calculated for these transactions and then applied to the business being valued, after reduction by an appropriate discount.

Once an equity value was determined, we utilized the option pricing method ("OPM"), or probability-weighted expected return method ("PWERM") to allocate the overall value of equity to the various share classes. The OPM was used in valuations as of and for dates prior to December 31, 2016 and the PWERM was used in all subsequent valuations. The OPM treats common stock and convertible preferred stock as call options on a company's enterprise value with exercise prices based on the liquidation preferences of the convertible preferred stock. Under this method, the common stock only has value if the funds available for distribution to stockholders exceed the value of the liquidation preference at the time of an assumed liquidity event. The value assigned to the common stock is the remaining value after the convertible preferred stock is liquidated. The OPM prices the call option using the Black-Scholes model. The PWERM relies on a forward-looking analysis to predict the possible future value of a company. Under this method, discrete future outcomes, including an IPO and non-IPO scenarios, are weighted based on the estimated the probability of each scenario. The PWERM is used when discrete future outcomes can be predicted with reasonable certainty based on a probability distribution. We relied on the PWERM to allocate the value of equity under a liquidity scenario. The projected equity value relied upon in the PWERM scenario was based on (i) guideline IPO transactions involving companies that were considered broadly comparable to us and (ii) our expectation of the pre-money valuation that we needed to achieve to consider an IPO as a viable exit strategy.

The following table summarizes key assumptions used in the PWERM for estimating the fair value of our redeemable convertible preferred stock warrant liability:

	June 30, 2017
Weighted-average cost of capital applicable to preferred stock warrants	20%
Discount for lack of marketability	6% to 11%
Volatility	54%
Risk-free interest rate	0.9% to 1.2%

Preferred Stock Warrants

A summary of our preferred stock warrants is as follows (in thousands, except per share amounts):

				Warrants outstanding	
Preferred Series	Grant date	Expiration date	Exercise price	December 31, 2017	June 30, 2018
Series B-R	2/26/2010	2/25/2020	$ 2.36	59	—
Series D-R	9/21/2012	9/20/2022	$ 23.64	38	—
Series D-R	9/21/2012	9/20/2022	$ 23.64	13	—
Total				110	—

The fair value of the warrants to purchase Series B-R Stock and Series D-R Stock decreased from $26.80 per share and $13.63 per share on December 31, 2017 to $20.18 per share and $10.57 per share on February 8, 2018, respectively, the date at which they converted to warrants to purchase shares of our common stock and were reclassified to additional paid-in capital on our condensed consolidated balance sheet. The decrease in the fair value of the warrants to purchase Series B-R Stock and Series D-R Stock primarily resulted from the timing of future potential liquidity events, changes to our forecasted financial results and changes in the valuation of comparable companies.

Common Stock Warrants Issued in Connection with the Series G Stock Financing

In connection with the Series G Stock financing, we issued warrants to purchase an aggregate number of shares of common stock equal to the product obtained by multiplying 346,334 by a fraction, the numerator of which is the difference between $68.9516 and the volume weighted average closing price of our common stock over the 30 trading days (or such lesser number of days as our common stock has been traded on the Nasdaq Global Market) prior to the date on which such warrants vest and become exercisable and the denominator of which is such volume weighted average closing price, which warrants will become vested and exercisable upon the earlier to occur of the date (i) August, 8, 2018, which is 180 days following the date of our IPO and (ii) 10 days prior to a sale of our company, at an exercise price of $0.0004 per share.

To determine the fair value of our common stock warrant liability issued in connection with our Series G Stock financing, we utilized a Monte Carlo simulation, which allows for the modeling of complex securities and evaluates many possible outcomes to forecast the stock price of the company post-IPO. As part of the valuation, we considered various scenarios related to the pricing, timing and probability of an IPO. We applied an annual equity volatility of 59% and a discount for lack of marketability of 11% to arrive at a valuation of $7.5 million on the issuance date.

Subsequent to our IPO, the fair value of the common stock warrant liability is estimated based on the fair market value of our common stock at each reporting period, discounted from the date of settlement, which is expected to be 180 days following the date of our IPO. The valuation as of June 30, 2018 was determined to be $16.1 million. As a result, during the six months ended June 30, 2018, we recorded a non-cash loss of $8.1 million related to the change in fair value of our common stock warrant liability.

Convertible Promissory Notes

The redemption features included in the terms of the convertible promissory notes were determined to be derivative liabilities due to a significant discount within the redemption features for the note holders. Embedded derivatives that are not clearly and closely related to the host contract are required to be bifurcated and recorded at fair value unless the fair value option is elected on the host contract. Under the fair value option, bifurcation of the embedded derivative is not necessary as all related gains (losses) on the host contract and derivative will be reflected in the consolidated statements of operations. We elected the fair value option for the convertible promissory notes, therefore direct costs and fees associated with the issuance were recognized in earnings as incurred and were not deferred.

To determine the fair value of our convertible promissory notes through their conversion in May 2017, we utilized key assumptions from the PWERM, as shown above. Under this method, we considered the redemption features of the convertible promissory notes to determine the fair value under discrete future outcomes, including IPO and non-IPO scenarios. Under certain non-IPO scenarios, holders of the convertible promissory notes will receive two times preference on the outstanding principal amount. We weighted the fair values based on the estimated probability of each scenario to determine the overall fair value of the convertible promissory notes as of the balance sheet date.

See Note 5—Redeemable Convertible Preferred Stock for a description of the Series G Stock financing in May 2017 that resulted in the conversion of the convertible promissory notes into shares of our Series G' Stock.

Performance-based Warrants Issued to FIS

In May 2013, we granted 10-year performance-based warrants to purchase up to 644,365 shares of Series E Stock at an exercise price of $23.64 per share. Since FIS did not participate in the convertible promissory note financing, their warrants to purchase preferred stock were converted to warrants to purchase common stock. The warrants vested upon the completion of our IPO in February 2018 resulting in a non-cash expense of $2.5 million. We determined the fair value of these common warrants on the date of IPO using the Black-Scholes option pricing model, which is affected by the fair value of our common stock as well as the following significant inputs:

	February 8, 2018
Weighted-average grant date fair value	$3.91
Significant inputs:	
Value of common stock	$13.00
Expected term	5.3 years
Volatility	50%
Risk-free interest rate	2.0%
Dividend yield	—%

7. RELATED PARTIES

Series G / Series G'

In May 2017, we issued and sold, for aggregate consideration of $11.9 million, an aggregate of 346,334 shares of our Series G Stock and warrants to purchase shares of our common stock. In connection with the issuance of our Series G Stock, the principal and accrued interest under the convertible promissory notes converted into an aggregate of 1,295,746 shares of our Series G' redeemable convertible preferred stock and 801,329 shares of our common stock. The following table summarizes the participation in the foregoing transactions by our directors, executive officers and holders of more than 5% of any class of our capital stock as of the date of such transactions (in thousands):

Related Party	Shares of Series G Preferred Stock	Shares of Series G' Preferred Stock	Shares of Common Stock	Warrants to Purchase Common Stock
Entities affiliated with Aimia, Inc.(1)	—	382	801	—
Entities affiliated with Polaris Venture Partners(2)	29	212	—	(6)
Canaan VIII L.P.(3)	54	260	—	(6)
Entities affiliated with Discovery Capital(4)	—	106	—	—
Scott D. Grimes	—	26	—	—
Lynne M. Laube	—	14	—	—
Entities affiliated with Mark A. Johnson(5)	35	15	—	(6)
John Klinck	6	—	—	(6)
David Adams	3	—	—	(6)

(1) Consists of 159,207 shares of Series G' redeemable convertible preferred stock issued to Aeroplan Holdings Europe Sàrl, 223,020 shares of Series G' redeemable convertible preferred stock issued to Aimia EMEA Limited and 801,329 shares of common stock issued to Aimia EMEA Limited.

(2) Consists of 27,988 shares of Series G redeemable convertible preferred stock purchased by Polaris Venture Partners V, L.P. ("PVP V"), 205,020 shares of Series G' redeemable convertible preferred stock issued to PVP V, 545 shares of Series G redeemable convertible preferred stock purchased by Polaris Venture Partners Entrepreneurs' Fund V, L.L. ("PVP EF V"), 3,995 shares of Series G' redeemable convertible preferred stock issued to PVP EF V, 191 shares of Series G redeemable convertible preferred stock purchased by Polaris Venture Partners Founders' Fund V, L.P. ("PVP FF V"), 1,404 shares of Series G' redeemable convertible preferred stock issued to PVP FF V, 280 shares of Series G redeemable convertible preferred stock purchased by Polaris Venture Partners Special Founders' Fund V, L.P. ("PVP SFF V") and 2,050 shares of Series G' redeemable convertible preferred stock issued to PVP SFF V. Polaris Venture Management Co. V, L.L.C. is a general partner of each of PVP V, PVP EF V, PVP FF V and PVP SFF V and may be deemed to have the sole voting and dispositive power over the shares held by PVP V, PVP EF V, PVP FF V and PVP SFF V. Bryce Youngren, a member of our board of directors, is a Managing Partner of Polaris Partners and may be deemed to share voting and dispositive power over the shares held by PVP V, PVP EF V, PVP FF V and PVP SFF V.

(3) John V. Balen, a member of our board of directors, is a managing member of Canaan Partners VIII LLC, the general partner of Canaan VIII L.P. Mr. Balen does not have voting or investment power over any shares held directly by Canaan VIII L.P.

(4) Consists of 95,272 shares of Series G' redeemable convertible preferred stock issued to Discovery Opportunity Master Fund, Ltd. and 11,072 shares of Series G' redeemable convertible preferred stock issued to Discovery Global Focus Master Fund, Ltd.

(5) Consists of 15,045 shares of Series G' redeemable convertible preferred stock issued to TTP Fund II, L.P., 29,005 shares of Series G redeemable convertible preferred stock purchased by TTV Ivy Holdings, LLC and 5,801 shares of Series G redeemable convertible preferred stock purchased by Mr. Johnson. TTV Capital is a provider of management services to TTP GP II, LLC, which is a general partner of TTP Fund II, L.P. TTV Capital is the manager of TTV Ivy Holdings Manager, LLC, which is the general partner of TTV Ivy Holdings, LLC. Mark A. Johnson, a member of our board of directors, is a member of each of TTP GP II, LLC and TTV Ivy Holdings Managers, LLC and holds the title of partner of TTV Capital, and may be deemed to share voting and dispositive power over the shares held by TTP Fund II L.P. and TTV Ivy Holdings, LLC.

(6) The maximum number of shares issuable to each investor upon the exercise of such warrants is equal to the number of shares of Series G redeemable convertible preferred stock set forth opposite such investor's name in the table above. The actual number of shares issuable to each investor upon the exercise of such warrants is equal to the product obtained by multiplying the number of shares of Series G redeemable convertible preferred stock set forth opposite such investor's name in the table above by a fraction, the numerator of which is the difference between $68.9516 and the volume weighted average closing price of our common stock over the 30 trading days (or such lesser number of days as our common stock has been traded on the Nasdaq Global Market) prior to the date on which such warrants become exercisable and the denominator of which is such volume weighted average closing price.

Agreements with Fidelity Information Services, LLC

We are party to a reseller agreement with Fidelity Information Services LLC ("FIS"). Pursuant to the reseller agreement, FIS markets and sells our services to financial institutions that are current or potential customers of FIS in exchange for a revenue share percentage. We are also obligated to make milestone payments to FIS related to the integration and deployment of our solutions. See Note 8—Commitments and Contingencies for additional information. Prior to our IPO, FIS was entitled to elect a member of our board of directors, who was Robert Legters until his resignation immediately prior to our IPO in February 2018.

In May 2013, FIS purchased 397,515 shares of our Series E Stock. We also granted 10-year performance-based warrants to purchase up to 644,365 shares of Series E Stock at an exercise price of $23.64 per share. The warrants were exercisable subject to the attainment of certain milestones related to the number of active accounts for which our solutions have been enabled with accelerated vesting upon an IPO. Since FIS did not participate in the convertible promissory note financing, their warrants to purchase preferred stock were converted to warrants to purchase common stock. The warrants vested upon the completion of our IPO in February 2018, resulting in a non-cash expense of $2.5 million based on the vesting-date fair value of our common stock underlying these warrants. Since the performance conditions were directly related to revenue-producing activities, we recognized this expense in FI Share and other third-party costs on our condensed consolidated statement of operations. This expense is presented in other non-cash expenses on our condensed consolidated statement of statement of cash flows. See Note 6—Fair Value Measurements for additional information regarding the valuation of the performance-based warrants issued to FIS.

8. COMMITMENTS AND CONTINGENCIES

FI Implementation Costs

Agreements with certain FI partners require us to fund the development of user interface enhancements, pay for certain implementation fees, or make milestone payments upon the deployment of our solution. Amounts paid to FI partners are included in deferred FI implementation costs on our condensed consolidated balance sheets the earlier of when paid or earned and are amortized over the remaining term of the related contractual arrangements. Amortization is included in FI Share and other third-party costs on our condensed consolidated statements of operations and is presented in amortization and impairment of deferred FI implementation costs on our condensed consolidated statement of cash flows. Certain of these agreements provide for future reductions in FI Share due to the FI partner. These reductions in FI Share are recorded as a reduction to deferred implementation costs and also result in a cumulative adjustment to accumulated amortization. Reductions to FI Share in the second half of 2018 and full year 2019 are expected to total $2.7 million and $4.6 million, respectively. Unearned amounts not yet paid to FI partners totaled $7.0 million as of June 30, 2018.

The following table presents changes in deferred FI implementation costs (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
Beginning balance	$ 7,097	$ 12,119	$ 8,451	$ 13,625
Deferred costs	3,000	2,000	3,000	2,250
Recoveries through FI Share	(989)	(1,348)	(1,952)	(2,692)
Amortization	(354)	(346)	(745)	(758)
Ending balance	$ 8,754	$ 12,425	$ 8,754	$ 12,425

During the three and six months ended June 30, 2017, we accrued expenses totaling $1.5 million and $3.0 million, respectively, related to an expected shortfall in meeting a 2017 minimum FI Share commitment recorded in FI Share and other third-party costs on our consolidated statement of operations. In the third quarter of 2017, we amended the agreement with the FI partner and removed the 2017 minimum FI Share commitment, resulting in a reversal of our $3.0 million accrued shortfall recorded as of June 30, 2017.

We have an FI Share commitment to a certain FI partner totaling $10.0 million over a 12-month period following the completion of certain milestones, which were not met as of June 30, 2018.

Litigation

From time to time, we may become involved in legal actions arising in the ordinary course of business including, but not limited to, intellectual property infringement and collection matters. We make assumptions and estimates concerning the likelihood and amount of any potential loss relating to these matters using the latest information available. We record a liability for litigation if an unfavorable outcome is probable and the amount of loss or range of loss can be reasonably estimated. If an unfavorable outcome is probable and a reasonable estimate of the loss is a range, we accrue the best estimate within the range. If no amount within the range is a better estimate than any other amount, we accrue the minimum amount within the range. If an unfavorable outcome is probable but the amount of the loss cannot be reasonably estimated, we disclose the nature of the litigation and indicates that an estimate of the loss or range of loss cannot be made. If an unfavorable outcome is reasonably possible and the estimated loss is material, we disclose the nature and estimate of the possible loss of the litigation. We do not disclose information with respect to litigation where an unfavorable outcome is considered to be remote or where the estimated loss would not be material. Based on current expectations, such matters, both individually and in the aggregate, are not expected to have a material adverse effect on our liquidity, results of operations, business or financial condition.

9. EARNINGS PER SHARE

The computations of the numerators and denominators of diluted net loss per share attributable to common stockholders are as follows (in thousands, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	**2018**	**2017**	**2018**
Numerator:				
Net loss attributable to common stockholders, basic	$ (5,437)	$ (13,053)	$ (18,144)	$ (33,265)
Plus: Interest expense on convertible promissory notes	388	—	—	—
Less: Change in fair value of convertible promissory notes-related parties	(8,436)	—	—	—
Net loss attributable to common stockholders, diluted	$ (13,485)	$ (13,053)	$ (18,144)	$ (33,265)
Denominator:				
Weighted-average common shares outstanding, basic	3,221	20,300	2,935	16,716
Plus: Dilutive convertible promissory notes	654	—	—	—
Weighted-average common shares outstanding, diluted	3,875	20,300	2,935	16,716
Net loss per share attributable to common stockholders, diluted	$ (3.48)	$ (0.64)	$ (6.18)	$ (1.99)

The following securities have been excluded from the calculation of diluted weighted-average common shares outstanding because the effect is anti-dilutive (in thousands):

	June 30,	
	2017	2018
Redeemable convertible preferred stock:		
Series A-R	1,857	—
Series B-R	2,247	—
Series C-R	1,508	—
Series D-R	1,396	—
Series E-R	795	—
Series F-R	1,199	—
Series G	346	—
Series G’	1,296	—
Common stock options	2,342	2,232
Common stock warrants	1,245	868
Common stock warrants issuable pursuant to Series G Stock financing	628	751
Redeemable convertible preferred stock warrants	110	—
Restricted stock units	—	1,232
Restricted securities units	37	—
Common stock issuable pursuant to the ESPP	—	95

10. SEGMENTS

We have three operating segments: our Cardlytics Direct solutions in the United States and United Kingdom and Other Platform Solutions, as determined by the information that both our Chief Executive Officer and President and Chief Operating Officer, who we consider our chief operating decision makers, use to make strategic goals and operating decisions. Our Cardlytics Direct operating segments in the United States and United Kingdom represent our proprietary native bank advertising channels and are aggregated into one reportable segment given their similar economic characteristics, nature of service, types of customers and method of distribution. Our Other Platform Solutions segment represents solutions that enable marketers and marketing service providers to leverage the power of purchase intelligence across all of their marketing investments.

Revenues can be directly attributable to each segment. With the exception of non-cash equity expense and the amortization and impairment of deferred FI implementation costs, FI Share is also directly attributable to each segment. Our chief operating decision makers allocate resources to, and evaluate the performance of, our operating segments based on revenue and adjusted contribution. The accounting policies of each of our reportable segments are the same as those described in the summary of significant accounting policies.

During the second quarter of 2018, we began a strategic shift to focus the majority of our efforts and resources to support the growth of Cardlytics Direct. At this time, we have not yet determined what impact this strategic change will have on our reportable segment structure.

The following table provides information regarding our reportable segments (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
Cardlytics Direct:				
Adjusted contribution	$ 11,428	$ 16,240	$ 20,868	$ 30,462
Plus: FI Share and other third-party costs [(1)]	17,519	18,858	32,533	36,757
Revenue	$ 28,947	$ 35,098	$ 53,401	$ 67,219
Other Platform Solutions:				
Adjusted contribution	$ 2,058	$ (71)	$ 3,213	$ (69)
Plus: FI Share and other third-party costs [(1)]	1,807	543	3,079	1,133
Revenue	$ 3,865	$ 472	$ 6,292	$ 1,064
Total:				
Adjusted contribution	$ 13,486	$ 16,169	$ 24,081	$ 30,393
Plus: FI Share and other third-party costs [(1)]	19,326	19,401	35,612	37,890
Revenue	$ 32,812	$ 35,570	$ 59,693	$ 68,283

(1) FI Share and other third party costs presented above excludes non-cash equity expense and amortization and impairment of deferred FI implementation costs, which are detailed below in our reconciliation of loss before income taxes to adjusted contribution.

Adjusted Contribution

Adjusted contribution represents our revenue less FI Share and other third-party costs excluding non-cash equity expense included in FI Share and amortization and impairment of deferred FI implementation costs. During the first quarter of 2018, we refined our definition of adjusted contribution used by our chief operating decision makers to exclude the impact of non-cash charges related to the issuance of equity to our FI partners and the impact of amortization and impairment of deferred FI implementation costs. We believe these changes are warranted and appropriate since these investments are expected to yield meaningful long-term relationships with our FI partners and provide incentive for our FI partners to invest in the user interfaces that complement our platform. We have recast all historical disclosures of adjusted contribution for the periods presented.

The following table presents a reconciliation of loss before income taxes presented in accordance with U.S. GAAP to adjusted contribution (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
Adjusted contribution	$ 13,486	$ 16,169	$ 24,081	$ 30,393
Minus:				
Non-cash equity expense included in FI Share	—	—	—	2,519
Amortization of deferred FI implementation costs	354	346	745	758
Delivery costs	1,896	2,559	3,449	4,502
Sales and marketing expense	7,920	10,247	15,152	18,463
Research and development expense	3,093	4,888	6,106	8,347
General and administration expense	4,773	8,979	9,462	15,561
Depreciation and amortization expense	767	784	1,532	1,694
Total other income (expense)	(4,669)	1,419	746	11,657
Loss before income taxes	$ (648)	$ (13,053)	$ (13,111)	$ (33,108)

The following table provides geographical information (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
Revenue:				
United States	$ 29,080	$ 30,735	$ 53,765	$ 59,722
United Kingdom	3,732	4,835	5,928	8,561
Total	$ 32,812	$ 35,570	$ 59,693	$ 68,283

	December 31, 2017	June 30, 2018
Property and equipment:		
United States	$ 6,813	$ 7,453
United Kingdom	506	376
Total	$ 7,319	$ 7,829

Capital expenditures within the United Kingdom was $0.3 million and less than $0.1 million during the six months ended June 30, 2017 and 2018, respectively.

11. SUBSEQUENT EVENTS

On August 7, 2018, we entered into Hosted Technology Services Schedule Two (the "Agreement") with Wells Fargo Bank, National Association ("Wells Fargo"), pursuant to which we have agreed to a national roll-out of Cardlytics Direct to Wells Fargo customers. The initial term of the Agreement ends on July 1, 2022. Wells Fargo may terminate the Agreement at any time upon 180 days' written notice. We will share revenue that we generate from the sale of advertising within the Wells Fargo digital channels with Wells Fargo.

In connection with the issuance of our Series G redeemable convertible preferred stock, we issued warrants to purchase an aggregate number of shares of our common stock, which was determined based on the volume weighted average closing price of our common stock for the 30 trading days up to and including August 7, 2018. Based on this calculation, the warrants allow for the purchase of 792,434 shares of common stock at an exercise price of $0.0004 per share. All warrants were subsequently exercised, resulting in the issuance of 792,434 shares of our common stock.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with (1) our consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10–Q and (2) the audited consolidated financial statements and the related notes and management's discussion and analysis of financial condition and results of operations for the fiscal year ended December 31, 2017 included in our Annual Report on Form 10-K, filed with the SEC on March 19, 2018.

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements are often identified by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "project," "will," "would" or the negative or plural of these words or similar expressions or variations, and such forward-looking statements include, but are not limited to, statements with respect to our business strategy, plans and objectives for future operations, including our expectations regarding our expenses and tax position; continued enhancements of our platform and new product offerings; our future financial and business performance; anticipated reductions to FI Share payments and anticipated FI Share commitment shortfalls. The events described in these forward-looking statements are subject to a number of risks, uncertainties, assumptions and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified herein, and those discussed in the section titled "Risk Factors," set forth in Part II, Item 1A of this Quarterly Report on Form 10-Q and in our other SEC filings. You should not rely upon forward-looking statements as predictions of future events. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Overview

Cardlytics makes marketing more relevant and measurable through our purchase intelligence platform. Our partnerships with financial institutions ("FIs") provide us with access to their anonymized purchase data and online banking customers. By applying advanced analytics to this purchase data, we make it actionable, helping marketers identify, reach and influence likely buyers at scale, and measure the true sales impact of their marketing spend. We are a partner to more than 2,000 FIs, including Bank of America, National Association ("Bank of America"); PNC Bank National Association ("PNC"); Branch Banking and Trust Company; SunTrust Banks, Inc.; Lloyds TSB Bank plc; Santander UK plc; and several of the largest bank processors and digital banking providers to reach customers of small and mid-sized FIs.

On May 3, 2018 and May 7, 2018, respectively, we entered into a Master Agreement and Schedule #1 to the Master Agreement (collectively, the "Agreement") with JPMorgan Chase Bank, National Association ("Chase"), pursuant to which we have agreed to a national roll-out of Cardlytics Direct to Chase customers. Under the Agreement, we will provide Chase with access to Cardlytics Direct for an initial term beginning on the date Cardlytics Direct is made generally available to Chase's customers and ending seven years from that date. Chase may terminate the Agreement at any time upon 90 days' written notice. We will share billings that it generates from the sale of advertising within the Chase digital channels with Chase.

During the first quarter of 2018, we launched a pilot implementation of Cardlytics Direct with Wells Fargo & Company ("Wells Fargo"), directed at Wells Fargo customers located in Miami, Florida; Charlotte, North Carolina and San Francisco, California. This pilot ended in July 2018. On August 7, 2018, we entered into Hosted Technology Services Schedule Two (the "Agreement") with Wells Fargo Bank, National Association ("Wells Fargo"), pursuant to which we have agreed to a national roll-out of Cardlytics Direct to Wells Fargo customers. The initial term of the Agreement ends on July 1, 2022. Wells Fargo may terminate the Agreement at any time upon 180 days' written notice. The Company will share revenue that it generates from the sale of advertising within the Wells Fargo digital channels with Wells Fargo.

As the amount of revenue that we can generate from marketers with respect to Cardlytics Direct is primarily a function of the number of active users on our FI partners' digital banking platforms, we believe that the number of monthly active users ("FI MAUs") contributed by any FI partner is indicative of our level of dependence on such FI partner. During both the six months ended June 30, 2017 and 2018, our largest FI partner, Bank of America, contributed 50% and 51% of our total FI MAUs, Digital Insight Corporation, a subsidiary of NCR Corporation ("Digital Insight") contributed 11% and 10% of our total FI MAUs and PNC contributed 8% and 11% of our total FI MAUs, respectively.

We have experienced rapid growth in our revenue since inception. Revenue from sales of Cardlytics Direct, which excludes consumer incentives, was $53.4 million and $67.2 million for the six months ended June 30, 2017 and 2018, respectively, representing a growth rate of 26%. Net loss for the six months ended June 30, 2017 and 2018 totaled $13.1 million and $33.1 million, respectively. Our historical losses have been driven by our substantial investments in our platform and infrastructure, which we believe will enable us to expand the use of our platform by both FIs and marketers. Our net loss for the six months ended June 30, 2017 includes a $5.0 million non-cash gain related to the change in fair value of our convertible promissory notes and a $1.8 million non-cash charge on the change in fair value of our warrant liabilities. Our net loss for the six months ended June 30, 2018 includes a $7.6 million non-cash charge related to the change in fair value of our warrant liabilities, a $2.5 million non-cash expense related to the vesting of warrants issued to an FI partner that accelerated upon our initial public offering ("IPO") and $6.9 million of stock-based compensation expense related to performance-based restricted share units granted in 2018.

FI Partner Commitments

Agreements with certain FI partners require us to fund the development of user interface enhancements, pay for certain implementation fees, or make milestone payments upon the deployment of our solution. Unearned amounts not yet paid to FI partners totaled $7.0 million as of June 30, 2018. Certain of these agreements provide for future reductions in FI Share due to the FI partner. Reductions to FI Share payments in the second half of 2018 and full year 2019 are expected to total $2.7 million and $4.6 million, respectively.

We have a minimum FI Share commitment with a certain FI partner totaling $10.0 million over a 12-month period following the completion of certain milestones, which were not met as of June 30, 2018. We currently expect the milestones to be met within the next 3 to 9 months and expect a FI Share commitment shortfall of between $4.0 million and $6.0 million. Since the expected shortfall will be accrued during the 12-month commitment period, we estimate that a majority of the expense will be recognized during 2019.

During the three and six months ended June 30, 2017, we accrued expenses totaling $1.5 million and $3.0 million, respectively, related to an expected shortfall in meeting a 2017 minimum FI Share commitment recorded in FI Share and other third-party costs on our consolidated statement of operations. In the third quarter of 2017, we amended the agreement with the FI partner and removed the 2017 minimum FI Share commitment, resulting in a reversal of our $3.0 million accrued shortfall recorded as of June 30, 2017.

Common Stock Warrants Issued in Connection with the Series G Stock Financing

In connection with the issuance of our Series G redeemable convertible preferred stock, we issued warrants to purchase an aggregate number of shares of our common stock, which was determined based on the volume weighted average closing price of our common stock for the 30 trading days up to and including August 7, 2018. Based on this calculation, the warrants allow for the purchase of 792,434 shares of common stock at an exercise price of $0.0004 per share. All warrants were subsequently exercised, resulting in the issuance of 792,434 shares of our common stock.

Reverse Stock Split

On January 26, 2018, our board of directors approved an amended and restated certificate of incorporation to (1) effect a reverse split on outstanding shares of our common stock and redeemable convertible preferred stock on a one-for-four basis (the “Reverse Stock Split”), (2) modify the threshold for automatic conversion of our preferred stock into shares of our common stock in connection with an initial public offering to eliminate the requirement of gross proceeds to the Company of not less than $70.0 million and (3) authorize us to issue up to 100,000,000 shares of common stock, $0.0001 par value per share and 25,000,000 shares of redeemable convertible preferred stock, $0.0001 par value per share (collectively, the “Charter Amendment”). The authorized shares and par values of our common stock and redeemable convertible preferred stock were not adjusted as a result of the Reverse Stock Split. The Charter Amendment was approved by the Company’s stockholders on January 26, 2018 and became effective upon the filing of the Charter Amendment with the State of Delaware on January 26, 2018. All issued and outstanding common stock and preferred stock and related share and per share amounts contained in these financial statements have been retroactively adjusted to reflect the Reverse Stock Split for all periods presented.

Our Business Model

Cardlytics Direct

Our Cardlytics Direct solution is our proprietary native bank advertising channel that enables marketers to reach consumers through their trusted and frequently visited online and mobile banking channels. Working with a marketer, we design a campaign that targets customers based on their purchase history. The consumer is offered an incentive to make a purchase from the marketer within a specified period. We use a portion of the fees that we collect from marketers to provide these consumer incentives to our FIs' customers after they make qualifying purchases ("Consumer Incentives"). Leveraging our powerful predictive analytics, we are able to create compelling Consumer Incentives that have the potential to increase return on advertising spend for marketers. We have generated substantially all of our revenue from sales of Cardlytics Direct since inception.

We price Cardlytics Direct marketing in two primary ways: (1) Cost per Served Sale ("CPS") and (2) Cost per Redemption ("CPR"). We developed our pricing models with the needs of marketers in mind. Given our ability to measure the actual performance of Cardlytics Direct in driving sales, we are able to offer marketers performance-based pricing models where they only pay us based on actual sales influenced by marketing through our native bank channel. These pricing models are designed to ensure that marketers realize an actual return on their advertising spend with us.

- ***CPS***. Our primary and fastest growing pricing model is CPS, which we created to meet the media buying preferences of marketers. We generate revenue by charging a percentage (the "CPS Rate") , of all purchases from the marketer by consumers (1) who are served marketing and (2) subsequently make a purchase from the marketer during the campaign period, regardless of whether consumers select the marketing and thereby become eligible to earn the applicable Consumer Incentive. We set CPS Rates for marketers based on our expectation of the marketer's return on spend for the relevant campaign. Additionally, we set the amount of the Consumer Incentives payable for each campaign based on our estimation of our ability to drive incremental sales for the marketer. We seek to optimize the level of Consumer Incentives to retain a greater portion of billings. However, if the amount of Consumer Incentives exceeds the amount of billings that we are paid by the applicable marketer we are still responsible for paying the total Consumer Incentive. This has occurred infrequently and has been immaterial in amount for each of the periods presented.
- ***CPR***. Our initial pricing model is CPR, where marketers specify and fund the Consumer Incentive and pay us a separate negotiated, fixed marketing fee (the "CPR Fee"), for each purchase that we generate. We generate revenue if the consumer (1) is served marketing, (2) selects the marketing and thereby becomes eligible to earn the applicable Consumer Incentive and (3) makes a qualifying purchase from the marketer during the campaign period. We set the CPR Fee for marketers based on our estimation of the marketers' return on spend for the relevant campaign. The CPR Fee is either a percentage of qualifying purchases or a flat amount.

We pay our FI partners an FI Share, which is a negotiated and fixed percentage of our billings to marketers less any Consumer Incentives that we pay to the FIs' customers and certain third-party data costs.

Other Platform Solutions

We also generate revenue from our Other Platform Solutions offerings. Our Other Platform Solutions enable marketers and marketing service providers to leverage the power of purchase intelligence outside the bank channel. For example, we use purchase intelligence to help marketers measure the impact of marketing campaigns outside of the Cardlytics Direct channel on in-store and online sales. To the extent that we use purchase intelligence derived from a specific FI customer's anonymized purchase data in the delivery of our Other Platform Solutions, we pay the applicable FI an FI Share calculated based on the relative contribution of the data provided by the FI to the overall delivery of the solutions. In order to test the efficacy of our Other Platform Solutions, we historically used programmatic vendors to run marketing campaigns outside of the Cardlytics Direct channel, and thereby delivered our Other Platform Solutions primarily as a managed service. This allowed us to gain valuable expertise in leveraging our purchase intelligence outside the banking channel. With regard to delivery of our Other Platform Solutions as a managed service, we charged marketers a fee based on the number of impressions that we delivered for their marketing campaign, calculated on a cost per thousand impressions ("CPM") basis. For the six months ended June 30, 2017 and 2018, our Other Platform Solutions revenue was $6.3 million and $1.1 million, respectively. Revenue from Other Platform Solutions delivered as a managed service represented a significant majority of our total Other Platform Solutions revenue until it was discontinued on July 31, 2017.

During the second quarter of 2018, we began a strategic shift to focus the majority of our efforts and resources to support the growth of Cardlytics Direct. As a result, we do not expect to generate substantial revenue from Other Platform Solutions for the foreseeable future, and we expect our overall Other Platforms Solutions revenue to decline in future periods compared to prior periods. Accordingly, our total revenue may decline in future periods if we are unable to generate sufficient offsetting revenue from sales of Cardlytics Direct.

Key Factors Affecting Our Performance

Our historical financial performance has been, and we expect our financial performance in the future will be, primarily driven by the following factors:

- ***Ability to Drive Additional Revenue from Cardlytics Direct***. The revenue that we generate through our proprietary native bank advertising channels from each of our FI partners varies. This variance is typically a result of how long the program has been active, the user interface for the program and the FI's efforts to promote the program. We continually work with FIs to improve their customers' user experience, increase customer awareness, and leverage additional customer outreach channels like email. However, in certain cases, we may have little control over the design of the user interface that our FI partners choose to use or the extent to which they promote our solution to their customers. To the extent that our FI partners fail to increase engagement with our solutions within their customer bases, we may be unable to attract and retain marketers or their agencies and our revenue would suffer.

- ***Ability to Increase Spend from Existing Marketers and Acquire New Marketers***. Our performance depends on our ability to continue to increase adoption of our solutions within our existing marketer base and attract new marketers that invest meaningfully in marketing through our solutions. Our ability to increase adoption among existing marketers is particularly important in light of our land-and-expand business model. We believe that we have the opportunity to expand our marketer base with a focus on attracting new brands, retailers, service providers and new categories of marketers that will invest significantly in the use of purchase intelligence. We believe that we also have the opportunity to increase adoption of our solutions across our existing marketers. In order to expand and further penetrate our marketer base, we have made, and plan to continue to make, investments in expanding our direct sales teams and indirect sales channels, and increasing our brand awareness. However, our ability to continue to grow our marketer base is dependent upon our ability to compete within the evolving markets in which we participate.

- ***Ability to Expand our FI Partner Network***. Our ability to maintain and grow our revenue is contingent upon maintaining and expanding our relationships with our FI partners. Given our substantial investments to date in our intelligence platform and infrastructure, we believe that we will be able to add FIs to our network with modest incremental investment. Each new FI partner increases the size of our data asset, increasing the value of our solutions to both marketers and FIs that are already part of our network. Accordingly, we are focused on the continued expansion of our FI network to ensure that we have robust purchase data to support a broad array of incentive programs with respect to our Cardlytics Direct solution and to enrich our Other Platform Solutions. However, our sales and integration cycle with respect to our FI partners can be costly and long, and it is difficult to predict if or when we will be successful in generating revenue from a new FI relationship.

- ***Ability to Innovate and Evolve Our Platform.*** As we continue to grow our data asset and enhance our platform, we are developing new solutions and increasingly sophisticated analytical capabilities. Our future performance is significantly dependent on the investments that we make in our research and development efforts and in our ability to continue to innovate, improve functionality, and introduce new features and solutions that are compelling to our marketers and FIs. We intend to continue to invest in our platform, including by hiring top technical talent and focusing on innovation within our core technology.

Non-GAAP Measures and Other Performance Metrics

We regularly monitor a number of financial and operating metrics in order to measure our current performance and estimate our future performance. Our metrics may be calculated in a manner different than similar metrics used by other companies.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
	(in thousands, except ARPU)			
FI MAUs	53,734	58,808	52,824	58,746
ARPU	$ 0.54	$ 0.60	$ 1.01	$ 1.14
Adjusted contribution(1)	$ 13,486	$ 16,169	$ 24,081	$ 30,393
Adjusted EBITDA(1)	$ (2,824)	$ (2,164)	$ (7,736)	$ (5,240)

(1) Adjusted contribution and Adjusted EBITDA includes the impact of an accrued expense totaling $1.5 million and $3.0 million during the three and six months ended June 30, 2017, respectively, related to an expected shortfall in meeting a minimum FI Share commitment. There was no corresponding accrued expense during the three and six months ended June 30, 2018

Monthly Active Users

We define FI monthly active users ("FI MAUs"), as customers or accounts of our FI partners that logged in and visited the online or mobile banking applications of, or opened an email from, our FI partners during a monthly period. We then calculate a monthly average of these FI MAUs for the periods presented. We believe that FI MAUs is an indicator of our and our FI partners' ability to drive engagement with Cardlytics Direct and is reflective of the marketing base that we offer to marketers through Cardlytics Direct.

Average Revenue per User

We define average revenue per user ("ARPU"), as the total Cardlytics Direct revenue generated in the applicable period calculated in accordance with generally accepted accounting principles in the United States ("U.S. GAAP"), divided by the average number of FI MAUs in the applicable period. We believe that ARPU is an indicator of the value of our relationships with our FI partners with respect to Cardlytics Direct.

Adjusted Contribution

Adjusted contribution represents our revenue less our FI Share and other third-party costs excluding non-cash equity expense included in FI Share and amortization and impairment of deferred FI implementation costs. During the first quarter of 2018, we refined our definition of adjusted contribution to exclude the impact of non–cash charges related to the issuance of equity to our FI partners and the impact of amortization and impairment of deferred FI implementation costs. We believe these changes are warranted and appropriate since these investments are expected to yield meaningful long-term relationships with our FI partners and provide incentive for our FI partners to invest in the user interfaces that complement our platform. We have recast all historical disclosures of adjusted contribution for the periods presented.

We review adjusted contribution for internal management purposes and believe that the elimination of our primary cost of revenue, FI Share and other third-party costs, exclusive of exclusive of non-cash equity expense included in FI Share and amortization and impairment of deferred FI implementation costs, can provide a useful measure for period-to-period comparisons of our core business. More specifically, we report our revenue gross of FI Share and other third-party costs, but net of any Consumer Incentives that we pay to our FIs' customers. Adjusted contribution is not a measure calculated in accordance with GAAP.

We believe that adjusted contribution provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Nevertheless, our use of adjusted contribution has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under GAAP. Other companies, including companies in our industry that have similar business arrangements, may address the impact of FI Share and other third-party costs differently. See Note 10—Segments to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report for further details on our adjusted contribution by segment. You should consider adjusted contribution alongside our other GAAP financial results.

The following table presents a reconciliation of adjusted contribution to revenue, the most directly comparable GAAP measure, for each of the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
	(in thousands)			
Revenue	$ 32,812	$ 35,570	$ 59,693	$ 68,283
Minus:				
FI Share and other third-party costs[1]	19,326	19,401	35,612	37,890
Adjusted contribution[2]	$ 13,486	$ 16,169	$ 24,081	$ 30,393

(1) FI Share and other third-party costs presented above excludes non-cash equity expense included in FI Share and amortization and impairment of deferred FI implementation costs, which are detailed below in our reconciliation of GAAP net loss to non-GAAP adjusted EBITDA.
(2) Adjusted contribution includes the impact of an accrued expense totaling $1.5 million and $3.0 million during the three and six months ended June 30, 2017, respectively, related to an expected shortfall in meeting a minimum FI Share commitment. There was no corresponding accrued expense during the three and six months ended June 30, 2018

Adjusted EBITDA

Adjusted EBITDA represents our net loss before income tax benefit; interest expense, net; depreciation and amortization expense; stock-based compensation expense; change in fair value of warrant liabilities; change in fair value of convertible promissory notes; foreign currency (gain) loss; loss on extinguishment of debt; costs associated with financing events; restructuring costs; amortization and impairment of deferred FI implementation costs; termination of U.K. agreement expense; and non-cash equity expense recognized in FI Share. We do not consider these excluded items to be indicative of our core operating performance. The items that are non-cash include change in fair value of warrant liabilities, change in fair value of convertible promissory notes, foreign currency (gain) loss, amortization and impairment of FI implementation costs, depreciation and amortization expense, stock-based compensation expense and non-cash equity expense included in FI Share. Notably, any expense we accrue related to minimum FI Share commitments in connection with agreements with certain FI partners we do not add back to net loss in order to calculate adjusted EBITDA. Adjusted EBITDA is a key measure used by management to understand and evaluate our core operating performance and trends and to generate future operating plans, make strategic decisions regarding the allocation of capital and invest in initiatives that are focused on cultivating new markets for our solution. In particular, the exclusion of certain expenses in calculating adjusted EBITDA facilitates comparisons of our operating performance on a period-to-period basis. Adjusted EBITDA is not a measure calculated in accordance with GAAP.

We believe that adjusted EBITDA provides useful information to investors and others in understanding and evaluating our operating results in the same manner as our management and board of directors. Nevertheless, use of adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under GAAP. Some of these limitations are: (1) adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs; (2) adjusted EBITDA does not reflect the potentially dilutive impact of stock-based compensation and equity instruments issued to our FI partners; (3) adjusted EBITDA does not reflect tax payments or receipts that may represent a reduction or increase in cash available to us and (4) other companies, including companies in our industry, may calculate adjusted EBITDA or similarly titled measures differently, which reduces the usefulness of the metric as a comparative measure. Because of these and other limitations, you should consider adjusted EBITDA alongside our net loss and other GAAP financial results.

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The following table presents a reconciliation of adjusted EBITDA to net loss, the most directly comparable GAAP measure, for each of the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
	(in thousands)			
Net loss	$ (648)	$ (13,053)	$ (13,111)	$ (33,108)
Plus:				
Interest expense, net	2,020	992	4,664	2,741
Depreciation and amortization expense	767	784	1,532	1,694
Stock-based compensation expense	1,242	8,345	2,225	11,245
Non-cash equity expense included in FI Share	—	—	—	2,519
Change in fair value of warrant liabilities	1,466	(1,611)	1,793	7,561
Change in fair value of convertible promissory notes	(7,575)	—	(4,969)	—
Foreign currency (gain) loss	(579)	1,109	(744)	426
Loss on extinguishment of debt	—	924	—	924
Costs associated with financing events	129	—	129	—
Amortization and impairment of deferred FI implementation costs	354	346	745	758
Adjusted EBITDA[1]	$ (2,824)	$ (2,164)	$ (7,736)	$ (5,240)

(1) Adjusted EBITDA includes the impact of an accrued expense totaling $1.5 million and $3.0 million during the three and six months ended June 30, 2017, respectively, related to an expected shortfall in meeting a minimum FI Share commitment. There was no corresponding accrued expense during the three and six months ended June 30, 2018.

Components of Results of Operations

Revenue

We generate revenue from the sale of our Cardlytics Direct solution and our Other Platform Solutions. We sell our solutions by entering into agreements directly with marketers or their marketing agencies. These agreements state the terms of the arrangement, the agreed-upon fee and, with respect to Cardlytics Direct, the fixed period of time the offers will be available to FI customers. We generally bill for our solutions on a monthly basis following delivery of our solutions. We report revenue net of Consumer Incentives.

Cost and Expense

We classify our expenses into the following categories: FI Share and other third-party costs; delivery costs; sales and marketing expense; research and development expense; general and administrative expense; and depreciation and amortization expense.

FI Share and Other Third-Party Costs

FI Share and other third-party costs consist primarily of the FI Share that we pay our FI partners, media and data costs. FI Share and other third-party costs also include the amortization or impairment of deferred implementation costs incurred pursuant to our agreements with certain FI partners and any incremental costs due to FIs as part of revenue commitment arrangements, as well as non-cash expense that we may incur from time to time upon the vesting of warrants issued to FI partners. Please see the section entitled “FI Partner Commitments” above for certain trends we anticipate in the near term relating to certain FI partner commitments.

Delivery Costs

Delivery costs consist primarily of personnel-related costs of our campaign, data operations and production support teams, including salaries, benefits, bonuses, stock-based compensation and payroll taxes. Delivery costs also include hosting facility costs, internally developed and purchased or licensed software costs, outsourcing costs and professional services costs. As we add data center capacity and support personnel in advance of anticipated growth, our delivery costs will increase in absolute dollars and if such anticipated revenue growth does not occur, our delivery costs as a percentage of revenue will be adversely affected.

Sales and Marketing Expense

Sales and marketing expense consists primarily of personnel costs of our sales and marketing employees, including salaries, benefits, bonuses, commissions, stock-based compensation and payroll taxes. Sales and marketing expense also includes professional fees, marketing programs such as trade shows, marketing materials, public relations, sponsorships and other brand building expenses, as well as outsourcing costs, travel and entertainment expenses and company funded consumer testing expenses for certain marketers that are not current customers. We expect that our sales and marketing expense will increase in absolute dollars as a result of hiring new sales representatives and as we invest to enhance our brand. Over time, we expect sales and marketing expenses will decline as a percentage of revenue.

Research and Development Expense

Research and development expense consists primarily of personnel costs of our research and development employees, including salaries, benefits, bonuses, stock-based compensation and payroll taxes. Research and development expense also includes outsourcing costs, software licensing costs, professional fees and travel expenses. We focus our research and development efforts on improving our solutions and developing new ones. We expect research and development expense to increase in absolute dollars as we continue to create new solutions and improve the functionality of our existing solutions.

General and Administrative Expense

General and administrative expense consist of personnel costs and related expenses for executive, finance, legal, compliance, information technology and human resources personnel, including salaries, benefits, bonuses, stock-based compensation and payroll taxes. General and administrative expense also includes professional fees for external legal, accounting and consulting services, financing transaction costs, facilities costs such as rent and utilities, royalties, bad debt expense, travel expense, property taxes and franchise taxes. We expect that general and administrative expenses will increase on an absolute dollar basis but decrease as a percentage of revenue as we focus on processes, systems and controls to enable the our internal support functions to scale with the growth of our business. We also anticipate increases to general and administrative expenses as we incur the costs of compliance associated with being a publicly traded company, including audit and consulting fees, as well as increased costs for directors' and officers' liability insurance.

Depreciation and Amortization Expense

Depreciation and amortization expense includes depreciation of property and equipment over the estimated useful life of the applicable asset as well as amortization of deferred patent and capitalized internal-use software development costs.

Interest Expense, Net

Interest expense, net consists of interest incurred on our outstanding debt instruments, as well as related discount amortization and financing costs, partially offset by interest income on our cash balances.

Change in Fair Value of Warrant Liabilities

Change in fair value of warrant liabilities represents adjustments to the fair value of certain warrants to purchase either preferred or common stock based upon changes in the fair value of the underlying stock.

Change in Fair Value of Convertible Promissory Notes Including Related Parties

Change in fair value of convertible promissory notes represents adjustments to the fair value of our convertible promissory notes as a result of our election of the fair value option. In May 2017, these convertible promissory notes converted into shares of our redeemable convertible preferred stock.

Other Income (Expense), Net

Other income (expense), net consists primarily of gains and losses on foreign currency transactions and expenses recorded in connection with the extinguishment of debt.

Income Taxes

We have generated losses before income taxes in the United States ("U.S."), United Kingdom ("U.K.") and most U.S. state income tax jurisdictions. We have generated historical net losses and recorded a full valuation allowance against our deferred tax assets. We expect to maintain a full valuation allowance in the near term. Due to our history of losses and our expectation of maintaining a full valuation allowance, we have not recorded an income tax provision or benefit during the periods presented. Realization of any of our deferred tax assets depends upon future earnings, the timing and amount of which are uncertain.

Results of Operations

The following table sets forth our condensed consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
	(in thousands)			
REVENUE	$ 32,812	$ 35,570	$ 59,693	$ 68,283
COSTS AND EXPENSES:				
FI Share and other third-party costs	19,680	19,747	36,357	41,167
Delivery costs[1]	1,896	2,559	3,449	4,502
Sales and marketing expense[1]	7,920	10,247	15,152	18,463
Research and development expense[1]	3,093	4,888	6,106	8,347
General and administrative expense[1]	4,773	8,979	9,462	15,561
Depreciation and amortization expense	767	784	1,532	1,694
Total costs and expenses	38,129	47,204	72,058	89,734
OPERATING LOSS	(5,317)	(11,634)	(12,365)	(21,451)
OTHER INCOME (EXPENSE):				
Interest expense, net	(2,020)	(992)	(4,664)	(2,741)
Change in fair value of warrant liabilities, net	(1,466)	1,611	(1,793)	(7,561)
Change in fair value of convertible promissory notes	(861)	—	(1,244)	—
Change in fair value of convertible promissory notes—related parties	8,436	—	6,213	—
Other income (expense), net	580	(2,038)	742	(1,355)
Total other income (expense)	4,669	(1,419)	(746)	(11,657)
LOSS BEFORE INCOME TAXES	(648)	(13,053)	(13,111)	(33,108)
INCOME TAX BENEFIT	—	—	—	—
NET LOSS	$ (648)	$ (13,053)	$ (13,111)	$ (33,108)

(1) Includes stock-based compensation expense as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
	(in thousands)			
Delivery costs	$ 43	$ 183	$ 84	$ 268
Sales and marketing expense	522	2,668	866	3,611
Research and development expense	239	1,756	410	2,226
General and administrative expense	438	3,738	865	5,140
Total stock-based compensation expense	$ 1,242	$ 8,345	$ 2,225	$ 11,245

The following table sets forth our condensed consolidated statements of operations expressed as a percentage of revenue (certain figures may not sum due to rounding):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2018	2017	2018
REVENUE	100 %	100 %	100 %	100 %
COSTS AND EXPENSES:				
FI Share and other third-party costs	60	56	61	60
Delivery costs	6	7	6	7
Sales and marketing expense	24	29	25	27
Research and development expense	9	14	10	12
General and administration expense	15	25	16	23
Depreciation and amortization expense	2	2	3	2
Total costs and expenses	116	133	121	131
OPERATING LOSS	(16)	(33)	(21)	(31)
OTHER INCOME (EXPENSE):				
Interest expense, net	(6)	(3)	(8)	(4)
Change in fair value of warrant liabilities, net	(4)	5	(3)	(11)
Change in fair value of convertible promissory notes	(3)	—	(2)	—
Change in fair value of convertible promissory notes—related parties	26	—	10	—
Other income (expense), net	2	(6)	1	(2)
Total other income (expense)	14	(4)	(1)	(17)
LOSS BEFORE INCOME TAXES	(2)	(37)	(22)	(48)
INCOME TAX BENEFIT	—	—	—	—
NET LOSS	(2)%	(37)%	(22)%	(48)%

Comparison of Three and Six Months Ended June 30, 2017 and 2018

Revenue

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Revenue by solution:								
Cardlytics Direct	$ 28,947	$ 35,098	$ 6,151	21 %	$ 53,401	$ 67,219	$ 13,818	26 %
Other Platform Solutions	3,865	472	(3,393)	(88)	6,292	1,064	(5,228)	(83)
Total revenue	$ 32,812	$ 35,570	$ 2,758	8 %	$ 59,693	$ 68,283	$ 8,590	14 %

The $6.2 million increase in Cardlytics Direct revenue during three months ended June 30, 2018 compared to the three months ended June 30, 2017 comprised a $5.9 million increase in sales to existing marketers and a $0.3 million increase in sales to new marketers.

The $13.8 million increase in Cardlytics Direct revenue during six months ended June 30, 2018 compared to the six months ended June 30, 2017 comprised a $12.2 million increase in sales to existing marketers and a $1.6 million increase in sales to new marketers.

Revenue from Other Platform Solutions during the three and six months ended June 30, 2017 consisted substantially of revenue from sales of our Other Platform Solutions delivered as a managed service, which was discontinued as of July 31, 2017.

Costs and Expenses

FI Share and Other Third-Party Costs

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	**2018**	**$**	**%**	**2017**	**2018**	**$**	**%**
				(dollars in thousands)				
FI Share and other third-party costs by solution:								
Cardlytics Direct	$ 16,006	$ 18,858	$ 2,852	18 %	$ 29,511	$ 36,757	$ 7,246	25 %
FI Share commitment shortfall	1,513	—	(1,513)	n/a	3,022	—	(3,022)	n/a
Total Cardlytics Direct	17,519	18,858	1,339	8	32,533	36,757	4,224	13
Other Platform Solutions	1,807	543	(1,264)	(70)	3,079	1,133	(1,946)	(63)
Other components of FI Share and other third-party costs:								
Non-cash equity expense included in FI Share	—	—	—	n/a	—	2,519	2,519	n/a
Amortization and impairment of deferred FI implementation costs	354	346	(8)	(2)%	745	758	13	2
Total FI Share and other third-party costs	$ 19,680	$ 19,747	$ 67	— %	$ 36,357	$ 41,167	$ 4,810	13 %
% of revenue	60%	56%			61%	60%		

Cardlytics Direct FI Share and other third-party costs, exclusive of accrued expenses related to the expected shortfall in meeting a minimum FI Share commitment, increased by $2.9 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 and increased by $7.2 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to increased revenue from sales of Cardlytics Direct.

During the three and six months ended June 30, 2017, we recognized an accrued expense of $1.5 million and $3.0 million, respectively, related to an expected shortfall in meeting a minimum FI Share commitment that was reversed during the third quarter of 2017 when we amended the agreement with the FI partner and removed the commitment.

Other Platform Solutions FI Share and other third-party costs decreased during the three and six months ended June 30, 2018 primarily due to a decline in media and data costs and FI Share as we discontinued delivering Other Platform Solutions as a managed service as of July 31, 2017.

Warrants to purchase shares of common stock vested upon the completion of our IPO in February 2018, resulting in a non-cash expense of $2.5 million based on the vesting-date fair value of our common stock underlying these warrants. Since the performance conditions were directly related to revenue-producing activities, we recognized this non-cash expense in FI Share and other third-party costs on our condensed consolidated statement of operations. See Note 6—Fair Value Measurements to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report for additional information regarding the valuation of the warrants that vested upon our IPO.

Delivery Costs

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Delivery costs	$ 1,896	$ 2,559	$ 663	35%	$ 3,449	$ 4,502	$ 1,053	31%
% of revenue	6%	7%			6%	7%		

Delivery costs increased by $0.7 million and $1.1 million during the three and six months ended June 30, 2018 compared to the three and six months ended June 30, 2017, respectively, primarily due to an increase in personnel costs associated with additional headcount to deliver Cardlytics Direct campaigns.

Sales and Marketing Expense

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Sales and marketing expense	$ 7,920	$ 10,247	$ 2,327	29%	$ 15,152	$ 18,463	$ 3,311	22%
% of revenue	24%	29%			25%	27%		

Sales and marketing expense increased by $2.3 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 primarily due to a $2.1 million increase in stock-based compensation expense, a $0.1 million increase in personnel costs and a $0.1 million increase in professional fees.

Sales and marketing expense increased by $3.3 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to a $2.7 million increase in stock-based compensation expense, a $0.4 million increase in personnel costs, a $0.1 million increase in professional fees and a $0.1 million increase in event sponsorship costs.

Research and Development Expense

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Research and development expense	$ 3,093	$ 4,888	$ 1,795	58%	$ 6,106	$ 8,347	$ 2,241	37%
% of revenue	9%	14%			10%	12%		

Research and development expense increased by $1.8 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 primarily due to a $1.5 million increase in stock-based compensation expense and a $0.3 million increase in personnel costs associated with higher research and development headcount.

Research and development expense increased by $2.2 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to a $1.8 million increase in stock-based compensation expense, a $0.6 million increase in personnel costs associated with higher research and development headcount and a $0.1 million increase in software and data storage costs, partially offset by a $0.4 million decrease in outsourcing costs.

General and Administrative Expense

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
General and administration expense	$ 4,773	$ 8,979	$ 4,206	88%	$ 9,462	$ 15,561	$ 6,099	64%
% of revenue	15%	25%			16%	23%		

General and administrative expense increased by $4.2 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 primarily due to a $3.3 million increase in stock-based compensation expense, a $0.2 million increase in personnel costs associated with higher general and administrative headcount, a $0.4 million increase in professional fees, a $0.2 million increase in software and technology costs and a $0.1 million increase in facilities costs.

General and administrative expense increased by $6.1 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to a $4.3 million increase in stock-based compensation expense, a $0.8 million increase in personnel costs associated with higher general and administrative headcount, a $0.4 million increase in professional fees, a $0.2 million increase in software and technology costs, a $0.1 million increase in travel costs, a $0.1 million in facilities costs and a $0.1 million in other costs.

Depreciation and Amortization Expense

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Depreciation and amortization expense	$ 767	$ 784	$ 17	2%	$ 1,532	$ 1,694	$ 162	11%
% of revenue	2%	2%			3%	2%		

Depreciation and amortization expense was relatively flat during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 and increased by $0.2 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 due to our suspension of efforts to obtain certain patents, resulting in the write off of deferred patent costs in 2018.

Interest Expense, Net

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Interest expense, net	$ (2,020)	$ (992)	$ 1,028	(51)%	$ (4,664)	$ (2,741)	$ 1,923	(41)%
% of revenue	(6)%	(3)%			(8)%	(4)%		

Interest expense, net decreased $1.0 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 and decreased by $1.9 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to the conversion of our convertible promissory notes into shares of our redeemable convertible preferred stock in May 2017 and lower interest rates under our New Loan Facility. Interest income increased $0.2 million and $0.3 million during the three and six months ended June 30, 2018, compared to the three and six months ended June 30, 2017, respectively, due to increased cash deposits subsequent to our IPO.

Change in Fair Value of Warrant Liabilities

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Change in fair value of warrant liabilities	$ (1,466)	$ 1,611	$ 3,077	(210)%	$ (1,793)	$ (7,561)	$ (5,768)	322%
% of revenue	(4)%	5%			(3)%	(11)%		

Change in fair value of warrant liabilities reflect the changes in the value of our redeemable convertible preferred stock and common stock. Refer to Note 6—Fair Value Measurements to our condensed consolidated financial statements for additional information regarding the valuation of our warrant liabilities.

Change in Fair Value of Convertible Promissory Notes

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Change in fair value of convertible promissory notes	$ (861)	$ —	$ 861	(100)%	$ (1,244)	$ —	$ 1,244	(100)%
% of revenue	(3)%	—%			(2)%	—%		

Change in fair value of convertible promissory notes reflects the change in the value of our convertible promissory notes, which was driven by periodic valuations. In May 2017, these convertible promissory notes converted into shares of our redeemable convertible preferred stock. Refer to Note 6—Fair Value Measurements to our condensed consolidated financial statements for additional information regarding the valuation of our convertible promissory notes.

Change in Fair Value of Convertible Promissory Notes—Related Parties

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Change in fair value of convertible promissory notes—related parties	$ 8,436	$ —	$ (8,436)	(100)%	$ 6,213	$ —	$ (6,213)	(100)%
% of revenue	26%	—%			10%	—%		

Change in fair value of convertible promissory notes reflects the change in the value of our convertible promissory notes, which was driven by periodic valuations. In May 2017, these convertible promissory notes converted into shares of our redeemable convertible preferred stock. Refer to Note 6—Fair Value Measurements to our condensed consolidated financial statements for additional information regarding the valuation of our convertible promissory notes.

Other Income (Expense), Net

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2017	2018	$	%	2017	2018	$	%
	(dollars in thousands)							
Other income (expense), net	$ 580	$ (2,038)	$ (2,618)	(451)%	$ 742	$ (1,355)	$ (2,097)	(283)%
% of revenue	2%	(6)%			1%	(2)%		

Other income (expense), net decreased by $2.6 million during the three months ended June 30, 2018 compared to the three months ended June 30, 2017 and decreased $2.1 million during the six months ended June 30, 2018 compared to the six months ended June 30, 2017 primarily due to a decrease in the value of the British pound relative to the U.S. dollar. During the three and six months ended June 30, 2018, we also recognized a $0.9 million loss on extinguishment of debt related to the unamortized discount and unamortized debt issuance costs associated with the 2016 Line of Credit and 2016 Term Loan.

Liquidity and Capital Resources

The following table summarizes our cash and cash equivalents, accounts receivable, net and working capital, for the periods indicated (in thousands):

	December 31, 2017	June 30, 2018
Cash and cash equivalents (exclusive of restricted cash)	$ 21,262	$ 50,468
Accounts receivable, net	48,348	40,488
Working capital	32,490	64,912

We define working capital as current assets minus current liabilities. Our cash and cash equivalents as of June 30, 2018 are available for working capital purposes. We do not enter into investments for trading purposes, and our investment policy is to invest any excess cash in short term, highly liquid investments that limit the risk of principal loss; therefore, our cash and cash equivalents are held in demand deposit accounts upon which we earn up to a 1.0% annual rate of interest.

Through June 30, 2018, we have incurred accumulated net losses of $301.6 million since inception, including losses of $13.1 million and $33.1 million for the six months ended June 30, 2017 and 2018, respectively. We expect to incur additional operating losses as we continue our efforts to grow our business. We have historically financed our operations and capital expenditures through convertible note financings, private placements of our redeemable convertible preferred stock, our initial public offering of our common stock as well as lines of credit and term loans. Through June 30, 2018, we have received net proceeds of $196.2 million from the issuance of preferred stock and convertible promissory notes and net proceeds of $66.1 million from our initial public offering. Our historical uses of cash have primarily consisted of cash used in operating activities to fund our operating losses and working capital needs.

As of June 30, 2018, we had $50.5 million in unrestricted cash and cash equivalents and $2.5 million of available borrowings under our Line of Credit. As of June 30, 2018, we had $2.3 million in cash and cash equivalents in the U.K. While our investment in Cardlytics UK Limited is not considered indefinitely invested, we do not plan to repatriate these funds. As of June 30, 2018, we had $27.5 million outstanding under our 2018 Line of Credit and $20.0 million outstanding under our 2018 Term Loan.

During the second half of 2018, scheduled development payments to a certain FI partner total $7.0 million offset by recoveries through FI Share payment reductions of $2.7 million. Scheduled reductions in FI Share payments to the FI partner during 2019 total $4.6 million.

We have a minimum FI Share commitment with a certain FI partner totaling $10.0 million over a 12-month period following the completion of certain milestones, which were not met as of June 30, 2018. We currently expect the milestones to be completed within the next 3 to 9 months and a FI Share commitment shortfall of between $4.0 million and $6.0 million.

Our future capital requirements will depend on many factors, including our growth rate, the timing and extent of spending to support research and development efforts, the continued expansion of sales and marketing activities, the enhancement of our platform, the introduction of new solutions and the continued market acceptance of our solutions. We expect to continue to incur operating losses for the foreseeable future and may require additional capital resources to continue to grow our business. We believe that current cash and cash equivalents will be sufficient to fund our operations and capital requirements for at least the next 12 months following the date our consolidated financial statements were issued. In the event that additional financing is required from outside sources, we may not be able to raise such financing on terms acceptable to us or at all.

The following table shows a summary of our cash flows for the periods presented:

	Six Months Ended June 30,	
	2017	2018
	(in thousands)	
Cash, cash equivalents and restricted cash at beginning of period	$ 22,968	$ 21,262
Net cash used in operating activities	(6,117)	(12,785)
Net cash used in investing activities	(511)	(2,161)
Net cash from financing activities	23,819	64,206
Effect of exchange rates on cash, cash equivalents and restricted cash	176	(54)
Cash, cash equivalents and restricted cash at end of period	$ 40,335	$ 70,468

Sources of Funds

Initial Public Offering

On February 13, 2018, we closed our initial public offering (“IPO”), in which we issued and sold 5,400,000 shares of common stock at a public offering price of $13.00 per share, resulting in gross proceeds of $70.2 million. On February 14, 2018, pursuant to the underwriters’ partial exercise of their over-allotment option to purchase up to an additional 810,000 shares from us, we issued and sold an additional 421,355 shares of our common stock, resulting in additional gross proceeds to us of $5.5 million. In total, we issued 5,821,355 shares of common stock and raised $75.7 million in gross proceeds, or $66.1 million in net proceeds after deducting underwriting discounts and commissions of $5.3 million and offering costs of $4.3 million.

New Loan Facility

On May 21, 2018, we entered into a Loan and Security Agreement with Pacific Western Bank (the “Lender”) consisting of a $30.0 million asset-based revolving line of credit ("2018 Line of Credit") and a $20.0 million term loan ("2018 Term Loan") maturing on May 21, 2020. We used the entire $20.0 million in proceeds from the 2018 Term Loan and an advance of $27.4 million under the 2018 Line of Credit to repay all outstanding obligations under our 2016 Line of Credit and 2016 Term Loan. Upon repayment, both the 2016 Line of Credit and the 2016 Term Loan were terminated.

Under the terms of the New Loan Facility relating to the 2018 Line of Credit, we are able to borrow up to the lesser of $30.0 million or 85% of the amount of our eligible accounts receivable. Interest on advances under the 2018 Line of Credit varies depending on the amount of unrestricted cash deposits we maintain with the Lender on the last day of the month. The interest rate is equal to the prime rate minus 0.75% if our unrestricted deposits exceed $40.0 million, the prime rate minus 0.50% if our unrestricted deposits are between $40.0 million and $20.0 million, and the prime rate if our unrestricted deposits are below $20.0 million. As of June 30, 2018, the indicative rate for advances on the 2018 Line of Credit was the prime rate minus 0.75%, or 4.25%. In addition, we are required to pay an unused line fee of 0.15% per annum on the average daily unused amount of the $30.0 million revolving commitment. We are also required to pay the Lender a one-time success fee of $75,000 in the event that we achieve trailing twelve month revenue of $200.0 million or more at the end of any month after the closing date of the New Loan Facility. Interest accrues on the 2018 Term Loan at an annual rate of interest equal to the prime rate minus 2.75%, or 2.25% as of June 30, 2018.

All of our obligations under the New Loan Facility are also secured by a first priority lien on substantially all of our assets. Under the terms of the New Loan Facility, we are required to maintain a deposit of $20.0 million in a blocked account in favor of the Lender as additional security for our payment obligations. The New Loan Facility contains a moving minimum trailing twelve month revenue covenant, which was $127.0 million for the period ended June 30, 2018. The New Loan Facility also requires us to maintain a total cash balance plus liquidity under the 2018 Line of Credit of not less than $5.0 million.

The New Loan Facility includes customary representations, warranties and covenants (affirmative and negative), including restrictive covenants that include restrictions on mergers, acquisitions and dispositions of assets, incurrence of indebtedness and encumbrances on our assets and restrictions on payments of dividends; in each case subject to specified exceptions.

The New Loan Facility also includes standard events of default, including in the event of a material adverse change. Upon the occurrence of an event of default, the Lender may declare all outstanding obligations immediately due and payable and take such other actions as are set forth in the New Loan Facility and increase the interest rate otherwise applicable to the 2018 Term Loan or advances under the 2018 Line of Credit by an additional 3.00%.

We were in compliance with all financial covenants as of June 30, 2018.

Uses of Funds

Our collection cycles can vary from period to period based on the payment practices of our marketers and their agencies. We are typically obligated to pay Consumer Incentives with respect to our Cardlytics Direct solution by the end of the month following redemption, regardless of whether we have collected payment from a marketer or its agency. We are generally obligated to pay our FI partners' FI Share by the end of the month following our collection of payment from the applicable marketer or its agency. As a result, timing of cash receipts from our marketers can significantly impact our operating cash flows for any period. Further, the timing of payment of commitments and implementation fees to our FI partners may also result in variability of our operating cash flows for any period.

Our operating cash flows also vary from quarter to quarter due to the seasonal nature of our marketers' advertising spending. Many marketers tend to devote a significant portion of their marketing budgets to the fourth quarter of the calendar year to coincide with consumer holiday spending and reduce marketing spend in the first quarter of the calendar year. Any lag between the timing of our payment of Consumer Incentives and our receipt of payment from marketers and their agencies can exacerbate our need for working capital during the first quarter of the calendar year.

Operating Activities

Cash used in operating activities is primarily driven by our operating losses. We expect that we will continue to use cash from operating activities in 2018 as we invest in our business.

Operating activities used $12.8 million of cash during the six months ended June 30, 2018, which reflected growth in revenue, offset by continued investment in our operations. Cash used in operating activities reflected our net loss of $33.1 million and a $8.3 million payment of paid-in-kind interest on our 2016 Line of Credit and 2016 Term Loan that were extinguished in May 2018, partially offset by $27.7 million of non-cash charges and a $1.0 million change in our net operating assets and liabilities. The non-cash charges primarily related to stock-based compensation expense, depreciation and amortization expense, the change in fair value of our warrant liabilities, non-cash interest expense and a $2.5 million non-cash expense related to the vesting of warrants upon completion of our IPO in February 2018. The change in our net operating assets and liabilities was primarily due to a $7.7 million decrease in accounts receivable, a $3.2 million decrease in FI Share liability and a $1.4 million decrease in Consumer Incentive liability resulting from seasonally lower sales during the first and second quarters of 2018 compared to the fourth quarter of 2017, as well as a $1.5 million increase in prepaid expenses and other assets and a $1.1 million decrease in accounts payable and accrued expenses.

Operating activities used $6.1 million of cash during the six months ended June 30, 2017, which reflected growth in revenue, offset by continued investment in our operations. Cash used in operating activities reflected our net loss of $13.1 million partially offset by non-cash charges of $5.1 million and a $1.9 million change in our operating assets and liabilities. The non-cash charges primarily related to stock-based compensation expense, depreciation and amortization expense, the change in fair value of our warrant liabilities, the change in fair value of our convertible promissory notes and non-cash interest expense. The change in our net operating assets and liabilities was primarily due to a $6.1 million decrease in accounts receivable, a $0.8 million decrease in FI Share liability and a $0.3 million decrease in Consumer Incentive liability resulting from seasonally lower sales during the first and second quarters of 2017 compared to the fourth quarter of 2016, as well as a $3.0 million increase in deferred FI implementation costs and a $1.7 million decrease in accounts payable and accrued expenses.

Investing Activities

Our cash flows from investing activities are primarily driven by our investments in, and purchases of, property and equipment and costs to develop internal-use software. We expect that we will continue to use cash for investing activities in 2018 as we continue to invest in and grow our business.

Investing activities used $2.2 million in cash in the six months ended June 30, 2018. Our investing cash flows during this period primarily consisted of purchases of technology hardware and the capitalization of costs to develop internal-use software.

Investing activities used $0.5 million in cash in the six months ended June 30, 2017. Our investing cash flows during this period primarily consisted of purchases of technology hardware.

Financing Activities

Our cash flows from financing activities have primarily been composed of net proceeds from our borrowings under our debt facilities and the issuance of common and preferred stock.

Financing activities provided $64.2 million in cash during the six months ended June 30, 2018. Our financing activities during this period consisted of net proceeds from our IPO of $70.4 million (gross proceeds of $75.7 million less underwriting discounts and commissions of $5.3 million), offset by payments of equity offering costs of $1.9 million and a net $4.4 million use of cash related to our refinancing in May 2018.

Financing activities provided $23.8 million in cash during the six months ended June 30, 2017. Our financing activities during this period primarily consisted of $12.5 million of borrowings under our 2016 Line of Credit and proceeds of $11.9 million from the issuance of Series G redeemable convertible preferred stock.

Contractual Obligations & Commitments

The following table summarizes our debt payment obligations under the New Loan Facility as of June 30, 2018:

	Less than 1 Year (remaining 2018)	1 to 3 Years (2019 and 2020)	3 to 5 Years (2021 and 2022)	More than 5 Years (thereafter)	Total
			(in thousands)		
Debt[(1)]	$ —	$ 47,477	$ —	$ —	$ 47,477

(1) Amount represents $27.5 million of our 2018 Line of Credit and $20.0 million of our 2018 Term Loan.

As of June 30, 2018, other than as described above, there have been no material changes in our contractual obligations and commitments from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017 filed with the SEC on March 19, 2018.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

Critical Accounting Policies and Estimates

Our condensed consolidated financial statements are prepared in accordance with GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe that the assumptions and estimates associated with the evaluation of revenue recognition criteria, including the determination of revenue recognition as net versus gross in our revenue arrangements and the assumptions used in the valuation models to determine the fair value of equity awards and stock-based compensation expense have the greatest potential impact on our condensed consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates. By their nature, estimates are subject to an inherent degree of uncertainty. Actual results could differ materially from these estimates. There have been no material changes to our critical accounting policies and estimates from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017.

Recent Accounting Pronouncements

See Note 2—Significant Accounting Policies and Recent Accounting Standards to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements.

Emerging Growth Company Status

In April 2012, the Jumpstart Our Business Startups Act of 2012 ("JOBS Act") was enacted. Section 107 of the JOBS Act provides that an “emerging growth company” can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this extended transition period and, as a result, we may not adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

ITEM 3. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and foreign exchange rates.

Interest Rate Risk

The interest expense rates on our 2018 Term Loan and 2018 Line of Credit are variable. Interest on the 2018 Term Loan bears an interest rate of the prime rate minus 2.75%. Interest on advances under the 2018 Line of Credit varies depending on the amount of unrestricted cash deposits we maintain with the lender on the last day of the month. The interest rate is equal to the prime rate minus 0.75% if our unrestricted deposits exceed $40.0 million, the prime rate minus 0.50% if our unrestricted deposits are between $40.0 million and $20.0 million, and the prime rate if our unrestricted deposits are below $20.0 million. The current prime rate is 5.0% and a 10% increase in the current prime rate would, for example, result in a $0.3 million annual increase in interest expense if the maximum borrowable amount under our 2018 Term Loan and 2018 Line of Credit were outstanding for an entire year.

Foreign Currency Exchange Risk

Both revenue and operating expense of Cardlytics UK Limited are denominated in British pounds, and we bear foreign currency risks related to these amounts. For example, if the average value of the British pound had been 10% higher relative to the U.S. dollar during the six months ended June 30, 2017 and 2018, our operating expense would have increased by $0.2 million and $0.3 million, respectively.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of the end of the period covered by this Quarterly Report on Form 10-Q. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our principal executive officer and principal financial officer have concluded that as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting.

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this report, and in our other public filings in evaluating our business. Our business, financial condition, operating results, cash flow, and prospects could be materially and adversely affected by any of these risks or uncertainties. In that event, the market price of our common stock could decline and you could lose part or all of your investment.

Our Business and Industry

We may not be able to sustain our revenue growth rate in the future.

Our revenue increased by 45% from $77.6 million in 2015 to $112.8 million in 2016 and 16% from $112.8 million in 2016 to $130.4 million in 2017. Our revenue increased 14% from $59.7 million in the six months ended June 30, 2017 to $68.3 million in the six months ended June 30, 2018. We may not be able to sustain revenue growth consistent with our recent history or at all. You should not consider our revenue growth in recent periods as indicative of our future performance. As we grow our business, we expect our revenue growth rates to slow in future periods due to a number of factors, which may include slowing demand for our solutions, increasing competition, decreasing growth of our overall market, our inability to engage and retain a sufficient number of marketers or banks and credit unions, which we refer to as financial institutions or FIs, or our failure, for any reason, to capitalize on growth opportunities. If we are unable to maintain consistent revenue or revenue growth, our stock price could be volatile, and it may be difficult for us to achieve and maintain profitability.

We are dependent upon our Cardlytics Direct solution.

We have historically derived substantially all of our revenue from our Cardlytics Direct solution, our proprietary native bank advertising channel, and expect to continue to derive substantially all of our future revenue from sales of Cardlytics Direct for the foreseeable future. Approximately 83%, 87%, 94% and 98% of our revenue in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively, was derived from sales of Cardlytics Direct. Revenue from our Other Platform Solutions, where we use purchase intelligence outside of the native bank advertising channel, was approximately $13.2 million, $15.0 million, $8.0 million and $1.1 million in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively. Substantially all of our total Other Platform Solutions revenue in each of these periods was derived from sales of our Other Platform Solutions delivered as a managed service until it was discontinued on July 31, 2017. Given that we are now focusing the majority of our efforts and resources to support the growth of Cardlytics Direct, we do not expect to generate substantial revenue from Other Platform Solutions for the foreseeable future. Accordingly, our total revenue may decline in future periods if we are unable to generate sufficient offsetting revenue from sales of Cardlytics Direct. Our operating results could also suffer due to:

- lack of continued participation by financial institution ("FI") partners in our network or our failure to attract new FI partners;
- failure by our FI partners to increase engagement with our solutions within their customer bases, improve their customers’ user experience, increase customer awareness, leverage additional customer outreach channels like email or otherwise promote our incentive programs on their websites and mobile applications, including by making the programs difficult to access or otherwise diminishing their prominence;
- our failure to offer compelling incentives to our FIs’ customers;
- any decline in demand for our Cardlytics Direct solution by marketers or their agencies;

- the introduction by competitors of products and technologies that serve as a replacement or substitute for, or represent an improvement over, Cardlytics Direct;
- FIs developing their own technology to support purchase intelligence marketing or other incentive programs;
- technological innovations or new standards that our Cardlytics Direct solution does not address; and
- sensitivity to current or future prices offered by us or competing solutions.

In addition, we are required to pay Consumers Incentives with respect to a majority of our Cardlytics Direct marketing campaigns regardless of whether the amount of such Consumer Incentives exceeds the amount of billings that we are paid by the applicable marketer. Further, we are often required to pay such Consumers Incentives before we receive payment from the applicable marketer. Accordingly, to the extent that the amount of Consumer Incentives that we are required to pay materially exceeds the billings that we receive or we encounter any significant failure to ultimately collect payment, our business, financial condition and operating results could be adversely affected.

If we are unable to grow our revenue from sales of our Cardlytics Direct solution, our business and operating results would be harmed.

We are substantially dependent on Bank of America and a limited number of other FI partners.

Our business is substantially dependent on Bank of America, National Association ("Bank of America") and a limited number of other FI partners. We require participation from our FI partners in Cardlytics Direct and access to their purchase data in order to offer our solutions to marketers and their agencies. We must have FI partners with a sufficient number of customers and levels of customer engagement to ensure that we have robust purchase data and marketing space to support a broad array of incentive programs for marketers. As the amount of revenue that we can generate from marketers with respect to Cardlytics Direct is primarily a function of the number of active users on our FI partners' digital banking platforms, we believe that the number of FI MAUs of any FI partner is indicative of our level of dependence on such FI partner. During 2015, 2016, 2017 and the six months ended June 30, 2018, our largest FI partner, Bank of America, contributed approximately 50%, 47%, 51% and 51% of our total FI MAUs, respectively. Lloyds TSB Bank plc ("Lloyds"), our largest FI partner in the U.K., contributed approximately 9%, 10%, 9% and 9% of our total FI MAUs in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively. Digital Insight Corporation, a subsidiary of NCR Corporation ("Digital Insight"), contributed approximately 15%, 13%, 11% and 10% of our total FI MAUs in 2015, 2016, 2017 and six months ended June 30, 2018, respectively. We anticipate that Bank of America, Lloyds and Digital Insight will contribute a significant portion of our total FI MAUs for the foreseeable future.

In addition, we pay our FI partners an FI Share, which is a negotiated and fixed percentage of our billings to marketers less any Consumer Incentives that we pay to the FIs' customers and certain third-party data costs. During 2015, 2016, 2017 and the six months ended June 30, 2018, Bank of America accounted for 63%, 64%, 63% and 67% of the total FI Share we paid to all FIs, respectively. Lloyds accounted for 11%, 10%, 12% and 10% of the total FI Share we paid to all FIs in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively, and Digital Insight accounted for approximately 10%, 9%, 7% and 5% of the total FI Share we paid to all FIs in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively. We anticipate that Bank of America, Lloyds and Digital Insight will continue to receive a significant portion of our FI Share for the foreseeable future and the loss of Bank of America, Lloyds, Digital Insight or any other significant FI partner would significantly harm our business, results of operations and financial conditions.

Our agreements with a substantial majority of our FI partners, including Bank of America, Lloyds and Digital Insight have three to five year terms but are terminable by the FI partner on 90 days or less prior notice. If an FI partner terminates its agreement with us, we would lose that FI as a source of purchase data and online banking customers. In addition, even if our FI partners continued to work with us relating to Cardlytics Direct, our FI partners generally have the ability to cease providing us purchase data or limit the way in which we may potentially use their data outside of the Cardlytics Direct channel at any time since our contracts with our partners do not include any binding commitments to continue to provide purchase data to us for use outside their respective native bank advertising channel. Our FI partners may elect to withhold from us or limit the use of their purchase data for many reasons, including:

- a change in the business strategy;
- if there is a competitive reason to do so;

- if new technical requirements arise;
- consumer concern over use of purchase data;
- if they choose to develop and use in-house solutions or use a competitive solution in lieu of our solutions; and
- if legislation is passed restricting the dissemination, or our use, of the data that is currently provided to us or if judicial interpretations result in similar limitations.

To the extent that we breach or are alleged to have breached the terms of our agreement with any FI partner, or a disagreement arises with an FI partner regarding the interpretation of our contractual arrangements, which has occurred in the past with respect to Bank of America (although Bank of America granted us a waiver) and may occur again in the future, such FI partner may be more likely to cease providing us data or to terminate its agreement with us. The loss of Bank of America, Lloyds, Digital Insight or any other significant FI partner would significantly harm our business, results of operations and financial conditions.

We do not have direct contractual relationships with a substantial majority of our FI partners.

As of June 30, 2018, we had a network in excess of 2,000 FI partners, but only had direct contractual relationships with 17 of these FI partners. Our other FI partners became part of our network through bank processors and digital banking providers, such as Digital Insight and Fidelity Information Services LLC (“FIS”). While FI partners that were part of our network through our relationships with Digital Insight and FIS contributed approximately 12% of our total number of FI MAUs for the six months ended June 30, 2018, these indirect FI partners represented substantially all of our total FI partners as of June 30, 2018. These indirect FI partners may terminate their relationships with these bank processors or digital banking providers, thereby indirectly terminating their relationships with us, independent of the actual or perceived value of our solutions to them.

Delays in the launch of Cardlytics Direct at JPMorgan Chase or Wells Fargo, or failure to launch at all, may result in our failure to meet expectations with respect to future operating results.

In May 2018, we signed a seven-year agreement for a national launch of Cardlytics Direct with JPMorgan Chase Bank, National Association (“Chase”). In August 2018, we signed a four-year agreement with the initial term expiring on July 1, 2022, for a national launch of Cardlytics Direct with Wells Fargo Bank, National Association (“Wells Fargo”). The implementation of Chase and Wells Fargo may require significant investment in our systems and infrastructure, and we may encounter unforeseen technological issues which could cause delays in the launch, limitations to the scope of the launch or an inability to launch at all. In addition, Chase may terminate the agreement at any time upon 90 days' written notice and Wells Fargo may terminate the agreement at any time upon 180 days' written notice. If the launch of Cardlytics Direct at Chase or Wells Fargo is delayed, limited or terminated, our business, financial condition and operating results could be harmed.

We have a significant amount of debt, which may affect our ability to operate our business and secure additional financing in the future.

As of June 30, 2018, our total indebtedness was approximately $47.5 million. On May 21, 2018, we entered into a New Loan Facility with Pacific Western Bank consisting of a $30.0 million asset-based revolving line of credit ("2018 Line of Credit") and a $20.0 million term loan ("2018 Term Loan") maturing on May 21, 2020. As of June 30, 2018, there was approximately $27.5 million and $20.0 million outstanding under the 2018 Line of Credit and 2018 Term Loan, respectively.

Our New Loan Facility is secured by substantially all of our assets and requires us, and any debt instruments we may enter into in the future may require us, to comply with various covenants that limit our ability to, among other things:

- dispose of assets;
- complete mergers or acquisitions;
- incur or guarantee indebtedness;
- sell or encumber certain assets;
- pay dividends or make other distributions to holders of our capital stock, including by way of certain stock buybacks;
- make specified investments;

- engage in different lines of business;
- change certain key management personnel; and
- engage in certain transactions with our affiliates.

We are also required under the New Loan Facility to satisfy and maintain specified financial ratios and other financial condition tests. Our ability to meet those financial ratios and tests can be affected by events beyond our control and we may not meet those ratios and tests. These covenants may make it difficult to operate our business. A failure by us to comply with the covenants or financial ratios contained in our New Loan Facility could result in an event of default, which could adversely affect our ability to respond to changes in our business and manage our operations. Upon the occurrence of an event of default, including the occurrence of a material adverse change, the lenders could elect to declare all amounts outstanding to be due and payable and exercise other remedies as set forth in our New Loan Facility. If the indebtedness under our New Loan Facility were to be accelerated, our future financial condition could be materially adversely affected.

We may incur additional indebtedness in the future. The instruments governing such indebtedness could contain provisions that are as, or more, restrictive than our existing debt instruments. If we are unable to repay, refinance or restructure our indebtedness when payment is due, the lenders could proceed against any collateral granted to them to secure such indebtedness or force us into bankruptcy or liquidation.

A breach of the security of our systems could result in a third party's entry into our FI partners' systems, which would be detrimental to our business, financial condition and operating results.

We leverage our FI partners' purchase data and infrastructures to deliver our solutions. We do not currently receive any personally identifiable information ("PII") from our FI partners, although we may obtain PII in the future as our business evolves. However, because of the interconnected nature of our infrastructure with that of our FI partners, there is a risk that third parties may attempt to gain access to our FI partners' systems through our systems for the purpose of stealing data or disrupting our or their respective operations. In turn, we may be a more visible target for cyberattacks and/or physical breaches of our databases or data centers, and we may in the future suffer from such attacks or breaches.

Current or future criminal capabilities, discovery of existing or new vulnerabilities in our systems and attempts to exploit those vulnerabilities or other developments may compromise or breach the technology protecting our systems. In the event that our protection efforts are unsuccessful and our systems are compromised such that a third party gains entry to our or any of our FI partners' systems, we could suffer substantial harm. A security breach could result in operation disruptions that impair our ability to meet our marketers' requirements, which could result in decreased revenue. Also, our reputation could suffer irreparable harm, causing our current and prospective marketers and FI partners to decline to use our solutions in the future. Further, we could be forced to expend significant financial and operational resources in response to a security breach, including repairing system damage, increasing cybersecurity protection costs by deploying additional personnel and protection technologies and litigating and resolving legal claims, all of which could divert resources and the attention of our management and key personnel away from our business operations. In any event, a breach of the security of our systems or data could materially harm our business, financial condition and operating results.

If we fail to generate sufficient revenue to offset our contractual commitments to FIs, our business, results of operations and financial conditions could be harmed.

We have a minimum FI Share commitment with a certain FI partner totaling $10.0 million over a 12-month period following the completion of certain milestones, which were not met as of June 30, 2018. In 2017, we paid certain of our FI partners an aggregate of approximately $2.6 million related to 2016 FI Share commitments in excess of the amount of FI Share otherwise payable to such FI partners in the absence of such commitments, and it is possible that we may be required to fund similar shortfalls in future periods. In certain cases, we are also responsible for funding certain development costs for user interface enhancements and implementation costs on behalf of FIs. We paid $11.2 million in 2017 relating to such development and implementation cost commitments and have total commitments of $9.3 million in 2018, $2.3 million of which have been paid as of June 30, 2018. These agreements allow for a total of $5.4 million and $4.6 million to be reimbursed to us through future reductions to FI Share over the course of 2018 and 2019, respectively. To the extent that we are unable to generate revenue from marketers sufficient to offset these FI Share commitments and other obligations, our business, results of operations and financial conditions could be harmed.

If we fail to attract new FI partners or maintain our relationships with bank processors and digital banking providers, we may not be able to sufficiently grow our revenue, which could significantly harm our business, results of operations and financial condition.

Our ability to grow our revenue depends on our ability to attract new FI partners. A significant percentage of consumer credit and debit card spending is concentrated with the 15 largest FIs in the U.S., four of which are currently part of our network, while the balance of card spending is spread across thousands of smaller FIs. Accordingly, our ability to efficiently grow our revenue will specifically depend on our ability to establish relationships with the large FIs that are not currently part of our network and to maintain our relationships with the large FIs that are currently part of our network. In addition, we must continue to maintain our relationships with our existing bank processor and digital banking provider partners and attract new such partners because these partners aggregate smaller FIs into our network. We have in the past and may in the future be unsuccessful in attempts to establish and maintain relationships with large FIs, bank processors and digital banking providers. If we are unable to attract new FI partners, maintain our relationships with our existing bank processor and digital banking provider partners or attract new bank processor and digital provider partners, our business, results of operations and financial condition would be significantly harmed and we may fail to capture a material portion of the native bank advertising market opportunity.

Bringing new FI partners into our network can require considerable time and expense and can be long and unpredictable.

Our FI partners and FI partner prospects engage in highly regulated businesses, are often slow to adopt technological innovation and have rigorous standards with respect to providing third parties, like us, with access to their data. Our operating results depend in part on expanding our FI network to maintain and enhance the scale of our solutions. The length of time that it takes to add an FI partner to our network, from initial evaluation to integration into our network, varies substantially from FI to FI and may take several years. Our sales and integration cycle with respect to our FI partners is long and unpredictable, requires considerable time and expense and may not ultimately be successful. It is difficult to predict exactly when, or even if, a new FI partner will join our network and we may not generate revenue from a new FI partner in the same period as we incurred the costs associated with acquiring such FI partner, or at all. Once an FI partner has agreed to work with us, it may take a lengthy period of time for the implementation of our solutions to be prioritized and integrated into the FI partner’s infrastructure. Because a substantial portion of our expenses are relatively fixed in the short term, our operating results will suffer if revenue falls below our expectations in a particular quarter, which could cause the price of our stock to decline. Ultimately, if additions to our FI network are not realized in the time period expected or not realized at all, or if an FI partner terminates its agreement with us, our business, financial condition and operating results could be adversely affected.

Our future success will depend, in part, on our ability to expand into new industry verticals.

We have historically generated a substantial majority of our revenue from marketers in the restaurant, brick and mortar retail, telecommunications and cable industries, and have recently entered new verticals such as hospitality and travel, and believe that our future success will depend, in part, on our ability to expand adoption of our solutions in new industry verticals. As we market to a wider group of potential marketers and their agencies, we will need to adapt our marketing strategies to meet the concerns and expectations of customers in these new industry verticals. Our success in expanding sales of our solutions to marketers in new industry verticals will depend on a variety of factors, including our ability to:

- tailor our solutions so that they that are attractive to businesses in such industries;
- hire personnel with relevant industry-vertical experience to lead sales and services teams; and
- develop sufficient expertise in such industries so that we can provide effective and meaningful marketing programs and analytics.

If we are unable to successfully market our solutions to appeal to marketers and their agencies in new industries, we may not be able to achieve our growth or business objectives.

Our quarterly operating results may vary from period to period, which could result in our failure to meet expectations with respect to operating results and cause the trading price of our stock to decline.

Our operating results have historically fluctuated and our future operating results may vary significantly from quarter to quarter due to a variety of factors, many of which are beyond our control. Period-to-period comparisons of our operating results should not be relied upon as an indication of our future performance. Given our relatively short operating history and the rapidly evolving purchase intelligence industry, our historical operating results may not be useful in predicting our future operating results.

Factors that may impact our quarterly operating results include the factors set forth in this “Risk Factors” section, as well as the following:

- our ability to attract and retain marketers, FI partners and bank processor and digital banking provider partners;
- the amount and timing of revenue, operating costs and capital expenditures related to the operations and expansion of our business, particularly with respect to our efforts to attract new FI partners to our network;
- the revenue mix between Cardlytics Direct and Other Platform Solutions, as well as between revenue generated from our operations in the U.S. and U.K.;
- changes in the economic prospects of marketers, the industries or verticals that we primarily serve, or the economy generally, which could alter marketers’ spending priorities or budgets;
- the termination or alteration of relationships with our FI partners in a manner that impacts ongoing or future marketing campaigns;
- the amount and timing of expenses required to grow our business, including the timing of our payments of FI Share and FI Share commitments as compared to the timing of our receipt of payments from our marketers;
- changes in demand for our solutions or similar solutions;
- seasonal trends in the marketing industry, including concentration of marketer spend in the fourth quarter of the calendar year and declines in marketer spend in the first quarter of the calendar year;
- competitive market position, including changes in the pricing policies of our competitors;
- exposure related to our international operations and foreign currency exchange rates;
- expenses associated with items such as litigation, regulatory changes, cyberattacks or security breaches;
- the introduction of new technologies, products or solution offerings by competitors; and
- costs related to acquisitions of other businesses or technologies.

Each factor above or discussed elsewhere in this Quarterly Report on Form 10-Q or the cumulative effect of some of these factors may result in fluctuations in our operating results. This variability and unpredictability could result in our failure to meet expectations with respect to operating results, or those of securities analysts or investors, for a particular period. If we fail to meet or exceed expectations for our operating results for these or any other reasons, the market price of our stock could fall and we could face costly lawsuits, including securities class action suits.

We have a short operating history, which makes it difficult to evaluate our future prospects and may increase the risk that we will not be successful.

We have a relatively short operating history, which limits our ability to forecast our future operating results and subjects us to a number of uncertainties, including with respect to our ability to plan for and model future growth. We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in developing industries. If our assumptions regarding these uncertainties, which we use to manage our business, are incorrect or change in response to changes in our markets, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations, our business could suffer and our stock price could decline. Any success that we may experience in the future will depend in large part on our ability to, among other things:

- maintain and expand our network of FI partners and bank processor and digital banking provider partners;
- build and maintain long-term relationships with marketers and their agencies;
- develop and offer competitive solutions that meet the evolving needs of marketers;
- expand our relationships with FI partners to enable us to use their purchase data for new solutions;
- improve the performance and capabilities of our solutions;
- successfully expand our business;
- successfully compete with other companies that are currently in, or may in the future enter, the markets for our solutions;
- increase market awareness of our solutions and enhance our brand;
- manage increased operating expenses as we continue to invest in our infrastructure to scale our business and operate as a public company; and
- attract, hire, train, integrate and retain qualified and motivated employees.

Any failure of our FI partners to effectively deliver and promote the online incentive programs that comprise our Cardlytics Direct solution could materially and adversely affect our business.

We have spent the last several years and significant resources building out technology integrations with our FI partners to facilitate the delivery of incentive programs to our FIs' customers and measuring those customers subsequent in-store or online spending. We are also reliant on our network of FI partners to promote their online incentive programs, increase customer awareness and leverage additional customer outreach channels like email, all of which can increase customer engagement, as well as expand our network of FI partners. We believe that key factors in the success and effectiveness of our incentive program include the level of accessibility and prominence of the program on the FI partners' website and mobile applications, as well as the user interface through which a customer is presented with marketing content. In certain cases, we have little control over the prominence of the incentive program and design of the user interface that our FI partners choose to use. To the extent that our FI partners deemphasize incentive programs, make incentive programs difficult to locate on their website and/or mobile applications and/or fail to provide a user interface that is appealing to FI customers, FI customers may be less likely to purchase the products or solutions that are featured in incentive programs, which could negatively impact the amount of fees that we are able to charge our marketer customers in connection with marketing campaigns, and, therefore, our revenue. In addition, a failure by FIs to properly deliver or sufficiently promote marketing campaigns would reduce the efficacy of our solutions and impair our ability to attract and retain marketers and their agencies. As a result, the revenue we generate from our Cardlytics Direct solution may be adversely affected, which would materially and adversely affect our business, financial condition and results of operations.

We derive a material portion of our revenue from a limited number of marketers, and the loss of one or more of these marketers could adversely impact our business, results of operations and financial conditions.

Our marketer base is concentrated with our top five marketers representing 23% of revenue for each of the years 2015, 2016 and 2017 and 25% for the six months ended June 30, 2018. We do not have long-term commitments from most of these marketers. If we were to lose one or more of our significant marketers, our revenue may significantly decline. In addition, revenue from significant marketers may vary from period-to-period depending on the timing or volume of marketing spend. The loss of one or more of our significant marketers could adversely affect our business, results of operations and financial conditions.

Further, our top five marketers represented 27%, 21%, 24% and 24% of accounts receivable as of December 31, 2015, 2016 and 2017, and June 30, 2018, respectively. Accordingly, our credit risk is concentrated among a limited number of marketers and the failure of any significant marketer to satisfy its obligations to us, on a timely basis or at all, could adversely affect our business, results of operations and financial conditions.

Our business could be adversely affected if marketers or their agencies are not satisfied with our solutions or our systems and infrastructure fail to meet their needs.

We derive nearly all of our revenue from marketers and their agencies. Accordingly, our business depends on our ability to satisfy marketers and their agencies with respect to their marketing needs. With respect to Cardlytics Direct, we rely on our Offer Management System ("OMS") to facilitate the creation of marketing campaigns and evaluate the results of campaigns, and our Offer Placement System ("OPS"), to track impressions, engagement, activation and redemptions and to target consumers and present offers. Any failure of, or delays in the performance of, our systems, including without limitation our OMS or OPS, could cause service interruptions or impaired system performance. Such failures in our systems could also cause us to over-run on campaigns, thus committing us to a higher amount of Consumer Incentives than our marketers approved, which would negatively affect the profitability of the affected campaigns. If sustained or repeated, these performance issues could reduce the attractiveness of our solutions to new and existing marketers and cause existing marketers to reduce or cease using our solutions, which could adversely affect our business, financial condition or operating results. In addition, negative publicity resulting from issues related to our marketer relationships, regardless of accuracy, may damage our business by adversely affecting our ability to attract new marketers or marketing agencies and maintain and expand our relationships with existing marketers.

If the use of our solutions increases, or if marketers or FI partners demand more advanced features from our solutions, we will need to devote additional resources to improving our solutions, and we also may need to expand our technical infrastructure at a more rapid pace than we have in the past. This would involve purchasing or leasing data center capacity and equipment, upgrading our technology and infrastructure and introducing new or enhanced solutions. It may take a significant amount of time to plan, develop and test changes to our infrastructure, and we may not be able to accurately forecast demand or predict the results we will realize from such improvements. There are inherent risks associated with changing, upgrading, improving and expanding our technical infrastructure. Any failure of our solutions to operate effectively with future infrastructure and technologies could reduce the demand for our solutions, resulting in marketer or FI partner dissatisfaction and harm to our business. Also, any expansion of our infrastructure would likely require that we appropriately scale our internal business systems and services organization, including without limitation implementation and support services, to serve our growing marketer base. If we are unable to respond to these changes or fully and effectively implement them in a cost-effective and timely manner, our solutions may become ineffective, we may lose marketers and/or FI partners, and our business, financial condition and operating results may be negatively impacted.

We generally do not have long-term commitments from marketers, and if we are unable to retain and increase sales of our solutions to marketers and their agencies or attract new marketers and their agencies, our business, financial condition and operating results would be adversely affected.

Most marketers do business with us by placing insertion orders for particular marketing campaigns, either directly or through marketing agencies that act on their behalf. We generally do not have any commitment from a marketer beyond the campaign governed by a particular insertion order, and we frequently must compete to win further business from a marketer. Our insertion orders may also be canceled by marketers or their marketing agencies prior to the completion of the campaign; provided that marketers or their agencies are required to pay us for services performed prior to cancellation. As a result, our success is dependent upon our ability to outperform our competitors and win repeat business from existing marketers, while continually expanding the number of marketers for which we provide services. To maintain and increase our revenue, we must encourage existing marketers and their agencies to increase their use of our solutions and add new marketers. Many marketers and marketing agencies, however, have only just begun using our solutions for a limited number of marketing campaigns, and our future revenue growth will depend heavily on these marketers and marketing agencies expanding their use of our solutions across campaigns and otherwise increasing their spending with us. Even if we are successful in convincing marketers and their agencies to use our solutions, it may take several months or years for them to meaningfully increase the amount that they spend with us. Further, larger marketers with multiple brands typically have individual marketing budgets and marketing decision makers for each of their brands, and we may not be able to leverage our success in securing a portion of the marketing budget of one or more of a marketer’s brands into additional business with other brands. Moreover, marketers may place internal limits on the allocation of their marketing budgets to digital marketing, to particular campaigns, to a particular provider or for other reasons. In addition, we are reliant on our FI network to have sufficient marketing inventory within Cardlytics Direct to place the full volume of advertisements contracted for by our marketers and their agencies. Any failure to meet these demands may hamper the growth of our business and the attractiveness of our solutions.

Our ability to retain and increase sales of our solutions and attract new marketers and their agencies may be adversely affected by competitive offerings or marketing methods that are lower priced or perceived as more effective than our solutions. Larger marketers may themselves have a substantial amount of purchase data and they may also seek to augment their own purchase data with additional purchase, impression and/or demographic data acquired from third-party data providers, which may allow them to develop, individually or with partners, internal targeting and measurement capabilities.

Because we do not have long-term agreements with our marketers or their agencies, we may not be able to accurately predict future revenue streams, and we cannot guarantee that our current marketers will continue to use our solutions, or that we will be able to replace departing marketers with new marketers that provide us with comparable revenue. If we are unable to retain and increase sales of our solutions to existing marketers and their agencies or attract new marketers and their agencies for any of the reasons above or for other reasons, our business, financial condition and operating results would be adversely affected.

We have a history of losses and may not achieve profitability in the future.

We have incurred net losses since inception and expect to incur net losses in the future. We incurred net losses of $40.6 million, $75.7 million, $19.6 million and $33.1 million in 2015, 2016, 2017 and the six months ended June 30, 2018, respectively. As of June 30, 2018, we had an accumulated deficit of $301.6 million. We have never achieved profitability on an annual or quarterly basis and we do not know if we will be able to achieve or sustain profitability. Although our revenue has increased substantially in recent periods, we also do not expect to maintain this rate of revenue growth. We plan to continue to invest in our research and development and sales and marketing efforts, and we anticipate that our operating expenses will continue to increase as we scale our business and expand our operations. We also expect our general and administrative expense to increase as a result of our growth and operating as a public company. Our ability to achieve and sustain profitability is based on numerous factors, many of which are beyond our control. We may never be able to generate sufficient revenue to achieve or sustain profitability.

We operate in an emerging industry and future demand and market acceptance for our solutions is uncertain.

We believe that our future success will depend in large part on the growth, if any, in the market for purchase intelligence. Utilization of consumer purchase data to inform marketing is an emerging industry and future demand and market acceptance for this type of marketing is uncertain. If the market for purchase intelligence does not continue to develop or develops more slowly than we expect, our business, financial condition and operating results could be harmed.

The market in which we participate is competitive and we may not be able to compete successfully with our current or future competitors.

The market for purchase intelligence is nascent and we believe that there is no one company with which we compete directly across our range of solutions. With respect to Cardlytics Direct, we believe that we are the only company that enables marketing through FI channels at scale. With respect to our Other Platform Solutions, we compete with a number of established companies, as well as numerous emerging market entrants. In the future, we may face competition from online retailers, credit card companies, established enterprise software companies, advertising and marketing agencies, digital publishers and mobile pay providers with access to a substantial amount of consumer purchase data. While we may successfully partner with a wide range of companies that are to some extent currently competitive to us, these companies may become more competitive to us in the future. As we introduce new solutions, as our existing solutions evolve and as other companies introduce new products and solutions, we are likely to face additional competition.

Some of our actual and potential competitors may have advantages over us, such as longer operating histories, significantly greater financial, technical, marketing or other resources, stronger brand and recognition, larger intellectual property portfolios and broader global distribution and presence. In addition, our industry is evolving rapidly and is becoming increasingly competitive. Larger and more established companies may focus on purchase intelligence marketing and could directly compete with us. Smaller companies could also launch new products and services that we do not offer and that could gain market acceptance quickly.

Our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. Larger competitors are also often in a better position to withstand any significant reduction in capital spending, and will therefore not be as susceptible to economic downturns. In addition, current or potential competitors may be acquired by third parties with greater available resources. As a result of such relationships and acquisitions, our current or potential competitors might be able to adapt more quickly to new technologies and customer needs, devote greater resources to the promotion or sale of their products and services, initiate or withstand substantial price competition, take advantage of other opportunities more readily or develop and expand their product and service offerings more quickly than we do. For all of these reasons, we may not be able to compete successfully against our current or future competitors.

If we fail to identify and respond effectively to rapidly changing technology and industry needs, our solutions may become less competitive or obsolete.

Our future success depends on our ability to adapt and innovate. To attract, retain and increase new marketers and FI partners, we will need to expand and enhance our solutions to meet changing needs, add functionality and address technological advancements. If we are unable to adapt our solutions to evolving trends in the marketing industry, if we are unable to properly identify and prioritize appropriate solution development projects or if we fail to develop and effectively market new solutions, such as our nascent Other Platform Solutions, or enhance existing solutions to address the needs of existing and new marketers and FI partners, we may not be able to achieve or maintain adequate market acceptance and penetration of our solutions, and our solutions may become less competitive or obsolete.

In addition, new, more effective or less costly technologies may emerge that use data sources that we do not have access to, that use entirely different analytical methodologies than we do or that use other indicators of purchases by consumers. If existing and new marketers and their agencies perceive greater value in alternative technologies or data sources, our ability to compete for marketers and their agencies could be materially and adversely affected.

A number of factors could impair our ability to collect the significant amounts of data that we use to deliver our solutions.

Our ability to collect and use data may be restricted or prevented by a number of other factors, including:

- the failure of our network or software systems, or the network or software systems of our FI partners;
- decisions by our FI partners to restrict our ability to collect data from them (which decision they may make at their discretion) or to refuse to implement the mechanisms that we request to ensure compliance with our legal obligations or technical requirements;
- decisions by our FI partners to limit our ability to use their purchase data outside of the applicable banking channel;
- decisions by our FIs' customers to opt out of the incentive program or to use technology, such as browser settings, that reduces our ability to deliver relevant advertisements;
- interruptions, failures or defects in our or our FI partners' data collection, mining, analysis and storage systems;
- changes in regulations impacting the collection and use of data, including the use of cookies;
- changes in browser or device functionality and settings, and other new technologies, which impact our FI partners' ability to collect and/or share data about their customers; and
- changes in international laws, rules, regulations and industry standards or increased enforcement of international laws, rules, regulations, and industry standards.

Any of the above-described limitations on our ability to successfully collect, utilize and leverage data could also materially impair the optimal performance of our solutions and severely limit our ability to target consumers, which would harm our business, financial condition and operating results.

The efficacy of some of our solutions depends upon third-party data providers.

We rely on several third parties to assist us in matching our anonymized identifiers, which we call Cardlytics IDs, with third-party identifiers to recognize the digital presence of our FIs' customers outside the FI channel. This matching process enables us to use purchase intelligence to measure in-store and online campaign sales impact or provide marketers with valuable visibility into the behaviors of current or prospective customers both within and outside the context of their marketing efforts. If any of these key data providers were to withdraw or withhold their identifiers from us, our ability to provide our Other Platform Solutions could be adversely affected. Replacements for these third-party identifiers may not be available in a timely manner or under economically beneficial terms, or at all.

Defects, errors or delays in our solutions could harm our reputation, which would harm our operating results.

The technology underlying our solutions may contain material defects or errors that can adversely affect our ability to operate our business and cause significant harm to our reputation. This risk is compounded by the complexity of the technology underlying our solutions and the large amounts of data that we leverage and process. In addition, with regard to our Cardlytics Direct solution, if we are unable to attribute Consumer Incentives to our FIs' customers in a timely manner, our FI partners may limit or discontinue their use of our solutions. Any such error, failure, malfunction, disruption or delay could result in damage to our reputation and could harm our business, financial condition and operating results.

Significant system disruptions or loss of data center capacity could adversely affect our business, financial condition and operating results.

Our business is heavily dependent upon highly complex data processing capabilities. We contract with our primary third-party data center, located in Atlanta, Georgia, and our redundancy data center, located in Suwanee, Georgia, pursuant to agreements that expire on December 31, 2020, subject to earlier termination upon material breach and a failure to cure. If for any reason our arrangements with our third-party data centers are terminated, or if we are unable to renew our agreements on commercially reasonable terms, we may be required to transfer that portion of our operations to new data center facilities, and we may incur significant costs and possible service interruption in connection with doing so. Further, protection of our third-party data centers against damage or interruption from fire, flood, tornadoes, power loss, telecommunications or equipment failure or other disasters and events beyond our control is important to our continued success. Any damage to, or failure of, the systems of the data centers that we utilize, or of our own equipment located within such data centers, could result in interruptions to the availability or functionality of our solutions. In addition, the failure of the data centers that we utilize to meet our capacity requirements could result in interruptions in the availability or functionality of our solutions or impede our ability to scale our operations. Any damage to the data centers that we utilize, or to our own equipment located within such data centers, that causes loss of capacity or otherwise causes interruptions in our operations could materially adversely affect our ability to quickly and effectively respond to our marketers' or FI partners' requirements, which could result in loss of their confidence, adversely impact our ability to attract new marketers and/or FI partners and force us to expend significant resources. The occurrence of any such events could adversely affect our business, financial condition and operating results.

Seasonal fluctuations in marketing activity could adversely affect our cash flows.

We expect our revenue, operating results, cash flows from operations and other key performance metrics to vary from quarter to quarter in part due to the seasonal nature of our marketers' spending on digital marketing campaigns. For example, many marketers tend to devote a significant portion of their budgets to the fourth quarter of the calendar year to coincide with consumer holiday spending and to reduce spend in the first quarter of the calendar year. Seasonality could have a material impact on our revenue, operating results, cash flow from operations and other key performance metrics from period to period.

Our international sales and operations subject us to additional risks that can adversely affect our business, operating results and financial condition.

In the years 2015, 2016, 2017 and the six months ended June 30, 2018, we derived 11%, 11%, 13% and 13%, respectively, of our revenue outside the U.S. We may continue to expand our international operations as part of our growth strategy. While we have an office in the U.K., substantially all of our operations are located in the U.S. Our ability to convince marketers to expand their use of our solutions or renew their agreements with us is directly correlated to our direct engagement with such marketers or their agencies. To the extent that we are unable to engage with non-U.S. marketers and agencies effectively with our limited sales force capacity, we may be unable to grow sales to existing marketers to the same degree we have experienced in the U.S.

Our international operations subject us to a variety of risks and challenges, including:

- localization of our solutions, including adaptation for local practices;
- increased management, travel, infrastructure and legal compliance costs associated with having international operations;
- fluctuations in currency exchange rates and related effect on our operating results;
- longer payment cycles and difficulties in collecting accounts receivable or satisfying revenue recognition criteria, especially in emerging markets;
- increased financial accounting and reporting burdens and complexities;
- general economic conditions in each country or region;
- economic uncertainty around the world;
- compliance with foreign laws and regulations and the risks and costs of non-compliance with such laws and regulations;
- compliance with U.S. laws and regulations for foreign operations, including the Foreign Corrupt Practices Act, the U.K. Bribery Act, import and export control laws, tariffs, trade barriers, economic sanctions and other regulatory or contractual limitations on our ability to sell our software in certain foreign markets, and the risks and costs of non-compliance;
- heightened risks of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of financial statements and irregularities in financial statements;
- difficulties in repatriating or transferring funds from or converting currencies in certain countries;
- cultural differences inhibiting foreign employees from adopting our corporate culture;
- reduced protection for intellectual property rights in some countries and practical difficulties of enforcing rights abroad; and
- compliance with the laws of foreign taxing jurisdictions and overlapping of different tax regimes.

Any of these risks could adversely affect our international operations, reduce our international revenues or increase our operating costs, adversely affecting our business, financial condition and operating results.

If we do not manage our growth effectively, the quality of our solutions may suffer, and our business, financial condition and operating results may be negatively affected.

The recent, rapid growth in our business has placed, and is expected to continue to place, a significant strain on our managerial, administrative, operational and financial resources, as well as our infrastructure. We rely heavily on information technology ("IT") systems to manage critical functions such as data storage, data processing, matching and retrieval, revenue recognition, budgeting, forecasting and financial reporting. To manage our growth effectively, we must continue to improve and expand our infrastructure, including our IT, financial and administrative systems and controls. In particular, we may need to significantly expand our IT infrastructure as the amount of data we store and transmit increases over time, which will require that we both utilize existing IT products and adopt new technologies. If we are not able to scale our IT infrastructure in a cost-effective and secure manner, our ability to offer competitive solutions will be harmed and our business, financial condition and operating results may suffer.

We must also continue to manage our employees, operations, finances, research and development and capital investments efficiently. Our productivity and the quality of our solutions may be adversely affected if we do not integrate and train our new employees quickly and effectively or if we fail to appropriately coordinate across our executive, research and development, technology, service development, analytics, finance, human resources, marketing, sales, operations and customer support teams. If we continue our rapid growth, we will incur additional expenses, and our growth may continue to place a strain on our resources, infrastructure and ability to maintain the quality of our solutions. If we do not adapt to meet these evolving challenges, or if the current and future members of our management team do not effectively manage our growth, the quality of our solutions may suffer and our corporate culture may be harmed. Failure to manage our future growth effectively could cause our business to suffer, which, in turn, could have an adverse impact on our business, financial condition and operating results.

Our corporate culture has contributed to our success, and if we cannot maintain it as we grow, we could lose the innovation, creativity and teamwork fostered by our culture, and our business may be harmed.

We are undergoing rapid growth. As of June 30, 2018, we had 356 employees. We intend to further expand our overall headcount and operations, with no assurance that we will be able to do so while effectively maintaining our corporate culture. We believe our corporate culture is one of our fundamental strengths as it enables us to attract and retain top talent and deliver superior results for our customers. As we grow and change, we may find it difficult to preserve our corporate culture, which could reduce our ability to innovate and operate effectively. In turn, the failure to preserve our culture could negatively affect our ability to attract, recruit, integrate and retain employees, continue to perform at current levels and effectively execute our business strategy.

We are dependent on the continued services and performance of our senior management and other key personnel, the loss of any of whom could adversely affect our business.

Our future success depends in large part on the continued contributions of our senior management and other key personnel, including our two founders, Scott Grimes, our Chief Executive Officer, and Lynne Laube, our Chief Operating Officer. In particular, the leadership of key management personnel is critical to the successful management of our company, the development of our solutions and our strategic direction. We do not maintain “key person” insurance for any member of our senior management team or any of our other key employees. Our senior management and key personnel are all employed on an at-will basis, which means that they could terminate their employment with us at any time, for any reason and without notice. The loss of any of our key management personnel could significantly delay or prevent the achievement of our development and strategic objectives and adversely affect our business.

If we are unable to attract, integrate and retain additional qualified personnel, including top technical talent, our business could be adversely affected.

Our future success depends in part on our ability to identify, attract, integrate and retain highly skilled technical, managerial, sales and other personnel, including top technical talent from the industry and top research institutions. We face intense competition for qualified individuals from numerous other companies, including other software and technology companies, many of whom have greater financial and other resources than we do. These companies also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than those we have to offer. In addition, new hires often require significant training and, in many cases, take significant time before they achieve full productivity. We may incur significant costs to attract and retain qualified personnel, including significant expenditures related to salaries and benefits and compensation expenses related to equity awards and we may lose new employees to our competitors or other companies before we realize the benefit of our investment in recruiting and training them. Moreover, new employees may not be or become as productive as we expect, as we may face challenges in adequately or appropriately integrating them into our workforce and culture. In addition, as we move into new geographies, we will need to attract and recruit skilled personnel in those areas. We have little experience with recruiting in geographies outside of the U.S., and may face additional challenges in attracting, integrating and retaining international employees. If we are unable to attract, integrate and retain suitably qualified individuals who are capable of meeting our growing technical, operational and managerial requirements, on a timely basis or at all, our business will be adversely affected.

If we do not effectively grow and train our sales team, we may be unable to add new marketers or increase sales to our existing marketers and our business will be adversely affected.

We continue to be substantially dependent on our sales team to obtain new marketers and to drive sales with respect to our existing marketers. We believe that the characteristics and skills of the best salespeople for our solutions are still being defined, as our market is relatively new. Further, we believe that there is, and will continue to be, significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training, integrating and retaining sufficient numbers of sales personnel to support our growth. New hires require significant training and it may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. In addition, as we continue to grow rapidly, a large percentage of our sales team will be new to our company and our solutions. If we are unable to hire and train sufficient numbers of effective sales personnel, or the sales personnel are not successful in obtaining new marketers or increasing sales to our existing marketers, our business will be adversely affected.

If currency exchange rates fluctuate substantially in the future, the results of our operations could be adversely affected.

Due to our international operations, we may be exposed to the effects of fluctuations in currency exchange rates. We generate revenue and incur expenses for employee compensation and other operating expenses at our U.K. office in the local currency. Fluctuations in the exchange rates between the U.S. dollar and the British pound could result in the dollar equivalent of such revenue and expenses being lower, which could have a negative net impact on our reported operating results. Although we may in the future decide to undertake foreign exchange hedging transactions to cover a portion of our foreign currency exchange exposure, we currently do not hedge our exposure to foreign currency exchange risks.

Our business may be subject to additional obligations to collect and remit sales tax and other taxes, and we may be subject to tax liability for past sales. Any successful action by state, local or other authorities to collect additional or past sales tax could adversely harm our business.

We are subject to federal, state and local taxes in the U.S. and similar taxes in foreign jurisdictions. Significant judgment is required in evaluating our tax positions and our worldwide provision for taxes. During the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. Although we believe that our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made.

We do not collect sales or other similar taxes in certain states and many of the states do not apply sales or similar taxes to certain of our solutions. State, local and foreign taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our solutions in various jurisdictions is unclear. We review these rules and regulations periodically and, when we believe we are subject to sales and use taxes in a particular state, we may voluntarily engage state tax authorities to determine how to comply with their rules and regulations. A successful assertion by one or more states, including states for which we have not accrued tax liability, requiring us to collect sales or other taxes with respect to sales of our solutions could result in substantial tax liabilities for past transactions, including interest and penalties, discourage customers from purchasing our solutions or otherwise harm our business, financial condition and operating results.

Determining our income tax rate is complex and subject to uncertainty.

The computation of provision for income tax is complex, as it is based on the laws of numerous taxing jurisdictions and requires significant judgment on the application of complicated rules governing accounting for tax provisions under generally accepted accounting principles in the U.S. Provision for income tax for interim quarters is based on a forecast of our U.S. and non-U.S. effective tax rates for the year, which includes forward looking financial projections, including the expectations of profit and loss by jurisdiction, and contains numerous assumptions. Various items cannot be accurately forecasted and future events may be treated as discrete to the period in which they occur. Our provision for income tax can be materially impacted, for example, by the geographical mix of our profits and losses, changes in our business, such as internal restructuring and acquisitions, changes in tax laws and accounting guidance and other regulatory, legislative or judicial developments, tax audit determinations, changes in our uncertain tax positions, changes in our intent and capacity to permanently reinvest foreign earnings, changes to our transfer pricing practices, tax deductions attributed to equity compensation and changes in our need for a valuation allowance for deferred tax assets. For these reasons, our actual income taxes may be materially different than our provision for income tax.

Our use of our net operating loss carryforwards may be limited and such carryforwards may expire unutilized or underutilized.

We may be limited in the portion of our net operating loss carryforwards that we can use in the future to offset taxable income for U.S. federal and state income tax purposes. As of December 31, 2017, we had U.S. federal and state net operating loss carryforwards ("NOLs"), of $220.5 million and $76.3 million, respectively, which expire in various years beginning in 2028. If we do not earn sufficient taxable income in the future, our NOLs may expire unutilized or underutilized. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its existing NOLs to offset future taxable income. We may have experienced “ownership changes” under Section 382 of the Code in the past, and subsequent changes in ownership of our stock, including by reason of future offerings, as well as other changes that may be outside of our control, could result in future ownership changes under Section 382 of the Code. If we are or become subject to limitations on our use of NOLs under Section 382 of the Code, our NOLs could expire unutilized or underutilized, even if we earn taxable income against which our NOLs could otherwise be offset. Our NOLs may also be impaired under similar provisions of state law. We have recorded a full valuation allowance related to our NOLs in our financial statements and other net deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

Comprehensive tax reform bills could adversely affect our business and financial condition.

The U.S. government recently enacted comprehensive tax legislation that includes significant changes to the taxation of business entities. These changes include, among others, (i) a permanent reduction to the corporate income tax rate, (ii) a partial limitation on the deductibility of business interest expense, (iii) a shift of the U.S. taxation of multinational corporations from a tax on worldwide income to a territorial system (along with certain rules designed to prevent erosion of the U.S. income tax base) and (iv) a one-time tax on accumulated offshore earnings held in cash and illiquid assets, with the latter taxed at a lower rate. Notwithstanding the reduction in the corporate income tax rate, the overall impact of this tax reform is uncertain, and our business and financial condition could be adversely affected. This Quarterly Report on Form 10-Q does not discuss any such tax legislation or the manner in which it might affect purchasers of our common stock. We urge our stockholders to consult with their legal and tax advisors with respect to any such legislation and the potential tax consequences of investing in our common stock.

Unfavorable conditions in the global economy or the vertical markets we serve could limit our ability to grow our business and negatively affect our operating results.

General worldwide economic conditions have experienced significant instability in recent years. These conditions make it extremely difficult for marketers and us to accurately forecast and plan future business activities, and could cause marketers to reduce or delay their marketing spending. Historically, economic downturns have resulted in overall reductions in marketing spending. If macroeconomic conditions deteriorate or are characterized by uncertainty or volatility, marketers may curtail or freeze spending on marketing in general and for services such as ours specifically.

In addition, our business may be materially and adversely affected by weak economic conditions in the specific vertical markets that we serve. We have historically generated a substantial majority of our revenue from marketers in the restaurant, brick and mortar retail, telecommunications and cable industries. We cannot predict the timing, strength or duration of any economic slowdown or recovery. In addition, even if the overall economy is robust, we cannot assure you that the market for services such as ours will experience growth or that we will experience growth.

Future acquisitions could disrupt our business and adversely affect our business, financial condition and operating results.

We may choose to expand by making acquisitions that could be material to our business, financial condition or operating results. Our ability as an organization to successfully acquire and integrate technologies or businesses is unproven. Acquisitions involve many risks, including the following:

- an acquisition may negatively affect our business, financial condition, operating results or cash flows because it may require us to incur charges or assume substantial debt or other liabilities, may cause adverse tax consequences or unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims and disputes, or may not generate sufficient financial return to offset additional costs and expenses related to the acquisition;
- we may encounter difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel or operations of any company that we acquire, particularly if key personnel of the acquired company decide not to work for us;
- an acquisition, whether or not consummated, may disrupt our ongoing business, divert resources, increase our expenses and distract our management;
- an acquisition may result in a delay or reduction of purchases for both us and the company that we acquired due to uncertainty about continuity and effectiveness of solution from either company;
- we may encounter difficulties in, or may be unable to, successfully sell any acquired products or solutions;
- an acquisition may involve the entry into geographic or business markets in which we have little or no prior experience or where competitors have stronger market positions;
- challenges inherent in effectively managing an increased number of employees in diverse locations;
- the potential strain on our financial and managerial controls and reporting systems and procedures;
- potential known and unknown liabilities associated with an acquired company;
- our use of cash to pay for acquisitions would limit other potential uses for our cash;
- if we incur debt to fund such acquisitions, such debt may subject us to material restrictions on our ability to conduct our business as well as financial maintenance covenants;
- the risk of impairment charges related to potential write-downs of acquired assets or goodwill in future acquisitions; and
- to the extent that we issue a significant amount of equity or convertible debt securities in connection with future acquisitions, existing stockholders may be diluted and earnings (loss) per share may decrease (increase).

We may not succeed in addressing these or other risks or any other problems encountered in connection with the integration of any acquired business. The inability to integrate successfully the business, technologies, products, personnel or operations of any acquired business, or any significant delay in achieving integration, could have a material adverse effect on our business, financial condition and operating results.

Natural or man-made disasters and other similar events may significantly disrupt our business, and negatively impact our business, financial condition and operating results.

A significant portion of our employee base, operating facilities and infrastructure are centralized in Atlanta, Georgia. Any of our facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, tornadoes, hurricanes, wildfires, floods, nuclear disasters, acts of terrorism or other criminal activities, infectious disease outbreaks and power outages, which may render it difficult or impossible for us to operate our business for some period of time. Our facilities would likely be costly to repair or replace, and any such efforts would likely require substantial time. Any disruptions in our operations could negatively impact our business, financial condition and operating results, and harm our reputation. In addition, we may not carry business insurance or may not carry sufficient business insurance to compensate for losses that may occur. Any such losses or damages could have a material adverse effect on our business, financial condition and operating results. In addition, the facilities of significant marketers, FI partners or third-party data providers may be harmed or rendered inoperable by such natural or man-made disasters, which may cause disruptions, difficulties or material adverse effects on our business.

We may require additional capital to support growth, and such capital might not be available on terms acceptable to us, if at all, which may in turn hamper our growth and adversely affect our business.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new solutions or enhance our solutions, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity, equity-linked or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or equity-linked securities, including convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities that we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing that we secure in the future could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, including the ability to pay dividends or repurchase shares of our capital stock. This may make it more difficult for us to obtain additional capital, to pursue business opportunities, including potential acquisitions, or to return capital to our stockholders. We also may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth, service our indebtedness and respond to business challenges could be significantly impaired, and our business may be adversely affected.

If we are not able to maintain and enhance our brand, our business, financial condition and operating results may be adversely affected.

We believe that developing and maintaining awareness of the Cardlytics brand in a cost-effective manner is critical to achieving widespread acceptance of our existing solutions and future solutions and is an important element in attracting new marketers and FI partners. Furthermore, we believe that the importance of brand recognition will increase as competition in our market increases. Successful promotion of our brand will depend largely on the effectiveness of our marketing efforts and on our ability to deliver valuable solutions for our marketers, their agencies and our FI partners. In the past, our efforts to build our brand have involved significant expense. Brand promotion activities may not yield increased revenue, and even if they do, any increased revenue may not offset the expenses that we incurred in building our brand. If we fail to successfully promote and maintain our brand, or incur substantial expenses in an unsuccessful attempt to promote and maintain our brand, we may fail to attract enough new marketers or FI partners or retain our existing marketers or FI partners and our business could suffer.

Risks Related to Regulatory and Intellectual Property Matters

Regulatory, legislative or self-regulatory developments regarding internet privacy matters could adversely affect our ability to conduct our business.

We, our FI partners and our marketers are subject to a number of domestic and international laws and regulations that apply to online services and the internet generally. These laws, rules and regulations address a range of issues including data privacy and cybersecurity, and restrictions or technological requirements regarding the collection, use, storage, protection, retention or transfer of data.

In the U.S., the rules and regulations to which we, directly or contractually through our FI partners, or our marketers may be subject include those promulgated under the authority of the Federal Trade Commission, the Electronic Communications Privacy Act, Computer Fraud and Abuse Act, Health Insurance Portability and Accountability Act, the Gramm-Leach-Bliley Act and state cybersecurity and breach notification laws, as well as regulator enforcement positions and expectations reflected in federal and state regulatory actions, settlements, consent decrees and guidance documents. Internationally, virtually every jurisdiction in which we operate has established its own data security and privacy legal frameworks with which we, directly or contractually through our FI partners, or our marketers may be required to comply, including the Data Protection Directive established in the European Union. Further, many federal, state and foreign government bodies and agencies have introduced, and are currently considering, additional laws and regulations. If passed, we will likely incur additional expenses and costs associated with complying with such laws. The costs of compliance with, and other burdens imposed by, the laws, rules, regulations and policies that are applicable to the businesses of our FI partners or marketers may limit the use and adoption of, and reduce the overall demand for, our solutions.

These existing and proposed laws, regulations and industry standards can be costly to comply with and can delay or impede the development of new solutions, result in negative publicity and reputational harm, increase our operating costs, require significant management time and attention, increase our risk of non-compliance and subject us to claims or other remedies, including fines or demands that we modify or cease existing business practices.

Legislation and regulation of online businesses, including privacy and data protection regimes, is expansive, not clearly defined and rapidly evolving. Such regulation could create unexpected costs, subject us to enforcement actions for compliance failures, or restrict portions of our business or cause us to change our business model.

Government regulation and industry standards may increase the costs of doing business online. Federal, state, municipal and foreign governments and agencies have adopted and could in the future adopt, modify, apply or enforce laws, policies, regulations and standards covering user privacy, data security, technologies such as cookies that are used to collect, store and/or process data, online marketing, the use of data to inform marketing, the taxation of products and services, unfair and deceptive practices, and the collection (including the collection of information), use, processing, transfer, storage and/or disclosure of data associated with unique individual internet users.

Although we have not collected or retained data that is traditionally considered PII under U.S. law, such as names, email addresses, addresses, phone numbers, social security numbers, credit card numbers, financial data or health data, we typically do collect and store IP addresses and other device identifiers, which are or may be considered personal data in some jurisdictions or otherwise may be the subject of legislation or regulation. Furthermore, we may elect to use PII in the future for our current solutions or solutions we may introduce. In addition, certain U.S. laws impose requirements on the collection and use of information from or about users or their devices. Other existing laws may in the future be revised, or new laws may be passed, to impose more stringent requirements on the use of identifiers to collect user information, including information of the type that we collect. Changes in regulations could affect the type of data that we may collect; restrict our ability to use identifiers to collect information, and, thus, affect our ability to actually collect that information; the costs of doing business online, and, therefore, the demand for our solutions; the ability to expand or operate our business; and harm our business.

In particular, there has been increasing public and regulatory concern and public scrutiny about the use of PII. Because the interpretation and application of privacy and data protection laws are still uncertain, it is possible that these laws may be interpreted and applied in a manner that is inconsistent with our existing data management practices or our solutions or that the definition of "PII" is expanded in the future. If this is the case, in addition to the possibility of fines, lawsuits and other claims, we could be required to fundamentally change our business activities and practices or modify our solutions, which could have a material adverse effect on our business, financial condition or operating results. Any inability to adequately address privacy concerns, even if unfounded, or comply with applicable privacy or data protection laws, regulations, policies or standards could result in additional cost and liability to us; damage our reputation; affect our ability to attract new marketers and FI partners and maintain relationships with our existing marketers and FI partners; and adversely affect our business, financial condition or operating results. Privacy and security concerns, whether valid or not, may inhibit market adoption of our solutions.

U.S. and non-U.S. regulators also may implement "Do-Not-Track" legislation, particularly if the industry does not implement a standard. Effective January 1, 2014, the California Governor signed into law an amendment to the California Online Privacy Protection Act of 2003. Such amendment requires operators of commercial websites and online service providers, under certain circumstances, to disclose in their privacy policies how such operators and providers respond to browser "do not track" signals.

Some of our activities may also be subject to the laws of foreign jurisdictions, whether or not we are established or based in such jurisdictions. Within the European Union, or EU, where we currently have an active presence in the U.K., Directive 2009/136/EC, commonly referred to as the “Cookie Directive,” directs EU member states to ensure that accessing information on an internet user’s computer, such as through a cookie, is allowed only if the internet user has given his or her consent. In response, some member states have implemented legislation requiring entities to obtain the user’s consent before placing cookies for targeted marketing purposes.

In the U.K., for example, the Privacy and Electronic Communications Regulations 2011, or PECR, implement the requirements of Directive 2009/136/EC (which amended Directive 2002/58/EC), which is known as the ePrivacy Directive. The PECR regulates various types of electronic direct marketing that use cookies and similar technologies. The PECR also imposes sector-specific breach reporting requirements, but only as applicable to providers of particular public electronic communications services. Additional EU member state laws of this type may follow.

We may be required to, or otherwise may determine that it is advisable to, develop or obtain additional tools and technologies to compensate for a potential lack of cookie data. Even if we are able to do so, such additional tools may be subject to further regulation, time consuming to develop or costly to obtain, and less effective than our current use of cookies. In addition, certain information, such as IP addresses as collected and used by us may constitute “personal data” in certain non-U.S. jurisdictions, including in the U.K., and therefore certain of our activities could be subject to EU laws applicable to the processing and use of personal data.

More generally, the regulatory framework for online services and data privacy and security issues worldwide can vary substantially from jurisdiction to jurisdiction, is rapidly evolving and is likely to remain uncertain for the foreseeable future. Many federal, state and foreign government bodies and agencies have adopted or are considering adopting laws, rules, regulations and standards regarding the collection, use, storage and disclosure of information, web browsing and geolocation data collection and data analytics. Interpretation of these laws, rules and regulations and their application to our solutions in the U.S. and foreign jurisdictions is ongoing and cannot be fully determined at this time.

In addition, the regulatory environment for the collection and use of consumer data by marketers is evolving in the U.S. and internationally and is currently a self-regulatory framework, which relies on market participants to ensure self-compliance. The voluntary nature of this self-regulatory framework may change.

The U.S. and foreign governments have enacted, considered or are considering legislation or regulations that could significantly restrict industry participants’ ability to collect, augment, analyze, use and share anonymous data, such as by regulating the level of consumer notice and consent required before a company can place cookies or other tracking technologies. A number of existing bills are pending in the U.S. Congress that contain provisions that would regulate how companies can use cookies and other tracking technologies to collect and utilize user information.

In addition to government regulation, privacy advocates and industry groups may propose new and different self-regulatory standards that either legally or contractually apply to us. We may also be subject to claims of liability or responsibility for the actions of third parties with whom we interact or upon whom we rely in relation to various solutions, including but not limited to our marketers and their agencies and our FI partners. If this were to occur, in addition to the possibility of fines, lawsuits and other claims, we could be required to fundamentally change our business activities and practices or modify our solutions, which could have an adverse effect on our business. Any inability to adequately address privacy and security concerns, even if unfounded, or comply with applicable privacy or data protection laws, regulations and policies, could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business.

In addition, if we were to gain knowledge that we inadvertently received PII from our FI partners, our failure to comply with applicable laws and regulations, or to protect personal data, could result in enforcement action against us, including fines, imprisonment of our officers and public censure, claims for damages by consumers and other affected individuals, damage to our reputation and loss of goodwill, any of which could have a material adverse impact on our operations, financial performance and business. Even the perception of privacy or security concerns, whether or not valid, may harm our reputation and inhibit adoption of our solution by current and future marketers and marketing agencies.

If the use of matching technologies, such as cookies, pixels and device identifiers, is rejected by internet users, restricted or otherwise subject to unfavorable terms, such as by non-governmental entities, our performance may decline and we may lose customers and revenue.

Our solutions may use matching technologies, such as cookies, pixels and device identifiers, to match the Cardlytics IDs we have assigned to our FIs' customers with their digital presence outside of the FI partners' websites and mobile applications. Our matching technologies may sometimes be "third-party cookies" because they are placed on individual browsers when internet users visit a website that is not part of the Cardlytics.com domain. These matching technologies are placed through an internet browser on an internet user's computer and correspond with a data set that we retain on our servers. Our matching technologies only record anonymized information and the date that the matching technology was last refreshed. When our matching technologies are present and a user is exposed to marketing content targeted or deployed with our solutions, we are able to gain insight into that user's interaction with the marketing content. If our access to matching technology data is reduced, our ability to conduct our business in the current manner may be affected and thus undermine the effectiveness of our solutions.

Internet users may easily block and/or delete cookies (e.g., through their browsers or "ad blocking" software). The most commonly used internet browsers allow internet users to modify their browser settings to prevent cookies from being accepted by their browsers, or are set to block third-party cookies by default. If more browser manufacturers and internet users adopt these settings or delete their cookies more frequently than they currently do, our business could be negatively affected. Some government regulators and privacy advocates have suggested creating a "Do Not Track" standard that would allow internet users to express a preference, independent of cookie settings in their browser, not to have website browsing recorded. If internet users adopt a "Do Not Track" browser setting and the standard either gets imposed by state or federal legislation or agreed upon by standard-setting groups, it may curtail or prohibit us from using non-personal data as we currently do. This could hinder growth of marketing on the internet generally, and cause us to change our business practices and adversely affect our business, financial condition and operating results.

In addition, browser manufacturers could replace cookies with their own product and require us to negotiate and pay them for use of such product to record information about internet users' interactions with our marketers, which may not be available on commercially reasonable terms, or at all.

Failure to protect our proprietary technology and intellectual property rights could substantially harm our business, financial condition and operating results.

Our future success and competitive position depend in part on our ability to protect our intellectual property and proprietary technologies. To safeguard these rights, we rely on a combination of patent, trademark, copyright and trade secret laws and contractual protections in the U.S. and other jurisdictions, all of which provide only limited protection and may not now or in the future provide us with a competitive advantage.

As of June 30, 2018, we had four issued patents and are pursuing six additional patents. We cannot assure you that any patents will issue from any patent applications, that patents that issue from such applications will give us the protection that we seek or that any such patents will not be challenged, invalidated, or circumvented. Any patents that may issue in the future from our pending or future patent applications may not provide sufficiently broad protection and may not be enforceable in actions against alleged infringers. We have registered the "Cardlytics" name and logo in the U.S. and certain other countries. We have registrations and/or pending applications for additional marks in the U.S. and other countries; however, we cannot assure you that any future trademark registrations will be issued for pending or future applications or that any registered trademarks will be enforceable or provide adequate protection of our proprietary rights. We also license software from third parties for integration into our products, including open source software and other software available on commercially reasonable terms. We cannot assure you that such third parties will maintain such software or continue to make it available.

In order to protect our unpatented proprietary technologies and processes, we rely on trade secret laws and confidentiality agreements with our employees, consultants, vendors and others. Despite our efforts to protect our proprietary technology and trade secrets, unauthorized parties may attempt to misappropriate, reverse engineer or otherwise obtain and use them. Bank of America also has a right to purchase the source code underlying Cardlytics Direct upon the occurrence of specified events, which could compromise the proprietary nature of our platform and/or allow Bank of America to discontinue the use of our solutions. Additionally, other FIs have a right to obtain the source code underlying Cardlytics Direct through the release of source code held in escrow upon the occurrence of specified events, which could compromise the proprietary nature of our platform and/or allow these FIs to discontinue the use of our solutions.

In addition, others may independently discover our trade secrets, in which case we would not be able to assert trade secret rights, or develop similar technologies and processes. Further, the contractual provisions that we enter into may not prevent unauthorized use or disclosure of our proprietary technology or intellectual property rights and may not provide an adequate remedy in the event of unauthorized use or disclosure of our proprietary technology or intellectual property rights. Moreover, policing unauthorized use of our technologies, trade secrets and intellectual property is difficult, expensive and time-consuming, particularly in foreign countries where the laws may not be as protective of intellectual property rights as those in the U.S. and where mechanisms for enforcement of intellectual property rights may be weak. We may be unable to determine the extent of any unauthorized use or infringement of our solutions, technologies or intellectual property rights.

From time to time, legal action by us may be necessary to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the intellectual property rights of others or to defend against claims of infringement or invalidity. Such legal action could result in substantial costs and diversion of resources and could negatively affect our business, financial condition and operating results.

Assertions by third parties of infringement or other violations by us of their intellectual property rights, whether or not correct, could result in significant costs and harm our business, financial condition and operating results.

Patent and other intellectual property disputes are common in our industry. We have in the past and may in the future be subject to claims alleging that we have misappropriated, misused, or infringed other parties' intellectual property rights. Some companies, including certain of our competitors, own larger numbers of patents, copyrights and trademarks than we do, which they may use to assert claims against us. Third parties may also assert claims of intellectual property rights infringement against our FI partners, whom we are typically required to indemnify. As the numbers of solutions and competitors in our market increases and overlap occurs, claims of infringement, misappropriation and other violations of intellectual property rights may increase. Any claim of infringement, misappropriation or other violation of intellectual property rights by a third party, even those without merit, could cause us to incur substantial costs defending against the claim and could distract our management from our business.

The patent portfolios of our most significant competitors are larger than ours. This disparity may increase the risk that they may sue us for patent infringement and may limit our ability to counterclaim for patent infringement or settle through patent cross-licenses. In addition, future assertions of patent rights by third parties, and any resulting litigation, may involve patent holding companies or other adverse patent owners who have no relevant product revenues and against whom our own patents may therefore provide little or no deterrence or protection. There can be no assurance that we will not be found to infringe or otherwise violate any third-party intellectual property rights or to have done so in the past.

An adverse outcome of a dispute may require us to:

- pay substantial damages, including treble damages, if we are found to have willfully infringed a third party's patents or copyrights;
- cease developing or selling solutions that rely on technology that is alleged to infringe or misappropriate the intellectual property of others;
- expend additional development resources to attempt to redesign our solutions or otherwise develop non-infringing technology, which may not be successful;
- enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies or intellectual property rights; and
- indemnify our FI partners and other third parties.

In addition, royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. Some licenses may also be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Any of the foregoing events could seriously harm our business, financial condition and operating results.

Our use of open source software could negatively affect our ability to sell our solutions and subject us to possible litigation.

We use open source software to deliver our solutions and expect to continue to use open source software in the future. Some of these open source licenses may require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. This may require that we make certain proprietary code available under an open source license. We may face claims from others claiming ownership of, or seeking to enforce the license terms applicable to such open source software, including by demanding release of the open source software, derivative works or our proprietary source code that was developed using such software. Few of the licenses applicable to open source software have been interpreted by courts, and there is a risk that these licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. These claims could also result in litigation, require us to purchase costly licenses or require us to devote additional research and development resources to change the software underlying our solutions, any of which would have a negative effect on our business, financial condition and operating results and may not be possible in a timely manner. We and our customers may also be subject to suits by parties claiming infringement due to the reliance by our solutions on certain open source software, and such litigation could be costly for us to defend or subject us to an injunction. In addition, if the license terms for the open source code change, we may be forced to re-engineer our software or incur additional costs. Finally, we cannot assure you that we have not incorporated open source software into the software underlying our solutions in a manner that may subject our proprietary software to an open source license that requires disclosure, to customers or the public, of the source code to such proprietary software. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our solutions and technologies and materially and adversely affect our ability to sustain and grow our business. Many open source licenses also limit our ability to bring patent infringement lawsuits against open source software that we use without losing our right to use such open source software. Therefore, the use of open source software may limit our ability to bring patent infringement lawsuits, to the extent we ever have any patents that cover open source software that we use.

We are subject to government regulation, including import, export, economic sanctions and anti-corruption laws and regulations that may expose us to liability and increase our costs.

Various of our products are subject to U.S. export controls, including the U.S. Department of Commerce’s Export Administration Regulations and economic and trade sanctions regulations administered by the U.S. Treasury Department’s Office of Foreign Assets Controls. These regulations may limit the export of our products and provision of our solutions outside of the U.S., or may require export authorizations, including by license, a license exception or other appropriate government authorizations, including annual or semi-annual reporting and the filing of an encryption registration. Export control and economic sanctions laws may also include prohibitions on the sale or supply of certain of our products to embargoed or sanctioned countries, regions, governments, persons and entities. In addition, various countries regulate the importation of certain products, through import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products. The exportation, reexportation, and importation of our products and the provision of solutions, including by our partners, must comply with these laws or else we may be adversely affected, through reputational harm, government investigations, penalties and a denial or curtailment of our ability to export our products or provide solutions. Complying with export control and sanctions laws may be time consuming and may result in the delay or loss of sales opportunities. Although we take precautions to prevent our products from being provided in violation of such laws, our products may have previously been, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. Changes in export or import laws or corresponding sanctions, may delay the introduction and sale of our products in international markets, or, in some cases, prevent the export or import of our products to certain countries, regions, governments, persons or entities altogether, which could adversely affect our business, financial condition and results of operations.

We are also subject to various domestic and international anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, as well as other similar anti-bribery and anti-kickback laws and regulations. These laws and regulations generally prohibit companies and their employees and intermediaries from authorizing, offering or providing improper payments or benefits to officials and other recipients for improper purposes. We rely on certain third parties to support our sales and regulatory compliance efforts and can be held liable for their corrupt or other illegal activities, even if we do not explicitly authorize or have actual knowledge of such activities. Although we take precautions to prevent violations of these laws, our exposure for violating these laws increases as our international presence expands and as we increase sales and operations in foreign jurisdictions.

Risks Related to Ownership of Our Common Stock

An active trading market for our common stock may not develop or be sustained.

Prior to our initial public offering ("IPO") on February 8, 2018, there was no public market for our common stock. Although our common stock is listed on the Nasdaq Global Market, we cannot assure you that an active trading market for our shares will be sustained. If an active market for our common stock is not sustained, it may be difficult for investors in our common stock to sell shares without depressing the market price for the shares or to sell the shares at all.

The market price of our common stock has been and is likely to continue to be volatile.

The market price of our common stock may be highly volatile and may fluctuate substantially as a result of a variety of factors, some of which are related in complex ways. Since shares of our common stock were sold in our initial public offering in February 2018 at a price of $13.00 per share, our stock price has ranged from an intraday low of $11.10 to an intraday high of $25.71 through June 30, 2018. Factors that may affect the market price of our common stock include:

- actual or anticipated fluctuations in our financial condition and operating results;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in the prices of our solutions;
- changes in laws or regulations applicable to our solutions;
- announcements by us or our competitors of significant business developments, acquisitions or new offerings;
- our involvement in litigation;
- our sale of our common stock or other securities in the future;
- changes in senior management or key personnel;
- trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic, regulatory and market conditions.

The stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry fluctuations, as well as general economic, political, regulatory and market conditions, may negatively impact the market price of our common stock. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management’s attention.

We do not intend to pay dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

Concentration of ownership among our current directors, executive officers and their affiliates may limit an investor's ability to influence significant corporate decisions.

Our directors and executive officers, together with their affiliates, beneficially own a significant portion of our outstanding capital stock. As a result, these stockholders, acting together, will have substantial influence over the outcome of matters submitted to our stockholders for approval, including the election of directors and approval of significant corporate transactions, such as a merger or other sale of our company or its assets. This concentration of ownership could delay, defer or prevent a change in control of the company, merger, consolidation, takeover or other business combination, which in turn could adversely affect the market price of our common stock.

Future sales of our common stock in the public market could cause our share price to decline.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales, particularly sales by our directors, executive officers, and significant stockholders, may have on the prevailing market price of our common stock. The shares of common stock subject to outstanding options under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans, as well as shares issuable upon vesting of restricted stock unit awards, will become eligible for sale in the public market in the future, subject to certain legal and contractual limitations. In addition, certain holders of our common stock have the right, subject to various conditions and limitations, to request we include their shares of our common stock in registration statements we may file relating to our securities.

We may issue common stock or other securities if we need to raise additional capital. The number of new shares of our common stock issued in connection with raising additional capital could constitute a material portion of our then-outstanding shares of our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If our financial performance fails to meet analyst estimates or one or more of the analysts who cover us downgrade our stock or change their opinion of our business or market value, our share price would likely decline. If one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the U.S.

Generally accepted accounting principles in the U.S. are subject to interpretation by the Financial Accounting Standards Board ("FASB"), the U.S. Securities and Exchange Commission ("SEC"), and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and could affect the reporting of transactions completed before the announcement of a change.

In particular, in May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which supersedes the revenue recognition requirements in Accounting Standards Codification, or ASC, Topic 605, *Revenue Recognition*, and permits the use of either the retrospective or modified retrospective transition method. The core principle of ASU 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. As an "emerging growth company," the Jumpstart our Business Startups Act of 2012, or JOBS Act, allows us to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. We have elected to use this extended transition period under the JOBS Act with respect to ASU 2014-09, which will result in ASU 2014-09 becoming applicable to us on January 1, 2019. During the first quarter of 2018, we began assessing the impacts, if any, that this ASU may have on our results of operations, current accounting policies, processes, controls, systems and financial statement disclosures. Based on our initial assessment, we expect to adopt this new standard using the modified retrospective transition method that will result in a cumulative adjustment as of the date of the adoption. We are continuing to assess the impact of this standard on our financial position, results of operations and related disclosures and have not yet determined whether the effect will be material.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act ("Section 404"), reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

As an "emerging growth company," the JOBS Act allows us to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. We have elected to use this extended transition period under the JOBS Act. As a result, our consolidated financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors.

We have incurred and will continue to incur increased costs as a result of being a public company.

As a newly public company, and particularly after we are no longer an "emerging growth company," we have incurred and we will continue to incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Stock Market and other applicable securities rules and regulations impose various requirements on public companies. We expect that compliance with these requirements will continue to increase certain of our expenses and make some activities more time-consuming than they have been in the past when we were a private company. Such additional costs going forward could negatively affect our financial results.

As a result of becoming a public company, we will be obligated to develop and maintain proper and effective internal control over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We will be required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting on an annual basis, beginning with our 2019 fiscal year. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting until our first annual report required to be filed with the SEC following the date we are no longer an "emerging growth company," as defined in the JOBS Act. We will be required to disclose significant changes made in our internal control procedures on a quarterly basis.

We have commenced the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404, and we may not be able to complete our evaluation, testing and any required remediation in a timely fashion. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

During the evaluation and testing process of our internal controls, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition and operating results. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change in control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws will include provisions that:

- authorize our board of directors to issue preferred stock without further stockholder action and with voting liquidation, dividend and other rights superior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent, and limit the ability of our stockholders to call special meetings;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for director nominees;
- establish that our board of directors is divided into three classes, with directors in each class serving three-year staggered terms;
- require the approval of holders of two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our amended and restated bylaws or amend or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors and the ability of stockholders to take action by written consent or call a special meeting;
- prohibit cumulative voting in the election of directors; and
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder. Any of the foregoing provisions could limit the price that investors might be willing to pay in the future for shares of our common stock, and they could deter potential acquirers of our company, thereby reducing the likelihood that you would receive a premium for your shares of our common stock in an acquisition.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Pursuant to our amended and restated certificate of incorporation, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws or (4) any action asserting a claim governed by the internal affairs doctrine. The forum selection clause in our amended and restated certificate of incorporation may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities

Issuances of Common Stock upon the Exercise of Warrants

On May 9, 2018 we issued 52,016 shares of our common stock upon the net exercise of warrants to purchase 59,404 shares of our common stock to one accredited investor.

The issuance of the securities described in the preceding paragraph was deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act or Regulation D promulgated thereunder or Rule 701 promulgated under the Securities Act as a transaction by an issuer not involving a public offering. The recipient of securities in this transaction acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the securities issued in this transaction.

Use of Proceeds from Initial Public Offering of Common Stock

On February 13, 2018, we closed our IPO in which we issued and sold 5,400,000 shares of common stock at a public offering price of $13.00 per share, resulting in gross proceeds of $70.2 million. On February 14, 2018, pursuant to the underwriters' partial exercise of their over-allotment option to purchase up to an additional 810,000 shares from us, we issued and sold an additional 421,355 shares of our common stock, resulting in incremental gross proceeds of $5.5 million. All of the shares issued and sold in our IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-222531), which was declared effective by the SEC on February 8, 2018. Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC acted as joint book-running managers of our IPO. Wells Fargo Securities, LLC and SunTrust Robinson Humphrey, Inc. also acted as book-runners for the IPO. Raymond James & Associates, Inc. and KeyBanc Capital Markets Inc. acted as the co-managers for the IPO.

The net proceeds to us, after deducting underwriting discounts and commission of approximately $5.3 million and offering expenses of approximately $4.3 million, were approximately $66.1 million. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning ten percent or more of any class of our equity securities or to any other affiliates. There has been no material change in the planned use of proceeds from our IPO from those disclosed in the final prospectus for our IPO dated February 8, 2018 and filed with the SEC pursuant to Rule 424(b)(4) of the Securities Act on February 9, 2018.

Purchases of Equity Securities

We did not purchase any of our registered equity securities during the period covered by this Quarterly Report on Form 10-Q.

ITEM 6. EXHIBITS

The exhibits listed below are filed or incorporated by reference into this Quarterly Report on Form 10-Q.

		Incorporated by Reference				
Exhibit	Exhibit Description	Schedule /Form	File Number	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of the Registrant	S-1	333-222531	3.2	1/12/2018	
3.2	Amended and Restated Bylaws of the Registrant	S-1	333-222531	3.4	1/12/2018	
10.1#	Master Agreement and Schedule #1 to the Master Agreement, dated May 3, 2018 and May 7, 2018, respectively, by and between the Company and JPMorgan Chase Bank, National Association					X
10.2	Loan and Security Agreement, dated as of May 21, 2018, among Cardlytics, Inc., as Borrower and Pacific Western Bank, as Lender					X
21.1	Subsidiaries of the Registrant					X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1*	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
101.ins	XBRL Instance Document					X
101.sch	XBRL Taxonomy Schema Linkbase Document					X
101.cal	XBRL Taxonomy Calculation Linkbase Document					X
101.def	XBRL Taxonomy Definition Linkbase Document					X
101.lab	XBRL Taxonomy Label Linkbase Document					X
101.pre	XBRL Taxonomy Presentation Linkbase Document					X

Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Securities and Exchange Commission.

* The certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Cardlytics, Inc.

Date: August 14, 2018	By:	/s/ Scott D. Grimes
		Scott D. Grimes Chief Executive Officer *(Principal Executive Officer)*
Date: August 14, 2018	By:	/s/ David T. Evans
		David T. Evans Chief Financial Officer *(Principal Financial and Accounting Officer)*

Exhibit 10.1

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

MASTER AGREEMENT

This MASTER AGREEMENT (together with the Exhibits attached hereto or incorporated into this document, this "**Agreement**") is entered into as of the effective date indicated in the signature box below (the "**Effective Date**") by and between JPMORGAN CHASE BANK, NATIONAL ASSOCIATION, a national banking association ("**JPMC**") and the Supplier named in the signature box below ("**Supplier**").

JPMC and Supplier, by signing in the signature blanks below, agree to the terms set forth in this Agreement.

Master Contract ID Number: CW2552009

Effective Date: May 3, 2018

CARDLYTICS, INC.	**JPMORGAN CHASE BANK, NATIONAL ASSOCIATION**
By: /s/ Scott Grimes	By: /s/ Carmen Miranda
Name: Scott Grimes	Name: Carmen Miranda
Title: CEO	Title: Vice President
Date: 5/3/2018	Date: 5/3/2018

For JPMC, notice must be sent to the following address:

	With a copy to:
JPMorgan Chase Bank, N.A.	JPMorgan Chase Bank, N.A.
Contracts Management	Legal Department
Mail Code OH1-0638	Mail Code NY1-E088
1111 Polaris Parkway, Suite 1N	4 New York Plaza, 21st Floor
Columbus, Ohio 43240-0638	New York, New York 10004-2413
Attn: Contracts Manager	Attn: Workflow Manager
Reference: Contract ID No. CW2552009	Reference: Contract ID No. CW2552009
Fax: (614) 213-9455	Fax: (212) 383-0800

For Supplier, notices will be sent to the following address:

Cardlytics, Inc.
675 Ponce de Leon Ave., Suite 6000
Atlanta, GA 30308
Attention: Legal Department

The parties acknowledge and agree that this **Agreement** may be signed using a digital image of the signing party's hand-written signature and that such electronic signature will be considered legally binding.

NOTE THAT THE PAGE NUMBERS WITHIN THIS EXHIBIT 10.1 MAY NOT CORRESPOND TO THE PAGE NUMBERS WITHIN THE TABLE OF CONTENTS WITHIN THE CONTRACT AS EXECUTED.

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1.AGREEMENT STRUCTURE.

1.1 Schedules.

(a) The parties will agree on the goods, licensed materials or services that Supplier will provide (each, a "**Deliverable**"), the prices that JPMC will pay and other transaction-specific terms through schedules to this Agreement ("**Schedules**"). Each Schedule will either be (a) a separate document that is signed by both JPMC and Supplier; (b) a proposal or other offer to provide goods or services by Supplier that is accepted by an authorized representative of JPMC via email; or (c) a JPMC purchase order, electronic (e.g., "Procure to Pay") or otherwise, that is accepted by Supplier and references either this Agreement or a Schedule. Each Schedule will be deemed to incorporate all of the terms of this Agreement. If a term in a Schedule conflicts with a term in this Agreement, the provisions of this Agreement will prevail unless the term in the Schedule specifically states that it will prevail. If a term in a Schedule conflicts with a term in a purchase order that is issued pursuant to that Schedule, the provisions of the Schedule will prevail unless the purchase order specifically states that the term in the purchase order shall prevail. If terms in this Agreement conflict, the term most closely describing the type of transaction giving rise to the issue will prevail. In the event that Supplier provides any goods, licensed material or services prior to or without executing a Schedule hereunder, Supplier agrees that the terms of this Agreement will apply to the provision of such goods, licensed materials or services.

1.2 Entities Entering into Schedules.

(b) JPMC or any of its Affiliates (each, a "**JPMC Entity**" and collectively, "**JPMorgan Chase & Co.**") may enter into Schedules. The term "**Affiliate**" means an entity owned by, controlling, controlled by, or under common control with, directly or indirectly, a party. For this purpose, one entity "**controls**" another entity if it has the power to direct the management and policies of the other entity (for example, through the ownership of voting securities or other equity interest, representation on its board of directors or other governing body, or by contract). The benefits of any Schedule extend to the JPMC Entity that signs the Schedule and to other JPMC Entities, customers, employees, suppliers, business partners and divested companies (each, a "**Recipient**").

1.3 Each Schedule Is a Separate Agreement.

(c) Each Schedule will be a separate agreement between Supplier and the JPMC Entity that signs the Schedule. All subsequent references to "**JPMC**" in this Agreement will be deemed references to the JPMC Entity that signed the Schedule. Only the JPMC Entity that signs a Schedule will be liable for such JPMC Entity's obligations under that Schedule. Notwithstanding anything to the contrary contained in this Agreement or any Schedule, in no event will any JPMC Entity that is a bank be deemed to be a guarantor of, or otherwise liable for, any performance or payment obligation of any other JPMC Entity in connection with this Agreement or any Schedule.

(d)

1.4 Schedule Term.

(e) A Schedule may state a term for that Schedule (the "**Schedule Term**"). A Schedule that does not state a Schedule Term will be effective from its effective date until the termination of this Agreement, unless otherwise terminated in accordance with this Agreement or the Schedule. Following the Schedule Term stated in any Schedule, JPMC will have the right to renew the Schedule Term with respect to services for up to five additional one year renewal terms.

1.5 Interpretation of Certain Terms.

(f) The term "**including**" means including without limitation. The term "**days**" refers to calendar days. "**Business Day**" means Monday through Friday, excluding any official JPMC holidays. "**Agent**" means third party consultants, outsourcers, contractors and other service providers. When used in this Agreement, the phrases "**represents and warrants**" and "**represents, warrants and covenants**" mean that the representations, warranties, and covenants are deemed given as of the Effective Date and on an ongoing basis throughout the term of this Agreement and throughout each Schedule Term.

1.6 Country Specific Terms.

(g) JPMC and Supplier agree that outside of the United States, the Deliverables may be subject to mutually acceptable country unique terms and conditions which may require amending or supplementing this Agreement as appropriate. To the extent possible, the JPMC Entity located outside of the United States will order Deliverables directly from Supplier entity in the applicable country. Supplier entity in the applicable country will supply the Deliverables and invoice such JPMC Entity in local currency and such JPMC Entity will pay Supplier entity in the applicable country in local currency.

2. COMMUNICATIONS.

2.1 Relationship Managers.

(a) Each party will name one of its employees as the primary liaison with the other party for each Schedule (each, a "**Relationship Manager**"). The Relationship Managers will serve as the parties' points of contact. In addition, Supplier shall list in the applicable Schedule a primary cybersecurity point of contact with current contact information.

2.2 Notices.

(a) All notices must be in writing and in the English language and will be deemed given only when sent by mail or post (return receipt requested), hand-delivered or sent by documented overnight delivery service to the party to whom the notice is directed, at its address indicated in the signature box on the first page of this document or if different, its address indicated in the applicable Schedule. In addition, where this Agreement states that notice will be given "immediately" after an event occurs, the notifying party will also send an immediate e-mail message to the other party's Relationship Manager. Notices to be given "promptly" will be given, in any event, within five days.

A party may change its address for notices by sending a change of address notice using this notice procedure.

2.3 Notice of Inability to Perform or Other Change of Status.

(a) Supplier will notify JPMC promptly of any actual or threatened occurrence of any event described in Section 19.3 or any other event that materially affects in an adverse manner, or that could reasonably be expected to materially affect in an adverse manner, Supplier's ability to perform fully its obligations to any Recipient. Events or conditions that Supplier must report include (a) any material breach (whether or not cured) of any (i) representation, warranty, covenant or obligation of Supplier or any Supplier Affiliate or subcontractor under this Agreement, or (ii) other agreement between Supplier or any Supplier Affiliate and JPMC or any JPMC Affiliate; (b) any actual, threatened or reasonably alleged violation of any applicable Law and any JPMC instructions regarding the processing of Personal Information which would violate any applicable Law against, (i) Supplier, (ii) any Supplier Affiliate, (iii) any Supplier Personnel or (iv) any entity that is a party to or an Affiliate of a party to any agreement for the merger, acquisition, divestiture of any similar arrangement involving Supplier or any Supplier Affiliate; (c) any act or omission that compromises the integrity of JPMC Data or systems used for transmitting, processing, storing or otherwise handling JPMC Data, including unauthorized or suspicious intrusion into such systems, improper access to or misuse of JPMC Data or Supplier data, and internal security policy violations ("**Security Breach**"); and (d) any risks or control issues that have been identified that could prevent fulfillment of Supplier's obligations under this Agreement, along with, where applicable, information on any systems and processes that have been established to monitor and manage them.

2.4 Financial Information.

(a) Upon JPMC's request, Supplier will provide JPMC with quarterly financial statements, audited fiscal year-end financial statements, any filings made with any regulatory or governmental bodies asserting jurisdiction over JPMorgan Chase & Co. and any other financial information requested by JPMC in its reasonable discretion to assess Supplier's financial status and its ability to perform its obligations to JPMC. The quarterly financial statements shall be certified as being true, complete and correct in all material respects by Supplier's president or most senior financial officer. Further, to assess Supplier's financial status, JPMC may use any Supplier information already in JPMC's possession, whether received as a result of this Agreement or any other relationship Supplier has with JPMC. Supplier will promptly notify JPMC of any material adverse changes in Supplier's financial stability.

2.5 Audits.

(a) Upon JPMC's request with reasonable notice, Supplier will permit, for each Schedule, technical, financial and operational audits of Supplier and its Affiliates and their respective subcontractors, including locations at or from which the Deliverables are provided, related to the subject matter of this Agreement as applicable to each Schedule, by the internal and external auditors and personnel of JPMorgan Chase & Co. and regulators (collectively, "**Auditors**"). Audits by internal

or external auditors and personnel of JPMorgan Chase & Co. will not occur more than twice in any calendar year per Schedule unless such audit is materially different in scope from a preceding audit or JPMC has a good faith belief that Supplier is in material breach of the Agreement. During each audit, Supplier will grant the Auditors reasonable access to Supplier's books, records, third-party audit and examination reports, systems, facilities, controls, processes, procedures, service level measurement systems, and actual service levels to the extent related to a reasonable assessment of Supplier's performance of its obligations to JPMC. Supplier will, in a timely manner, fully cooperate with the Auditors and provide the Auditors all assistance as they may reasonably request in connection with the audit, including as related to JPMC efforts to validate any Supplier control environment. Additionally, Supplier will retain timely, accurate and comprehensive information that will allow JPMC to monitor performance, service levels and risks under this Agreement. Supplier will provide reports of such information to JPMC upon request from time to time, including those reports as may be set forth in the applicable Schedule. The Auditors will seek to avoid disrupting Supplier's operations during the audit. If the Auditors document either an overcharge of the fees for the audited period or a material breach of Supplier's obligations, Supplier will promptly (a) reimburse JPMC for its reasonable cost of performing the audit if the overcharge is more than two percent of the fees for the audited period, (b) reimburse JPMC for any overcharge (c) promptly correct any identified breach, and (d) such audit shall not be counted for the purposes of the limitation in the second sentence above.

2.6 Vulnerability Assessment, Notification and Remediation.

(a) Supplier will cooperate with JPMC in connection with efforts to assess and remediate vulnerabilities that could compromise the data, systems, or critical functioning of the information technology infrastructure of JPMC or its clients or customers or that impacts Supplier's external-facing, internal or partner environments or the products or services Supplier provides to JPMC. To that end, Supplier will (a) actively monitor industry resources (e.g., www.cert.org, pertinent software vendor mailing lists and websites and information from subscriptions to automated notification services) for applicable security alerts and immediately notify JPMC upon the discovery of a critical vulnerability in its external-facing, internal, subcontractor or partner environments or in the products or services Supplier provides to JPMC (each, a "**Critical Vulnerability**"); (b) respond in writing within 48 hours to an inquiry made by JPMC about the impact of a known Critical Vulnerability, (c) within 72 hours of either (i) Supplier's discovery of a Critical Vulnerability or (ii) receipt of a JPMC inquiry about a Critical Vulnerability, provide JPMC with a written and detailed plan to appropriately and urgently remediate such Critical Vulnerability; and (d) provide JPMC with written confirmation as soon as each such Critical Vulnerability has been remediated. After JPMC advises Supplier in writing of its intent to do so, Auditors are entitled to conduct vulnerability scans of Supplier's and its subcontractors' and applicable service providers' external-facing environments.

2.7 Publicity.

(a) Supplier will not: (a) use the name, trade name, trademark, logo branding, any derivatives of the foregoing or any other identifying marks of JPMorgan Chase & Co. or its Affiliates in any sales, marketing or publicity activities or materials in the promotion of any individual or entity

other than JPMorgan Chase & Co. or its Affiliates in connection with the Services, including, but not limited to, the promotion of the Supplier, or (b) issue any press release, interviews or other public statement regarding this Agreement or the parties' relationship without the prior written consent of both the JPMorgan Chase & Co. Global Media Relations Department and a Managing Director within JPMorgan Chase & Co.'s sourcing organization. JPMC may revoke any consent it grants pursuant to this Section 2.7 at any time for any reason and Supplier shall remove any and all references to JPMC from all marketing and advertising collateral within 30 days of notice of such.

3. DELIVERY, INSTALLATION AND TRAINING.

3.1 Pre-Delivery Testing.

(a) General.

Before Supplier delivers any Deliverable to a JPMC Entity or a Recipient, or provides access to any Deliverable to the extent they will be delivered remotely, Supplier will verify that the Deliverable is in full compliance with all applicable specifications, including functional, performance and operational characteristics described in this Agreement, the applicable Schedule and/or Supplier's written proposals, all related documentation ("**Documentation**") or other written information provided to JPMorgan Chase & Co. about the Deliverable ("**Compliance**"). Upon JPMC's request, Supplier will permit JPMC or any Recipient (or its designees) to observe that verification and obtain a report of all results.

(b) Software Deliverables.

To the extent that Supplier is providing or using deployed software, whether in any JPMC's, Supplier's or any other test or production environment, or providing any software development services for JPMC, Supplier shall demonstrate the maturity of controls in its development process. In conjunction with delivery of the software, Supplier agrees to complete a vBSIMM assessment and provide to JPMC applicable documentation and/or artifacts which substantiate that the following software development controls are in place for the scope of the Deliverables being provided to JPMC hereunder: (i) security requirements documented during the requirements phase of the software development life cycle; (ii) architectural framework(s) designed for resiliency and security; (iii) static code analysis during development (secure code review of the entire code base based on, at a minimum, the Open Web Application Security Project (OWASP) Top 10 and SysAdmin, Audit, Networking, and Security Institute (SANS) Top 25 software security risks or comparable replacement); (iv) dynamic scanning of web-facing applications and penetration testing of internal applications, using industry standard testing methodologies during the build process or quality assurance process; (v) open source code used in Supplier-provided applications must be appropriately licensed, inventoried and evaluated for security defects, and (vi) security vulnerability management. If Supplier is unable to substantiate that the software is free of material security defects (i.e., no critical or high risk defects) through the above assessment, Supplier will conduct a software vulnerability scan (using an industry standard tool, e.g., Veracode), or submit to application scanning from a JPMC-approved vendor, and (x) share the detailed results of that scan with JPMC; (y) to the extent that scan identifies any critical or high risk vulnerabilities, Suppler will remediate those vulnerabilities before implementation of the software into production (whether the software is hosted

by JPMC, Supplier or a third party on behalf of either); and (z) develop and implement remediation plan(s) to address any other vulnerabilities to JPMC's reasonable satisfaction (such plan to be provided to JPMC) with the remediation occurring as soon as reasonably practicable, not to exceed six months of the discovery of such vulnerabilities.

If Supplier provides an externally facing application as part of the Services ("**Externally Facing Application**"), at no additional cost to JPMC, Supplier will provide a production like instance of the Externally Facing Application for JPMC software vulnerability scanning purposes. Supplier will ensure the instance is up to date within 30 days of written communication from JPMC of the pending scanning activities. To the extent that scan identifies any critical or high risk vulnerabilities, Supplier will remediate those vulnerabilities within five days (whether the Externally Facing Application is hosted by Supplier or a third party on behalf of Supplier). Further, Supplier will develop and implement remediation plan(s) to address any other vulnerabilities to JPMC's reasonable satisfaction (such plan to be provided to JPMC) with the remediation completed as soon as reasonably practicable, not to exceed six months of the discovery of such vulnerabilities.

Nothing in this Section 3.1(b) limits any rights of JPMC to conduct any audits, assessments, scans or the like pursuant to this Agreement or the applicable Schedule. If Supplier does not respond timely to the above obligations, as determined by JPMC, JPMC may perform such audits, assessments, scans and the like, and Supplier will promptly reimburse JPMC for all reasonable costs associated with its efforts.

3.2 Delivery.

(a) Supplier will deliver or provide access to each Deliverable and Documentation to be provided under any Schedule to JPMC or the applicable Recipient(s) in the quantities, on the date(s) and/or to the place(s) specified in that Schedule, and, if so provided in the applicable Schedule, install each Deliverable at JPMC or Recipient, in the quantities, at the locations and on or before the dates specified in the applicable Schedule. If Supplier fails to do so, JPMC may, at its option: (a) extend the required date and receive from Supplier, as liquidated damages and not as a penalty, the late delivery discount set forth in the applicable Schedule, or (b) terminate the applicable Schedule(s), in whole or in part, and receive from Supplier a refund of all amounts paid to Supplier relative to the late Deliverable.

3.3 Postponement.

(a) JPMC may at any time, upon notice to Supplier, postpone Supplier's scheduled provision of any Deliverable(s). This notice will specify the commencement and estimated duration of the postponement. Upon receiving the notice of postponement, Supplier will implement the postponement and, during the period of postponement, properly care for and protect all Deliverables in progress. JPMC may withdraw any postponement by notice to Supplier, in which case Supplier will resume its provision of the Deliverables after a reasonable resumption period.

3.4 Training.

(a) Training (if any) to be provided by Supplier with respect to the Deliverables will be specified in the applicable Schedule.

4. TESTING, CORRECTION AND ACCEPTANCE.

(a) Each Deliverable will be subject to acceptance by JPMC as follows:

4.2 Acceptance Testing.

(a) After a Deliverable has been delivered, installed and configured and is ready for production in accordance with Section 3.2, JPMC will have 45 days (or another time period as may be agreed in writing by the parties in the applicable Schedule) (the "**Acceptance Testing Period**") to verify that the Deliverable is in Compliance. Supplier will provide all reasonable assistance to JPMC or Recipient in connection with this testing.

4.3 Correction.

(a) If, during the Acceptance Testing Period, JPMC or a Recipient finds that a Deliverable is not in Compliance, JPMC will describe to Supplier in reasonable detail why the Deliverable is not in Compliance. Within five Business Days (or another time period as may be agreed in writing by the parties in the applicable Schedule) after receipt of that description (the "**Correction Period**"), Supplier will, at no additional cost to JPMC, render the Deliverable in Compliance. If Supplier fails to render the Deliverable in Compliance within the Correction Period, JPMC may (a) extend the Correction Period; or (b) terminate the applicable Schedule, in whole or in part, for material breach immediately by notice and obtain from Supplier a full refund of all amounts paid by JPMC under the applicable Schedule(s).

4.4 Acceptance.

(a) Notice of Acceptance.

If JPMC determines that a Deliverable is in Compliance, JPMC will notify Supplier that the Deliverable has been accepted ("**Acceptance**" or "**Accepted**"). Acceptance will be implied: (i) if Supplier gives JPMC notice after the Acceptance Testing Period requesting JPMC provide a formal notice of Acceptance and JPMC fails to respond within five Business Days; or (ii) if JPMC puts the Deliverable into full production for 15 Business Days. Acceptance will not be implied from any other event. Thus, for example, Acceptance will not be implied if JPMC uses the Deliverable in limited production, authorizes work on subsequent Deliverables, or makes a milestone payment.

(b) Component Deliverables.

If a Deliverable (a "**Component Deliverable**") is to be integrated with another Deliverable (which may be an enhancement) (an "**Integrated Deliverable**"), JPMC's Acceptance of the Component Deliverable will be not final until Supplier successfully integrates the Component Deliverable with the Integrated Deliverable and JPMC Accepts those Integrated Deliverables. For example, if Supplier is to provide a system consisting of multiple modules, JPMC's Acceptance of

any individual module will not be final until JPMC Accepts all of the modules integrated together as a complete system.

(c) No Waiver.

Acceptance does not waive any of JPMC's rights to warranty and maintenance service for the Deliverable, even if JPMC knows of the problems prior to Acceptance.

4.5 Quiet Enjoyment.

(a) Upon Acceptance, Supplier will not disturb JPMC's or Recipient's quiet enjoyment of the Deliverables.

5. COMPENSATION.

5.1 Invoices.

(a) Supplier will invoice JPMC for the fees and expenses, if any, due and owing under each Schedule in accordance with the JPMC Supplier Invoicing Guidelines (a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm or is otherwise available from JPMC upon request) and the terms set forth in the applicable Schedule. Supplier will invoice JPMC only for Deliverables Accepted prior to the invoice date and, if applicable, only for hours spent actually performing authorized services for JPMC. If a Schedule specifically states that no Acceptance is required in connection with the performance of the services and no time frame for invoice is specified, then Supplier will invoice JPMC within 30 days following the completion of all related services under that Schedule. Each invoice will be in a form acceptable to JPMC, including, if applicable, electronic (e.g., "Procure to Pay"). Each invoice will provide enough detailed information, including identification of charges that are and are not subject to taxation, to allow JPMC to verify all fees and expenses and to satisfy JPMC internal accounting requirements as may be described in the applicable Schedule. At a minimum, each invoice will include the following:

(a) General.

All invoices will identify: (i) the applicable Schedule and Agreement numbers, (ii) the applicable purchase order number (if any), (iii) dates when each Deliverable was provided and, if applicable, (iv) the taxing jurisdiction(s) in which each Deliverable was provided.

(b) Invoices for Licensed or Purchased Goods.

Invoices for licensed or purchased goods will also include: (i) the name and description of the good, (ii) the part number or other identifier of the good, (iii) the quantity of Deliverables being licensed or purchased, (iv) the unit price for the good, (v) if applicable, the level of discount being applied and (vi) the total dollar amount owed.

(c) Invoices for Services.

Invoices for services and maintenance will also include, if applicable: (i) a brief description of the services provided, (ii) the quantity of hours worked, (iii) the names and hourly rates of each individual performing the services, (iv) the tasks performed, (v) the dates of performance, (vi) the service code number or other identifier for the services (if any) and (vii) the total dollar amount owed.

(d) Address.

Unless otherwise specified by JPMC, Supplier will send all invoices to the address specified in the applicable Schedule.

5.2 Prices, Rates and Payments.

(a) The prices and rates for the Deliverables will be as set forth in the applicable Schedule. All payments will be made in U.S. Dollars. JPMC will pay all undisputed amounts on each invoice within 60 days after JPMC’s receipt of an accurate invoice, i.e., an invoice showing only undisputed amounts, provided however, JPMC may take a two percent discount off any amounts due under any accurate invoice as long as JPMC pays within 10 Business Days of receipt of the invoice. JPMC will have no obligation to pay any charges and expenses that Supplier fails to invoice to JPMC within 120 days after the charges or expenses were incurred.

5.3 Rate Changes and Most Favored Customer.

(a) Rate Changes.

The rates and prices provided under any Schedule will not be increased by Supplier during the Schedule Term. For any renewal terms, rates and prices will not be increased by Supplier more than once annually and by more than the lower of: (i) cumulative rise in CPI; (ii) the percentage increase in the rates or prices generally charged by Supplier; or (iii) three percent. The term “**CPI**” means the Consumer Price Index for All Urban Consumers for the US City Average for all Items, 1982-1984 Equal 100 Base, as reported by the US Department of Labor’s Bureau of Labor Statistics. In the event that the CPI decreases, then the rates and prices will be decreased by Supplier in accordance with the cumulative decline in CPI.

(b) Most Favored Customer.

[intentionally omitted]

5.4 Expenses.

(a) Only when agreed to in the applicable Schedule will JPMC pay reasonable and actual (meaning without mark-up or administrative fee), pre-approved in writing travel and communications expenses (for which Supplier can provide receipts) incurred by Supplier to perform services under this Agreement and only in accordance with the JPMorgan Chase Supplier Travel Policy (a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm or is otherwise available from JPMC upon request). For the avoidance of doubt, JPMC will benefit from any rebates provided to Supplier by the travel and

communications service providers regardless of whether they are reflected on the receipts or are applied at some other time. If JPMC reimburses for meals or entertainment costs incurred by Supplier, any Internal Revenue Code Section 274 limitation on deductibility of the costs will be assumed by Supplier, not JPMC.

5.5 Credits.

(a) Any credits due to JPMC will be applied on the next invoice for the applicable Schedule against amounts then due and owing, unless such invoice will be issued more than 180 days from the credits' accrual in which case Supplier will pay the credit amount directly to JPMC. If any credit is due to JPMC after the termination or expiration of the applicable Schedule, Supplier will pay the amount of the credit to JPMC within 30 days after such termination or expiration. All credits will be credited or paid in U.S. Dollars only.

5.6 Right to Set Off.

(a) JPMC will have the right to set off amounts owed by Supplier or any of Supplier's Affiliates to JPMorgan Chase & Co. against amounts payable under this Agreement.

5.7 Invoice Disputes.

(a) In the event of a good faith dispute with regard to one or more item(s) appearing on an invoice, JPMC may withhold the disputed amount while the parties attempt to resolve the dispute in accordance with Section 18. JPMC's withholding of that payment prior to resolution of the dispute will not constitute a breach of this Agreement or be grounds for Supplier to suspend its provision of Deliverables.

5.8 Taxes.

(a) Supplier will be responsible for any sales, service, value-added, use, excise, consumption and any other taxes and duties on the goods or services it purchases or consumes or uses in providing the Deliverables, including taxes imposed on Supplier's acquisition or use of such goods or services.

(b) Unless JPMC provides Supplier with a valid and applicable exemption certificate, within a commercially reasonable time, JPMC will reimburse Supplier for sales, use, excise, services, consumption and other taxes or duties (excluding value-added tax and analogous taxes which are addressed in subsection (c) below) that Supplier is permitted or required to collect from JPMC and which are assessed on the purchase, license and/or supply of Deliverables and for which Supplier invoices JPMC before the expiration of the later of the applicable JPMC's or Supplier's statutory period for assessment of deficiencies as long as the parties comply with the notification requirements in subsection (j) below. JPMC will not be responsible for any penalties related to the tax obligations of Supplier unless: (i) such penalties accrue solely based on the actions or

inactions of JPMC and (ii) JPMC had received reasonable prior written notice from Supplier that the actions or inactions of JPMC will be the sole basis for such. Supplier will be responsible for remitting applicable taxes. If JPMC should pay any tax to Supplier and if it is later held that that tax was not due, Supplier will refund the amount paid to JPMC, together with all related interest paid by the applicable taxing authority.

(c) Except as otherwise provided in this Section 5.8, JPMC will be responsible for self-assessing any value-added taxes that are due on the provision of services to JPMC by Supplier, its agents, representatives or subcontractor, or the charges for such services (including the reimbursement of expenses if any). If a value-added tax is later assessed against Supplier on the provision of services however levied or assessed unless the assessment of value-added tax is due to a change in applicable Law, Supplier will be responsible for such value-added tax. If the assessment is due to a change in applicable Law, both parties will negotiate in good faith and agree on a commercial resolution to this issue to their mutual satisfaction. Failing an agreement between the parties on such adjustment, JPMC reserves the right to terminate the affected Schedule without penalty.

(d)

(i) When services are specifically identified in a Schedule as being liable to value-added taxes, Supplier will be responsible for levying such taxes on the provision of the services and JPMC will be responsible for paying said taxes in addition to the consideration payable subject to notification requirements on audit in subsection (j) below.

(ii) When a Schedule involves the delivery of goods to a JPMC location in a country which imposes a value-added tax or analogous tax, unless JPMC specifically accepts in the Schedule responsibility for self-assessing such tax on the supply of the goods, Supplier will be responsible for levying such taxes on the provision of the goods and JPMC will be responsible for paying said taxes in addition to the consideration payable subject to notification requirements on audit in subsection (j) below.

(iii) If JPMC should pay to Supplier an amount by way of value-added tax (or analogous tax) and if it is later held that such tax was not due, Supplier will refund the amount paid to JPMC, together with all related interest paid by the applicable taxing authority.

(e) JPMC and Supplier (for itself and its agents, representatives and subcontractors) will each bear sole responsibility for all taxes, assessments and other real property related levies on its owned or leased real property, personal property (including software), franchise and privilege taxes on its business, and taxes based on its net income or gross receipts. A party's personnel will not be considered employees of the other party by reason of their provision or acceptance of Deliverables under this Agreement and each party will bear sole responsibility for all payroll and employment taxes relating to their own personnel.

(f) Any additional taxes assessed on Supplier's provision of goods or services resulting from Supplier's change in location originally contemplated pursuant to the Schedule or

which results from the relocation or redirection of the delivery including temporary storage, of such goods or services, either of which is made solely for Supplier's convenience, will be paid by Supplier.

(g) JPMC may deduct withholding taxes, if any, from payments to Supplier where required under applicable Law and will provide to Supplier any documentation required to be provided to Supplier under applicable Law. JPMC will, at Supplier's written request, provide Supplier with appropriate receipts for any taxes so withheld to the extent that JPMC has received such receipts from the applicable taxing authority.

(h) JPMC and Supplier will cooperate to segregate the charges and fees payable hereunder into taxable and nontaxable categories. Where taxable and nontaxable items must be separated on the Supplier's invoice, as required by applicable Law, to support the taxable and nontaxable classification, Supplier will so separately state the portion of the goods or services and associated charges and fees which are (i) subject to sales, use, value-added or excise taxes, and (ii) not subject to any sales, use, value-added or excise taxes. Supplier's invoice will state the total amount of sales, use, value-added or excise taxes applicable to the transaction that Supplier is collecting from JPMC for taxable items.

(i) If applicable, for all goods or services delivered, installed and/or performed, as the case may be, at certain JPMC locations described in the letter from the New York City Industrial Development Agency ("**IDA**"), as may be amended and restated, known as the Letter Of Authorization For Sales Tax Exemption (a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm or is otherwise available from JPMC upon request.). JPMC will be deemed to have ordered such goods or services in its own name as agent for the IDA for the purposes of qualifying for exemption from New York State and New York City sales and use taxes.

(j) JPMC and Supplier will reasonably cooperate to more accurately determine each party's tax liability for transaction taxes incurred as a result of this Agreement. JPMC and Supplier will provide and make available to the other party any certificates or information reasonably requested by such other party. If Supplier comes under audit by any taxing authorities and an audit issue arises that would create liability for JPMC in connection with this Agreement, then Supplier will notify JPMC of such audit issue in accordance with Section 2.2 to allow JPMC to assist in challenging the potential assessment. If notice is not provided to JPMC, Supplier forfeits its ability to collect from JPMC any audit assessments and then Supplier becomes liable for the audit assessment. If either party is assessed a deficiency for taxes, which are the responsibility of the other party pursuant to this Agreement, the assessed party will make a reasonable effort to notify the responsible party of such assessment. Each party also will have the right to challenge the imposition of taxes for which it is financially responsible under this Agreement or if necessary, to request the other party to challenge the imposition of such taxes. If either party requests the other party to challenge the imposition of any tax, such request will not be unreasonably denied, providing that the requesting party will be responsible for all fines, penalties, interest, additions to taxes or similar liabilities imposed in connection therewith plus any legal fees and other expenses related to such challenge.

Each party will be entitled to any tax refunds or rebates granted, including any interest paid thereon, to the extent such refunds or rebates are of taxes that were paid by it.

(k) For the purposes of value-added tax and analogous taxes in subsection (d) above, the term "**goods**" will mean tangible movable property provided by Supplier to JPMC, legal title to which passes from Supplier to JPMC, and the term "**services**" includes goods provided by Supplier to JPMC without title passing to JPMC.

5.9 Records.

(a) Supplier will keep and maintain complete and accurate accounting records in accordance with United States generally accepted accounting principles consistently applied, to support and document all amounts payable to Supplier under any Schedule. Supplier shall not incorporate any JPMC Data into its business records unless expressly set forth in the applicable Schedule.

6. SERVICES TERMS.

6.1 Performance of Services.

(a) Supplier will provide the services described in each Schedule (the "**Services**") in accordance with this Agreement and that Schedule. The location at or from which Supplier will provide the Services, whether owned or operated by Supplier or any Supplier Personnel, (the "**Service Location**"), will be identified in the applicable Schedule. Supplier will not change any Service Location without JPMC's prior written consent, whether the proposed new Service Location is within or outside the jurisdiction of the then-current Service Location. If a Schedule describes Services in a general or summary manner, the Services will include not only services specifically described but also those that are an inherent, necessary or a customary part of those services.

6.2 Electronic Schedule Process for Services.

(a) The terms specified in a Schedule for the performance of Services may be subject to an electronic process whereby the parties will enter into Schedules electronically by the exchange and acceptance of online documentation ("**Electronic Schedule Process**"). Pursuant to the Electronic Signatures in Global and National Commerce Act, 15 U.S.C. §§7001-3 to 7031, the parties' exchange and acceptance of online documentation will constitute electronic signatures which have the same legal validity as the parties' paper signatures would have if the Schedule were signed in hard copy form. Supplier will read and review the content of all screenshots and other online information pertinent to a Schedule presented by JPMC to Supplier online ("**Electronic Schedule**") before assenting electronically to perform the Services. In order to signify assent by electronic signature to the terms for performance of Services specified in an Electronic Schedule, Supplier's authorized employee already identified as logged into the Electronic Schedule Process will click the designated "Accept" button for the box containing the following Electronic Schedule Process acceptance language:

(b) "I have read the terms of the JPMorgan Chase Electronic Schedule and on behalf of Supplier, I hereby accept these terms and conditions for the Services to be performed."

(c) Any signature required in Section 20.13 may be in electronic form if through the Electronic Schedule Process described in this Section 6.2.

6.3 Timing of Services.

(a) Supplier will begin providing the Services on the date specified in the applicable Schedule. If the Schedule does not specify a start date, Supplier will begin providing the Services on the effective date of the applicable Schedule. Notwithstanding the foregoing, JPMC acknowledges that not all aspects of the Services will be provided beginning on the effective date of the applicable Schedule unless the Schedule specifically states that all aspects of the Services will be provided beginning on the effective date of the applicable Schedule. Supplier will complete the Services on the date(s) specified in the Schedule. If the Schedule does not specify completion date(s), Supplier will complete the Services in a timely manner.

6.4 Materials, Facilities and Assistance for Performance of Services.

(a) Supplier will provide all necessary equipment and related materials, including specialized equipment and the like, to perform the Services and neither JPMC nor any Recipient will be required to provide any work space, equipment, materials, training, supervision or other assistance in connection with the Services.

(b)

6.5 New Services.

(a) Definition of New Services.

"**New Services**" are services that are materially different from or in addition to the Services described in outstanding Schedules. JPMC may ask Supplier to provide New Services from time to time.

(b) Request; Authorization of New Services.

Within a commercially reasonable amount of time after receiving JPMC's request, Supplier will provide JPMC with a written proposal for the New Services, including a detailed description of the cost, scope, and requirements for such New Services and any effect on the Services described in outstanding Schedules. Supplier will not begin providing, and JPMC will have no liability for, any New Services unless and until the parties have executed a written amendment to the applicable Schedule or a new Schedule for the New Services.

(c) Cost.

Other than approved costs relating to any pre-approved New Services, JPMC will not be liable for any costs associated with any modifications, enhancements, or replacements of or to the Services.

6.6 Pre-Engagement Screening; Drug Testing; Background Checks of Supplier Personnel.

(a) As a participant in a highly regulated industry, JPMC has certain requirements (as may be amended from time to time by JPMC, the "**JPMC Requirements**") that will apply to Designated Supplier Personnel. There are two types of Designated Supplier Personnel: Category I Designated Supplier Personnel and Category II Designated Supplier Personnel. Category I Designated Supplier Personnel and Category II Designated Supplier Personnel are collectively referred to as "**Designated Supplier Personnel**". Supplier represents, warrants and covenants that it will not assign any Designated Supplier Personnel to JPMC if such person has been convicted of, pled guilty or no contest to, or participated in a pre-trial diversion program for felony or multiple misdemeanor offenses involving crimes of dishonesty or breach of trust including theft; money laundering; embezzlement; or the manufacture, sale, distribution of, or trafficking in controlled substances; or criminal conspiracy. Supplier will comply with all JPMC Requirements (where permitted by applicable Law) and agrees that all assignments of Designated Supplier Personnel made pursuant to this Agreement or any applicable Schedule will be made in accordance with the JPMC Requirements.

(b) "**Category I Designated Supplier Personnel**" are: (i) Supplier Personnel that are assigned to provide Services on-site at a JPMorgan Chase & Co. location and that will receive a JPMorgan Chase & Co. identification access badge; or (ii) Supplier Personnel that have access to networks or systems of JPMorgan Chase & Co. whether such Supplier Personnel are working on-site at a JPMorgan Chase & Co. location or off-site.

(c) With respect to all Category I Designated Supplier Personnel, Supplier will comply, and cause the Category I Designated Supplier Personnel to comply, with JPMC's Minimum Control Requirements-Contingent Labor (a current copy of which is located at http://www.jpmorganchase.com/corporate/About-JPMC/supplier-personnel-policies.htm or is otherwise available from JPMC upon request), as well as any procedures set forth in the applicable Schedule.

(d) "**Category II Designated Supplier Personnel**" are Supplier Personnel who, as part of the Services, have access to JPMC Data or customer property (tangible or intangible).

(e) If, at any time, JPMC determines, in its sole discretion, that any Category II Designated Supplier Personnel has or will have access to any highly sensitive JPMC Data, JPMC may, upon notice to Supplier convert the relevant Category II Designated Supplier Personnel to Category I Designated Supplier Personnel and the JPMC Requirements for Category I Designated Supplier Personnel specified in Section (g) below will apply as of the date of Supplier's receipt of such notice from JPMC, Supplier having a reasonable period of time to comply with JPMC Requirements.

(f) Any Designated Supplier Personnel who do not successfully meet or comply with any of the then-current JPMC Requirements will not be assigned, or if applicable, will not continue in an assignment, to provide Services to JPMC and Supplier will promptly replace such Designated Supplier Personnel at no additional charge to JPMC; provided, however, such failure to meet or comply with any of the applicable JPMC Requirements

will not affect such individual's eligibility for employment with Supplier or any Supplier subcontractor, as the case may be.

(g) The JPMC Requirements require that on or before the first day of the assignment, all Category I Designated Supplier Personnel:

(i) Submit to pre-engagement screening in accordance with the then-current JPMC Pre-Engagement Screening Process Guide (a current copy of which is located at http://www.jpmorganchase.com/corporate/About-JPMC/supplier-personnel-policies.htm or is otherwise available from JPMC upon request), all at JPMC's sole cost and expense;

(ii) Submit to and successfully pass a drug test (administered by Supplier or a third party hired by Supplier, in each case at Supplier's sole cost and expense) that complies with the then-current JPMC Drug Testing Policy (a current copy of which is located at http://www.jpmorganchase.com/corporate/About-JPMC/supplier-personnel-policies.htm or is otherwise available from JPMC upon request);

(iii) Agree to have his/her photograph taken; and

(iv) Agree to complete privacy and data protection training, subject to local employment law, as required and as defined by the JPMC line of business or corporate group engaging the Category I Designated Supplier Personnel.

(h) The JPMC Requirements require that on or before the first day of the assignment, all Category II Designated Supplier Personnel:

(i) Will have been submitted to and passed a background check (including criminal background checks) conducted by Supplier or a third party vendor contracted by Supplier ("**Supplier Background Checks**"). As between Supplier and JPMC, Supplier is solely responsible for all expenses associated with such Supplier Background Checks. Upon request, Supplier will provide JPMC with the written policies and procedures governing such Supplier Background Checks. The Supplier Background Checks will, if permitted by law, at a minimum, meet the national standards for employment screening as set forth in the Federal Fair Credit Reporting Act (FCRA), as updated from time to time and include, at a minimum, a certification of county, state & federal criminal records, national criminal database records, international criminal records searches, social security number validation, and OFAC and other prohibited parties searches. In the event of a conflict between the FCRA and any state law (including state labor codes and guidelines), the more thorough requirements will govern. Supplier will not provide the detailed results of the Supplier Background Checks to JPMC. No less than quarterly, Supplier will review the roster of current Category II Designated Supplier Personnel and ensure that each one passed the Supplier Background Checks.

(ii) Will complete privacy and data protection training applicable to obligations under this Agreement. Supplier will maintain an outline of the training topics that were included in the Supplier training, ensure that the topics align to

obligations under this Agreement and applicable Schedule, and make the outline available to JPMC upon written request. Upon request, Supplier will provide the names of Supplier Personnel who completed the training and the training dates.

6.7 Right of Supplier Personnel to Work in a Country.

(a) For Services performed within a given country, Supplier will assign only Supplier Personnel who are either citizens of that country or legally eligible to work there. Supplier represents and warrants that it has complied and will comply with the immigration Laws of the countries in which the Services are performed.

6.8 Replacement of Supplier Personnel.

(a) If JPMC or Recipient determines that the continued assignment to JPMC's account of any Supplier Personnel is not in the best interests of JPMC, JPMC may request in writing that the individual be replaced. Within 24 hours after Supplier's receipt of that request, Supplier will remove that individual from JPMC's account and all JPMorgan Chase & Co. facilities and within five days replace that individual with Supplier Personnel of suitable ability and qualifications at no additional cost to JPMC. JPMC will not be invoiced for any work performed by that individual if JPMC's request for removal and replacement of that individual is made within the first 10 Business Days of that individual's assignment to JPMC's account. Additionally, JPMC shall not be obligated to pay for any time that replacement Supplier Personnel spend performing Services until such time as the replacement Supplier Personnel have reached the level of proficiency required to effectively perform their required roles as JPMC determines in its sole and reasonable discretion.

(b) Supplier agrees to notify JPMC immediately in the event that any Designated Supplier Personnel ceases to work on behalf of Supplier with respect to the provision of the Services. Supplier's notice will contain the name of the Designated Supplier Personnel, the date of the cessation of the Services by such Designated Supplier Personnel, the JPMC Standard or Global Identification Number, as the case may be, for such Designated Supplier Personnel, if applicable, information with respect to the systems, if any, to which such Designated Supplier Personnel had access, and a list of all JPMC property, assets and equipment, if any, held by such Supplier Personnel ("**JPMC Returnable Property**"). Supplier will collect and secure all JPMC Returnable Property and will promptly return it to JPMC together with any identification cards, secure tokens and other access or status authorizations issued to such Personnel, or to Supplier for use by such Supplier Personnel. All notices pursuant to this Section (b) will be given as provided in this Agreement unless otherwise specified in the applicable Schedule.

6.9 Compliance with Procedures in Performance of Services.

(a) Supplier will, and will ensure that the Supplier Personnel will: (a) while visiting or accessing JPMorgan Chase & Co.'s or any Recipient's facilities, comply with JPMorgan Chase

& Co.'s or any Recipient's then-current safety and security procedures, including pre-screening requirements, and other rules and regulations applicable to JPMorgan Chase & Co. or Recipient personnel at those facilities, (b) comply with all reasonable requests of JPMorgan Chase & Co. or Recipient personnel, as applicable, pertaining to personal and professional conduct, including Supplier Personnel training requirements, (c) comply with JPMorgan Chase & Co.'s Supplier Code of Conduct, a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm or is otherwise available from JPMC upon request, and (d) otherwise conduct themselves in an ethical, professional and businesslike manner. Supplier will provide Supplier Personnel with adequate training regarding JPMorgan Chase & Co. Supplier Code of Conduct, compliance with applicable Laws and the proper provision (including as may be otherwise described in this Agreement or the applicable Schedule) of Services and other Deliverables. If JPMC so requests, based on a reasonable belief that any Supplier Personnel has breached any of the foregoing obligations, Supplier will immediately, within 24 hours, remove any such Supplier Personnel from performing Services to JPMC.

6.10 Services Warranty.

(a) In addition to the other warranties given by Supplier, Supplier represents and warrants that it will perform the Services: (a) in a good, timely, efficient, professional and workmanlike manner using then-current technology, (b) using Supplier Personnel who are fully familiar with the technology, processes and procedures to be used to deliver the Services, (c) with at least the degrees of accuracy, quality, efficiency, completeness, timeliness and responsiveness as are equal to or higher than the accepted industry standards applicable to the performance of the same or similar services and (d) in Compliance and in accordance with the provisions of this Agreement and the applicable Schedule(s). In addition to any other reporting requirements under this Agreement or the applicable Schedule, Supplier will immediately report to JPMC any disruption of service that will have a material adverse effect on JPMC, the Services or JPMC's receipt of the full benefit of the Services. If Supplier breaches this warranty, Supplier will promptly correct or cause the correction of the deficiencies giving rise to the breach without charge. If any breach prevents or substantially interferes with JPMorgan Chase & Co.'s or any Recipient's ability to conduct its business, Supplier will use diligent efforts to correct the deficiency within 24 hours after Supplier learns of the deficiency (or such other correction period as may be set forth in the applicable Schedule).

6.11 Intellectual Property Rights in Work Product Developed as a Result of Services.

(a) Definition of Works.

The term "**Works**" means any of the following in any form or media: (i) formulae, algorithms, processes, procedures and methods; (ii) designs, ideas, concepts, research, discoveries, inventions (whether or not patentable or reduced to practice) and invention disclosures; (iii) know-how, trade secrets and proprietary information and methodologies; (iv) technology; (v) computer software (in both object and source code form); (vi) databases; (vii) expressions, works and factual and other compilations; (viii) protocols and specifications; (ix) visual, audio and audiovisual works (including art, illustrations, graphics, images, music, sound effects, recordings, lyrics, narration, text, animation, characters, designs and all other audio, visual, audiovisual and textual content);

(x) records of each of the foregoing, including documentation, design documents and analyses, studies, programming tools, plans, models, flow charts, reports, letters, memoranda and drawings; (xi) marketing and promotional programs, and (xii) any other tangible results of the Services.

(b) Ownership of Outside Materials.

Supplier and its licensors will retain ownership of all Works developed or acquired by Supplier prior to the Effective Date or independently from the performance of the Services, together with all related Intellectual Property Rights ("**Outside Materials**").

(c) Ownership of Developed Works.

JPMC will own exclusively all Works (excluding Outside Materials) developed, in whole or in part, by or on behalf of Supplier for JPMC or Recipient pursuant to a Schedule together with all related Intellectual Property Rights throughout the world ("**Developed Works**"). Supplier will and hereby does, without further consideration, assign to JPMC any and all right, title or interest that Supplier may now or hereafter possess in or to the Developed Works. To the fullest extent permissible by applicable Law, all copyrightable aspects of the Developed Works will be considered "works made for hire" (as that term is used in Section 101 of the U.S. Copyright Act, as amended).

(d) Incomplete Developed Works.

Partial or incomplete versions of Developed Works will be deemed Developed Works. Upon JPMC's request or upon termination of any Schedule, Supplier will provide to JPMC immediately the then-current version of any Developed Works in the possession of Supplier or any Supplier Personnel.

(e) Further Assurances to Perfect Ownership.

Supplier will execute and deliver all documents and provide all testimony reasonably requested by JPMC to register and enforce Intellectual Property Rights in the Developed Works solely in the name of JPMC. Supplier irrevocably designates and appoints JPMC its agent and attorney-in-fact to act for and on its behalf to execute, register and file any applications, and to do all other lawfully permitted acts, to further the registration, prosecution, issuance and enforcements of the Intellectual Property Rights in the Developed Works with the same legal force and effect as if executed, registered and filed by Supplier.

(f) Outside Materials.

(i) License of Outside Materials.

Supplier hereby grants to JPMorgan Chase & Co. and each Recipient (and their respective successors and assigns) (each, a "**Licensed Person**") a perpetual, irrevocable, fully-paid up, royalty-free, non-exclusive right and license to all Intellectual Property Rights in all Outside Materials that Supplier embeds in or otherwise provides with any Developed Works to the extent required to fully and completely use and enjoy the Services and the Developed Works. The parties acknowledge and agree that the foregoing right and license includes the right for each Licensed Person to: (A) use, copy, modify, develop derivative works, sublicense, distribute, display and perform the Outside Materials, (B) designate third parties to exercise those rights and licenses on behalf of any Licensed Persons, and (C) sublicense, transfer or assign its right and license in connection with any assignment of the copyright in the associated Developed Works.

(ii) Consent Required for Use of Third Party Works.

Supplier will not provide to any Licensed Person: (A) any Works other than those for which Supplier has the right to grant the rights and licenses contained in subsection (i) above, or (B) any Developed Works that would require any Licensed Person to use any Intellectual Property Rights other than those licensed in subsection (i) above without the prior written consent of JPMC.

(g) Survival.

The provisions of Section 6.11 will survive any expiration or termination of this Agreement or any Schedule.

6.12 Competitive Advantage as a Result of Services.

[intentionally omitted]

6.13 Key Personnel.

(a) All Supplier Personnel designated in the applicable Schedule as "key" ("**Key Personnel**") will have sufficient knowledge and authority within the Supplier organization to ensure that Supplier will be responsive to JPMC's reasonable requests.

(b) Before assigning an individual to a Key Personnel position, as an initial assignment or as a replacement, Supplier will provide JPMC with any information regarding the individual (including a resume) that may be reasonably requested by JPMC. Supplier will only assign an individual who is approved by JPMC, in its sole discretion, to a Key Personnel position.

(c) Supplier will use commercially reasonable efforts to prevent the reassignment or replacement of, any of the Key Personnel.

(d) Supplier will not assign any Key Personnel to provide services which are substantially similar to the Services provided hereunder for any business or organization that competes with JPMC without JPMC's prior consent.

6.14 Disaster Recovery and Business Continuity Plan for Resources Required to Provide Critical Services.

(a) Unless Services are identified in a Schedule as "non-critical" to JPMC, all Services provided are considered critical ("**Critical Services**"). If the Services are Critical Services, then throughout the Schedule Term:

(a) Supplier will maintain a disaster recovery and business continuity plan (a "**DRBCP**") for all technology, operational, financial, human or other resources required to provide the Services, together with the capacity to execute the DRBCP, with respect to Supplier's

primary, backup and other Systems, resources and locations, including any subcontractor systems, resources and locations used for Critical Services. The DRBCP will, at a minimum, conform to the standards set by the Federal Financial Institutions Examination Council, if applicable, as well as the requirements set forth in the applicable Schedule. In addition, the DRBCP will address (to JPMC's reasonable satisfaction) planning for pandemic and other circumstances that may result in material loss of availability of Supplier Personnel. Supplier will notify JPMC in the event Supplier makes significant changes to its DRBCP. Any breach of this Section 6.14 will be deemed a material breach of this Agreement.

(b) Within five days after signing the applicable Schedule and on an annual basis thereafter, Supplier will provide JPMC with an executive summary of Supplier's then-current version of the DRBCP. (If Supplier provided that summary to JPMC before signing, then within five days after signing, Supplier will provide JPMC a written confirmation that the DRBCP has not materially changed from that previously summarized.) Upon request, Supplier will provide Auditors and other JPMC designees access to the full DRBCP. In connection with each Schedule, Supplier will revise the DRBCP to adequately address concerns that JPMC raises from time to time.

(c) Supplier will perform disaster recovery and business continuity tests at least annually. Supplier will give JPMC reasonable notice of, and JPMC will be entitled to participate in, each test. Supplier will provide JPMC a written description of all DRBCP test results in sufficient detail to allow JPMC to assess the success of each test. Supplier will also participate and otherwise cooperate with JPMC, as reasonably requested by JPMC, in connection with JPMC's development and testing of JPMC's own disaster recovery and business continuity plans, including participating in integrated testing of JPMC's and Supplier's systems and operations.

(d) Upon the occurrence of any disaster or other event requiring use of the DRBCP, Supplier will promptly: (i) notify JPMC of the disaster or other event and (ii) provide JPMC and each Recipient access to the Services in a manner that is at least equal to the access provided to Supplier's other customers. If JPMC determines that Supplier has not complied or cannot comply with the provisions of this Section 6.14 or implement the DRBCP quickly enough to meet JPMC's needs, Supplier will promptly assist and support JPMC in obtaining the Critical Services from an alternate provider.

6.15 Termination Assistance for Critical Services.

(a) In addition to the general provisions for termination assistance services in this Agreement, for all Critical Services, Supplier agrees that:

(a) Disengagement Plan.

Supplier will, within 90 days after the commencement of Services provide to JPMC for its approval a draft plan for the disengagement and transfer of the Services upon the expiration or termination of the Services (upon approval, the "**Disengagement Plan**"). Supplier will ensure that the Disengagement Plan: (i) specifies Supplier Key Personnel and other resources that will be used

to perform Termination Assistance Services; (ii) provides an estimate of incremental fees for the additional resources, if any, required to provide the Termination Assistance Services; (iii) specifies substantially all things necessary to efficiently carry out the Termination Assistance Services; and (iv) sets out a timetable and process for the Termination Assistance Services that will enable JPMC to have completed disengagement as quickly as reasonably possible without materially disrupting the quality of the Services and without limiting Supplier's obligation to meet any applicable services levels during the Termination Assistance Period.

Supplier will provide updates to the Disengagement Plan during the Schedule Term as necessary to take into account changes to the Services and submit the updates to JPMC for approval. Upon approval the updates will be incorporated into the Disengagement Plan. For each month during the Schedule Term that Supplier is late in delivering the Disengagement Plan, Supplier will provide JPMC with a credit in the amount of the greater of three times the monthly fees for the Services in the applicable Schedule or the amount set forth in the applicable Schedule. These credits will be deemed to be price reductions reflecting a diminution in the value of the Services as a result of the failure to deliver Disengagement Plan, rather than liquidated damages or a penalty.

(b) Termination Assistance Services.

"**Termination Assistance Services**" means (i) the Services to the extent JPMC requests the Services during the Termination Assistance Period, (ii) Supplier's cooperation with JPMC or another supplier designated by JPMC in the transfer of the Services; and (iii) any other services requested by JPMC in order to facilitate the transfer of the Services to JPMC or another supplier designated by JPMC. In addition to the general provisions for termination assistance service in this Agreement, Supplier will, upon the expiration or termination of the applicable Schedule, provide the Termination Assistance Services in accordance with the Disengagement Plan. Except as otherwise set forth in this Agreement, the Termination Assistance Services will be provided at the applicable rates set forth in the applicable Schedule(s) or, if the applicable rates are not set forth in the Schedule(s), at Supplier's rates then in effect for like services immediately prior to the expiration or termination of the applicable Schedule, except to the extent that resources included in the fees being paid by JPMC to Supplier after expiration or termination of the applicable Schedule can be used to provide the Termination Assistance Services.

(c) Termination Assistance Period.

"**Termination Assistance Period**" (i) means a period of time (not to exceed 9 months) designated by JPMC commencing on the date JPMC delivers to Supplier a notice of intent to terminate the applicable Schedule, or (ii) where no such time is so designated, means the period between the effective date of the termination notice and the 120th day after the effective date of the termination of the applicable Schedule. In any event, during the Termination Assistance Period Supplier will provide the Termination Assistance Services in accordance with this Section 6.15. The quality and level of performance of the Services during the Termination Assistance Period will not be degraded as compared to the quality and level of performance of the Services prior to the Termination Assistance Period. After the expiration of the Termination Assistance Period, Supplier will (i) answer questions from JPMC regarding the terminated Services on an "as needed" basis at Supplier's then standard billing rates and (ii) deliver to JPMC any remaining JPMC owned reports and documentation relating to the terminated Services still in Supplier's possession.

6.16 Exit Rights.

(a) Upon the later to occur of (a) the expiration or termination of the applicable Schedule or (b) the last day of any Termination Assistance Period (the "**End Date**"), (i) the access right, if any, granted to Supplier and Supplier Personnel to JPMC networks or computing systems will immediately terminate; and (ii) if and to the extent the applicable Schedule gives JPMC license rights after the term of the Schedule, Supplier will deliver to JPMC a copy of any software in the form in use as of the End Date, which JPMC has such rights.

6.17 Supplier Personnel Information.

(a) Upon the delivery of a notice of intent to terminate the applicable Schedule or a determination that the Schedule Term will not be renewed, with respect to the then current Supplier Personnel who are providing Critical Services (each an "**Affected Supplier Personnel**"). Supplier will (i) not terminate, reassign or otherwise remove from providing the Services or Termination Assistance Services any Affected Supplier Personnel except for a compelling business reason determined in good faith; and (ii) to the extent not prohibited by applicable Law, provide JPMC and its designees reasonable access to the Affected Supplier Personnel to the extent such access does not adversely impact Supplier's delivery of the Services or Termination Assistance Services to JPMC.

6.18 Complaints.

(a) If Supplier receives any communication from or on behalf of a JPMorgan Chase & Co. customer indicating a complaint with respect to Supplier's Services or other Deliverables, JPMorgan Chase & Co. or any JPMorgan Chase & Co. product or service (whether or not related to any Services or other Deliverables), Supplier will report that communication to JPMC and take only such actions as reasonably requested by JPMC or as set forth in the applicable Schedule with respect to the reporting and other handling of complaints. Any such communications will be deemed JPMC Confidential Information. Upon termination of the applicable Schedule, Supplier's obligation to report complaints related to the Supplier's Services or other Deliverables under that Schedule to JPMC shall continue for a period of 60 days after the termination effective date, unless a longer period is specified in the Schedule.

6.19 Quality Control; Incentive-Based Payments.

(a) In no event will JPMC pay for, or will Supplier be entitled to bill or be paid for, any Deliverables that do not meet all applicable quality control standards, requirements and guidelines under the Agreement, set forth in the applicable Schedule or required of Supplier or JPMC under applicable Law. Accordingly, no volume-based, time-based or other incentive-based compensation (to any Supplier Personnel or subcontractor) or related structure will apply unless the Deliverables meet all applicable quality standards, requirements and guidelines under applicable Laws and/or JPMC's guidelines that JPMC identifies from time to time. Further, Supplier will ensure that no Supplier Personnel are offered or receive any volume-based or other incentives that may encourage undue haste or lack of diligence or quality.

(b)

6.20 JPMC Standards.

(a) JPMC Standards; Revisions.

JPMC has developed standards, procedures, processes and the like that may apply to the Deliverables ("**JPMC Standards**"). In providing Deliverables to or on behalf of JPMC, Supplier will comply with the JPMC Standards set forth in the applicable Schedule. JPMC may revise the JPMC Standards from time to time, and such revisions will become effective upon Supplier's receipt. Supplier will comply with and implement the revised JPMC Standards within 30 days of receipt unless otherwise specified by JPMC (e.g., in the revised JPMC Standards or otherwise agreed in writing by JPMC). Supplier will promptly acknowledge receipt of a revised JPMC Standard, which acknowledgement shall include the date by which Supplier will have implemented the revised JPMC Standard. Supplier will retain the then-current version of the JPMC Standards as part of its records relating to the applicable Deliverables. Supplier shall also have five Business Days from receipt to object to any revised JPMC Standard, but only if Supplier demonstrates in writing that the implementation of that revised JPMC Standard will have a material effect on the Deliverables or Supplier's operations in support of the revised JPMC Standard. JPMC will not be liable for any costs or expenses incurred by Supplier in connection with the Supplier's compliance with and implementation of any revised JPMC Standards unless otherwise expressly agreed in writing by JPMC.

(b) New Standards.

"**New Standards**" are JPMC Standards that are materially different from the JPMC Standards already set forth in the applicable Schedules. JPMC may ask Supplier to comply with New Standards from time to time in writing. Supplier will not be required to comply with a New Standard until the parties have executed a written amendment to the applicable Schedule or an applicable new Schedule.

(c) Termination.

If (i) the parties do not promptly (in JPMC's sole discretion) agree to the amended or new Schedule, or, (ii) if after such agreement, Supplier fails or refuses to implement a New Standard, JPMC shall have the right, in its sole discretion, to terminate the applicable Schedule on 30 days notice. If JPMC terminates under this section, (i) JPMC will have no obligation to pay any termination fee or costs, meet any minimum payment requirements, or pay any penalty, or otherwise be subject to any restriction; and (ii) JPMC will pay Supplier for any Accepted Deliverables provided prior to the effective date of termination unless such payment is prohibited by law or subject to any applicable set-off right.

7. ASP/PROCESSING SERVICES TERMS.

7.1 General ASP Services.

(a) The terms set forth in this Section 7 apply when Supplier provides processing-intensive Services ("**ASP Services**") using people, software, equipment, network resources, data or materials owned or controlled by Supplier (collectively, the "**System**"). Unless otherwise stated in the applicable Schedule, Supplier will provide these ASP Services from facilities owned or controlled by Supplier.

7.2 Set-Up of ASP Services.

(a) On or before the “Go Live” date specified in the applicable Schedule, Supplier will complete all tasks required to make the ASP Services accessible to JPMC and each Recipient, including: (a) implementing in the System any required interfaces to JPMC systems specified in the applicable Schedule, (b) delivering to JPMC and each Recipient any proprietary software and related documentation necessary to access the System to receive the ASP Services, (c) establishing agreed upon end-to-end processes controlling access to the ASP Services; and (d) assigning all security access, passwords and user IDs necessary to access the System to receive the ASP Services (“**Access Codes**”), and (e) preparing data designated by JPMC or any Recipient for use on or with the System.

7.3 Access Codes for ASP Services.

(a) Supplier will permit access to the ASP Services only through the network(s) and means specified in the applicable Schedule using Access Codes assigned by Supplier. Supplier will be responsible for assigning, disabling and otherwise administering Access Codes. Supplier will grant Access Codes to, and only to, the individuals designated in writing by JPMC’s Relationship Manager (“**Authorized Users**”). Supplier will fulfill all access requests, including requests to remove access, within three days of its receipt of the request. Supplier will maintain a record of Access Code requests received and actions taken, including the amount of time it took to fulfill the request, and retain such record for the term of the applicable Schedule. Supplier will make this record available to JPMC upon request. Supplier will immediately disable all Access Codes for, and prevent access to the System by, any individual upon JPMC’s request. Access Codes will be deemed the Confidential Information of both parties. When requested by JPMC, Supplier will implement and operate mechanisms to restrict Authorized User access to the ASP Services so that access can be gained only from JPMC locations or managed endpoints.

7.4 System Monitoring of ASP Services.

(a) Supplier will immediately notify JPMC of any actual or reasonably suspected Security Breach indicating that an individual may have, or intends to, damage the System or use unauthorized access to the System in a way that would adversely affect the ASP Services or any Recipient and Supplier will include with that notice the reasonably expected impact that the breach or access may have on any JPMC Entity or its customers. In addition, Supplier will permit JPMorgan Chase & Co. to install agent devices to monitor the System, but in no event will Supplier be relieved of its obligation to monitor the System independently.

7.5 Changes to ASP Services.

(a) Permitted Changes to ASP Services by Supplier.

Supplier may make changes to the ASP Services or System without JPMC’s approval if those changes do not: (i) increase JPMC’s total cost of receiving the ASP Services, (ii) require JPMC

or any Recipient to change its systems, software, equipment, policies or procedures, (iii) adversely affect the functionality, interoperability, performance, reliability, security or resource efficiency of any of the ASP Services or System, (iv) reduce the scope of the ASP Services, (v) change the location at or from which Supplier or any permitted subcontractor provides all or any portion of the ASP Services, or (vi) otherwise breach this Agreement or any Schedule. If a change to the ASP Services or System may have an effect described in clauses (i) - (vi) above, Supplier will make that change only after describing the change and its effects to JPMC in detail and obtaining JPMC's prior written approval.

(b) Improvements to ASP Services Approved by JPMC.

Without additional charge, Supplier will continuously improve the System and the ASP Services to take advantage of improvements in technology and to provide additional functionality. Whenever Supplier plans to make an improvement in the ASP Services available to any of its customers, Supplier will: (i) provide JPMC a written description of the improvement, the required changes and any likely effects described in clauses (i) - (vi) of subsection (a) above, (ii) seek JPMC's approval, and (iii) if JPMC approves, promptly change the System to make the improvement available to JPMC. Supplier will make available any improvement needed to comply with a change in Laws before the applicable Laws require compliance. Supplier will make such improvements available to JPMC no later than such improvements are made available to other Supplier customers and, in any event, as soon as possible.

(c) Service Locations.

Supplier or its permitted subcontractor will provide the ASP Services solely at and from the location(s) set forth in the applicable Schedule, unless otherwise approved in writing by JPMC in accordance with subsection (a) above. If a Supplier initiated relocation to a new location results in any incremental cost or expense to JPMC, Supplier will reimburse JPMC for such cost or expense.

7.6 Testing and Scheduling of Changes to ASP Services.

(a) Before changing the System or the ASP Services, Supplier will verify by appropriate testing that the System will continue to operate in Compliance and perform its intended features and functions in a reliable manner after the change. Supplier will schedule and implement all changes to the ASP Services or System so as not to: (a) disrupt or adversely impact the business or operations of JPMC or any Recipient, (b) degrade the ASP Services then being received by JPMC or any Recipient, or (c) interfere with JPMC's or any Recipient's ability to obtain the full benefit of the ASP Services.

7.7 Support for ASP Services.

(a) Availability.

Supplier will provide JPMC with unlimited telephone and e-mail support to resolve questions about the implementation, configuration and use of the ASP Services and the System. This support will be available 24 hours per day, seven days per week. Supplier will provide a fully staffed call center on Business Days, during the hours of 6:00 a.m. to 9:00 p.m. in the time zone where JPMC is using the ASP Services (the "**ASP Support Standard Hours**"). Outside of the ASP Support

Standard Hours, telephone support personnel will be accessible by pager and will respond to JPMC within one hour or as otherwise specified in the applicable Schedule.

(b) Service Calls.

JPMC may place requests for support ("**ASP Service Calls**") through e-mail, telephone support or such other electronic system as the parties may agree in a Schedule. ASP Service Calls may be made by an unlimited number of contacts designated by JPMC. JPMC will use reasonable efforts to provide all information that Supplier reasonably requests about each ASP Service Call. Supplier will maintain a record of all ASP Service Calls and Supplier's efforts to resolve problems. Supplier will provide JPMC's contact with a unique ticket number for each ASP Service Call. In the event of concurrent ASP Service Calls, JPMC reserves the right to set the priority for the resolution of the problems. Supplier will report on the status of any ASP Service Call upon JPMC's request and will report monthly on the status of all ASP Service Calls.

(c) Maintenance of ASP Services.

Supplier will perform such maintenance and repair activities as may be required to cause the System to be in Compliance (with such changes as may be approved by JPMC or otherwise permitted under Section 7.5).

7.8 Service Levels.

(a) Obligation to Meet.

Supplier will perform the ASP Services and operate the System so as to meet or exceed the required levels of quality, speed, availability, capacity, reliability or other characteristics of the ASP Services set forth in the applicable Schedule ("**Service Levels**").

(b) Measurement and Monitoring Tools.

Supplier will, at its cost and expense, implement measurement and monitoring tools reasonably acceptable to JPMC to measure and report Supplier's performance of the ASP Services and operation of the System against the applicable Service Levels. In addition to any reports required by the applicable Schedule, Supplier will provide JPMC and its Auditors with access to up-to-date data regarding Supplier's performance of the ASP Services and operation of the System against the applicable Service Levels at no additional charge.

(c) Root Cause Analysis.

If Supplier fails to meet a Service Level, Supplier will promptly: (i) investigate the root cause(s) of the failure, (ii) contact JPMC no later than twelve hours after the failure has occurred to discuss root cause of the failure, (iii) initiate remedial action to correct the problem and to begin meeting the Service Level as soon as possible, (iv) advise JPMC of the status of those remedial efforts at frequent intervals, and (v) provide JPMC with reasonable evidence that the cause of the failure has been corrected on a permanent basis.

(d) Rerunning of ASP Services.

Supplier will, without additional charge to JPMC, re-perform any ASP Services that result in incorrect or incomplete results unless such incorrect or incomplete results are solely caused by the actions of JPMC.

(e) Service Credits.

If Supplier fails to meet any Service Level, Supplier will pay JPMC the credits specified in the applicable Schedule ("**Service Credits**"). Service Credits will be deemed to be price reductions reflecting a diminution in the value of the ASP Services as a result of the failure to meet the Service Level, rather than liquidated damages or a penalty.

7.9 Grant of License for ASP Services.

(a) To the extent necessary to receive the ASP Services, during the applicable Schedule Term, Supplier grants, and represents and warrants that it has obtained all consents necessary to grant, to JPMC and each Recipient a worldwide, non-exclusive, fully paid, royalty-free right and license to: (a) electronically access and use the System, and (b) use and copy all software, documentation and other materials provided by Supplier to JPMC in connection with the ASP Services. JPMC may permit Agents to exercise this right and license.

7.10 Branding/Co-Branding for ASP Services.

(a) If the Schedule indicates that the System contains or will be marketed or promoted to JPMC customers with the trademarks, service marks, logos and other distinctive brand features of JPMorgan Chase & Co. or its licensors ("**JPMC Branding**"), then JPMC hereby grants Supplier a worldwide, non-exclusive, revocable, limited right and license to reproduce, distribute and display the JPMC Branding solely as necessary to provide the ASP Services, subject to usage guidelines provided by JPMC. Supplier will take no action that might derogate from JPMorgan Chase & Co.'s rights in, or the goodwill associated with JPMC Branding or modify, alter or obfuscate the JPMC Branding or use the JPMC Branding in a manner that disparages JPMorgan Chase & Co. or its products or services, or portrays JPMorgan Chase & Co. or its products or services in a false, competitively adverse or poor light. Supplier will properly attribute and designate the JPMC Branding as being owned or the property of JPMC, JPMorgan Chase & Co. or its licensors. Any goodwill generated by Supplier's use of JPMC Branding will inure solely to JPMorgan Chase & Co. Supplier will not display any third party advertising or hyperlinks to third party websites without JPMC's prior review and express written approval.

7.11 Use of JPMC Materials in Performance of ASP Services.

(a) Any goods or other materials provided by JPMC to Supplier in performance of the ASP Services will remain the sole and exclusive property of JPMC or its licensors. Supplier will not withhold any JPMC goods or materials as a means of resolving a dispute. Within 30 days after the termination of this Agreement, Supplier will return all JPMC goods and materials to JPMC.

7.12 Additional Warranties for ASP Services.

(a) In addition to its other representations and warranties, Supplier represents and warrants as follows:

(a) System Performance.

The System will operate in Compliance and in accordance with applicable Laws throughout the Schedule Term. No information, while transferred through or stored on the System, will lose accuracy or integrity. All calculations performed as a result of the ASP Services or System will be accurate and complete. Supplier will notify JPMC immediately of any errors or omissions, and correct any errors or omissions promptly.

(b) System Development.

Supplier will use commercially reasonable efforts to ensure that the System uses industry-standard software, and will be compatible with commonly used operating systems and software, including the most recent versions of Microsoft Internet Explorer, Apple Safari and Mozilla Firefox Web browsers or the applicable client software and two prior major releases.

7.13 Termination of ASP Services.

(a) In addition to any other rights of termination provided in this Agreement, JPMC may terminate the ASP Services for cause, in whole or in part, by giving Supplier notice if Supplier: (a) commits multiple or repeated breaches of its obligations under this Agreement or any Schedule, even if individual breaches are remedied within the applicable cure periods, (b) fails to meet any Service Level two or more times during any six month rolling period, or (c) fails to meet a Service Level for seven days or longer without a full resolution of the problem. Upon termination, JPMC will receive a refund of all fees paid in advance for ASP Services not yet provided by Supplier.

7.14 Escrow of Source Code for ASP Services.

(a) Deposit.

Each of Supplier and JPMC agree to be bound by the terms and conditions set forth in a source code escrow agreement substantially in JPMC's form of Source Code Escrow Agreement, a copy of which Supplier hereby acknowledges receipt (the "**Escrow Agreement**"). Pursuant to the Escrow Agreement, Supplier will place and maintain in escrow with the escrow agent named in the Escrow Agreement (the "**Escrow Agent**") two copies of the most recent version of the source code and object code for the software components of the System (including any updates to the System); the source code and object code for any software that is proprietary to Supplier and used in connection with the System, and all related documentation and all other items, instructions, manuals, software libraries, program listings and configurations, and flow charts necessary to enable a reasonably skilled programmer of JPMC to rebuild, maintain, support and enhance all of the foregoing software and a list of Supplier Personnel responsible for the maintenance of the software components (collectively, "**Source Code**"). Supplier will abide by the provisions of the Escrow Agreement and be responsible for the prompt payment of the Escrow Agent's fees.

(b) Updates.

So long as JPMC purchases the ASP Services, Supplier will deliver to the Escrow Agent, and certify the delivery in writing to JPMC, two copies of the Source Code at least semi-annually and within 30 days after any change to the Source Code that affects the ASP Services. Upon reasonable prior notice to Supplier, JPMC (or its designee) will have the right to review and test the Source Code at the Escrow Agent's site, including the right to use to use a third party technical verification service to verify the integrity of all Source Code deposits.

(c) Right to Use Source Code.

A release condition will be deemed to have occurred upon the occurrence of any of the following (each a "**Release Condition**"): (i) Supplier has availed itself of, or been subjected to by any third party, a proceeding in bankruptcy in which Supplier is the named debtor, (ii) an assignment by Supplier for the benefit of its creditors, (iii) the appointment of a receiver for Supplier, (iv) any other proceeding involving Supplier's insolvency or the protection of, or from, creditors, and same has not been discharged or terminated without any prejudice to JPMC's rights or interests within 30 days; (v) Supplier has ceased its on-going business operations, or sale or licensing of the ASP Services; (vi) Supplier has ceased operating in the normal course of business; (vii) Supplier or its bankruptcy trustee rejecting the Agreement in a bankruptcy case under the Bankruptcy Code; (viii) this Agreement has not yet been rejected in a bankruptcy case under the Bankruptcy Code by Supplier or its bankruptcy trustee, after the commencement of such a case; (ix) intentionally deleted; (x) intentionally deleted; (xi) intentionally deleted; (xii) either the following occur: (A) Supplier's staff reduction of more than 75% of staff through layoffs, or (B) Supplier's failure to continue to maintain the employment of at least 15 employees; (xiii) Supplier's failure to meet its own financial obligations (including its "accounts payable" obligations), as evidenced by 75% or more of Supplier's undisputed outstanding financial obligations being 150 days (or more) past due; or (xiv) if any other event or circumstance occurs which demonstrates with reasonable certainty the inability or unwillingness of Supplier to fulfill its obligations to JPMC, including the correction of defects in the ASP Services. Supplier hereby grants to JPMC a perpetual, irrevocable, non-exclusive, world-wide, fully paid and sublicenseable right and license to use, copy and create derivative works of the Source Code to operate, maintain, support and enhance the System and all software components of the System (in source and object code form) on an unlimited number of servers in furtherance of the business activities of JPMorgan Chase & Co. JPMC agrees not to exercise the foregoing right and license until the occurrence of a Release Condition. JPMC may permit Agents to exercise those rights and licenses. JPMC will require those Agents to agree to maintain the confidentiality of the Source Code.

(d) Training.

In the event a Release Condition occurs, upon JPMC's request, Supplier will provide JPMC with knowledge transfer training for the Source Code. The training shall be held at Supplier's headquarters and shall include the same certified training courses and peer-to-peer shadowing that new Supplier support staff must complete.

8. MARKETING SERVICES TERMS.

8.1 General Marketing Services.

(a) The terms set forth in this Section 8 apply when Supplier provides marketing Services ("**Marketing Services**") using people, software, equipment, network resources, data or materials owned or controlled by Supplier. Unless otherwise stated in the applicable Schedule, Supplier will provide these Marketing Services from facilities owned or controlled by Supplier.

8.2 Trademark License.

(a) Grant of Trademark License. If a Schedule indicates that Supplier is to include the marks or logo of JPMC or an Affiliate, JPMorgan Chase & Co. grants to Supplier a nonexclusive, non-transferable, revocable license ("**Trademark License**") to use those trademarks, trade names, service marks, copyrights and logos (whether registered or not) that are identified on an exhibit attached to and incorporated into a Schedule which JPMorgan Chase & Co. will update and provide to Supplier from time to time (collectively the "**Trademarks**"). Such license is provided to Supplier only to the extent necessary for Supplier to perform Supplier's obligations under the Schedule. The Trademark License shall terminate immediately upon the termination of either this Agreement or any applicable Schedule for any reason. Supplier shall not incorporate any Trademarks, any derivative of the Trademarks or any mark which is similar to any Trademark, into Supplier's name. Supplier shall not use any Trademark or any mark similar to any Trademark, in the promotion of any products, services, individual, or entity other than those contemplated in the Services, subject to the provisions in Section 2.7 of this Agreement. Notwithstanding anything in this Agreement to the contrary, JPMorgan Chase & Co. at any time in its sole discretion, may modify or eliminate Trademarks subject to the Trademark License, or limit or terminate the Trademark License, with or without cause.

(b) Quality Control. Supplier will take no action: i) that might weaken JPMorgan Chase & Co.'s rights in, or the goodwill associated with the Trademarks; ii) that modifies, alters or obfuscates the Trademarks in any manner; or iii) that portrays JPMorgan Chase & Co. or its products or services in a false, competitively adverse or poor light. Supplier will properly attribute and designate Trademarks as being the property of JPMC, JPMorgan Chase & Co. or its Affiliates. Any goodwill generated by Supplier's use of the Trademarks will inure solely to JPMC, JPMorgan Chase & Co. and its Affiliates. Supplier agrees that upon request, it will make available to JPMC or its designee, for legal review, comment, and approval, any of the following to which the Trademarks are affixed:

(1) representative samples of the Services;

(2) products;

(3) marketing materials;

(4) advertising and promotional materials; or

(5) any other materials for public dissemination.

Supplier agrees that, if required by JPMC, it will make appropriate changes to such materials.

8.3 Web linking.

(a) If a Schedule, indicates that a link will be established from one or more websites of a JPMC Entity and a Supplier website, the parties agree that: (a) each party retains all right, title, and interest in its respective website and all materials therein, (b) Supplier's materials placed within its website and any hyperlink thereto will not infringe upon or violate any copyright, patent, trademark, or other proprietary rights of a third parties, (c) neither party is the publisher, distributor, agent, partner franchisee or endorser of the other party's website or its content or features, (d) unless otherwise indicated in a Schedule each party shall retain exclusive editorial control over its website and has the right to make administrative and operational decisions with respect thereto, and can promptly execute changes to the same, and (e) the link can be terminated at any time by JPMC or the Affiliate without penalty.

8.4 Online Behavioral Advertising.

(a) Unless otherwise set forth in the applicable Schedule, Supplier or any of its Affiliates or subcontractors will not engage on behalf of JPMC in activities that constitute Online Behavioral Advertising. Online Behavioral Advertising refers to the collection of data from a particular computer or device regarding web viewing behaviors over time and across non-Affiliated websites for the purpose of using such data to predict user preferences or interest to deliver advertising to that computer or device based on preferences or interest inferred from such web viewing behaviors. Online Behavioral Advertising does not include delivery, ad reporting, or contextual advertising (advertising based on the content of the page being visited).

8.5 Placement, Size, and Duration of Online Advertisements.

(a) Unless otherwise indicated in a Schedule: (a) all online advertisements shall be optimally displayed on the page or applicable medium in accordance with the marketing and business objectives set forth in the Schedule on the page designated in the Schedule on Supplier's site, (b) Supplier shall use commercially reasonable efforts to provide user access to the advertisement 24 hours per day 7 days per week; and (c) if Supplier substantially redesigns or modifies the page on which the JPMC advertisement appears, JPMC shall have the right to revise its advertisement consistent with the term of the Schedule and the revised advertisement shall be optimally displayed on the page or applicable medium in accordance with the marketing and business objectives set forth in the Schedule.

8.6 Banner Advertisements and Keyword Hyperlinks.

(a) If a Schedule indicates that Supplier or a third party with whom Supplier is arranging for the purchase of advertising will be displaying banner advertisements or keyword hyperlinks for a JPMC Entity, then: (a) with respect to banner advertisements, (i) the Schedule shall state a guaranteed minimum number of the relevant performance metric units to be achieved including (for example, cost per click or cost per acquisition) to be delivered during the term of the campaign, (ii) if Supplier fails to meet the guaranteed minimum then JPMC at its option may accept "make good" impressions to compensate for such shortfall which shall be provided within 30 days of such end of the term or if the applicable campaign has not met the requirements of the Schedule and Supplier has not made good any discrepancy, then JPMC may receive a refund of any fees paid for such campaign; and (b) with respect to advertisements in the form of hyperlinks on Supplier's website that result from keywords chosen by JPMC that are entered by Supplier into Supplier's search engine, Supplier shall display such advertisements based on the target audience selected by JPMC and the number of users that click on the JPMC advertisement in accordance with the terms of the Schedule.

8.7 Emails.

(a) If Supplier will be sending emails on behalf of a JPMC Entity, Supplier agrees (a) to comply at all times with all applicable Laws governing the email campaigns including the Controlling the Assault of Non-Solicited Pornography and Marketing Act (CAN SPAM), (b) Supplier will

provide the JPMC Entity that has entered into the Schedule not less than five Business Days to review and approve all campaign materials and will not send any email without the prior written approval of the JPMC Entity, and (c) to provide the JPMC Entity with a list of all email addresses that have opted out of receiving future emails within 24 hours of receipt of a request, and (d) to retain all consents necessary to send emails on behalf of the JPMC Entity and to provide documentation of such consents to the JPMC Entity upon request.

8.8 Word of Mouth Advertising.

(a) If Supplier or any third party with whom Supplier is arranging for word of mouth advertising contracts with individuals to provide written opinions of a JPMC product or service to be posted on a website controlled by Supplier or the third party, each such party providing an opinion shall be known as an "**Engaged Party**". Supplier agrees to include the following language in third party contracts as follows: (a) Supplier or the third party, as applicable, will comply with all applicable Laws in performing Services with respect to Engaged Parties hereunder, as well as with all JPMC Word of Mouth Marketing, Social Media, or other JPMC policies provided to the third party by Supplier; (b) Supplier will use due care and act in accordance with the highest industry standards in connection with recruiting, selecting, retaining, and monitoring Engaged Parties; (c) Supplier will (i) ensure that each Engaged Party executes a JPMC-approved form of participation agreement prior to being asked to provide any content or comments, or to receiving anything of value, and (ii) provide necessary guidance and training to Supplier or the third party personnel, as applicable, and each Engaged Party to ensure familiarity with applicable Law, including the FTC Endorsement and Testimonial Guidelines; (d) Supplier will monitor and review all activity by Engaged Parties and take appropriate corrective action in accordance with applicable Law and JPMC's instructions or policies provided to Supplier; (e) Supplier or the third party will review and remove or disable access to content made available by Engaged Parties that fails to disclose the connection between JPMC and Supplier or the third party and the Engaged Party, or that contains untruthful, unsubstantiated or unapproved statements or claims regarding JPMC or its products or services; (f) Supplier or the third party, as applicable, will promptly take any action requested by JPMC with respect to content made available by Engaged Parties, including taking appropriate steps to remove or disable access to such content; and (g) Supplier or the third party, as applicable, represents, warrants, and covenants that it has not received and is not the subject of any lawsuit or regulatory inquiry with respect to its activity in connection with word of mouth advertising by any advertiser or any third parties by whom it has been engaged to perform services with respect to an advertiser.

8.9 Supplier's Limited Agency.

(a) Except as set forth in a Schedule, Supplier must receive JPMC's prior written consent to purchase or to enter into any contract or arrangement to purchase from any third party subcontractors any labor, materials or services in connection with Supplier's obligations under this Agreement and applicable Schedules. Supplier will provide JPMC with all supporting documentation, including purchase orders, contracts or other written documentation governing the purchase of said labor, materials or services with such request for approval. At the request of Supplier and only with JPMC's prior written consent in each instance, Supplier may enter into a contract as

JPMC's limited agent. Labor, materials and services may include those associated with the production of advertising, including all materials, services, talent, talent payment services, mechanicals, presentation costs, research, broadcast forwarding, trafficking, tracking, printing and intellectual property rights. Any request must also include an estimate specifying the applicable subcontractor, the nature and extent of such subcontractor's services and Supplier's desire to enter into such contract as a limited agent.

8.10 Supplier Expenses.

(a) In accordance with Section 5.4, JPMC will reimburse Supplier for out of town travel expense, including airfare, lodging and meals of Supplier Personnel that are pre-approved by JPMC in connection with Supplier's performance of the Services or included in a Schedule.

8.11 Preferred Third Party Suppliers.

(a) Prior to making any approved purchases for labor, materials or services on JPMC's behalf as contemplated by this Section 8 Supplier will consult with JPMC to determine if JPMC has any approved or preferred third party suppliers to perform the type of third party services contemplated that may provide for discount pricing or superior service and if so, Supplier agrees to utilize such third party supplier. In addition to the preceding, Supplier will obtain estimates for labor, materials or services for purchase from all third parties that exceed $1,000,000, as measured on a per Schedule, per month basis unless JPMC agrees in writing that circumstances or timing preclude the need for an estimate. Supplier will obtain at least three competitive bids for all purchases of labor, materials or services (excluding talent) that exceed $1,000,000, unless JPMC agrees in writing that circumstances or timing preclude the need for a three bid process. Supplier will inform JPMC's Relationship Manager via email or otherwise in writing of the estimates and competitive bids, where required, within 48 hours of Supplier receiving all estimates and bids for the initiative. JPMC will promptly review and approve or disapprove (in its sole and complete discretion) all such estimates and bids. If, after approval of an estimate or bid, the labor, materials or services exceed the estimated cost by 10% of the original estimate, Supplier must inform JPMC's Relationship Manager.

8.12 Supplier's Affiliates.

(a) Supplier shall not purchase any materials, rights or services from any third party which is an Affiliate of Supplier or which is known to Supplier to be owned or controlled by any of the directors or officers of Supplier or any related corporation, without first making full written disclosure to JPMC and obtaining JPMC's written approval.

8.13 No Mark Ups.

(a) All expenses of labor, materials, services, or any other authorized expenses, from all third parties authorized or contemplated by this Section 8.13, will only be charged to JPMC on a net cost basis without any mark up or commission of any kind. If Supplier at any time shall obtain

a discount, rebate, refund or other financial incentive (collectively, "**Discount**") from any supplier, whether based on volume of work given to such supplier or otherwise, then and in such event, Supplier will credit JPMC on the first billing date following receipt thereof. If such discount is based on the aggregate of business given by Supplier to any such supplier on behalf of JPMC and other clients of Supplier, then and in such event, JPMC's share of such discount will be such proportion as the volume of work given by Supplier to such supplier on JPMC's behalf bears to the total volume of work given by Supplier to such supplier from all of its clients during the pertinent period to which the Discount is applicable.

8.14 Discounts.

(a) All Discounts allowed to Supplier on JPMC's expenditures based on cash or prompt payment will accrue to JPMC as long as JPMC has paid Supplier in time to enable Supplier to earn such Discount. If Supplier has failed to take advantage of such Discount although it has received payment from JPMC at least five Business Days prior to the date on which Supplier's payment to the supplier was due, JPMC shall nevertheless be entitled to receive such Discount.

8.15 Talent.

(a) Supplier may retain on its own behalf, and not as agent for JPMC, a business affairs company that is a signatory to applicable union, guild or other collective bargaining agreements, including any applicable agreements with the Screen Actors Guild and the American Federation of Television and Radio Artists (collectively, the "**Union Agreements**"), to act as a talent payment service in connection with any advertising materials that JPMC chooses to produce pursuant to any Union Agreement. If Supplier is a signatory to certain Union Agreements with the Screen Actors Guild and the American Federation of Television and Radio Artists, then Supplier may, with the prior written consent of JPMC pay talent directly in accordance with the terms and conditions of the Union Contracts to which it is a party. Supplier represents and warrants to JPMC, to the same extent it receives representations and warranties from the business affairs company when such company is used, that it will comply with all obligations imposed on signatories to such agreements. JPMC acknowledges and agrees that the use of any advertising materials produced pursuant to any Union Agreement shall be subject to obligations pursuant to the applicable Union Agreements, including payment obligations. If JPMC consults Supplier about its obligations in a particular instance pursuant to any applicable Union Agreement, Supplier shall advise JPMC of its obligations based on Supplier's and the business affairs company's interpretation of any applicable Union Agreement. JPMC shall be responsible for all payment obligations arising out of any applicable Union Agreements; provided, however, that Supplier shall be responsible for any late fees or penalties under any applicable Union Agreement that are imposed due to the fault of Supplier or the business affairs company.

9. PURCHASED DELIVERABLES TERMS.

9.1 General.

(a) Supplier will deliver the goods to be purchased by JPMC under any Schedule (the "**Purchased Deliverables**") in the quantities, on the date(s) and to the place(s) specified in that Schedule.

9.2 Delivery; Risk of Loss for Purchased Deliverables.

(a) Delivery.

Supplier will deliver the Purchased Deliverables at JPMC or Recipient's designated site using Supplier's designated carrier. Supplier will be responsible for and pay all shipping, insurance, custom clearance, agents, carriage, demurrage, duty and other charges incurred in connection with delivery. Supplier will not make partial shipments without prior approval of JPMC or Recipient. Delivery of all Purchased Deliverables to JPMC or any Recipient must be "inside delivery" (i.e., delivery to a staging or installation floor location), unless such delivery is restricted to a loading dock due to local regulations in effect at the applicable delivery site.

(b) Risk of Loss.

Supplier will bear the risk of loss of or damage to the Purchased Deliverables until Acceptance. Supplier will at its expense replace any lost or damaged Purchased Deliverables promptly after being informed of the loss or damage. JPMC will at Supplier's expense return the damaged Purchased Deliverables to Supplier. However, Supplier will not be responsible for loss or damage caused by JPMC's negligence, improper storage, storage in insecure areas, or improper or defective environmental controls or fire protection systems.

9.3 Right to Cancel Purchased Deliverables.

(a) JPMC may cancel all or any part of the Purchased Deliverables or substitute other goods for the Purchased Deliverables at any time prior to shipment and Acceptance. Except as specified in the Schedule, Supplier will not charge any restocking or cancellation penalty or fee. If the cancellation or substitution of all or part of the Purchased Deliverables results from Supplier's breach of the Schedule, under no circumstances will restocking or cancellation fees apply, even if the Schedule calls for restocking and cancellation fees.

9.4 Substitution of Goods by Supplier.

(a) Supplier may not substitute other goods for the Purchased Deliverables without JPMC's prior written consent. In the event Supplier substitutes other goods for the Purchased Deliverables without JPMC's prior written consent, JPMC may reject the goods that were substituted and cancel all of the Purchased Deliverables without any cost or liability to JPMC, including the cost of returning goods to Supplier.

9.5 Supplies of Replacement Parts for Purchased Deliverables.

(a) Supplier will make available for purchase by JPMC sufficient quantities of all supplies and replacement parts necessary to operate each Purchased Deliverable for at least seven years after JPMC Accepts the Purchased Deliverable.

9.6 Site Preparation for Installation of Purchased Deliverables.

(a) If the applicable Schedule requires Supplier to install the Purchased Deliverables at JPMC's or Recipient's site, JPMC will use reasonable efforts to ensure that the site meets any electrical wiring, air conditioning, power, or other environmental requirements that may be set forth in the Schedule. If JPMC so requests, or if Supplier installs the Purchased Deliverable at JPMC or Recipient's site, Supplier will inspect the site and give notice to JPMC of any ways in which the site does not comply with the environmental requirements for the Purchased Deliverables.

9.7 Warranties for Purchased Deliverables.

(a) In addition to its other representations and warranties given in the Agreement, Supplier represents and warrants as follows:

(a) Title.

Upon delivery, JPMC will have good and marketable title to the Purchased Deliverables, free and clear of all liens and encumbrances.

(b) Compatibility.

Except as otherwise provided in the applicable Schedule: (i) each component of the Purchased Deliverables is and will be fully compatible with all of the other component items comprising the Purchased Deliverables, (ii) each Purchased Deliverable will operate fully and properly in JPMC's or Recipient's existing environment on the installation date, and (iii) neither the installation, operation nor maintenance of the Purchased Deliverables will cause any unintended adverse interaction or damage or otherwise interfere with any computer or other equipment used in connection with the business activities of JPMC or Recipient.

9.8 License to Use Related Materials.

(a) To the extent necessary to receive the full benefit of the Purchased Deliverables, Supplier grants to JPMC and each Recipient a perpetual, irrevocable, worldwide, non-exclusive, fully paid, royalty-free right and license to use and copy all software, documentation and other materials provided by Supplier to JPMC in connection with the Purchased Deliverables, including drivers and other software, firmware or other devices that facilitate the operation of the Purchased Deliverables. JPMC may permit Agents to exercise this right and license on JPMC's behalf. This right and license is fully assignable and transferable by JPMC to the purchaser, assignee or transferee of any Purchased Deliverable to which the right or license relates.

10. EVALUATION TERMS.

10.1 Right or License to Use.

(a) Software Evaluation.

If a Schedule indicates that software is being licensed to JPMC for evaluation, Supplier hereby grants to JPMC a non-exclusive, royalty-free worldwide right and license to make a reasonable number of copies of and otherwise use that software and any related documentation provided by Supplier solely for evaluation purposes. With respect to such software, JPMC will not translate, de-compile, disassemble or reverse engineer the software. JPMC will reproduce any copyright notices or other proprietary notices in the software or related documentation on copies of those materials made by JPMC.

(b) Hardware Evaluation.

If a Schedule indicates that equipment is being provided to JPMC for evaluation, then Supplier will provide JPMC with temporary use of the equipment and any related documentation provided by Supplier. JPMC may use the evaluation products, beginning upon delivery, solely for evaluation purposes. With respect to such equipment, Supplier will bear all risks of loss or damage during the period that the equipment is in JPMC's possession except for the following risks for which JPMC will be responsible: (i) use of the equipment for other than the purposes for which it is designed; (ii) alterations or attachments not authorized by Supplier; and (iii) JPMC's misconduct or negligence.

(c) ASP Evaluation.

If a Schedule indicates that processing-intensive services or on-demand services using people, software, equipment, network resources, data or materials owned or controlled by Supplier are being provided to JPMC for evaluation, then Supplier will provide JPMC with temporary use of these services. To the extent necessary to receive these services, Supplier grants, and represents and warrants that it has obtained all consents necessary to grant, to JPMC and each Recipient a worldwide, non-exclusive, fully paid, royalty-free right and license to: (i) electronically access and use the services, and (ii) use and copy all software, documentation and other materials provided by Supplier to JPMC in connection with the services.

(d) Evaluation Materials.

The software and related documentation and the equipment and related documentation described in this Section 10 may be referred to individually and collectively as the "**Evaluation Materials**."

10.2 Consultants' Use of Evaluation Materials.

(a) Agents providing services to JPMC may use the Evaluation Materials solely for evaluation purposes on behalf of JPMC. Each Agent must agree not to disclose the Evaluation Materials to any other third party.

10.3 Evaluation Period.

(a) The license or right to use granted in these evaluation terms will remain in effect during the evaluation period stated in the applicable Schedule ("**Evaluation Period**"), or if not stated in the Schedule, then the Evaluation Period will continue until 60 days after either Supplier delivers the Evaluation Materials to JPMC or the effective date of the applicable Schedule (whichever is later). However, the Evaluation Period will automatically be extended as long as JPMC and Supplier are negotiating the terms of an agreement to purchase or license the Evaluation Materials. Supplier may terminate this automatic extension at any time by notice to JPMC.

10.4 Effect of Expiration of Evaluation Period.

(a) At the end of the Evaluation Period, JPMC will cease using and, at Supplier's request, return to Supplier the Evaluation Materials and, to the extent applicable, all reasonably accessible copies of the Evaluation Materials.

10.5 Proprietary Rights in Evaluation Materials.

(a) The Evaluation Materials are the Confidential Information of Supplier. As between Supplier and JPMC, title to, and all Intellectual Property Rights in, the Evaluation Materials will at all times remain with Supplier, subject to JPMC's right to use the Evaluation Materials. As between Supplier and JPMC, title to, and all Intellectual Property Rights in, data processed by the Evaluation Material will at all times remain with JPMC.

10.6 Technical Assistance in Use of Evaluation Materials.

(a) In addition to any assistance described in the applicable Schedule, Supplier will provide JPMC with reasonable assistance to facilitate evaluation of the Evaluation Materials during the Evaluation Period.

10.7 Charges.

(a) Unless otherwise set forth in the applicable Schedule, there will be no charges to JPMC for the use of the Evaluation Materials during the Evaluation Period. All charges for transportation and delivery, if any, to JPMC and return to Supplier will be paid by Supplier.

10.8 No Binding Obligation.

(a) AGREEMENT TO CONDUCT AN EVALUATION DOES NOT REPRESENT AND WILL NOT CREATE ANY BINDING OBLIGATION UPON JPMC TO PURCHASE ANY PRODUCTS FROM SUPPLIER.

10.9 Disclaimer of Warranties.

(a) EXCEPT WITH RESPECT TO WARRANTIES OF AUTHORITY AND NON-INFRINGEMENT, OR THOSE GRANTED IN THE APPLICABLE SCHEDULE, THE EVALUATION MATERIALS ARE PROVIDED "AS IS" WITH NO REPRESENTATIONS AND WARRANTIES WHATSOEVER, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE.

11. PRIVACY TERMS.

(a) If Supplier receives, has access to or processes personally identifiable information protected by the Privacy Regulations ("**Personal Information**") from JPMorgan Chase & Co., or from other person within the scope of this Agreement, Supplier will be subject to applicable Laws restricting collection, use, disclosure, processing and free movement of Personal Information (collectively, the "**Privacy Regulations**"). JPMorgan Chase & Co. may provide guidelines to help Supplier comply with the Privacy Regulations, but Supplier using its own legal advisors will remain fully responsible for interpreting and complying with the Privacy Regulations with respect to Supplier's business.

(b)

12. DATA HANDLER TERMS.

(a) Supplier will comply with these Data Handler Terms whenever Supplier has access to JPMC Data. Additional terms specific to handling JPMC Data for particular Services being provided may be included in a Schedule executed by the parties.

12.2 Grant of License to Use JPMC Data; Obligation to Notify JPMC.

(a) In accordance with Section 13 of this Agreement, Supplier shall maintain JPMC Data in confidence and prevent JPMC Data from being used, disclosed or accessed in an unauthorized manner. JPMC hereby grants Supplier a limited license to use the JPMC Data solely to provide Deliverables to JPMC pursuant to the applicable Schedule during the Schedule Term. JPMC reserves all other rights in the JPMC Data. Supplier will immediately notify JPMC of any actual or reasonably suspected Security Breach of the JPMC Data under Supplier's control and Supplier will include with that notice the reasonably expected impact that the breach or access may have on any JPMC Entity or its customers. Supplier will cooperate fully with JPMorgan Chase & Co. to investigate any such breach. Supplier further agrees to provide reasonable assistance and cooperation requested by JPMC and/or JPMC's Agents, in the furtherance of any correction or remediation of any Security Breach and/or the mitigation of any potential damage, including any notification that JPMC may determine appropriate to send to affected individuals, regulators, or third parties.

12.3 Compliance of Data Handler with ISO 27002 and IT Risk Management Policies.

(a) Whenever Supplier has JPMC Data, Supplier will (i) comply with ISO/IEC 27002 (Information Technology – Code of Practice for Information Security Management) or its replacement, (ii) comply with JPMC's Minimum Control Requirements (a current

copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm, and (iii) if Supplier stores, processes or transmits payment card primary account numbers or other cardholder data, comply with the then current Payment Card Industry Data Security Standard (or its replacement) as well as any procedures set forth in the applicable Schedule (collectively, the "**IT Risk Management Policies**") incorporated herein by reference. Additionally, whenever Supplier has JPMC Data, Supplier will have policies and procedures to detect patterns, practices, or specific activity that indicates the possible existence of identity theft ("**Red Flags**") that may arise in the performance of Supplier's obligations under this Agreement and report the Red Flags to JPMC and take appropriate steps to prevent or mitigate identity theft. Supplier will not provide any JPMC Data to any subcontractor unless the subcontract requires the subcontractor to comply with the IT Risk Management Policies and the Privacy Regulations and to permit security audits by Auditors.

(b) Unless and until JPMC is satisfied that Supplier is fully complying with this Section 12, JPMC will not be bound by any obligation to allow Supplier access to JPMC Data. Any breach of this Section 12 that is not corrected within 30 days after JPMC gives Supplier a notice describing the breach will be deemed a material breach of this Agreement (even if the breach was not otherwise material). In addition to the above, any control gaps identified with these requirements will be remedied within a timeframe of mutual agreement in writing. Supplier agrees that failure to remedy these gaps or to refuse remediation of a control gap deemed impactful to the protection of JPMC Data will allow JPMC to withhold monies owed to Supplier until all control gaps are successfully remediated.

(c) Before Supplier may modify its systems in a way that could adversely impact the security of its systems, Supplier must send a 30 day advance notice to JPMC containing a reasonably detailed description of the proposed modification and a representation and warranty that: (i) the proposed modifications will not pose any new or additional risks to the JPMC Data, and (ii) Supplier's systems will continue to comply with JPMC's IT Risk Management Policies.

(d) In addition to any reporting requirements set forth in the applicable Schedule, Supplier will, upon request from JPMC, provide the following written periodic reports to the JPMC Relationship Manager: (i) on a quarterly basis: (A) summary system and network security incident reporting and access violation reporting, and summary of any Supplier remediation or action plans; (B) summary of incidents and breaches as to which Supplier was required to inform JPMC under Section 7.4, Section 12.2 and Section 13.2, and summary of any Supplier remediation or action plans; and (C) the status of any existing remediation or action plans, including those that are related to security or that may impact the Deliverables; (ii) on a monthly basis, a then current list of names, user IDs and access levels for any JPMC personnel having access to Supplier applications and systems; and (iii) on an annual basis, summary security vulnerability scan or penetration test reporting with respect to the Deliverables and Supplier's system and networks, including the perimeter, and summary of any Supplier remediation or action plans. If Supplier does not respond timely to the summary security vulnerability scan and penetration test reporting obligations, as reasonably determined by JPMC, JPMC may

perform such security vulnerability scans and penetrations tests, and Supplier will promptly reimburse JPMC for all reasonable costs associated with its efforts.

12.4 Information Security Audits of Data Handler.

(a) In addition to JPMC's other audit rights under this Agreement, Auditors may conduct on-site security reviews, vulnerability testing and disaster recovery testing for Supplier's systems containing JPMC Data and otherwise audit Supplier's operations for compliance with the Minimum Control Requirements. Auditors, other than regulators, will provide reasonable notice of such reviews. If vulnerabilities are identified, Supplier will (i) promptly document and, within formally established timelines, implement mutually agreed upon remediation plan, and (ii) upon JPMC's request, provide JPMC with the status of the implementation. JPMC is not responsible for any harm that results from these tests except to the extent it is a result of JPMC's gross negligence, reckless or willful misconduct.

(b) At least annually, Supplier will have a certified independent public accounting firm or another independent third party reasonably acceptable to JPMC: (i)(1) conduct a review or assessment and provide a full attestation, review or report under (A)(1)(a) SSAE 16 (Statement on Standards for Attestation Engagements No. 16)SOC (Service Organization Control) 1 Type II or (b) SOC 2 Type II; (2) a replacement for one of the foregoing approved by JPMC; or (3) other third party reviews and reports reasonably acceptable to JPMC, in each case, of all key systems and operational controls used in connection with any JPMC Data; and (ii) conduct and provide a full report of an independent network and application penetration test. Each of these attestations, reviews, reports and tests will be for a scope approved by JPMorgan Chase & Co. in its reasonable discretion. Supplier will provide all findings from these attestations, reviews and tests to JPMC upon receipt from the third party. Supplier will (x) implement all recommendations set forth in such attestations, reviews, reports and any other reasonable recommendations made by JPMC arising out of JPMC's analysis of such reviews and (y) upon JPMC's request, provide JPMC with the status of the implementation. If Supplier fails to conduct the required reviews and assessments and provide the required reports set forth in clause (ii) above, as determined by JPMC, JPMC may perform its own reviews and assessments, and Supplier will promptly reimburse JPMC for all reasonable costs associated with its efforts.

12.5 Protection of JPMC Data in the Event of Data Handler Bankruptcy.

(a) If Supplier undergoes any of the events described in Section 19.3, JPMC will have the immediate right to take possession of and retain for safekeeping all JPMC Data then in Supplier's possession or under Supplier's control. JPMC may retain the JPMC Data until the trustee or receiver in bankruptcy or other appropriate court officer provides JPMC with adequate assurances and evidence that the JPMC Data will be protected from sale, release, inspection, publication or inclusion in any publicly accessible record, document, material or filing. Supplier and JPMC agree that this

Section 12.5 is a material term of this Agreement, and without it, JPMC would not have entered into this Agreement or permitted any access to or use of JPMC Data.

12.6 Regeneration of JPMC Data by Data Handler.

(a) Supplier will promptly replace or regenerate from Supplier's machine-readable media any data, programs or information handled or stored by Supplier that Supplier has lost or damaged or obtain a new copy of the lost or damaged data, programs or information. Alternatively, JPMC may replace or regenerate any data, programs or information that Supplier has lost or damaged or obtain a new copy of the lost or damaged data, programs or information, in which case, Supplier will promptly reimburse JPMC for all reasonable costs associated with its regeneration or replacement efforts.

12.7 Storage, Return or Destruction of JPMC Data.

(a) Supplier will accurately and completely collect and maintain information regarding the storage location, media, and method of storage of all JPMC Data and/or records on an ongoing basis. Unless expressly set forth in the applicable Schedule, if Supplier stores JPMC Data and/or records (including any and all copies, whether in production, backup or archival) it will do so on media logically and physically separate from other media used to store data of other Supplier clients and in accordance with the record retention guidelines set forth in the applicable Schedule. Further, in addition to the return and/or destruction obligations under Section 13.4, with respect to JPMC Data, prior to termination of the applicable Schedule, or on a date otherwise reasonably specified by JPMC, Supplier will: (a) meet with JPMC representatives to prepare and implement a plan for the return of all JPMC Data (in a format reasonably requested by JPMC); and (b) return to JPMC all JPMC Data as requested by JPMC. To the extent applicable record retention Laws require Supplier to have access to JPMC Data after termination or expiration of the applicable Schedule or JPMC's request for return or destruction, unless expressly set forth in an applicable Schedule, Supplier will provide those requirements to JPMC. JPMC is entitled to engage, on terms reasonably acceptable to JPMC, and at JPMC's sole cost and expense, an escrow agent to hold in escrow the JPMC Data (which escrow agent will be deemed JPMC's designee for purposes of Section 13.4). To the extent any JPMC Data is returned by the escrow agent to Supplier, Section 13 and this Section 12 will again apply to that returned JPMC Data. Additionally, upon JPMC's written direction, Supplier will either: (i) Securely Delete electronic JPMC Data from all media within 10 Business Days of that direction or (ii) to the extent that JPMC Data is in a form or media other than electronic, comply with JPMC's written instructions to Securely Delete that JPMC Data. Within 15 Business Days of that direction, Supplier will cause an officer of Supplier to certify to JPMC in writing that Supplier has complied with its obligations under clause (i) and (ii), as the case may be, including in compliance with JPMC's instructions. To the extent that JPMC Data cannot be so Securely Deleted due to technical or other reasons reasonably acceptable to JPMC, and to the extent JPMC expressly agrees in writing, Supplier will promptly provide a written description of measures to be taken that will ensure, for as long as any JPMC Data remains under Supplier's or its subcontractors' control, the continued protection of such JPMC Data, in compliance with the requirements of this Section 12 and Section 13. "**Securely Delete**" means using any and all means, including in compliance with the then-current version of National Institute for Standards and Technology ("**NIST**"), Special

Publication 800-88, Guidelines for Media Sanitization (and its appendices) and any written instructions of JPMC for sanitizing or deleting all data and information to ensure that the data and information is permanently sanitized, deleted and unrecoverable from any and all media, in whole or in part, by any means. In no event will Supplier remove or have removed any JPMC Data from Supplier's or any subcontractor's site without JPMC's prior written authorization.

12.8 Survival of Data Handler Terms.

(a) The terms set forth in this Section 12 will survive any expiration or termination of this Agreement or any Schedule for any reason.

12.9 Allocation of Risk.

(a) The limitations of liability and disclaimers in this Agreement will not apply to any breach of this Section 12.

13. CONFIDENTIALITY.

13.1 Confidential Information.

(a) Each party has made and will continue to make available to the other party information that is not generally known to the public and at the time of disclosure is identified as, or would reasonably be understood by the receiving party to be, proprietary or confidential ("**Confidential Information**"). Confidential Information may be disclosed in oral, written, visual, electronic or other form. Information meeting the definition of Confidential Information that is disclosed by a party during the term of this Agreement and that is not otherwise subject to a separate nondisclosure agreement between the parties will be considered Confidential Information, even if the information is unrelated to this Agreement or the Deliverables to be provided hereunder.

(b) JPMC's Confidential Information includes JPMorgan Chase & Co.'s: (i) business plans, strategies, forecasts, projects and analyses; (ii) financial information and fee structures; (iii) business processes, methods and models; (iv) employee, customer, dealer, business partner and supplier information; (v) hardware and system designs, architectures, structure and protocols; (vi) product and service specifications; (vii) manufacturing, purchasing, logistics, sales and marketing information; (viii) JPMC Data; (ix) the non-public records compiled in connection with enforcement responsibilities; reports of examination, supervisory correspondence, investigatory files, and internal memoranda in JPMorgan Chase & Co.'s possession; and (x) the terms of this Agreement. In addition, any non-public confidential supervisory information of any governmental body having regulatory authority over JPMorgan Chase & Co. will be considered Confidential Information and, to the extent Supplier has access to such Confidential Information, Supplier agrees (including as set forth in this Agreement) (i) that it will not use such Confidential Information for any purpose other than as provided under this Agreement; and (ii) it will keep the information confidential and (iii) it is aware of and will abide

by any specific regulatory requirements applicable to the Confidential Information, including the prohibition on the dissemination of non-public supervisory information of any governmental body having regulatory authority over JPMorgan Chase & Co. (including such prohibitions in the regulations of the Office of the Comptroller of the Currency and Federal Reserve).

(c) "**JPMC Data**" means all Confidential Information identified in the Schedule or in the JPMC's Minimum Control Requirements (a current copy of which is located at https://www.jpmorganchase.com/corporate/About-JPMC/ab-supplier-relations.htm or is otherwise available from JPMC upon request) to this Agreement as JPMC Data or Highly Confidential Information , as well as Personal Information and all other data and information about JPMorgan Chase & Co.'s customers (current, former or prospective), or employees (current, former or prospective) or its customers' customers (current, former or prospective) or employees (current, former or prospective) that Supplier obtains, creates, generates, collects or processes in connection with providing the Deliverables, and all Intellectual Property Rights in that data and information. If, in the context of its relationship with JPMC under this Agreement, Supplier obtains, creates, generates, collects, processes or has access to data of any individual or entity provided or obtained in connection with a product, service or program offered or sponsored by JPMC's customer, such data will also be considered JPMC Data. Supplier acknowledges and agrees that during the term of this Agreement and at all times thereafter, Supplier will not use or reference any JPMC Data or other JPMC Confidential Information for any purpose that is not specifically authorized by this Agreement or a Schedule entered into hereunder, in each case as determined by JPMC. Without limiting the generality of the foregoing, Supplier will not use JPMC Data to contact any person except if required by an applicable Law and in accordance with this Agreement, provided however, that in no event will any such contact involve marketing or solicitation of products or services, except to the extent expressly set forth in the applicable Schedule.

(d) As between JPMC and Supplier, each party will own its Confidential Information. If a party obtains any rights in any Confidential Information of the other party, that party hereby assigns those rights to the other party.

(e) Each party hereby waives, and neither party will assert, any liens or other encumbrances it obtains on any Confidential Information of the other party, or withhold any of the other party's Confidential Information as a means of resolving a dispute.

(f) Without limiting JPMC's rights under this Agreement, the parties acknowledge that Supplier may possess patent rights and that certain patent rights may be related to Supplier's products, processes and services that JPMC has the right to use hereunder ("**Patent Rights**"). Supplier hereby grants to JPMorgan Chase & Co. a non-exclusive, irrevocable easement to the Patent Rights, for the purpose of promoting JPMorgan Chase & Co.'s quiet enjoyment of its business, in the event Supplier sells, leases, transfers, or exclusively licenses the Patent Rights to a third party.

13.2 Obligations.

(a) The receiving party will maintain Confidential Information in confidence, and except as otherwise expressly permitted under this Agreement or with the express prior written consent of the disclosing party, the receiving party will not disclose, transmit or otherwise disseminate in any manner whatsoever any Confidential Information of the disclosing party to any third party. The receiving party will use the same care and discretion to avoid disclosure, publication or dissemination or unauthorized access, of any Confidential Information received from the disclosing party as the receiving party uses with its own similar information that it does not wish to disclose, publish or disseminate, or be accessed (but in no event less than a reasonable degree of care). Subject to Section 13.5 Supplier may (i) only use the JPMC Confidential Information to provide Deliverables to JPMC pursuant to the applicable Schedule during the Schedule term and (ii) disclose JPMC's Confidential Information to its or its subcontractors' employees, consultants or agents solely for the purpose of performing its obligations under this Agreement and only to those who are obligated to maintain the confidentiality of JPMC's Confidential Information upon terms similar to those contained in this Agreement, provided, however, Supplier will not disclose any Personal Information it receives, has access to or processes in connection with this Agreement outside of the countries to which the Parties have agreed, provided further, however, Supplier will not use any aggregate data or performance data derived from the JPMC Confidential Information or the Deliverables except as permitted by the applicable Schedule. Supplier will not attempt to identify or re-identify any person or entity whose information may be included in any de-identified or aggregated information or data that it receives from JPMC. Supplier will not attempt to decrypt or unmask any encrypted or masked information or data that Supplier receives from JPMC. Supplier will, and will ensure that each of its or its subcontractor's employees, consultants, agents or any other individuals acting on Supplier's behalf ("**Supplier Personnel**"), use JPMC's Confidential Information only for the purposes stated in this Section 13.2. Supplier will implement, maintain and test controls reasonably designed to ensure the security and integrity of systems on or through which JPMC Confidential Information is stored, accessed, processed or transmitted and cooperate with JPMC's requests for assurances and evidence of the effectiveness of those controls. JPMC may disclose Supplier's Confidential Information to any Affiliates, contractors, consultants, Auditors, agents and other third parties (where such other third parties have a need to know) and are obligated to maintain the confidentiality of Supplier's Confidential Information upon terms similar to those contained in this Agreement or as may be necessary by reason of legal, accounting or regulatory requirements. The receiving party will be liable for any unauthorized disclosure or use of Confidential Information by any of its employees, consultants, agents, subcontractors or advisors. The receiving party will promptly report to the disclosing party any breaches in security that may materially affect the disclosing party and will specify the corrective action to be taken. Unless otherwise set forth in the applicable Schedule, Supplier will not commingle the Confidential Information of JPMC with the confidential information of any other person or entity.

13.3 Exceptions to Confidential Treatment.

(a) Exclusions.

The obligations set forth in Section 13.2 do not apply to any Confidential Information that the receiving party can demonstrate: (i) the receiving party possessed prior to disclosure by the disclosing party, without an obligation of confidentiality; (ii) or becomes publicly available without

breach of this Agreement by the receiving party, other than Personal Information; (iii) is or was independently developed by the receiving party without the use of any Confidential Information of the disclosing party; or (iv) is or was received by the receiving party from a third party that does not have an obligation of confidentiality to the disclosing party or its Affiliates. Either party may disclose the terms of this Agreement to potential parties to acquisition, divestiture or similar transactions to facilitate due diligence and closing of the transaction, provided that potential party is subject to written non-disclosure obligations and limitations on use only for the prospective or closed transaction, each party to that transaction using commercially reasonable efforts to limit the extent of the disclosure.

(b) Legally Required Disclosure.

If the receiving party is legally required to disclose any Confidential Information of the disclosing party in connection with any legal or regulatory proceeding, the receiving party will, if lawfully permitted to do so, endeavor to notify the disclosing party within a reasonable time prior to disclosure and to allow the disclosing party a reasonable opportunity to seek appropriate protective measures or other remedies prior to disclosure and/or waive compliance with the terms of this Agreement. If these protective measures or other remedies are not obtained, or the disclosing party waives compliance with the terms of this Agreement, the receiving party may disclose only that portion of that Confidential Information that it is, according to the opinion of counsel, legally required to disclose and will exercise all reasonable efforts to obtain assurance that confidential treatment will be accorded to that Confidential Information. However, nothing contained in this Agreement will restrict JPMC's ability to disclose Supplier's Confidential Information to regulatory or governmental bodies asserting jurisdiction over JPMorgan Chase & Co.

13.4 Return or Destruction.

(a) Supplier will return or destroy any of JPMC's Confidential Information in Supplier's possession or under Supplier's control, as soon as possible after the earlier of: (a) JPMC's request, or (b) the date Supplier no longer requires that Confidential Information to perform its obligations to JPMC. Supplier will provide JPMC with a certificate, signed by an officer of Supplier, certifying that all of that Confidential Information has been destroyed or returned to JPMC or its designee (e.g., JPMC's escrow agent). JPMC is entitled to withhold payment of any and all amounts due to Supplier so long as Supplier fails to comply with this Section 13.4 or any other provisions of this Agreement or the applicable Schedule with respect to destruction or return of Confidential Information (collectively and individually, "**Supplier's Purge Obligations**"). The limitations of liability and disclaimers in this Agreement will not apply to any breach of Supplier's Purge Obligations.

(b)

13.5 Information Exchanged in Connection with New Business Assessments.

(a) From time to time, in order to assess the possibility of forming, modifying or expanding a business relationship, which may or may not be the subject of an existing Schedule ("**Assessment**"), JPMC and Supplier may exchange Confidential Information for purposes of the Assessment. JPMC and Supplier agree that their disclosure of information in connection with the

Assessment will be governed by this Section 13, unless such disclosure is subject to a separate nondisclosure agreement between the parties. JPMC and Supplier agree that unless and until a definitive agreement between them with respect to the Assessment has been executed, neither party will be under any legal obligation of any kind with respect to such possible business relationship, except for the matters specifically agreed to in the Agreement.

14. REPRESENTATIONS AND WARRANTIES.

(a) The following representations and warranties are deemed given as of the Effective Date and on an ongoing basis throughout the term of this Agreement and throughout each Schedule Term:

14.2 Authority.

(a) Each party represents and warrants that it has: (a) all requisite legal and corporate power to execute and deliver this Agreement and each Schedule, (b) taken all corporate action necessary for the authorization, execution and delivery of this Agreement and each Schedule, (c) no agreement or understanding with any third party that interferes with or will interfere with its performance of its obligations under this Agreement and each Schedule, (d) obtained and will maintain all rights, approvals and consents necessary to perform its obligations and grant all rights and licenses granted under this Agreement and each Schedule, and (e) taken all action required to make this Agreement and each Schedule a legal, valid and binding obligation of such party, enforceable against such party in accordance with its terms.

14.3 No Defects; Compliance.

(a) Supplier represents and warrants that each Deliverable will: (a) be free from errors and defects in workmanship and materials, and (b) be in Compliance for one year after Acceptance of the Deliverable. Within ten days after JPMC informs Supplier that a Deliverable does not conform to this warranty, Supplier will, at its own expense, replace the nonconforming Deliverable with a Deliverable that is in Compliance, and that replacement will be considered a new Deliverable. If Supplier fails to do so within that period, JPMC may, at its option: (i) extend the correction period or (ii) obtain a full refund of all fees paid to Supplier for the Deliverable and any other Deliverables that JPMC is unable to use as a consequence of the nonconformity.

14.4 No Inducements.

(a) Supplier represents and warrants that Supplier has not provided, and will not provide, to any JPMorgan Chase & Co. employee or contractor any gift, gratuity, service or other inducement or favor to influence or reward that employee or contractor in connection with any Schedule. By way of example and for the avoidance of doubt, meals and tickets are considered inappropriate under this Section 14.4.

14.5 Non-Infringement.

(a) Supplier represents and warrants that the Deliverables provided by Supplier under each Schedule and JPMC or Recipient's use of those Deliverables do not and will not infringe, violate or misappropriate any patent, copyright, trade secret, trademark or other intellectual property or proprietary rights (collectively, "**Intellectual Property Rights**") of any third party. Supplier represents and warrants that there are no current or outstanding Intellectual Property Rights infringement claims that have been filed against it, to the extent such claim, if true, would have a material adverse effect on the Deliverables or Supplier's ability to perform. In the event that Supplier becomes aware of any threatened or actual Intellectual Property Rights infringement claims, Supplier will promptly notify JPMC of such claims.

14.6 Adequate Documentation.

(a) Supplier represents and warrants that the Documentation will describe fully and accurately the features and functions of the version(s) of the Deliverables then in use by JPMC or Recipient well enough to allow a reasonably skilled JPMC or Recipient user to effectively use all of its features and functions without assistance from Supplier. If Supplier provides source code, the Documentation will also include all information that a reasonably skilled programmer needs to maintain, modify and implement the applicable Deliverables without assistance from Supplier.

14.7 Disabling Code.

(a) Supplier represents and warrants that the Deliverables will not contain any virus, Trojan horse, self-replicating or other computer instructions that may, without JPMC's consent: (a) alter, destroy, inhibit or discontinue JPMC or Recipient's effective use of the Deliverables or any JPMorgan Chase & Co. resource; (b) erase, destroy, corrupt or modify any data, programs, materials or information used by JPMorgan Chase & Co. or its customers; (c) store any data, programs, materials or information on JPMorgan Chase & Co.'s computers, including the computers of its customers; or (d) bypass any internal or external security measure to obtain access to JPMorgan Chase & Co.'s resources.

14.8 Pass Through of Third Party Warranties.

(a) In addition to its other representations and warranties given in the Agreement, Supplier will provide to JPMC and Recipients the full benefit of all covenants, warranties, representations and indemnities granted to Supplier by third parties in connection with any Deliverables. Where the third party prohibits Supplier from passing through any indemnities, representations or warranties to JPMC, Supplier shall either (a) provide them directly to JPMC as part of this Agreement or (b) enforce them against the third party and provide the benefits of that enforcement to JPMC.

14.9 Adequate Assurances.

(a) With respect to any Schedule to be entered into between a JPMC Entity and a Supplier Affiliate, the JPMC entity may request and Supplier shall provide, contemporaneous with the execution of the applicable Schedule, an adequate assurance of such Supplier Affiliate's ability to deliver the Deliverables in the form of a parent guarantee, letter of credit or performance bond (each, an "**Assurance Document**") acceptable to the JPMC Entity in its reasonable discretion. However, in the absence of such Assurance Document at the time the Schedule is executed, and in connection with any Schedule to which Supplier itself is a part, Supplier covenants and agrees that during the Schedule Term of each Schedule, if the JPMC Entity becomes aware of facts or circumstances that it reasonably believes would cause Supplier Affiliate not to be willing or able to deliver the Deliverables or a significant portion of the Deliverables, the JPMC Entity may request, and Supplier shall provide within 48 hours after receipt of a request, adequate assurances (which may include furnishing an Assurance Document), acceptable to the JPMC Entity in its reasonable discretion, of Supplier Affiliate's continuing ability and willingness to deliver the Deliverables as required by the applicable Schedule; provided, that any dispute with respect to this provision will trigger an immediate executive level face-to-face meeting at JPMC's offices in accordance with Section 18.1.

14.10 Financial Interests.

(a) Supplier represents and warrants that it will reveal all financial interests related to any hardware, software, services, or provider thereof that Supplier might recommend to JPMC.

14.11 OFAC.

(a) Supplier represents and warrants that neither Supplier nor any individual, entity, or organization holding any material ownership interest in Supplier, nor any officer or director, is an individual, entity, or organization with whom any United States law, regulation, or executive order prohibits United States companies and individuals from dealing, including, without limitation, names appearing on the SDN List (as defined in Section 19.2). Supplier covenants to JPMC that it will not cause JPMC to be in violation of any regulation administered by OFAC.

14.12 Disclaimer.

(a) EXCEPT AS SET FORTH IN THIS AGREEMENT OR IN ANY SCHEDULE, NEITHER PARTY MAKES ANY OTHER REPRESENTATIONS AND WARRANTIES WHETHER EXPRESS OR IMPLIED INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE.

14.13 Compliance with Laws.

(a) Supplier represents and warrants that Supplier will perform all of its obligations to JPMorgan Chase & Co., and that all Deliverables will be, in compliance at all times with all foreign, federal, state and local statutes, orders, conventions, regulations, self-regulatory standards, and regulatory interpretations and guidance including those of any

governmental agency (collectively, "**Laws**") that are applicable to Supplier in performing its obligations to JPMorgan Chase & Co. or that would be applicable to JPMorgan Chase & Co. if JPMorgan Chase & Co. were performing those obligations using its own employees and assets.

(b) To the extent Supplier is providing, serving, or hosting Internet, email or portable device ready user interface elements or functionality, Supplier represents and warrants that such elements and functionality will conform to the W3C Web Content Accessibility Guidelines Version 2.0 Level A & AA Success Criteria, as well as any state or federal Laws applicable to Internet, email or portable device accessibility including the U.S. Americans with Disabilities Act.

(c) To the extent any Supplier Personnel are performing any services within the United States or any territory to which U.S. immigration Laws apply, Supplier represents, warrants and covenants that, during the Schedule Term of any applicable Schedule (i) Supplier and all applicable subcontractors will comply with all (x) U.S. immigration Laws, including but not limited to the Immigration and Nationality Act and the Immigration Reform and Control Act of 1986; and (y) Laws, regulations, orders, and policy guidance relating to all forms of work authorization such as H-1B and L-1 visas, including guidance from the U.S. Citizenship and Immigration Service on H-1B visas and third-party site placements; (ii) all Supplier Personnel assigned to a JPMC U.S. location shall have valid, unexpired work authorization; and (iii) Form I-9, Employment Eligibility Verification has been completed for all Supplier Personnel assigned to a JPMC U.S. location and I-9s with expiring work authorizations shall be re-verified as necessary.

(d) Supplier represents and warrants that Supplier will provide relevant information and assistance required by JPMC to demonstrate Supplier's compliance with its obligations under this Agreement and assist JPMC in meeting its obligations under Laws, including regarding (i) registration and notifications; (ii) accountability; (iii) ensuring the security of the Personal Information; (iv) responding to requests for access, correction, opt-out, erasure, restriction, data portability, and all similar request; (v) responding to any complaint relating to the processing of Personal Information, including allegations that the processing infringes on an individual's rights; and (vi) carrying out privacy and data protection impact assessments and related consultations of data protection authorities.

15. INDEMNITY.

(a) Supplier will indemnify, defend and hold harmless JPMorgan Chase & Co. from any and all losses, liabilities, damages (including taxes), and all related costs and expenses, including reasonable legal fees and disbursements and costs of investigation, litigation, settlement, judgment, interest and penalties incurred by itself or any of its direct or indirect officers, directors, employees, agents, successors or assigns (collectively, "**Losses**"), and threatened Losses due to, arising from or relating to third party claims, demands, actions or threat of action (whether in law, equity or in an alternative proceeding) arising from or relating to: (a) Supplier's actual or alleged breach of any warranties in this Agreement or in a Schedule; (b) any actual or alleged infringement, violation or

misappropriation of the Intellectual Property Rights of any third person by (i) any Deliverables provided by Supplier or (ii) JPMC or a Recipient's use of those Deliverables; (c) Supplier's actual or alleged breach of any of the confidentiality or privacy provisions in this Agreement; (d) any Security Breach; (e) the actual or alleged failure of Supplier or any of its subcontractors or anyone acting on its or their behalf to pay any withholding or other employment-related taxes or other obligations (including any Losses arising in connection with the Internal Review Code § 4980H) in connection with Supplier Personnel; (f) fraud, negligent, willful or reckless acts or omissions, whether actual or alleged, of or by Supplier or any Supplier Personnel or (g) death, bodily injury, personal injury or property damage actually or allegedly caused by Supplier or Supplier Personnel or incurred during the performance of the Services (each, an "**Indemnified Claim**"). No settlement or compromise that imposes any liability or obligation on JPMorgan Chase & Co. or any of its direct or indirect officers, directors, employees, agents, successors or assigns will be made without JPMorgan Chase and Co.'s prior written consent (not to be unreasonably withheld). If Supplier fails to defend JPMorgan Chase & Co. as provided in this Section 15 after reasonable notice of an Indemnified Claim, Supplier will be bound: (i) to indemnify and reimburse JPMorgan Chase & Co. for any Losses incurred by it, in its sole discretion, to defend, settle or compromise the Indemnified Claim; and (ii) by the determination of facts common to an action and subsequent action to enforce its reimbursement rights.

16. LIMITATION OF LIABILITY.

16.1 Disclaimer of Indirect Damages.

(a) EXCEPT AS PROVIDED IN SECTIONS 16.2 AND 16.3 BELOW OR OTHERWISE SET FORTH IN THIS AGREEMENT, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE OR SPECIAL DAMAGES, INCLUDING LOST PROFITS, REGARDLESS OF THE FORM OF THE ACTION OR THE THEORY OF RECOVERY, EVEN IF THAT PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF THOSE DAMAGES.

16.2 Exclusions.

(a) Notwithstanding the foregoing, the limitations of liability set forth in this Section 16 will not apply to Losses in connection with: (a) death, personal injury or property damage caused by either party; (b) fraud, a party's gross negligence or the willful or reckless misconduct of a party; (c) either party's repudiation of their obligations under this Agreement; (d) Supplier's breach of the confidentiality provisions under this Agreement; (e) Supplier's breach of the privacy provisions under this Agreement; (f) any Security Breach; (g) claims pursuant to the indemnification provisions set forth in Section 15; or (h) breach of Section 20.5. Further, without limiting JPMC's rights or Supplier's obligations under any other provision of this Agreement or the applicable Schedule, and notwithstanding the same, in the event of a breach of this Agreement or the applicable Schedule with respect to Personal Information or any other unauthorized access to the Personal Information under Supplier's control, direct damages in connection with any such breach will include the cost and expenses of investigation and analysis (including by law firms and forensic firms), notification (including by mail house firms), offering and providing of credit monitoring or other remediation

services, and any related call center or similar support activities, and no limitation of liability will apply to those damages.

(b)

16.3 Reimbursement for Losses.

(a) Supplier shall reimburse JPMC for any Losses incurred by JPMC in enforcing Supplier's obligations under the privacy and confidentiality provisions of this Agreement, including Supplier's Purge Obligations, as well as any provisions relating to access to JPMC systems or use or handling of JPMC Data, as applicable.

17. EQUAL EMPLOYMENT OPPORTUNITY; DIVERSE SUPPLIERS.

17.1 Equal Employment Opportunity.

(a) If Supplier is a U.S. legal entity, then Supplier will not, and will ensure that Supplier Personnel do not, discriminate against any of its employees or applicants for employment because of age, race, color, religion, creed, citizenship status, marital status, sexual orientation, sex, gender identity, genetic information, national origin, disability, veteran status or any other protected status under applicable law (e.g., civil union status, height, weight, arrest record and status with regard to public assistance, to the extent protected under applicable law). Supplier further agrees, unless exempt, to comply with all applicable requirements of the equal opportunity and affirmative action clauses set forth in Executive Order 11246 (applicable to subcontractors), as amended, in the regulations of the Department of Labor implementing the Vietnam Era Veterans Readjustment Act of 1974, and in the Rehabilitation Act of 1973, as amended, which, together with the implementing rules and regulations prescribed by the Secretary of Labor, are incorporated into this Agreement by reference. **Supplier will abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a), if applicable. These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that Supplier takes affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability.** Supplier will comply with JPMorgan Chase & Co.'s policy of maintaining a business environment free of all forms of discrimination, including sexual harassment.

17.2 Executive Order 13496 Compliance.

(a) The Supplier agrees to comply with all regulations issued pursuant to Executive Order 13496, if applicable, including 29 CFR Part 471, Appendix A to Subpart A of Part 471.

17.3 Diverse Suppliers.

(a) It is the policy of JPMC through its Supplier Diversity initiative that certified Minority Business Enterprises ("**MBEs**"), Women Business Enterprises ("**WBEs**"), Disadvantaged Business Enterprises ("**DBEs**"), Veteran Business Enterprises and Service Disabled Veteran Business Enterprises (respectively, "**VBEs**" and "**DVBEs**"), Disability-Owned Business Enterprises ("DOBE's"); Lesbian, Gay, Bi-Sexual, Transgender Enterprises ("**LGBTEs**"), and Small Business Enterprises ("SBE") (collectively, "**Diverse Suppliers**"), will have equal opportunity to bid on JPMC contracts and to participate in the performance of contracts for goods and services with JPMC and its prime suppliers. The utilization goal for Diverse Suppliers is 10 percent of the third-party procurement spend related, directly or indirectly, to this Agreement. Supplier will report the actions it is taking in furtherance of this goal, using JPMC's online supplier diversity reporting tool ("**SD Tool**") located at https://jpmc.tier2.cvmsolutions.com/Account/Login?ReturnUrl=%2F on a quarterly basis as required.

(b)

18. DISPUTE RESOLUTION.

18.1 Dispute Resolution.

(a) Except as provided in Section 18.2, neither party will invoke formal dispute resolution procedures other than in accordance with this Section 18.1. Any party may give the other party notice of any dispute not resolved in the normal course of business. Within 15 days after delivery of that notice, the receiving party will provide a written response. Within 15 days after delivery of the receiving party's notice, executives of the parties who have authority to resolve the dispute will meet to attempt to resolve the dispute. All reasonable requests for information will be honored. If the matter has not been resolved within 45 days after the disputing party's initial notice, or if the executives fail to meet within 15 days of the receiving party's notice, either party may commence legal action with respect to the dispute or claim. All negotiations pursuant to this Section 18 will be confidential and therefore treated as compromise and settlement negotiations for purposes of all similar rules and codes of evidence of applicable legislation and jurisdictions. If either party invokes executive level dispute resolution pursuant to Section 14.9, the executive sponsors designated by each party will convene at a meeting at JPMC's offices, or other location designated by JPMC, within 48 hours of notice by either party.

18.2 Immediate Injunctive Relief.

(a) Supplier acknowledges that JPMC will be irreparably harmed and Section 18.1 will not apply if Supplier breaches (or attempts or threatens to breach): (a) its obligation to provide critical services to JPMC or Recipients (such as the termination assistance services as provided in Section 19.5), (b) its obligation respecting continued performance in accordance with Section 18.3, or (c) its obligations with respect to JPMC's Confidential Information or JPMC Data. If a court of competent jurisdiction finds that Supplier has breached (or attempted or threatened to breach) any of those obligations, Supplier agrees that, without any additional findings of irreparable injury or other conditions to injunctive relief, it will not oppose the entry of an appropriate order compelling performance by Supplier and restraining it from any further breaches (or attempted or threatened breaches).

18.3 Continued Performance.

(a) If a dispute is being resolved before the applicable Schedule expires, each party will, unless otherwise directed by the other party, continue performing its obligations to the other party (other than JPMC's obligation to pay amounts disputed in good faith).

18.4 Governing Law; Jurisdiction.

(a) This Agreement and any claim, controversy or dispute arising under or related to this Agreement, whether arising in contract, tort or otherwise, shall be governed by the laws of the State of New York, without giving effect to the principles of comity or conflicts of laws thereof. Each party irrevocably agrees that any legal action, suit or proceeding brought by it in any way arising out of this Agreement must be brought solely and exclusively in, and will be subject to the laws of in the State of New York, and each party irrevocably submits to the sole and exclusive personal jurisdiction of the courts in the State of New York. Notwithstanding the foregoing, claims for equitable relief may be brought in any court with proper jurisdiction within the United States, but such claims will be subject to the laws of the State of New York. The United Nations Convention on Contracts for the International Sale of Goods does not apply to the transactions contemplated by this Agreement. The Uniform Computer Information Transactions Act ("**UCITA**") will not apply to this Agreement or any Schedule regardless of when and howsoever adopted, enacted and further amended under the laws of the State of New York or any other state. If UCITA is adopted and enacted in the State of New York or any other state and, as a result of such adoption and enactment or any subsequent amendment thereto, the parties are required to take any action to effectuate the result contemplated by this Section 18.4, including amending this Agreement, the parties agree to take such action as may be reasonably required, including amending this Agreement accordingly.

18.5 Waiver of Jury Trial.

(a) Both parties agree to waive any right to have a jury participate in the resolution of the dispute or claim, between any of the parties or any of their respective Affiliates related in any way to this Agreement.

19. TERM AND TERMINATION.

19.1 Term.

(a) This Agreement is effective from the Effective Date until terminated in accordance with this Agreement.

19.2 Termination by JPMC.

(a) Termination for Cause.

JPMC may terminate this Agreement or any Schedule(s) for cause, in whole or in part, as of the date specified in a notice of termination if (i) Supplier materially breaches its obligations under this Agreement or any Schedule and does not cure that breach within 45 days after receiving JPMC's notice of breach; (ii) any regulator having jurisdiction over JPMorgan Chase & Co. object to this Agreement or any Schedule(s); (iii) JPMC, having deferred all or part of its initial information or operational risk assessment until after the Schedule is executed, reasonably determines that Supplier does not or cannot meet JPMC's standards; or (iv) there is a change in any Law that impacts JPMC's use of the Supplier's products or services. If JPMC terminates for cause, (x) JPMC will have no obligation to pay any termination fee or costs, meet any minimum payment requirements, or pay any penalty, or otherwise be subject to any restriction; and (y) JPMC will pay Supplier for any accepted Deliverables provided prior to the effective date of termination unless such payment is prohibited by law or subject to any applicable set-off right.

(b) Termination for Convenience.

JPMC may terminate this Agreement or any Schedule(s) for convenience at any time by giving Supplier at least 90 days' prior written notice of the termination date or such other period set forth in the applicable Schedule. JPMC will remain liable for fees and expenses incurred for all Deliverables Accepted by JPMC pursuant to the terminated Schedule(s) up to the effective date of termination for convenience.

(c) Termination for OFAC Compliance.

If Supplier or any individual, entity, or organization holding any material ownership interest in Supplier, including any officer or director, is determined at any time to be an individual, entity, or organization with whom JPMC is prohibited from dealing by any United States law, regulation, or executive order, including names appearing on the U.S. Department of the Treasury's Office of Foreign Assets Control's ("**OFAC**") Specially Designated Nationals and Blocked Persons List (the "**SDN List**"), then Supplier shall be deemed to be in material breach of this Agreement and JPMC shall have the right to terminate this Agreement immediately, without penalty or liability. If JPMC exercises the termination right described herein, JPMC shall pay Supplier for any accepted Deliverables provided prior to the effective date of termination unless such payment is prohibited by law or subject to any applicable set-off right.

19.3 Termination for Financial Insecurity.

(a) Either party may terminate this Agreement or any Schedule, in whole or in part, for cause as of the date specified in a termination notice if the other party, or, in the case of Supplier, any of Supplier's Affiliates providing Deliverables to JPMC: (a) files for bankruptcy, (b) becomes or is declared insolvent, (c) is the subject of any proceedings (not dismissed within 30 days) related to its liquidation, insolvency or the appointment of a receiver or similar officer for that party, (d) makes an assignment for the benefit of all or substantially all of its creditors, (e) takes any corporate action for its winding-up, dissolution or administration, (f) enters into an agreement for the extension or readjustment of substantially all of its obligations, or (g) recklessly or intentionally makes any material misstatement as to financial condition. Notwithstanding the foregoing, Supplier may not terminate this Agreement or any Schedule pursuant to this Section to the extent that (i) JPMC continues to adhere to its payment obligations in the Agreement and any applicable Schedule or

(ii) Supplier requests JPMC to make any pre-payments (of no more than 60 days) after an event specified in the above clauses (a) through (g) occurs for any Deliverables and JPMC makes such pre-payment(s).

19.4 Termination for Cause by Supplier.

(a) Supplier may, upon notice to JPMC, terminate any Schedule if JPMC materially breaches its obligations under that Schedule and does not cure that material breach within 90 days after receipt of Supplier's notice.

19.5 Termination Assistance Services.

(a) In connection with the termination of any Schedule, Supplier will provide any and all services reasonably requested by JPMC, or as otherwise provided in the Schedule, to make a smooth transition from the use of Deliverables provided under the applicable Schedule to internal functions or alternate providers. JPMC will pay Supplier the most applicable rates in any Schedule in consideration of those services. However, if JPMC terminates the Schedule for cause, Supplier will provide to JPMC these termination assistance services at no cost or expense to JPMC.

19.6 Survival.

(a) Effect on Schedules.

After this Agreement terminates, the terms of this Agreement will remain in effect with respect to any Schedule entered into before the termination. However, no Schedule may be entered into under this Agreement after it terminates.

(b) Surviving Provisions.

After this Agreement or a Schedule terminates or expires, the terms of this Agreement and that Schedule that expressly or by their nature contemplate performance after such termination or expiration will survive and continue in full force and effect. For avoidance of doubt, the provisions protecting Confidential Information, permitting audits, providing for rights of quiet enjoyment, granting perpetual licenses, requiring reimbursement of Losses, requiring indemnification and setting forth limitations of liability each, by their nature, contemplate performance or observance after this Agreement or a Schedule expires or terminates.

20. GENERAL.

20.1 Interpretation.

(a) Each party acknowledges that this Agreement has been the subject of active and complete negotiations, and that this Agreement should not be construed in favor of or against any party by reason of the extent to which any party or its professional advisors participated in the preparation of this Agreement.

20.2 Assignment.

(a) Neither party may assign any rights or delegate any obligations under this Agreement without the prior written consent of the other party. Notwithstanding any such consent, any assignment by Supplier that is not accompanied by an assumption agreement executed by the assignee shall be null and void. However, JPMC may assign this Agreement, any Schedule, or any of its rights hereunder or thereunder, in whole or in part, without Supplier's consent: (a) to any existing or future JPMC Entity, or (b) to a surviving entity in the case of a JPMC merger, acquisition, divestiture, consolidation or corporate reorganization (whether or not JPMC is the surviving entity). Any assignment or attempted assignment contrary to this Section 20.2 will be a material breach of this Agreement and null and void. This Agreement and each Schedule will be binding upon the successors, legal representatives and permitted assigns of the parties. For purposes of this Section 20.2, any merger, change of control or other combination by operation of law constitutes an assignment.

20.3 Acquisition of Entity with Existing Relationship.

(a) If any merger or acquisition results in a JPMC Entity and Supplier having in effect other agreement(s) with the same general subject matter as this Agreement, JPMC may, at its option: (a) terminate this Agreement or the other agreement(s) in whole or in part (and without any JPMC Entity having any liability or incurring any additional charges to Supplier), and (b) require Supplier to enter into Schedules or other appropriate documents to move Supplier's delivery, license and services obligations, in whole or in part, from any terminated agreement to any continuing agreement. If JPMC does move obligations, JPMC will receive the benefit of any enterprise-wide pricing and any volume discounts even if the agreement containing that pricing or those discounts was terminated. Supplier hereby agrees to honor and be bound by the terms and conditions of the agreement chosen, in whole or in part, by JPMC under this clause.

20.4 Counterparts.

(a) This Agreement, any Schedules and any amendment hereto or thereto may be executed in two or more counterparts (including by facsimile or email attachment), each of which will be considered an original but all of which together will constitute one agreement.

20.5 Disablement of Software and Hardware.

(a) Except if and to the extent expressly necessary for performance of maintenance or any other servicing or support expressly authorized in writing by JPMC, in no event will Supplier, its agents or employees or anyone acting on its behalf, disable or interfere, in whole or in part, with JPMC or Recipient's use of any Deliverables or any software, hardware, systems or data owned, utilized or held by JPMorgan Chase & Co., Recipients or customers without the written permission of a corporate officer of JPMC, whether or not the disablement is in connection with any dispute between the parties or otherwise. Supplier understands that a breach of this provision could cause

substantial harm to JPMC and to numerous third parties having business relationships with JPMorgan Chase & Co. No limitation of liability, whether contractual or statutory, will apply to a breach of this Section 20.5.

20.6 Nature of Licenses.

(a) All license rights granted by Supplier pursuant to this Agreement (including the easement right in Section 13.1(f)) (collectively, "**License Rights**") are, and will otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (as amended, the "**Code**"), licenses to rights to "intellectual property" irrespective of how that term is defined in Section 101(35A) of the Code. The parties agree that if bankruptcy or insolvency proceedings are brought by or against Supplier, whether under the Code, any successor statute, or under any other law providing for the relief of debtors (collectively, "**Insolvency Laws**"), each licensee will retain and may fully exercise all of its rights, elections, and remedies to preserve the License Rights under such Insolvency Laws (whether under Section 365(n) of the Code, any other code section or otherwise), including the right to retain and exercise its rights under this Agreement and any agreement supplementary hereto, the right to continued use of such License Rights during and after the commencement or conclusion of such proceeding, and the right to obtain any intellectual property (or such embodiment) as provided herein or in any agreement supplementary hereto.

20.7 JPMC Delays.

(a) If a failure of JPMC to perform any of its obligations within the timeframes set forth in this Agreement or any Schedule prevents Supplier from timely performing its obligations, then the relevant dates of Supplier's performance will be extended by an amount equal to the delay caused by JPMC. The provisions of this Section 20.7 will apply only if Supplier: (a) notifies JPMC promptly (not more than seven days) after the occurrence of an event that constitutes a delay by JPMC under this Section 20.7, and (b) uses commercially reasonable efforts to perform notwithstanding JPMC's failure to perform. JPMC's failure to perform any of its stated operational responsibilities or provide any JPMC resources expressly required pursuant to a Schedule will neither constitute a breach nor give rise to any right to terminate this Agreement or any Schedule.

20.8 Model Analysis.

(a) To the extent a Deliverable is used by or for JPMC to value positions, measure exposure or evaluate risk (collectively, the "**Models**"), including to facilitate JPMC's compliance with regulatory and management requirements to fully understand and explain the Models used for its businesses, promptly after request from JPMC and at no additional charge, Supplier will (a) deliver to JPMC documentation sufficient to enable a detailed understanding of the methodology, analysis and calculations that are referenced, included or implemented in the development or use of the Models (collectively, "**Model Analysis**") so as to enable JPMC to review and explain the Models; and (b) make qualified Supplier Personnel available to JPMC and its designees (including regulators and other Auditors) to provide "plain English" explanations of any such Models or Model Analysis. Any such documentation and explanation is subject to Section 13.

20.9 Headings.

(a) The headings in this Agreement are for convenience of reference only. They are not to affect the interpretation of this Agreement.

20.10 Independent Contractors.

(a) Supplier and JPMC will at all times be independent contractors. Neither party will have any right, power or authority to enter into any agreement for or on behalf of, or to assume or incur any obligation or liabilities, express or implied, on behalf of or in the name of, the other party. Accordingly, Supplier will ensure that no Supplier Personnel sign any documents on behalf of JPMorgan Chase & Co. without the express prior written consent of JPMC, which JPMC may withhold or condition in its sole discretion. This Agreement will not be interpreted or construed to create an association, joint venture or partnership between the parties or to impose any partnership obligation or liability upon either party. Except as set forth in the applicable Schedule, each party's employees, methods, facilities and equipment will at all times be under its exclusive direction and control. Unless expressly provided otherwise, each Party shall bear its own costs and expenses incurred in connection with this Agreement.

20.11 Insurance.

(a) Within five Business Days after the execution of this Agreement or before commencing the provision of Deliverables or permitting any subcontractor to commence the provision of Deliverables, whichever is earlier, Supplier will, at its own cost and expense, procure and maintain in full force and effect throughout the Schedule Term the insurance policies listed in the Insurance Exhibit attached hereto.

20.12 No Liens.

(a) Supplier will not and will not permit Supplier Personnel to file, any mechanic's or materialman's liens or any security interests on or against property or realty of JPMC to secure payment under this Agreement. If any liens or interests arise as a result of Supplier's action or inaction, Supplier will remove the liens at its sole cost and expense within ten Business Days.

20.13 No Modification.

(a) No supplement, alteration, amendment, modification or change of this Agreement will be valid or binding unless in writing and signed by an authorized representative of the party to be bound. The terms of this Agreement will supersede any click-wrap, shrink-wrap or browse-wrap agreements or any other documents containing terms and conditions related to the Deliverables as well as any conflicting provision in any purchase order, invoice or order acknowledgement unless such agreements, terms and conditions, that purchase order or order acknowledgement (each, a "**Conflicting Document**") is signed by both parties and the provision in the Conflicting Document

indicates with specificity which provision(s) in this Agreement it takes precedence over. Payment of an invoice does not constitute an agreement to the content of the invoice.

20.14 Other Suppliers.

(a) This is not an exclusive agreement. Supplier acknowledges that JPMC uses (and reserves the right to continue to use) other suppliers to provide goods, licensed material and services that are similar or related to the Deliverables. Supplier will, to the extent reasonably requested by JPMC, cooperate in good faith and in a timely manner with JPMorgan Chase & Co.'s other suppliers to allow the suppliers to efficiently perform services for JPMorgan Chase & Co. and its customers.

20.15 Rights and Remedies Cumulative.

(a) Unless expressly stated otherwise in this Agreement, all rights and remedies provided for in this Agreement will be cumulative and in addition to, and not in lieu of, any other remedies available to either party at law, in equity or otherwise. If JPMC has a choice of one action "or" another action, JPMC may take both of those actions.

20.16 Severability.

(a) If any provision of this Agreement conflicts with the law under which this Agreement is to be construed or if any provision of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, that provision will be deemed to be restated to reflect as nearly as possible the original intentions of the parties in accordance with applicable Law. The remaining provisions of this Agreement and the application of the challenged provision to persons or circumstances other than those as to which it is invalid or unenforceable will not be affected thereby, and each of those provisions will be valid and enforceable to the full extent permitted by law.

20.17 Subcontractors.

(a) Supplier will not subcontract the provision of any Deliverable or any portion of any Deliverable where the subcontractor will (i) have access to JPMC Data or material non-public information; (ii) provide a material component of the Deliverable (including as may be identified in the applicable Schedule); (iii) provide a service, feature or functionality that is customer-facing or web-facing; or (iv) use any name, trademark, logo or other identifying marks of JPMorgan Chase & Co., without: (a) first performing due diligence into the financial and operational stability of the proposed subcontractor, (b) notifying JPMC of the components of the Deliverables affected, the scope of the proposed subcontract, the identity and qualifications of the proposed subcontractor (including where the subcontractor is based and from what location the Deliverables will be provided) and the reasons for subcontracting the work in question; (c) causing the proposed subcontractor to agree in writing to perform and be subject to all of Supplier's obligations under this Agreement; and (d) obtaining JPMC's prior written approval of that subcontractor. Supplier shall provide JPMC with Supplier's criteria for assessing the subcontractor's financial and operational stability and a copy of the subcontractor agreement. JPMC may revoke its approval of, or require the removal of,

any subcontractor by giving Supplier 30 days' prior notice describing a reasonable basis for the revocation or removal. Notwithstanding any approval by JPMC, Supplier will remain solely responsible for all Deliverables and will be liable for any subcontractor's failure to perform or abide by the provisions of this Agreement. The foregoing (and each other provision of this Agreement and the applicable Schedule relating to subcontractors) applies to further subcontracting by Supplier's subcontractors and their subcontractors, regardless of tier.

20.18 Third Party Beneficiaries.

(a) Supplier acknowledges and agrees that each JPMC Entity is an intended third party beneficiary of this Agreement and is entitled to rely upon all rights, representations, warranties and covenants made by Supplier in this Agreement to the same extent as if each of those JPMC Entities were JPMC hereunder. For the avoidance of doubt, all rights and benefits granted under this Agreement to JPMC will be deemed granted directly to JPMorgan Chase & Co. Otherwise, no third party will be deemed to be an intended or unintended third party beneficiary of this Agreement.

20.19 Time is of the Essence.

(a) Supplier acknowledges that time is of the essence with respect to the performance of Supplier's obligations to JPMC.

20.20 Waivers.

(a) The failure of either party to enforce strict performance by the other party of any provision of this Agreement or to exercise any right under this Agreement will not be construed as a waiver to any extent of that party's right to assert or rely upon any provision of this Agreement or right in that or any other instance. A delay or omission by JPMC or Supplier to exercise any right or power under this Agreement will not be construed to be a waiver of that right or power. Waiving one breach will not be construed to waive any succeeding breach. All waivers must be in writing and signed (not in electronic form) by the party waiving rights.

20.21 English Language.

(a) The official language of the Agreement, its Exhibits and Schedules will be the English language, and Supplier will prepare and maintain reports and other documentation related to this Agreement in English.

20.22 Entire Agreement.

(a) This Agreement, including the Exhibits attached to this document (which are hereby incorporated into this Agreement by reference), and every Schedule executed under this Agreement, constitutes the entire agreement of the parties, superseding all prior agreements and understandings as to the subject matter hereof, notwithstanding any oral representations or statements to the contrary heretofore made.

END OF BODY OF AGREEMENT

INSURANCE EXHIBIT

Supplier, within five Business Days after the execution of this Agreement or before commencing the provision of Deliverables or permitting any subcontractor to commence the provision of Deliverables, whichever is the earlier, will procure, maintain and evidence, at its own expense, the following required insurance of the following kinds and limits, with companies carrying a minimum A.M. Best Financial Strength Rating of A-VIII (Excellent with a policyholder surplus of $100,000,000 to $250,000,000), and if applicable, Fitch Ratings (Long Term Rating) with a minimum interactive financial strength rating of at least “A-“ and $50mm in unencumbered policyholders surplus, Moody’s (Global Long Term Rating) with a minimum interactive financial strength rating of at least “A3” and $50mm in unencumbered policyholders surplus, and Standard & Poor’s (Long-Term Insurer Financial Strength Ratings) of at least “A” and $50,000,000 in unencumbered policyholders surplus, and permitted to insure risks in each jurisdiction where a claim or claims might arise or who are otherwise acceptable to JPMC. Should Supplier at any time neglect or refuse to provide the required insurance, or should such insurance be canceled, JPMC will have the right, but not the obligation, to procure such insurance and the cost of such insurance will be deducted from monies then due or thereafter to become due to Supplier, or to terminate this Agreement. Supplier may carry, at its own expense, such additional insurance as it may deem necessary. Supplier will not be deemed to be relieved of any responsibility by the fact that it carries insurance.

A. REQUIRED INSURANCE.

(i) Where the Deliverables are rendered within the U.S. Workers’ Compensation and Employer’s Liability Insurance and where the Deliverables are rendered outside of the U.S.: compulsory social scheme or equivalent insurance policy, in accordance with the applicable laws of (a) the State of New York or (b) the state or country in which the Deliverables are to be provided or performed or (c) the state or country in which Supplier is obligated to pay compensation to employees engaged in the performance or provision of the Deliverables. The policy limit under the Employer’s Liability Insurance section will not be less than $1,000,000 for any one accident and will include a waiver of subrogation against JPMorgan Chase & Co. and its subsidiaries, agents, officers, directors and employees. If the Supplier is a sole proprietor and qualifies for exemption, Supplier will provide to JPMC evidence of exemption in the form of a certificate of exemption, affidavit of exemption or its equivalent received from the State’s Workers Compensation Division. The required limit of liability may be satisfied through a combination of primary Employer’s Liability and Umbrella Liability insurance.

(ii) Where the Deliverables are rendered within the U.S.: Commercial General Liability Insurance written on ISO occurrence form CG 00 01 (or a substitute form providing equivalent coverage) and where the Deliverables are rendered outside of the U.S.: Public Liability Insurance, or equivalent, insurance policy, covering claims related to or arising from the Deliverables, the performance and provision of the Deliverables and everything incidental thereto, with limits of not less than $2,000,000 per occurrence, or in whatever higher amounts as may be requested by JPMC from time to time and mutually agreed, in writing, by the parties, and extended to cover: (a) Contractual Liability, with defense provided in addition to policy limits for indemnitees of the named insured; (b) if any of the Deliverables are subcontracted, Independent Contractors Liability providing coverage in connection with such portion of the Deliverables which may be subcontracted; (c) Broad Form Property Damage Liability; (d) Products & Completed Operations; (e) Personal and Advertising Injury Liability and (f) Hired and Non-Ownership Automobile Liability, if not covered under Automobile Liability Insurance. To the extent available, the policy will include: (x) a waiver of subrogation against all parties named as additional insureds, (y) a severability of interest provision and

(z) "JPMorgan Chase & Co. and any and all subsidiaries, directors, officers, employees, and agents as their interest may appear" as additional insureds or an indemnity to principals clause. If such Commercial General Liability insurance contains a general aggregate limit, it will apply separately to the location or project that is the subject of the applicable Schedule. The Commercial General Liability Insurance required under this paragraph will be raised to not less than $5,000,000 per occurrence combined single limit if Supplier's provision of the Deliverables, in the ordinary course, involves hazardous trades (e.g., mechanical, electrical, plumbing or construction services or trades requiring the use of heavy machinery). The required limit of liability may be satisfied through a combination of primary Commercial General Liability and Umbrella Liability insurance.

(iii) If automobiles or other vehicles are used in connection with the performance or provision of the Deliverables, Automobile Liability Insurance written on ISO occurrence form CA 00 01 (or a substitute form providing equivalent coverage) for any auto, including owned, hired, and non-owned automobiles and other vehicles, with bodily injury and property damage limits of not less than $2,000,000 each accident limit. To the extent available, the policy will include "JPMorgan Chase & Co. and any and all subsidiaries, directors, officers, employees, and agents as their interests may appear" as additional insureds and a waiver of subrogation against all parties named as additional insureds. The Automobile Liability Insurance required under this paragraph will be raised to not less than $5,000,000 each accident limit if Supplier's provision of the Deliverables, in the ordinary course, involves hazardous trades (e.g., mechanical, electrical, plumbing or construction services or trades requiring the use of heavy machinery). The required limit of liability may be satisfied through a combination of primary Automobile Liability and Umbrella Liability insurance.

(iv) If Supplier transports the property of JPMC or JPMC's customers, All Risk Motor Truck Cargo Insurance or All Risk Transit and Premises Insurance with limits of not less than the replacement cost value, including reconstruction coverage in an amount of not less than $250,000, with no per item limit, covering property of JPMC or JPMC's customers while on the premises of, in transit with or otherwise in the possession of Supplier Personnel. This policy will name JPMC as loss payee.

(v) If Supplier will be performing or providing Deliverables on JPMC premises, have access to JPMC tangible property or have control of or access to JPMC systems, accounts, money, or securities, Commercial Blanket Bond or an equivalent insurance policy covering all Supplier Personnel while engaged in connection with the Deliverables with a limit of not less than $10,000,000 per loss and including coverage for property of others in possession of Supplier Personnel while performing or providing the Deliverables. This policy will name JPMC as loss payee.

(vi) To the extent Supplier holds, stores, stages, works upon or in any manner possesses personal property that is owned, held, or leased by, or the responsibility of JPMC or any of its customers, All Risk property damage insurance or Special Causes of Loss Form property insurance including coverage for loss caused by fire, flood, sprinkler leakage, windstorm, or earthquake in an amount equal to the replacement cost of such property. Flood insurance will be required only to the extent that the property is within an area designated as having special flood hazards pursuant to the National Flood Insurance Act of 1968 or the Flood Disaster Protection Act of 1973 (42 U.S.C. 4001-4128) or any amendments or supplements thereto or substitutions therefore (collectively, the "**National Flood Insurance Program**"). The insurance carried in accordance with this subsection (vi) will contain an endorsement that provides that JPMC will be named as a loss payee relative to any loss or damage to the property described in this subsection (vi), and JPMC's interest in any claim under Supplier's insurance will be primary to and non-contributing with any interest of Supplier or any other party included under Supplier's insurance.

(vii) To the extent that Supplier provides software, hardware, software or system development, consulting services, Internet/Application Service Provider services (e.g., outsourced functions such as web-hosting), or any other technology service, Technology Errors & Omissions (or technology professional liability coverage) insurance, including coverage for loss or disclosure of electronic data, media and content rights infringement and liability, network security failure and software copyright infringement liability due to the failure of Supplier's products or services with limits of not less than $10,000,000 per occurrence.

(viii) To the extent that Supplier provides content, Media Errors & Omissions (or Media Liability) insurance, including coverage for loss or disclosure of electronic data, media and content rights infringement and liability, with limits of not less than $10,000,000 per occurrence.

(ix) If Supplier has access to Confidential Information, Privacy and Network Security (sometimes otherwise known as Cyber Liability) coverage which includes providing protection against liability for (a) system attacks, (b) denial or loss of service attacks, (c) spread of malicious software code, (d) unauthorized access and use of computer systems, (e) crisis management and customer notification expenses, (f) privacy regulatory defense and penalties and (g) liability arising from the loss or disclosure of confidential data with coverage limits of not less than $50,000,000 per occurrence. Such policy will include "JPMorgan Chase & Co. and any and all subsidiaries, directors, officers, employees, and agents as their interests may appear" as an additional insured. Such policy shall not include "cross-liability" or "insured vs insured" exclusion provisions, or other similar provisions that would bar, restrict, or preclude coverages for claims by JPMC.

To the extent that the policies of insurance set forth in items (vii), (viii) and (ix) provide coverage for claims of liability or indemnity by Supplier, the contract of insurance shall take precedence, and no provision of this agreement shall be construed to relieve an insurer of any obligation to pay claims to Supplier which would otherwise be a covered claim in the absence of any provision of this agreement.

Each of the policies of insurance set forth in items (vii), (viii) and (ix):

- shall contain severability for the insured organization for any intentional act exclusions.
- may apply on a claims-made basis, provided the policy is maintained for a period of two (2) years after acceptance of the deliverables and/or services provided in connection with this Agreement.
- shall cover consequential or vicarious liabilities (e.g., claims brought against JPMC due to the wrongful acts and failures committed by Supplier) and direct losses (e.g., claims made by JPMC against Supplier for financial loss due to Supplier's wrongful acts or failures).

(x) Professional Liability/Errors and Omissions Liability Insurance in the amount of not less than $10,000,000 per claim covering loss arising from claims alleging wrongful acts including errors or omissions committed by Supplier, its employees, or agents in the provision of or failure to render professional services. If the policy is written on a claims-made basis, the coverage must remain in force for a period of at least two years following the provision or performance of the Deliverables.

B. CERTIFICATES OF INSURANCE; GENERAL.

(b) Upon JPMC's request, Supplier shall provide Certificates of Insurance certifying compliance with the above required insurance. Certificates of Insurance will include a copy of the insurance policy endorsements or policy provisions providing the following: (i) JPMC has been included as an additional insured where required, (ii) subrogation is waived where required; (iii) Supplier's insurance is primary, and all insurance maintained by JPMorgan Chase & Co. is

excess and secondary and shall not contribute with Supplier's insurance; and (iv) all insurance will not be canceled or substantially changed without 30 days' prior notice to JPMC.

(c) Supplier agrees to be liable for all costs within the deductibles and self-insured retentions.

(d) With respect to additional insured endorsements, coverage will be no less broad than one or the other of the following alternatives: (a) the coverage afforded to the named insured under the policy with respect to the Deliverables to be provided or performed under this Agreement; or (b) the coverage afforded by Insurance Services Office Endorsement entitled ("Additional Insured – Designated Person or Organization").

Additional insured status for JPMorgan Chase & Co. and any of its subsidiaries, directors, officers, agents, employees or any other party required to be named as additional insureds under this Agreement will extend to the full limits of liability maintained by the Supplier even if those limits of liability are in excess of those required by this Agreement.

Supplier's insurance will be primary and all insurance carried by JPMorgan Chase & Co. is strictly excess and secondary and will not contribute with Supplier's insurance.

The requirements of this Agreement as to insurance limits, acceptability of insurers, and insurance to be maintained by Supplier are not intended to and will not in any manner limit or qualify the liabilities and obligations assumed by Supplier under this Agreement. Failure of JPMC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of JPMC to identify a deficiency from evidence that is provided shall not be construed as a waiver of Supplier's obligation to maintain such insurance.

(e) Supplier will, on request, permit JPMC to examine original insurance policies and certificates.

(f) Supplier understands that if a Supplier employee is injured while performing operations for JPMC under this Agreement, and that the injured employee brings claim against JPMC, the indemnification agreement herein may allow JPMC to tender that employee's claim to Supplier and its liability insurance company. In support of this intent, where allowed or required by law, Supplier agrees to specifically and expressly waive its immunity under the applicable State workers' compensation or similar act. However, Supplier's waiver of immunity extends only to claims against Supplier by JPMC, and does not include, or extend to, any claims by Supplier's employees directly against Supplier. Further, Supplier understands that the indemnification obligation to JPMC under this Agreement is not limited by the amount or type of compensation or benefits payable to or for any third party under works compensation or similar acts.

(g) In the event that Deliverables are performed or provided by persons other than Supplier who are not parties to any Agreement with JPMC, Supplier will arrange to have such subcontractors furnish to Supplier evidence of insurance, subject to terms and conditions determined

adequate to satisfy Supplier, at least two weeks prior to commencing with the performance or provision of such Deliverables. It is understood and agreed that Supplier’s determination of the adequacy of the insurance carried by subcontractors in no way relieves Supplier from liability assumed by Supplier or insurance required of Supplier.

END OF DOCUMENT

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

SCHEDULE #1

This Schedule #1 ("Schedule") is entered into as of May 4, 2018 ("Schedule Effective Date") pursuant to the Master Agreement by and between CARDLYTICS, INC. ("Supplier" or "Cardlytics") and JPMORGAN CHASE BANK, NATIONAL ASSOCIATION ("JPMC") (individually a "Party" and collectively the "Parties") with an effective date of May 3, 2018 ("Agreement"). This Schedule is hereby made a part of, and is subject to, the terms and conditions of the Agreement. To the extent that there is any conflict or inconsistency between the terms and conditions contained in this Schedule and those set forth in the Agreement, the Agreement will prevail unless this Schedule specifically states that the term in this Schedule will prevail. Capitalized terms not specifically defined herein shall have the meaning set forth in the Agreement and the interpretation of certain terms shall be as set forth in Section 1.5 (Interpretation of Certain Terms) of the Agreement. References to "payment devices" (i) will be interpreted broadly, (ii) is not exclusive to physical payment cards, and (iii) includes physical, virtual and digital payment methods and accounts. In consideration of the mutual promises, agreements, and conditions stated herein, the Parties agree as follows:

1. TERM

a) **Term and Termination.** The term of this Schedule shall begin on the Schedule Effective Date and continue until the seventh anniversary of Launch (the "Initial Term"). The Parties will take reasonable efforts to make the Services contemplated by this Schedule available to Customers in [***], and the "Launch" for purposes hereof shall be the date such Services are made generally available to JPMC's customers. Upon the expiration of the Initial Term, this Schedule will automatically renew for successive 12-month periods (each a "Renewal Term"); provided that not less than [***] months and not more than [***] months prior to the expiration of the Initial Term and any Renewal Term, Supplier will notify JPMC of the pending term renewal and whether it desires to renew the Schedule. After receipt of such notice, and provided that Supplier desires to renew the Schedule, JPMC will have the right to not renew the term of this Schedule by providing Supplier with notice of its intention not to renew within [***] days of receiving said notice from Supplier, otherwise, this Schedule will renew for a Renewal Term. The Initial Term and any Renewal Terms are collectively referred to as the "Term." The foregoing shall prevail over any contrary terms in Section 1.4 (Schedule Term) of the Agreement.

2. SERVICE PARTNERSHIP

a) **Development of the Platform.** Supplier's Targeted Marketing System ("Supplier TMS"), which manages the matching, serving, and redemption of marketing offers ("Offers") of Reasonable Value to certain end-users of JPMC's payment devices and accounts ("Customers"), serves as the underlying platform for the Services (as defined below). "Reasonable Value" means a commercially reasonable value which is likely to serve as an incentive to an average Customer to complete a Qualifying Transaction. *For example, in most instances an Offer of less than [***]% cash back would not provide Reasonable Value; an Offer of [***]% or more cash back would provide Reasonable Value.* Supplier and JPMC will cooperate to develop the systems, technologies, relationships, and training to enable JPMC to electronically interface with Supplier's Offer Placement System ("Supplier OPS") servers in Supplier's data center with a dedicated circuit to JPMC's data center, in accordance with the terms of this Schedule and the Agreement.

b) **Services Generally**. The services to be provided by Supplier to JPMC under this Schedule (collectively the "Services") include the development, management, and administration of

advertising campaigns for certain merchants approved by JPMC in accordance with this Schedule ("Participating Advertisers") to Customers via the online and digital channels designated by JPMC in its sole discretion, and Supplier will not charge Participating Advertisers an additional fee based on the JPMC channels supported or used. Unless otherwise agreed to by the Parties, such channels will include:

- i. JPMC's online banking platforms ("Online Banking");
- ii. JPMC's mobile banking platforms ("Mobile Banking"), which in JPMC's discretion may include platforms such as Finn by Chase;
- iii. An unauthenticated JPMC-branded site (the "Unauthenticated Branded Site") that Customers will be directed to via targeted emails ("Activatable Email");
- iv. JPMC's [***]; and
- v. Such other platforms, upon [***], including Offer inclusion within other third-party wallet platforms with whom JPMC has a business relationship.

As part of the Services, Supplier will build advertising campaigns that target Customers with particular spend behaviors based on variables such as [***]. Subject to Section 3, any combination of these variables may be used to develop a Participating Advertiser campaign. Supplier will enable certain advertising campaigns to be displayed via the JPMC channels described in this Section.

c) **Supplier's Responsibilities.** As part of, and in support of, the Services, Supplier will undertake the following:

- i. Assume sole responsibility for the Services and the design, development, implementation, maintenance, compliance, administration, and on-going enhancement of the System including the Supplier TMS and Supplier OPS;
- ii. Form and maintain compliant relationships with merchants;
- iii. Subject to Section 2(e), publish, manage, administer and execute Offer campaigns in accordance with the Agreement and this Schedule;
- iv. Set ad pricing with Participating Advertisers pursuant to separate agreements between Supplier and Participating Advertisers [***];
- v. Install, operate, maintain and enhance the Supplier TMS and the Supplier OPS;
- vi. In accordance with Section 5, and [***] unless otherwise agreed to in writing by the Parties, host the System including the Supplier TMS and Supplier OPS at Supplier's data center in a manner that (x) ensures only when expressly permitted by this Schedule may JPMC Data be accessed, obtained or transmitted; and (y) protects Customer-identifiable data; (z) furthermore, Supplier shall alert JPMC if Customer-identifiable information is inadvertently transmitted to Supplier and work with JPMC to resolve any such instance;
- vii. Provide other ongoing hosting services for that are necessary for the System including the Supplier TMS and Supplier OPS, including managing and being responsible for any firewalls, routers, servers, switches, telecommunication lines and other equipment, software, bandwidth and services necessary for the proper operation and maintenance of the System including the Supplier TMS and Supplier OPS;
- viii. In conjunction with JPMC, engineer, procure and maintain network connections between the parties' data centers to enable Daily Feed data to be replicated on and synchronized with Supplier's servers and updates thereto to be exchanged periodically between the parties;
- ix. Provide ongoing maintenance and support for the System including the Supplier TMS and Supplier OPS, including creating and installing bug fixes and updates, creating backups of

JPMC data, and providing disaster recovery services, problem root-cause analysis, and System including the Supplier TMS and Supplier OPS performance reports;

x. Provide dedicated technology support to JPMC for problems, questions or concerns relating to the System, Supplier TMS, the Services, the Supplier OPS and other items provided by Supplier in accordance with Attachment 2;

xi. Perform the Services so as to meet or exceed the required levels of quality, speed, availability, capacity, reliability or other characteristics of the Services as set forth in Attachment 2;

xii. Provide dedicated client management support to JPMC;

xiii. Provide training to enable JPMC to address inquiries from Customers, and understand web based applications, Supplier TMS and any other items JPMC reasonably requests;

xiv. Provide integration work and training on the Supplier TMS as necessary for activities under this Schedule;

xv. Timely pay all fees or expenses owed by Supplier to third parties including set-up, equipment or on-going hosting costs and fees associated with the System, Supplier TMS, Supplier OMS or the Services;

xvi. [***] provide the resources and software that is reasonably appropriate or necessary to operate Supplier's responsibilities required by the Services;

xvii. Manage all invoicing and collection activities associated with Offers and the Services unless JPMC has designated it will perform such activities [***];

xviii. Provide to JPMC APIs, demos and other materials as may be reasonably requested by JPMC to facilitate the Services, and SDKs as agreed to by the parties;

xix. Provide JPMC with a daily OPS extract report containing some or all the fields listed in Attachment 6, as directed by JPMC, or as otherwise agreed to by the Parties;

xx. Provide JPMC with such other reports and access to data relating to the Services as may be reasonably requested by JPMC; provided, however, that this provision shall impose no obligation on Supplier to provide JPMC with confidential data of another financial institution client of Supplier, the provision of which breaches Supplier's contractual confidentiality obligations to such entity;

xxi. Develop and maintain processes and procedures reasonably acceptable to JPMC for the prevention of, and monitoring for, fraud and abuse;

xxii. Protect against inaccurate redemptions and inappropriate redemptions (i.e., redemptions that are not consistent with the terms of a given Offer) and hold, review and confirm accuracy of redemptions that indicate they are: (1) duplicates; (2) statistical deviations; or (3) such other items as reasonably requested by JPMC;

xxiii. [***] with mutually agreed upon [***] in mutually agreed upon manners, which may include:

1. [***];
2. [***] into [***] agreements upon JPMC providing notice of [***];
3. Working with JPMC to enable: [***] specific Offers, and (ii) Offers that [***]; and
4. For [***] upon JPMC providing notice of [***].

xxiv. Support and implement, for any particular Customer designated by JPMC, payment device suppressions and opt outs provided, or requested, by JPMC;

xxv. At JPMC's request and in accordance with Section 6(b), (a) support, with Participating Advertiser consent and after consultation with Supplier, Offers targeted at JPMC's direction; and (b) support real-time data exchanges from or to JPMC of information;

xxvi. At JPMC's request and in accordance with Section 6(b), and upon Supplier's consent to the given proposal, (a) [***]; and (b) [***];

xxvii. In the event JPMC elects to participate in real-time messaging alerts regarding Offers and is willing to implement the necessary requirements, provide the technology and support necessary for JPMC's implementation and operation of same;

xxviii. Consult with JPMC and comply with JPMC's reasonable requests to ensure Offer algorithms and targeting mechanisms do not encourage or otherwise incentivize Customers to divert spend from one category of payment device to another including the provision of analytics and development of processes with JPMC to monitor, prevent, and resolve same;

xxix. Refrain from any Customer contact absent JPMC's prior written consent in each instance;

xxx. Support [***] including the display of [***] and the facilitation of [***];

xxxi. Resolve any of [***] by [***]; and

xxxii. Such other items reasonably requested by JPMC and agreed to by Supplier.

d) **JPMC's Responsibilities.** In support of the Services, JPMC will undertake the following:

i. Develop jointly with Supplier an initial technology integration plan, including format and connectivity, and outlining how JPMC will implement said technology integration plan. It being acknowledged and agreed each Party shall [***] associated with implementation, unless otherwise agreed to by the parties.

ii. Deliver to Supplier the following information for Supplier's initial testing and integration:

1. Test Daily Feed data
2. Testing environment for user interface and user experience
3. Test email from email provider

iii. Provide a daily feed to the Supplier OPS of anonymized and de-identified data (as further outlined in Attachment 1) ("Daily Feed") which Supplier agrees to use solely in order for Supplier to perform Daily Processing (as defined below) and the Services expressly set forth in this Schedule. The Daily Feed will contain the data elements set forth in Attachment 1. The Daily Feed will be provided no more than [***] after the posted transaction date and shall be provided at a mutually agreed upon cadence, schedule and frequency, but under no circumstances less than once every twenty-four (24) hours. In the event that JPMC has actual knowledge of same, JPMC will take reasonable efforts to inform Supplier of any errors in or delays to the Daily Feed or of any planned changes to the Daily Feed that will impact Supplier's use of the Daily Feed. "Daily Processing" means the data loading and updating required as part of the essential functionality of the Supplier TMS and provided in accordance with this Schedule, including processing transactions, targeting, redemptions, updating customer accounts to reflect changes in fields listed in Attachment 1, batch to portal sync, and the Daily Feed data a pull.

iv. Promptly after (a) this Schedule is executed, and (b) any of JPMC's high-severity third party oversight Supplier Risk Assessment findings have been resolved, deliver to Supplier a one-time [***] historical data feed ("Historical Data Feed") containing the same data elements as outlined in Attachment 1, as well as provide a file containing these data elements each subsequent month until the Daily Feed is established. Once provided, any information provided in the Historical Data Feed and any monthly data feeds shall be considered part of the 'Daily Feed' for purposes of this Schedule.

v. Work with Supplier in good faith to implement through multiple phases the capabilities that JPMC reasonably determines to be necessary for the utilization and implementation of the Services.

vi. Provide cardholder terms and conditions to Customers which allow the Services to be offered.

vii. Provide Level 1 Customer support (as defined by JPMC) and be the initial point of contact for all Customers in accordance with JPMC's standard processes.

viii. Pay for and provide the resources and software that is necessary to operate JPMC's responsibilities required by the Services.

ix. Remove any Customer or end-user from the Service due to fraud or abuse, upon reasonable request from Supplier, and reasonably assist Supplier in its correction of any erroneous redemptions; provided that the foregoing shall in no manner be a limitation on JPMC's right to manage as set forth in this Schedule and JPMC reserve the right to reject any such requests from Supplier in its sole discretion.

x. Subject to Section 3 of this Schedule, share [***] ([***] unless otherwise mutually agreed to by the parties) to facilitate specifically JPMC- approved use cases and not otherwise. Notwithstanding the foregoing, JPMC will have no obligation to [***].

xi. In conjunction with Supplier, and if applicable, engineer, procure and maintain network connections between the Parties' data centers to enable required JPMC Data to be replicated on and synchronized with Supplier's servers and updates thereto to be exchanged periodically between the Parties in accordance with the terms of this Schedule.

xii. Within [***] days of the [***], conduct a [***] review and define a [***] for the Services provided to JPMC under this Schedule at Launch. JPMC will in good faith consider the best practices provided by Supplier and adopt such best practices which JPMC reasonably determines to be appropriate. Once JPMC has completed its [***], JPMC will present such [***] to Supplier for comment. Thereafter, Supplier and JPMC will negotiate in good faith to determine the [***] which is mutually acceptable to the Parties. The agreed upon [***] will be incorporated into this Schedule as Attachment 3. If for any reason the Parties cannot agree to a [***], either Party may [***] without consequence until an agreed-upon [***] has been confirmed. After the Launch, JPMC will work with Supplier in good faith to provide a [***] which JPMC [***] after [***].

e) **Marketing Control Procedures**. Supplier will screen Participating Advertisers and individual ads to ensure that they meet both Supplier's and JPMC's legal, compliance, merchant, advertiser, media, and messaging standards. JPMC will have the ability to control Participating Advertiser campaigns in the following manner ("Control Procedures"):

i. **Category Elimination**. JPMC can eliminate any Participating Advertiser or category of advertisers from placing offers to Customers at any time in its sole discretion. Supplier will also permit and support such eliminations at the [***] level, provided that JPMC has provided Supplier with data to accurately identify the [***] level at issue. Prior to Launch, JPMC will identify categories and/or advertisers to so exclude and provide a corresponding list of exclusions to Supplier. In the event JPMC or Supplier requests the elimination of a Participating Advertiser during a campaign for such Participating Advertiser, the Parties will confer in good faith to resolve same.

ii. **Participating Advertiser Approval Tool**. JPMC will have access to an approval tool to preview all Participating Advertiser campaigns and Offers that are scheduled to be published

to Customers. Prior to submittal to JPMC within the approval tool, Supplier will ensure any Participating Advertiser campaigns and Offers placed within the approval tool include and satisfy the Offer disclosures and template requirements previously approved by JPMC. JPMC has the right to not approve any Participating Advertiser for any reason, or no reason, while the advertiser is in the "approval queue," which will be for a period no shorter than [***]. The tool will also permit JPMC to approve, or not approve, at the [***] level, provided that JPMC has provided Supplier with data to accurately identify the [***] level at issue. In the event that JPMC [***] with respect to the campaign while the campaign is in the "approval queue," the campaign shall be deemed to be [***]. JPMC shall [***] monitor the "approval queue" and [***] within the above-referenced window. Supplier will maintain complete and accurate records of JPMC's responses and communications within approval tool and will provide JPMC and its Auditors access to such records upon request.

iii. **Information Regarding [***]**. During the Parties' quarterly meetings outlined in Section 6(e), the Parties will collaborate with respect to the [***]. The Parties will endeavor to plan for any [***]. Notwithstanding anything to the contrary, [***] may elect the [***], in its sole discretion, so long as such allocation is not made in bad faith.

iv. **Marketing Material Review**. Prior to any publication, the Parties will coordinate and facilitate the review and approval by JPMC of any external marketing materials, user interfaces, websites, communications, or other Customer-facing materials related to the Services that also specifically relate to or identify JPMC or a JPMC payment device (including notifications in the event of a Security Breach). Upon Supplier's submission for review, JPMC will timely (and in no event more than [***] Business Days from receipt of materials in final form) approve or disapprove the proposed marketing materials. Notwithstanding anything to the contrary, in no event may Supplier publish materials to Customers without JPMC's prior approval. If any marketing materials or Customer communications are disapproved, JPMC shall specify in writing (email will suffice) reasons for such disapproval and state what corrections or improvements are necessary. After making the necessary corrections or improvements, Supplier will resubmit all revised materials to JPMC review and written approval to proceed. The Parties will work in good faith to design processes for providing input and guidance, ongoing project management, and timelines for making systemic changes. The materials and communications provided by Supplier will meet JPMC's requirements for accessibility (including WCAG 2.0) and JPMC's reasonable and documented requirements for foreign language support.

v. **Removal of Certain Marketing Materials.** Supplier agrees that if JPMC makes a request to remove or update marketing materials due to a change in Laws, Supplier will use best efforts to make such change as quickly as possible, to minimize the time period, if any, when any such marketing materials do not comply with such Laws. Supplier further agrees that if JPMC makes a request to remove or update such marketing materials in response to a request or formal action taken by any government, any state or political subdivision thereof and any person or entity exercising executive, legislative, judicial, regulatory, or administrative functions of or pertaining to government, whether federal, state, local, or territorial, that asserts jurisdiction over the subject matter and the person or entity at issue (the "Governmental Body"), Supplier will adhere to the timing required by the Governmental Body for JPMC to make such change in any such request or formal action.

vi. **Right to Suspend.** Notwithstanding any other provision of this Schedule, upon written notice to Supplier, JPMC may restrict or suspend any marketing effort, including in connection with a specific channel or marketing activity (or a portion thereof), to the extent that, in JPMC's reasonable judgment, such effort has, will or may result in: (a) any violation of Laws by either Party; (b) excessive fraud activity, or credit or other losses related to JPMC payment devices or Customers; (c) [***]; and/or (d) any other material adverse impact on JPMC. Supplier shall cooperate in connection with any such JPMC restriction or suspension. Prior to any such JPMC restriction or suspension, JPMC will provide notice to Supplier of its plans to restrict or suspend such marketing effort. After imposition of such restriction or suspension, at either Party's request the Parties will as soon as practicable seek to alter the applicable marketing effort if practicable so that it no longer would cause the concerns described in clauses (a) through (d) above, as applicable. For the avoidance of doubt, nothing in this Section shall permit [***]; provided, however, that such restriction shall not apply if the [***] is (y) also in association with a [***] or (z) due to a good-faith decision made by the [***]. In the event that JPMC exercises its rights under this Section and such exercise of rights substantially impacts the revenue share due to Supplier (as stated in Attachment 4), JPMC and Supplier will negotiate in good faith an amendment to this Schedule with respect to the revenue share due to Supplier.

vii. **Branding for Services**. Subject to the terms of this Section, the Services will be marketed or promoted to Customers with the JPMC Branding approved for use by Supplier in writing by JPMC and be performed in accordance with Section 7.10 (Branding/Co-Branding for the ASP Services) of the Agreement. Any licenses granted to Supplier in JPMC Branding will automatically expire upon the termination or expiration of this Schedule.

viii. **License to Use Participating Advertiser Branding**. Supplier grants JPMC a nonexclusive, non-transferable, irrevocable (during the term of this Schedule) license to use the trademarks, service marks, logos and other distinctive brand features of Participating Advertisers in conjunction with (a) JPMC's performance of its obligations; (b) the exercise of JPMC's rights under this Schedule and the Agreement; or (c) the marketing, advertising and promoting of the availability of the Services. Such use by JPMC must be approved in writing by Supplier. The foregoing license shall extend only to use of the trademarks, service marks, logos and other distinctive brand features of Participating Advertisers for purposes of the Offers and campaigns included in the Services. Supplier represents and warrants that Supplier will have obtained full authority from Participating Advertisers for such grant prior to submitting an Offer or campaign through the Control Procedures and will maintain such authority during the pendency of the Offer or campaign. Any Losses due to, arising from or relating to, such obligations will be Indemnified Claims pursuant to Section 15 (Indemnity) of the Agreement.

ix. **Internal Documentation.** Internal documentation (e.g., training or instruction manuals) referencing the other Party's trademarks will not require the prior approval of the other Party, provided that such materials comply with such Party's applicable brand guidelines and trademark policies. Any such materials which include JPMC trademarks will clearly indicate the trademarks are owned by JPMC and that the materials may not be distributed externally. The foregoing permission to JPMC trademarks will expire with the term or upon notice to Supplier.

x. **[***] Offers.** The Parties will work together to develop processes for managing [***] Offers and [***] will in its sole discretion develop and designate any associated [***].

3. Data

a) **Generally**. Except for the limited rights expressly granted herein, Supplier shall not otherwise use or retain any JPMC Data including Daily Feed data. JPMC may revoke any of the following rights at any time and will attempt to give no less than six (6) months' notice to Supplier if (i) required by legal or regulatory changes, or (ii) the Parties, working together, are unable to resolve data usage concerns; provided that if such revocation materially impacts Supplier's ability to perform the Services, Supplier may send JPMC notice of an intent to terminate this Schedule within [***] days of such revocation with an effective date not less than [***] days thereafter. Thereafter JPMC may retract the revocation or this Schedule will be terminated on such effective date. All rights granted shall automatically terminate upon expiration of the Term whereupon all JPMC Data including Daily Feed data will be destroyed in accordance with the Agreement. Notwithstanding the above and Section 12.7 (Storage, Return or Destruction of JPMC Data) of the Agreement, Supplier may retain Daily Feed data (i) for [***] days after the expiration of the final JPMC Offer to the minimum extent required for internal audit and accounting purposes relating to JPMC Offers (unless the data at issue was used for the purposes of billing an Participating Advertiser, in which case the time period shall be extended to [***] days); and (ii) otherwise to the minimum extent required by law. For avoidance of doubt, any Losses due to, arising from or relating to, (i) Supplier's obligations in this Section 3; or (ii) Supplier's use or access to the JPMC Data including Daily Feed data, will be Indemnified Claims pursuant to Section 15 (Indemnity) of the Agreement and subject to the privacy provisions of this Schedule and the Agreement.

b) **Use of Data**. In accordance with the Agreement and this Schedule, Supplier is only entitled to use the Daily Feed to the [***] extent necessary when providing the Services to JPMC during the Term of this Schedule and only as expressly permitted below:

i. To target Offers to Customers;
ii. To manage JPMC Offers, Billings and Customer Incentives relating to same,
iii. To market the offering of Offers to Customers to merchants and advertisers who do not compete with JPMC;
iv. To diagnose or correct an irregularity, error, problem, or defect in the Services;
v. To measure the usage of the Services;
vi. To provide reports (i) to JPMC; and (ii) in an aggregated and anonymized manner, internally; via manual or computer interfaces;
vii. Except for Offers provided only through [***], in which case [***] shall serve as [***], provide Participating Advertisers performance metric reports via the Cardlytics Ad Gateway and Supplier branded decks where the data types, categories and the like included in such reports have been approved by JPMC in writing at a quarterly meeting outlined in Section 6(e) in the previous six (6) months. For the avoidance of doubt, Supplier's reporting will not identify any data as JPMC Data.
viii. To protect the security of the Services;
ix. To introduce or implement improvements, upgrades, or enhancements to the Services;
x. To perform Supplier's obligations to JPMC under this Schedule during the Term; and
xi. To verify Offer satisfaction, Daily Feed data related to the Services for a JPMC Offer campaign may be disclosed to Participating Advertisers provided such data (a) does

not [***], (b) is [***] similar to this Schedule and the Agreement, (c) only includes [***], (d) may only be used by the Participating Advertiser for [***], and (e) may not be [***].

c) **Ownership of Daily Feed Data**. Supplier acknowledges and agrees JPMC is the sole owner of the data in the Daily Feed. If Supplier obtains any rights in any data in the Daily Feed, Supplier will assign those rights to JPMC. Supplier will waive, and will not assert, any liens or other encumbrances it obtains on any data in the Daily Feed. Supplier will not use, or permit the use of, data in the Daily Feed to contact any Customer except if required by applicable Law or in accordance with this Schedule and the Agreement.

d) **Reverse Engineering**. Supplier will not analyze, and will prevent others from analyzing, JPMC Data including the Daily Feed, to: (i) garner JPMC's proprietary business methods, practices, and processes, including marketing, risk management strategies, authorization strategies, fraud management strategies and best practices, (ii) incorporate such business methods into Supplier's products and/or services, or (iii) make such business methods available to any other entity or individual.

e) **No Re-Identification**. Supplier will not attempt to, and except in connection with any approved validation efforts will prevent others from attempting to, (i) identify or re-identify any Customer, person or entity whose information may be included in any anonymized, de-identified or aggregated information or data that it receives in connection with this Schedule, or (ii) decrypt or unmask any encrypted or masked information or data that Supplier receives in connection with this Schedule.

f) **Identification of JPMC**. To the extent Supplier permissibly publishes external reports, presentations, statistics, or other materials, Supplier shall not identify JPMC by name in such reports or statistics.

g) **[***].** Even if expressly permitted by this Schedule, in no event may [***] without JPMC's written consent which (i) provides [***] from whom such [***] relates in more [***] than the [***]; or (ii) provides more [***] than the [***] upon which the applicable [***], provided that for subpart (ii), Supplier may request JPMC's consent to [***]. Additionally, except in connection with [***], in no event may [***] without JPMC's written consent which [***].

h) **ASP Services**. For avoidance of doubt, (i) any Supplier System which processes JPMC Data (including the data in the Daily Feed), shall be considered ASP Services; and (ii) any information included in the [***] fields of Supplier's System, and their successors, shall be considered JPMC Data.

i) **Service Locations**. Supplier and its permitted subcontractors will provide the Services (including any storage of JPMC Data) at and from the following location(s): [***] ("<u>Service Location(s)</u>"). Supplier will not add or change any of the Service Locations without the express written authorization of JPMC.

j) **Right to Manage**. Notwithstanding anything herein to the contrary, nothing in this Schedule shall be construed to affect or limit JPMC's rights or ability to manage the payment devices it issues and make Customer management decisions for individual Customers in the manner JPMC determines in its sole discretion. Further, JPMC shall have sole discretion regarding whether [***] are available to participate in the Supplier TMS, Supplier OPS, and inclusion in the Daily Feed. For clarity, notwithstanding the foregoing, (i) Customers and the payment devices may be determined to be ineligible by JPMC in its sole discretion, and (ii) JPMC may remove, at any time, any particular "co-branded" card, product type, payment device or series of payment devices from eligibility. Notwithstanding the foregoing, nothing in this Section shall permit [***]; provided, however, that such restriction shall not apply if the [***] is (y) also in association with

a [***] or (z) due to a good-faith decision made by the [***]. In the event that JPMC exercises its rights under this Section and such exercise of rights substantially impacts the revenue share due to Supplier (as stated in Attachment 4), JPMC and Supplier will negotiate in good faith an amendment to this Schedule with respect to the revenue share due to Supplier.

k) **Data Purge.** At JPMC's request Supplier will purge in accordance with Section 12.7 (Storage, Return or Destruction of JPMC Data) of the Agreement any and all data (i) relating to a particular Customer, (ii) relating to [***] or (iii) at termination, relating to JPMC itself. At a Customer's request, Supplier will, after obtaining JPMC's consent and within a reasonable timeframe (not to exceed 10 Business Days), purge in accordance with Section 12.7 (Storage, Return or Destruction of JPMC Data) of the Agreement any and all data relating to such Customer, subject to Section 3(a) of this Schedule.

l) **No Monetization.** Notwithstanding anything in this Schedule or the Agreement to the contrary, in no event may Supplier license, lease, pledge, transfer, encumber, monetize, or sell JPMC Data (including data in the Daily Feed) regardless of the extent to which such data is anonymized; provided that, during the Term, the items set forth in Section 3(b) will not violate the foregoing, so long as Supplier is otherwise in compliance with the terms of this Schedule and the Agreement.

m) **Materials Request.** To the extent Supplier is authorized to and permissibly publishes reports, presentations, statistics or other materials that relate to or include JPMC Data, upon JPMC's request, Supplier will provide such items to JPMC; provided, however, that this provision shall impose no obligation on Supplier to provide JPMC with confidential data of another financial institution client of Suppler, the provision of which breaches Supplier's contractual confidentiality obligations to such entity.

n) **Attestation**. Supplier shall provide, on a quarterly basis, an attestation certified by the Chief Executive Officer or Chief Financial Officer of Supplier that it is in compliance with the terms of this Section and all other data use terms, conditions and restrictions set forth in this Schedule and the Agreement.

o) **Survival.** The provisions of this Section 3 shall survive any expiration or termination of this Schedule or the Agreement.

p) **Prohibited Targeting**. Supplier agrees that any: (i) criteria or model used by or on behalf of Supplier in marketing the Offers (e.g., criteria used to determine the Customers that will receive or view such marketing); and (ii) process developed in connection with the Offers to service or handle Customers, shall not use a Customer's location for any purpose other than confirming the Customer is an acceptable distance from Participating Merchant's location. Supplier will ensure that in no event will an Offer's targeting factors include a Customer's age, race, color, religion, creed, citizenship status, marital status, sexual orientation, sex, gender identity, genetic information, national origin, disability, veteran status or any other protected status under applicable Law (e.g., civil union status, height, weight, arrest record and status with regard to public assistance, to the extent protected under applicable Law). Upon JPMC's request with reasonable notice, Supplier will provide any targeting criteria used as well as information relating to items (i) and (ii) of this subsection to JPMC and its Auditors. Such information will include the JPMC customers which were targeted for Offers, the Customers who accepted the Offers and how the Offers were fulfilled. Any Losses due to, arising from or relating to, such obligations will be Indemnified Claims pursuant to Section 15 (Indemnity) of the Agreement.

4. FEES

a) **Revenue Share**. Supplier shall pay JPMC a revenue share during the Term of this Schedule at the rates set forth in Attachment 4 ("Revenue Share"). The Revenue Share shall be paid by Supplier at the cadence outlined in Attachment 4.

b) **Other Fees**. JPMC shall [***] and will [***] except as may be agreed to for [***].

5. TECHNOLOGY INTEGRATION

a) **Databases and Data Transfer.** The Daily Feed will be loaded into a database called OPSimport. A nightly batch process will then load such data into the OPSBatch database. Afterwards a process called "Sync" in the nightly batch process will move some data points to OPSPortal, which is the database with which all JPMC end-consumer calls will interact. All three (3) of these databases will be isolated and secured within Supplier's environment. Any other data which may be transferred to the Supplier's data warehouse environment will be transferred over a secure connection using access controlled applications.

b) **System URL.** The following URLs are applicable to this Schedule:

i. CSA (URL to be provided by Supplier): to be used by JPMC support staff to report issues related to the Services.

ii. www.[***].com: to be used for the Participating Merchant approval tool.

iii. In addition, to support Activatable Email, two (2) JPMC domain names will be reserved for exclusive Supplier use and the corresponding SSL certificates will be provided to Supplier.

c) **JPMC/Supplier User Interface**. Supplier will develop and maintain a user interface to the System customized to JPMC's reasonable requirements. The final design of this interface, including its "look and feel," will be subject to approval by JPMC. As further described in this Schedule, this interface will be the exclusive means through which user-entered data from the System will originate. For sake of clarity, the foregoing relates to the user interface for interactions between JPMC and Supplier, and JPMC will control any Customer-facing items and aspects.

d) **System Reporting**. The System will provide on-demand reports based on the information contained in the System and aggregate per-user use statistics and patterns for the System. The format and content of these reports will be as approved by JPMC. Electronic copies of completed reports will be available through the System in .pdf and Excel spreadsheet or other formats for delivery by e-mail or through World Wide Web or proprietary network downloads.

e) **System User Permissioning**. Supplier will not permit access to the System other than by users expressly authorized to have access by JPMC. There will be no limit on the number of users that may simultaneously access and use the System. The System will enable JPMC's designated system administrator to add, delete, modify and view login IDs, passwords and security clearance levels for JPMC's users without assistance from Supplier. The user permissioning process and permitted security levels will be subject to approval by JPMC.

f) **Documentation**. Supplier will provide comprehensive documentation for the System, including (i) user manuals and other guides in written form, and (ii) detailed online help screens and offline system maintenance guides in electronic form. All documentation will be accurate, correct and of professional quality.

g) **Supplier and Third Party Software**. No third-party software will be necessary for users to access the System and use the Services.

6. OTHER MATTERS

a) **Code Releases.** If Supplier provides major code releases to Supplier OPS during a calendar year then JPMC shall allow for implementation of up to [***] of those major code releases to Supplier

OPS during each calendar year. JPMC will provide resources necessary to test such releases. [***] prior to each release, Supplier will provide JPMC with code release notes or other technical documentation (describing features and functionality). JPMC will only implement such releases in conjunction with a quarterly JPMC enterprise release and Supplier will work with JPMC to facilitate such implementation within the appropriate timeframe.

b) **Requested Works.**

i. JPMC may from time to time send Supplier a request for products, services or marketing offers that are materially different from, or in addition to, the generally commercially available products or services that Supplier offers, or products or services that Supplier is developing for general commercial availability ("Requested Works"). Partial or incomplete versions of Requested Works will be deemed Requested Works.

ii. Within [***] business days of receiving JPMC's request, Supplier will provide JPMC with a written proposal for the Requested Works, which will include a description of the scope, the requirements necessary for the complete development of the Requested Works and the cost, or alternatively and if applicable, information regarding Supplier's decision to decline the request, including without limitation details reasonably acceptable to JPMC regarding Supplier's decision. Supplier's proposal will also detail the impact the Requested Works will have on the Services currently provided. JPMC may accept the proposal in writing or via email. JPMC will not be liable for any costs not expressly approved in writing.

iii. For Requested Works where (a) JPMC employees or third parties acting on behalf of JPMC materially contribute to the development of the Requested Work; or (b) JPMC pays at least a material portion of the development costs, such Requested Works shall be considered Developed Works and shall be exclusively owned by JPMC ("JPMC Owned Requested Works"). JPMC hereby grants a worldwide, paid-up, royalty-free license to Supplier to use, execute, reproduce, display, perform, import, and distribute copies of JPMC Owned Requested Works for the duration of the Term of this Schedule, for the sole purposes of providing the Services to JPMC, including the right to authorize others to do any of the foregoing for JPMC's benefit.

iv. For Requested Works where (a) JPMC employees or third parties acting on behalf of JPMC do not materially contribute to the development of the Requested Work; and (b) JPMC does not pay at least a material portion of the development costs, such Requested Works shall be owned by Supplier ("Supplier Owned Requested Works").

v. Supplier hereby grants a worldwide, paid-up, royalty-free license to use, execute, reproduce, display, perform, import, and distribute copies of Supplier Owned Requested Works for the duration of the Term of this Schedule, including the right to authorize others to do any of the foregoing for JPMC's benefit.

vi. Supplier acknowledges and agrees that Requested Works afford JPMC a competitive advantage. The license granted in subpart (v) shall be exclusive to JPMC for a period of [***]. Supplier will not develop, provide, implement or enable any substantially similar or related Works for any third party in the country or countries where the Supplier Owned Developed Works are used by JPMC during the period of exclusivity.

vii. In the event Supplier improves, upgrades, or otherwise enhances the Services, the System or their functionality, Supplier will make such items or features available to JPMC no later than [***] and, in any event, as soon as possible. Additionally, if such items or features are executable or supportable on a [***] Supplier will notify JPMC of [***] and provide JPMC

[***] subject to JPMC's [***]. Supplier represents and warrants that it has not and will not [***].

c) **Subcontractors**. In accordance with Section 20.17 (Subcontractors) of the Agreement, the Parties acknowledge and agree that: (i) [***] may be involved in the performance of hosting Supplier's hardware, data, and systems; (ii) [***] may be involved in the performance of hosting services and (iii) [***], for backup services.

d) **Call Center Hours**. Notwithstanding Section 7.7(a) (Support for ASP Services) of the Agreement, the ASP Support Standard Hours shall be 9:00 a.m. EST to 5:00 p.m. EST on Business Days.

e) **Roadmap.** Supplier, through appropriately senior Supplier personnel, will provide JPMC with regular updates, no less often than quarterly, regarding anticipated and potential changes to the Supplier TMS and Supplier OPS for the then-next [***] to [***] month period, including reasonable details on all new or changed features, templates and technical specifications when available, to ensure that JPMC is aware of all changes to the Supplier TMS and Supplier OPS and that the Parties have an opportunity to discuss which changes may constitute Material Modifications to the Supplier TMS and Supplier OPS. Further, Supplier will provide written notice to JPMC of any anticipated or potential Material Modifications as early as possible and, in any event, at least [***] days prior to implementation thereof. For purposes of this Schedule a "Material Modification" shall mean any change planned or implemented by Supplier to the System, including Supplier TMS and Supplier OPS or its associated systems or processes, such as those that (i) materially affects the manner in which either JPMC or Customers use or interface (at either a systems or user level) with the System, including the Supplier TMS and Supplier OPS; or (ii) may have a material impact on the use, disclosure or security of any JPMC Data, including the Daily Feed. If JPMC has reasonable concerns with continuing to operate under this Schedule due to the impact of any such anticipated or potential Material Modification(s), the Parties agree to use good faith efforts to resolve such issue in accordance with Section 18 (Dispute Resolution) of the Agreement. If the Parties cannot come to a resolution, JPMC may terminate this Schedule and the Agreement without penalty upon [***] days' written notice.

f) **Material Degradation.** If at any time Supplier's applications or the interface between the Parties' systems operates in a manner that materially degrades the Customer experience or functionality, JPMC may disconnect or suspend its use of affected applications or systems until the issue is resolved and a high-quality user experience is restored. Supplier will immediately prioritize resources to minimize downtime or other disruption to Customers, and shall use commercially reasonable efforts to resolve the matter as soon as practicable.

g) **Requirements of Governmental Bodies.** Supplier shall cooperate fully (such cooperation to include making any reasonably requested or required changes to the Supplier TMS and Supplier OPS) with any Governmental Body's inquiry or concern regarding the Supplier TMS and Supplier OPS's compliance with any Laws or its actions in connection therewith. Supplier shall cooperate fully with JPMC's implementation of, or the exercise of its obligations and duties under, then current generally applicable and consistently applied third-party management oversight programs, developed by JPMC to comply with its requirements as prescribed by any Governmental Body and Laws.

h) **Non-Public Confidential Supervisory Information.** In addition to any other obligations in the Agreement or this Schedule with respect to JPMC Confidential Information, Supplier (i) is aware of, and will abide by, the prohibition on dissemination of confidential supervisory information in the OCC's regulation (12 C.F.R. § 4.37(b)) and the Federal Reserve's regulation (12 C.F.R. § 261.20(g)); (ii) will return, or certify, the destruction of, all copies of confidential supervisory

information to JPMC at the conclusion of the provision of Services under this Schedule; (iii) will keep such information confidential and may not use the confidential supervisory information for any purpose other than as provided under this Schedule; and (iv) will not disclose the confidential supervisory information for any purpose without the prior written approval of the Federal Reserve Board's General Counsel except that Supplier may disclose information to JPMC when providing advice and analysis. Further, Supplier will ensure that all Supplier Personnel that have access to confidential supervisory information comply with the foregoing.

i) **Publicity.** For purposes of this Schedule, Section 2.7 (Publicity) of the Agreement shall be deleted in its entirety and replaced with the following:

   i. Supplier will not: (a) use the name, trade name, trademark, logo, branding, any derivatives of the foregoing, or any other identifying marks of JPMorgan Chase & Co. or its Affiliates in any sales, marketing, or publicity activities or materials in the promotion of any individual or entity, including the promotion of the Supplier, except in a manner that is contemplated by the Services for merchants and advertisers who do not compete with JPMC, or (b) issue any press release, interviews or other public statement (except a public statement required by Law) regarding this Agreement, any Schedule or the parties' relationship, without the prior written consent of by a Vice President or more senior personnel at the meeting set forth in the quarterly meeting outlined in Section 6(e). JPMC may revoke any consent it grants pursuant to this Section 2.7 at any time for any reason and Supplier shall remove any and all references to JPMC from all marketing and advertising collateral within 30 days of notice of such.

j) **JPMC Standards**. Section 6.20 (JPMC Standards) of the Agreement shall not apply to this Schedule.

k) **Termination of ASP Services**. The phrase "or in part" shall be removed from Section 7.13 (Termination of ASP Services) of Agreement for purposes of this Schedule.

l) **Preferred Third Party Suppliers**. Section 8.11 (Preferred Third Party Suppliers) does not apply to this Schedule.

m) **Termination for Convenience.** Notwithstanding Section 19.2(b) (Termination by JPMC) of the Agreement, JPMC must provide Supplier [***] days' written notice for any termination for convenience. Additionally, during the [***]-day period post-termination (the "Post-Termination Winddown Period"), the Parties will continue to provide Services for any Participating Advertisers that reasonably expect Services relating to Offers to be provided during the Post-Termination Winddown Period.

n) **Changes to Provisions of the Agreement.** The following changes shall be made to the applicable sections of the Agreement,

   i. Section 8.9 (Supplier's Limited Agency) of the Agreement shall only apply to this Schedule to the extent Supplier acts as an agent of JPMC;

   ii. Subsection 12.3(a)(i) (Compliance of Data Handler with ISO 27002 and IT Risk Management Policies) of the Agreement shall not apply to this Schedule;

   iii. The second sentence of Section 12.6 (Regeneration of JPMC Data by Data Handler) of the Agreement will only apply to data within the Supplier OPS; and

   iv. For purposes of this Schedule, the exhibit of Trademarks referenced in Section 8.2(a) (Trademark License) of the Agreement may be supplied by JPMC in writing including by email. Any materials which include a mark or logo of JPMC or its Affiliates, shall remain at all times in compliance with the applicable brand guidelines and trademark policies

provided by JPMC, as such guidelines and policies may be amended by JPMC from time to time in its sole discretion.

To evidence their agreement the parties have executed this Schedule as of the Schedule Effective Date.

CARDLYTICS, INC.

By:	/s/ Scott Grimes	Date signed:	5/3/18
	Name: Scott Grimes		
	Title: CEO		

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION:

By:	/s/ Michael Nagle	Date signed:	5/7/18
	Name: Michael Nagle		
	Title: Managing Director		

ATTACHMENT 1

DATA ELEMENTS

Data elements to be provided by JPMC:

[***]

The above data shall be provided by JPMC for all of the following types of transactions (as well as any other transactions mutually agreed to by the parties): [***].

ATTACHMENT 2
SERVICE LEVELS EXHIBIT

1. DEFINITIONS.

The following terms will have the following meanings when used in this Schedule:

"**Downtime**" means a Measurement Interval during which Supplier fails to provide the full functionality of the Services and System, excluding Scheduled Downtime.
"**Measurement Interval**" means one minute.
"**Measurement Period**" means [***], less any Scheduled Downtime.
"**Performance Credit**" means [***] percent of Supplier Billings Share. Performance Credits will be deemed to be reductions reflecting a diminution in the value of Services as a result of the failure to meet the Service Levels rather than liquidated damages or a penalty.
"**Resolution Time**" means the elapsed clock time between (i) JPMC's Service Call to report a problem and (ii) implementation of a change in or adjustment to the System that corrects the problem and causes the System to be in Compliance and operate without malfunction.
"**Response Time**" means the elapsed clock time between (i) the ASP Service Call to report a problem and (ii) a Supplier technical support analyst capable of understanding the problem speaking to JPMC's support contact about the problem.
"**Right of Termination for Deficiency**" means JPMC's right to terminate the Services without penalty, effective upon notice to Supplier, which may be exercised within one month following the completion of the applicable Measurement Period.
"**Scheduled Downtime**" means a Measurement Interval during which the Services or System is unavailable due to maintenance, for which JPMC has received at least one week's advance notice, and which occurs on a Sunday between midnight and 4 a.m. U.S. Eastern Time. Notwithstanding the forgoing, the aggregate amount of time during Scheduled Downtime when the Services or System are unavailable may not exceed [***] in any calendar month.
"**Service Level Default**" means Supplier's failure to achieve a Service Level.
"**Service Network**" means the network used by Supplier to provide the Services.
"**Workaround**" means a solution that resolves a problem without decreasing System features, functionality or performance or resulting in an added burden or expense to JPMC.

2. GENERAL PRINCIPLES.

The parties have prepared the Service Levels set forth in this Exhibit, and the Performance Credits due upon Supplier's failure to achieve them, with the aim that they be clear, concise and measurable, reflect JPMC's business needs, and incent Supplier to provide the best service possible.

The Service Levels set forth in this Exhibit are not intended to and do not limit or exclude any Services described in the Master Agreement or this Schedule or in any other Schedule to the Master Agreement.

Supplier will, on a continuous basis, (A) identify ways to improve the Service Levels and (B) identify and apply proven techniques and tools from other installations within its operations that would benefit JPMC either operationally or financially. Supplier will, from time to time, include updates with respect to such improvements, techniques and tools in the reports provided to JPMC pursuant to this Schedule.

At JPMC's reasonable request, Supplier and JPMC will conduct satisfaction surveys with respect to the Services.

3. SERVICE LEVELS.

System Operation Service Levels. Supplier will provide the Services to JPMC so that all of the quantitative measurements set forth in the first column of Service Levels for System Operation Table below (each, a "**Metric**") satisfy the corresponding specifications set forth in the second column of Service Levels for System Operation Table below (each, a "**Standard**"). If any Metric does not satisfy one or more of its corresponding Standards, then JPMC will be entitled to receive the corresponding remedy(ies) set forth in the third column of Service Levels for System Operation Table (each, a "**Remedy**").

SERVICE LEVELS FOR SYSTEM OPERATION TABLE

Metric	Standard	Remedy
Availability – Percentage of Measurement Intervals that are not Downtime	[***]% + of each Measurement Period	[***] for each [***] percentage points below Standard
	[***]% + of any Measurement Period	Right of Termination for Deficiency
Latency –round trip time between JPMC's edge device and Supplier's edge device for customer-facing calls NOTE: This Metric shall not apply, and JPMC shall not be entitled to any corresponding remedy, if the failure to meet this metric is solely due to issues or actions related to JPMC's systems (as opposed to Supplier's systems)	[***] milliseconds on average during a Measurement Period, measured in 15 minute intervals (outside of regularly scheduled maintenance)	[***] for each [***] milliseconds below Standard (for sake of clarity a [***] millisecond average would incur [***])
	[***] milliseconds on average during a Measurement Period, measured in 15 minute intervals (outside of regularly scheduled maintenance)	Right of Termination for Deficiency
Data Loss – Largest percentage of data packets lost during the round trip time between JPMC's edge device and Supplier's edge device for customer-facing calls	[***]% or less	[***] for each Measurement Period
Data Protection – Failure to store all JPMC Data generated on previous day onto non-volatile memory and contemporaneously record completion	Each occurrence	[***]
Security Check – Failure to run security verification software daily and contemporaneously record completion	Each occurrence	[***]
Total Performance Credits accumulated during any Measurement Period	[***] Performance Credits]	Right of Termination for Deficiency

Response and Resolution Times. Supplier will respond to and resolve problems so as to meet all of the Service Levels in Service Levels for Remedial Maintenance Table below. If Supplier does not satisfy one or more of those Service Levels, JPMC will be entitled to receive the Performance Credits specified below.

Any failure by Supplier to meet any Service Level two or more times in any [***] month period will be deemed a material breach by Supplier that is incapable of cure.

Notice of Delayed Resolution. If Supplier does not resolve a problem within the Resolution Times listed in Service Levels for Remedial Maintenance Table below, Supplier will immediately notify JPMC. This notice will include (i) a reasonable explanation for the delay and (ii) a good faith schedule and plan for correction. This notice will not constitute an excuse or waiver of performance. Supplier will keep JPMC informed of the progress of its efforts to resolve Priority 1 or 2 problems at appropriate intervals or as otherwise requested by JPMC.

4. CREDITS.

Calculation and Application against Invoices.

Performance Credits are calculated monthly as indicated in the Service Level tables in this Exhibit and accrued and applied as Billing Share Reductions in the next calendar month. To calculate the total Performance Credits due to JPMC for the applicable month, the amounts calculated for each Service Level not met in such month, as further described herein, will be totaled and such amount will be the Performance Credits included as Billing Share Reductions in the next calendar month.

Supplier will notify JPMC if JPMC becomes entitled to a Performance Credit in accordance with Supplier's standard reporting procedures as set forth in this Schedule. Performance Credits will be calculated and reported as set forth in this Exhibit.

The Performance Credits will not limit JPMC's right to recover, in accordance with the Agreement, other damages incurred by JPMC as a result of such failure; provided, however, that any award of damages directly arising out of any such failure will be reduced by any Performance Credits already credited by Supplier to JPMC in respect of such failure.

5. ADJUSTMENT OF SERVICE LEVELS.

JPMC may, from time to time, and upon agreement by Supplier, change the Service Levels to reflect its changing business needs, including by adding or removing a Service Level. A new Service Level for which there is historical data will take effect [***] days after the parties agree to the new Service Level and providing the historical data. A new Service Level for which there is no historical data or no historical data is provided will take effect [***] days after the parties agree to the new Service Level, during which time the parties will measure the new Service Level. If Supplier can demonstrate to JPMC's reasonable satisfaction that such new Service Level will materially increase Supplier's cost of performing the Services, JPMC agrees to pay Supplier for its incremental cost of providing the Services under the new Service Level and the cost of measuring and reporting on the new Service Level.

6. REPORTS.

Supplier will provide to JPMC, within [***] days of the end of each calendar month during the Schedule Term, a report or series of reports that cover, at a minimum, the following information regarding the performance of the Services:

- the Performance Credits earned by JPMC;
- the monthly System Availability percentage;

- the number of ASP Service Calls received during the preceding month, summaries of the calls, average, minimum and maximum response and resolution times, and a listing of all outstanding problems;
- a summary of JPMC requests for upgrades and/or modifications to the System; and
- a summary of actions taken or planned to remedy any failure by Supplier to meet any of the Service Levels set forth in this Exhibit.

For avoidance of doubt, the foregoing reports are in addition to any reports and analytics described elsewhere in the Agreement or this Schedule.

7. MEASUREMENT AND MONITORING TOOLS.

As of the Effective Date, Supplier will implement the measurement and monitoring tools and procedures required to measure and report Supplier's performance of the Services against the applicable Service Levels. Such measurement and monitoring and procedures will (1) permit reporting at a level of detail specified by JPMC that is sufficient to verify compliance with the Service Levels and (2) be subject to audit by JPMC or its designee.

Supplier will provide JPMC with on-line access to such measurement and monitoring tools and information, so that JPMC is able to access the same information as soon as it is available on-line to Supplier.

Supplier will provide JPMC with monthly reports on Supplier's compliance with the Service Levels as set forth in herein. The raw data and detailed supporting information and reports relating to Service Levels and performance are considered JPMC Confidential Information.

Supplier will provide JPMC and its designees access to and information concerning such measurement and monitoring tools and procedures upon request, for inspection and verification purposes.

SERVICE LEVELS FOR REMEDIAL MAINTENANCE TABLE

Problem Priority	**Priority Definition**	**Service Level Metrics and Standards**		
		Required Response Time/ Remedy	**Required Resolution Time/ Remedy**	**Required Action/Escalation**
Priority 1 (Critical)	A problem that (i) prevents the System from processing a critical business process or function or materially hinders work or use of the System by a majority of Customers who have access to offers from the System, (ii) prevents a majority of Customers who have access to offers from the System from using the System to provide services in compliance with applicable Law, (iii) prevents a majority of Customers from accessing data or putting new data into the System, (iv) causes loss or corruption of data for a majority of Customers who have access to offers from the System, or (v) leaves the System without a working backup for the System or a JPMC's environment. In addition, Priority 1 problems include any Priority 2 problem that has remained unresolved without a Workaround for a period of [***] hours after Supplier learns of the problem.	*Standard*: Immediately after the earlier of (i) JPMC provides notice to Supplier's Production Support team by telephone; or (ii) Supplier becomes aware of the matter (i.e., less than [***] minutes). *Remedy*: One Performance Credits: • if Response Time exceeds [***] minutes; and • for each [***] minute interval thereafter until a response is provided.	*Standard*: [***] hours for a Workaround. *Remedy*: [***]: • if Resolution Time for a Workaround exceeds [***] hours; and • [***]: If Resolution Time for a Workaround exceeds [***] hours and for each] hour interval thereafter until a Workaround is provided. *Standard*: [***] hours for a fully tested permanent correction. *Remedy*: [***]: • if Resolution Time for a permanent correction exceeds [***] hours; and • for each [***] hour interval thereafter until a permanent correction is provided.	Supplier will use all commercially reasonable efforts to resolve each problem as quickly as possible within [***] hours after Supplier learns of the problem, or within a shorter timeframe as the parties may otherwise agree. Supplier will provide qualified Supplier technical support and developer personnel, as needed, to work on the problem exclusively and continuously until it is corrected. If not resolved within [***] hours, Supplier's Director of hosting operations, or similar personnel designated by Supplier, will be paged, and Supplier will further escalate its efforts to resolve the problem.

Priority 2 (Serious)	A problem that affects any process or function that is non-critical but is material to a majority of Customers who have access to offers from the System. A Priority 2 problem may be composed of a collection of problems that would otherwise individually constitute Priority 3 or Priority 4 problems, but which, taken as a whole, have the effect of a Priority 2 problem.	*Standard*: Immediately after the earlier of (i) JPMC provides notice to Supplier's Production Support team by telephone; or (ii) Supplier becomes aware of the matter (i.e., less than [***] minutes). *Remedy*: [***]: • if Response Time exceeds [***] minutes; and • for each [***] minute interval thereafter until a response is provided.	*Standard*: [***] hours for a Workaround. *Remedy*: [***]: • if Resolution Time for a Workaround exceeds [***] hours; and • [***]: If Resolution Time for a work around exceeds [***] hours and for each [***] interval thereafter until a Workaround is provided. *Standard*: [***] hours for a fully tested permanent correction. *Remedy*: [***]: • if Resolution Time for a permanent correction exceeds [***] hours; and • for each [***] hour interval thereafter until a permanent correction is provided.	Supplier will use all commercially reasonable efforts to resolve each problem as quickly as possible within [***] hours after Supplier learns of the problem, or within a shorter timeframe as the parties may otherwise agree. Supplier will provide qualified Supplier technical support and developer personnel, as needed, to work on the problem exclusively and continuously until it is corrected. If not resolved within [***] hours, Supplier's Director of hosting operations, or similar personnel designated by Supplier, will be paged and Supplier will further escalate its efforts to resolve the problem

Priority 3 (Moderate)	A problem that affects any process or function that is non-critical to JPMC's or any Recipient's business, but does not qualify as a Priority 1 or a Priority 2 problem.	*Standard*: [***] hours after the earlier of (i) JPMC provides notice to Supplier's Production Support team by email or telephone; or (ii) Supplier becomes aware of the matter. *Remedy*: [***]: • if Response Time exceeds [***] hours; and • for [***] hour interval thereafter until a response is provided.	*Standard*: [***] hours for a Workaround. *Remedy*: [***]: • if Resolution Time for a Workaround exceeds [***] hours; and • for each [***] hour interval thereafter until a Workaround is provided. *Standard*: A fully tested permanent correction as part of Supplier's next regularly scheduled release or update. *Remedy*: [***]: • if a permanent correction is not provided [***] or update; and • for each [***] thereafter until a permanent correction is provided.	Supplier will use all commercially reasonable efforts to resolve each Priority 3 problem within [***] after Supplier learns of the problem, or within a shorter timeframe as the parties may otherwise agree. Supplier will provide qualified Supplier technical support and developer personnel, as needed, to work on the problem until it is corrected.

Priority 4 (Low)	Minor problems that do not adversely impact any process or function, errors in documentation, or a question or support inquiry by JPMC or a Recipient.	*Standard*: [***] after the earlier of (i) JPMC provides notice to Supplier's Production Support team by email or telephone; or (ii) Supplier becomes aware of the matter. *Remedy*: [***]: • if Response Time exceeds [***]; and • for each [***] thereafter until a response is provided.	*Standard*: Supplier will provide JPMC with a permanent correction [***] or as otherwise mutually agreed by the parties. *Remedy*: [***] if a permanent correction is not provided [***] or as mutually agreed by the parties.	

CUSTOMER CARE

Supplier will attempt to resolve Customer care cases in a (Tier 2/Tier 3) environment. JPMC will be responsible for entering dispute data into Supplier CSR tool per CSA user guide. Supplier will respond and resolve [***]% of cases within [***] from initial case generation by JPMC measured on a monthly basis; provided that if JPMC outlines a material adverse impact at a quarterly meeting outlined in Section 6(e), Supplier will respond and resolve [***]% of cases within [***] from initial case generation by JPMC measured on a monthly basis. If Supplier fails to maintain such metric then the remedy will be [***] for each month it fails to satisfy the metric. On not less than a quarterly basis, the Parties will meet to discuss and review, Supplier's Customer dispute resolution process.

ATTACHMENT 3

Attachment 3 to be incorporated into this Schedule pursuant to Section 2(d)(xi) of this Schedule.

ATTACHMENT 4

FEES

A. DEFINITIONS; GENERAL TERMS:

1. "[***]" means the amount of [***], which [***], in its sole discretion, subject to this Schedule, to be [***] to the [***]. [***] will not allocate the [***] in a bad faith. The Parties agree to use reasonable efforts to "test and learn" the most effective ways to direct the [***]. The [***] shall be [***] in accordance with Section 2(e)(iii) of this Schedule.
2. "Allowable Expenses" means the amount of JPMC Billings retained by Supplier to cover expenses for any calendar month based upon the following chart:

Calendar Months since Launch	Allowable Expense (as a percentage of JPMC Billings)
0-24	[***]%
25-36	[***]%
37-48	[***]%
49-60	[***]%
61 and thereafter	[***]%

3. "Bankruptcy" means when a legal person (a) files for bankruptcy, (b) becomes or is declared insolvent, (c) is the subject of any proceedings (not dismissed within 30 days) related to its liquidation, insolvency or the appointment of a receiver or similar officer for that party, (d) makes an assignment for the benefit of all or substantially all of its creditors, (e) takes any corporate action for its winding-up, dissolution or administration, (f) enters into an agreement for the extension or readjustment of substantially all of its obligations, or (g) recklessly or intentionally makes any material misstatement as to financial condition.
4. "Base Customer Incentive" means the percentage of JPMC Billings Share to be committed to Customers as part of Offers which in no event will be less than [***] percent ([***]%) of JPMC Billings.
5. "Billings" means the aggregate advertising and marketing costs, expenses and other sums due from Participating Advertisers. Supplier bears all risks associated with collection, non-payment, or otherwise associated with such sums and a failure to obtain same will in no manner effect Supplier's obligations to pay for Customer Incentives under this Schedule; and for the payment of other portions of JPMC's Billing Share, Supplier shall put forth good-faith efforts to collect and pay same. Portions of Billings that Supplier is unable to collect shall be due and owing to JPMC and for such amounts Supplier shall (a) be obligated pay all Customer Incentives associated therewith; and (b) only be obligated to pay other portions due and owing to JPMC as and when Billings (or portions thereof) are collected.
6. "Billings Share Reductions" means the total Performance Credits from the preceding calendar month (if any); plus (iv) the total Quality Credits (if any). Any Billing Share Reductions will be deemed to be reductions reflecting a diminution in the value of Services as a result of the failure to meet metrics rather than liquidated damages or a penalty.
7. "Credit Account" means a Customer account which is issued a payment device which draws funds from a line of credit and includes charge cards.

8. "Customer Incentive" means the (x) Base Customer Incentive [***], as a stated or calculated cash value which may be earned by a Customer upon redemption of an Offer, based upon the value currency of the Offer, including cash, points, miles, or any other rewards currency offered by JPMC, if applicable. The calculated cash value of a value currencies will be determined by JPMC.
9. "Deposit Account" means a Customer account which is issued a payment device which draws funds from a checking, savings, or other deposit account.
10. "JPMC Billings" means the Billings related to the Services or Offers to Customers.
11. "JPMC Billings Share" means JPMC Billings minus Supplier Billings Share and Allowable Expenses.
12. "Prepaid Accounts" means Customer accounts which are issued payment devices on a closed-loop or open-loop basis that are not Deposit Accounts or Credit Accounts including accounts marketed or labeled as 'prepaid', accounts which are loadable with funds, stored value cards, payroll card accounts, and government and needs-tested benefit accounts.
13. "Qualifying Transaction" means a settled transaction successfully completed by a Customer at a Participating Advertiser in accordance with the terms and conditions of an Offer received by a Customer through the Supplier TMS.
14. "Select Account" means a Credit Account or a Prepaid Account.
15. "Supplier Billings Share" means the amount retained by Supplier, which:
    a) for a Qualifying Transaction made by a Select Account, equals JPMC Billings, multiplied by the total of (x) [***] percent ([***]%) of JPMC Billings plus (y) any Incentive Bonuses minus (z) any Billings Share Reductions (provided, however, that in no circumstance shall Supplier Billings Share for a Select Account equal less than [***] percent ([***]%) of JPMC Billings); and
    b) for a Qualifying Transaction made by a Deposit Account, equals JPMC Billings, multiplied by the total of (y) [***] percent ([***]%) of JPMC Billings minus (z) any Billings Share Reductions.

B. ACCOUNTING.

1. Preparation of Monthly Accounting. On the [***] day of each calendar month, Supplier shall provide to JPMC, in accordance with any instructions provided by JPMC, an accounting of at least the following items for the preceding month (the "Monthly Accounting"). The Monthly Accounting will apply consistent criteria in the calculation of each element and including in appropriate detail the relevant figures used in the preparation of the Monthly Accounting, and will include for separate accountings of Credit Accounts, Debit Accounts, Prepaid Accounts, and, upon Supplier's completion of the technology to implement and support same (which Supplier is actively pursuing), an indication of whether the transaction [***]. The Monthly Accounting shall include an accounting of:
    a) Allowable Expenses;
    b) Billings, JPMC Billings, Supplier Billing Share, and JPMC Billings Share;
    c) Billing Share Reductions and each of the components thereof;
    d) Billings for JPMC Managed Offers and Referred Advertisers;
    e) Customer Incentives and the amount of Customer Incentive attributable to each individual Customer for their Qualifying Transactions [***]; and
    f) Such other information and data as JPMC may reasonably request to assist JPMC in validating Supplier's calculation of amounts the due under this Schedule.
2. Attestation. Supplier shall provide, concurrently with the Monthly Accounting, an attestation certified by the Chief Executive Officer or Chief Financial Officer of Supplier that the Monthly Accounting is accurate and has been prepared in compliance with the requirements of this Schedule.

3. Payments to JPMC. Supplier shall pay JPMC the JPMC Billings Share, the Referred Advertiser Fee and any other amounts due pursuant to this Schedule as separating amounts for Credit Accounts, Debit Accounts and Prepaid Accounts. The payments shall be due and paid via wire transfer to the account(s) designated by JPMC within 90 days after the end of the calendar month in which they accrue. Additionally, Supplier will send a notice of payment in accordance with the instructions provided by JPMC. Any amounts not paid during such 90-day period, will bear interest until paid at a rate per annum equal to [***] percent ([***]%) without notice or demand of any kind. In the case of Bankruptcy as defined herein, Supplier agrees it will not use proceeds from JPMC Billings to pay Supplier obligations to other financial institutions; provided that nothing in the foregoing shall prevent Supplier from paying any secured creditors.

4. Payments to Customers. Based upon the Monthly Accounting, JPMC will use the appropriate portion of the JPMC Billings Share and transfer to individual Customers the portion of the Customer Incentive attributable to their Qualifying Transactions in accordance with JPMC's practices. Supplier shall be solely responsible for the calculations of amounts due Customers and shall resolve any issues raised by Customers in accordance with the service level obligations set forth in this Schedule. Supplier shall promptly notify JPMC of any CI Adjustments necessary, and thereafter the Parties will diligently pursue a commercially reasonable resolution which is fair to the affected Customers; provided that in no event will JPMC be obligated to reverse a transfer previously made to a Customer in accordance with a Monthly Accounting and Supplier will bear any risks associated with such scenario. "CI Adjustments" means reductions of Customer Incentives due to adjustments necessary to correct errors, customer disputes, or other items acceptable to JPMC.

5. Review Rights. Upon reasonable notice, JPMC may examine the books and records developed or relied upon by Supplier in the preparation of the Monthly Accounting and the calculation of the elements in the Monthly Accounting and any other items set forth in this Schedule.

C. INTENTIONALLY OMITTED.

D. INCENTIVE BONUS (FOR SELECT ACCOUNTS).

1. **Merchant Based.** Each calendar quarter, Supplier may receive the Incentive Bonus indicated by the chart below. Any applicable Incentive Bonus will be applied for the next calendar quarter.

   a. The "Participating Advertiser Percentage" for each chart below shall be calculated by aggregating the total number of Participating Advertisers: (i) for whom Supplier included [***] Offer providing Customers Reasonable Value during the calendar quarter; and (ii) are listed as merchants on the applicable Annex; then dividing by [***].

   b. ***Merchant Incentive Chart A*****.** Annex A includes a list of [***] merchants ("Merchant Incentive Chart A") and may be amended once [***] upon [***] notice, provided that no more than [***] merchants are changed in connection with each amendment ; provided, however, that if any merchant on Merchant Incentive Chart A files for Bankruptcy, JPMC will change that merchant pursuant to this Section without having such change count against the [***] or time limitations. In the event Supplier provides Offers for merchants listed on Merchant Chart A, Supplier may receive the Incentive Bonus indicated by the chart below:

Incentive Bonus for Annex A Merchants	
Participating Advertiser Percentage	Incentive Bonus (as a percent of JPMC Billings)
Less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%	[***]%

c. ***Merchant Incentive Chart B*****.** Annex B includes a list of [***] merchants ("Merchant Incentive Cart B") and may be amended once [***] upon [***] notice, provided that no more than [***] merchants are changed in connection with each amendment; provided, however, that if any merchant on Merchant Incentive Chart B files for Bankruptcy, JPMC will change that merchant pursuant to this Section without having such change count against the [***] or time limitations. In the event Supplier provides Offers for merchants listed on Merchant Chart B, Supplier may receive the Incentive Bonus indicated by the chart below:

Incentive Bonus for Annex B Merchants	
Participating Advertiser Percentage	Incentive Bonus (as a percentage of JPMC Billings)
Less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%, but less than or equal to [***]%	[***]%
Greater than [***]%	[***]%

For example, if in Q1 2019 Supplier presented qualifying Offers for [***] of the merchants listed on Merchant Incentive Chart A and [***] of the merchants listed on Merchant Incentive Chart B, then Supplier would receive a [***]% Incentive Bonus during Q2 2019 ([***]% under Chart A and [***]% under Chart B).

In the event that a merchant does not provider an Offer in the applicable quarter because JPMC failed to approve the Offer pursuant to Section 2(e)(ii) which complied with JPMC's disclosure and template requirements, the Offer shall be considered to have been provided during the quarter for purposes of the above-stated calculations.

For the avoidance of doubt, under no circumstance where there ever be less than [***] merchants on Annex A or [***] merchants on Annex B.

2. **Incentive Bonus Limits.** Notwithstanding anything in this Schedule to the contrary, in no event may the aggregate Incentive Bonus exceed [***] percent ([***]%). Further, the Incentive Bonus may only be included in calculations associated with Select Accounts.

E. QUALITY CREDITS (FOR SELECT ACCOUNTS).

1. **Generally.**
   a. Supplier's failure to meet certain Offer requirements outlined below will result in "Quality Credits" equal to the Vertical Diversity Credit (if any) plus the [***] Credit (if any) plus the [***] Credit (if any) plus the [***] Credit (if any). Supplier may elect to fund Offers to satisfy the requirements of any Quality Credits; provided that the amount of funding for such Offer(s) must equal at least [***] percent ([***]%) of JPMC Billings.
2. **Category Diversity**.
   a. If in any calendar month Supplier fails to include [***] Offer providing Customers Reasonable Value from merchants representing [***] percent ([***]%) of the Qualifying Verticals, JPMC will receive a "Vertical Diversity Credit" equal to [***] percent ([***]%) of JPMC Billings.
   b. The "Merchant Category Chart" means the list of at least [***] merchants attached as Annex C which includes an indication of the merchant's Vertical. The Merchant Category Chart may be amended by JPMC once [***] upon [***], provided that no more than [***] percent ([***]%) of the merchants are changed in connection with each amendment; provided, however, that if any merchant on Merchant Category Chart files for Bankruptcy, JPMC will change that merchant pursuant to this Section without having such change count against the above-stated merchant or time limitations.
   c. A merchant's "Vertical" means the advertising cohorts designated by JPMC on the Merchant Category Chart in JPMC's sole discretion after consultation with Supplier.
   d. A "Qualifying Vertical" means at Launch the following Verticals: (i) [***]; (ii) [***]; (iii) [***]; (iv) [***]; and (v) [***]. The foregoing list may be amended by JPMC once [***] upon [***], provided that no more than one of the Verticals is changed during each amendment.
3. **[***]**.
   a. If in any calendar month Supplier fails to include [***] Offer providing Customers [***] from [***] different [***] Merchants, targeted to Customers based standard Supplier criteria, JPMC will receive a "[***] Credit" equal to [***] percent ([***]%) of JPMC Billings.
   b. In each calendar quarter, Supplier will work with a JPMC business team supporting a product type or series of payment devices designated by JPMC in its sole discretion to provide Offers targeted[***]. If in any calendar month Supplier fails to include at least [***] so targeted providing Customers [***] from [***] of the [***] Merchants, JPMC will receive a [***] Credit equal to [***] percent ([***]%) of JPMC Billings. The designated JPMC business team may agree in writing that Offers from merchants other

than [***] Merchants may satisfy the requirements of this Section. The forgoing [***] Credit will not be applicable for the first [***] after Launch.

c. "[***] Merchants" means those merchant listed on the chart attached as Annex D, as such chart may be amended by JPMC once [***] upon [***] notice, provided that no more than [***] percent ([***]%) of the merchants are changed during each amendment; provided, however, that if any merchant on Annex D files for Bankruptcy, JPMC will change that merchant pursuant to this Section without having such change count against the above-stated merchant or time limitations . The Parties further agree that under no circumstances will there be less than [***] merchants on Annex D.

d. "[***]" means: [***].

4. [***].

a. If in any calendar month Supplier fails to include [***] Offer from [***] Merchants providing Customers [***] from [***] different [***] Merchants, JPMC will receive a "[***] Credit" equal to [***] percent ([***]%) of JPMC Billings. Notwithstanding the foregoing, JPMC shall not be entitled to a [***] Credit until [***] after JPMC includes [***] data in the Daily Feed.

b. "[***] Merchants" means those merchants listed on the chart attached as Annex E, as such chart may be amended by JPMC once [***] upon [***] notice, provided that no more than [***] of the merchants are changed during each amendment. The Parties further agree that under no circumstances will there be less than [***] merchants on Annex E.

c. "[***]" means:].

5. **[***] Campaigns**.

a. JPMC may designate [***] marketing campaigns for the next calendar year (each a "[***] Campaign") and the Parties will agree on a list of at least [***] merchants which would fit the goals of each [***] Campaign ("[***] Merchants"). [***] of the [***] Merchants for any applicable [***] Campaign will have previously provided Offers. No later than five (5) days after the execution of this Schedule, the Parties will commence discussions about upcoming [***] Campaigns.

b. If during any [***] Campaign, Supplier fails to include [***] Offer providing Customers Reasonable Value from [***] different [***] Merchants, JPMC will receive a "[***] Credit" equal to [***] percent ([***]%) of JPMC Billings for [***].

c. JPMC shall not be entitled to a [***] Credit, unless it has designated the applicable [***] Campaign and [***] Merchants at least [***] in advance.

In the event that a merchant does not provider Offers in the applicable time period because JPMC failed to approve the Offer pursuant to Section 2(e)(ii) which complied with JPMC's disclosure and template requirements, the Offer shall be considered to have been provided during the applicable time period for purposes of the above-stated calculations.

F. JPMC MANAGED OFFERS

Whenever [***] which desires to market an Offer to Customers [***], upon JPMC's request, Supplier will include such Offer in the Supplier TMS and provide the Services [***] other than [***]; provided that, JPMC may in its sole discretion perform any, all, or any subset of the Services for a JPMC Managed Offer, upon written notice to Supplier (and will in every circumstance [***]. Further, [***] may, in its sole discretion, undertake individual or joint responsibility for [***]. In the event greater than [***]% of

JPMC Billings are derived from JPMC Managed Offers in any calendar year, JPMC and Supplier will negotiate in good faith [***] which in no event may [***]. For the avoidance of doubt, absent such separate agreement, [***] will be subject to [***,] or otherwise [***] will be [***] during the term of the [***] will not [***]. For the avoidance of doubt, the term of the JPMC Managed Offer may be set, and extended, by JPMC and the merchant upon their mutual agreement.

G. REFERRED ADVERTISERS

"Referred Advertiser" means a merchant: (i) who has not been [***]; (ii) for which [***]; (iii) [***]; and (iv) has committed to spend, or spends, at least [***] within the [***] day period beginning upon the date the first Offer for the Referred Advertiser is displayed. For sake of clarity, [***].

Supplier will pay JPMC the percentage of each Referred Advertiser's Billings in accordance with the chart below (the "Referred Advertiser Fee") at the end of the monthly following the accrual of such Billings; provided, however, that Supplier shall not pay a Referred Advertiser Fee with respect to Billings related to spend by JPMC customers, as the Referred Advertiser Fee shall only be calculated based on billings related to spend by customers of Supplier's non-JPMC bank clients:

Months elapsed since the first Offer from such Referred Advertiser	Percentage of Billings payable to JPMC
[***]	[***]%
[***]	[***]%
[***]	[***]%
[***] and thereafter	[***]%

This provision will survive any expiration or termination of this Schedule or the Agreement.

H. [***]

Notwithstanding anything in the Agreement or this Schedule to the contrary, Supplier agrees to [***]: (i) for [***]; and (ii) for [***]; excluding [***].

For so long as the [***], Supplier represents and warrants that for [***], the [***] is currently, and throughout the Term will remain, no less than:

(i) [***] of the net portion of Billings due or payable to [***].

(ii) [***] of the net portion of Billings due or payable to [***].

Supplier represents and warrants, during the time period that [***], and on [***], the [***] is currently, and throughout the Term will remain, no less than [***].

For purposes of the forgoing representations, the term "Billings" means aggregate advertising and marketing costs, expenses and other sums due or payable from participating advertisers under Supplier's agreement with the applicable client.

If Supplier [***], then (1) Supplier will [***]; (2) this Schedule, at JPMC's option, [***]; and (3) Supplier will pay JPMC an amount equal to [***] together with interest thereon accrued from [***] at a rate *per annum* equal to (y) [***] percent ([***]%), plus (z) the "prime rate" published in the *Wall Street Journal* or similar successor publication. Further, Supplier will promptly provide JPMC written notice of [***] in reasonable detail. In the event [***] results in any amounts being due or payable to JPMC or its

customers, such amounts will be promptly paid to JPMC by Supplier. In addition to JPMC's other audit rights under the Agreement and this Schedule, JPMC will have the right to retain a third-party auditor to audit Supplier's records with respect to compliance with this provision, provided the third-party auditor will not disclose the terms of Supplier's customers agreements unless and to the extent Supplier is in violation of this provision.

"[***]" means [***].

On a quarterly basis, Supplier shall provide JPMC, an attestation certified by the Chief Executive Officer or Chief Financial Officer of Supplier that it is in compliance with the terms of this Section.

Attachment 5

Relationship managers

JPMC Relationship Manager/Delivery Manager	**Supplier Relationship Manager**
Name: [***]	Name: [***]
Title: [***]	Title: [***]
Telephone Number: [***]	Telephone Number: [***]
E-mail: [***]	E-mail: [***]
Address: [***]	Address: [***]

JPMC Executive Sponsor	**Supplier Cybersecurity Contact**
Name: [***]	Name: [***]
Title: [***]	Title: [***]
Telephone Number: [***]	Work and Cell Telephone Numbers: [***]
E-mail: [***]	E-mail: [***]
Address: [***]	Address: [***]

*At no additional expense to JPMC, the Supplier Cybersecurity Contact must (i) respond to all cyber-related inquiries within 24 hours, 7 days a week, and (ii) be available via mobile and SMS within 24 hours, 7 days a week (with back-up resources when the Supplier Cybersecurity Contact is either unavailable or out of the office ("Back-Up")). Supplier will immediately provide written notice to JPMC when the Supplier Cybersecurity Contact changes or when the Back-Up has the responsibility hereunder.

ATTACHMENT 6

CUSTOMER FILE

Subject to JPMC's right to not receive any of the following data elements pursuant to Section 2(c)(xix) of this Schedule:

[***(two additional pages omitted)]

ANNEX A
MERCHANT INCENTIVE CHART A

As identified in Tab “Annex A” of the file “CDLX Schedule Annexes.xlsx”

ANNEX B
MERCHANT INCENTIVE CHART B

As identified in Tab "Annex B" of the file "CDLX Schedule Annexes.xlsx"

ANNEX C
MERCHANT INCENTIVE CHART C

As identified in Tab “Annex C” of the file “CDLX Schedule Annexes.xlsx”

ANNEX D
MERCHANT INCENTIVE CHART D

As identified in Tab “Annex D” of the file “CDLX Schedule Annexes.xlsx”

ANNEX E
MERCHANT INCENTIVE CHART E

As identified in Tab “Annex E” of the file “CDLX Schedule Annexes.xlsx”

Exhibit 10.2

Loan and Security Agreement

Borrower: Cardlytics, Inc.

Address: 675 Ponce de Leon Avenue NE, Suite 6000
Atlanta, Georgia 30308

Date: May 21, 2018

THIS LOAN AND SECURITY AGREEMENT is entered into on the above date between PACIFIC WESTERN BANK, a California state chartered bank ("PWB"), whose address is 406 Blackwell Street, Suite 240, Durham, North Carolina 27701, and the borrower named above (the "Borrower"), whose chief executive office is located at the above address ("Borrower's Address"). PWB and lenders that may hereafter join as lenders under this Agreement are herein sometimes collectively referred to as "Lenders" and individually as a "Lender". PWB, in its capacity as administrative and collateral Agent for the Lenders, is referred to herein as the "Agent" (which term shall include any successor Agent in accordance with terms hereof). The Schedule to this Agreement (the "Schedule") shall for all purposes be deemed to be a part of this Agreement, and the same is an integral part of this Agreement. (Definitions of certain terms used in this Agreement are set forth in Section 8 below and in Exhibit A hereto.)

1. LOANS.

1.1 Loans. Lenders will make loans to Borrower (the "Loans"), in the amounts shown on the Schedule, subject to the provisions of this Agreement and subject to deduction of Reserves for accrued interest and such other Reserves as Agent deems proper from time to time in its Good Faith Business Judgment.

1.2 Interest. All Loans and all other monetary Obligations shall bear interest at the interest rate shown on the Schedule. Accrued interest shall be payable monthly, to Agent for the benefit of Lenders, on the last day of the month, and shall be charged to Borrower's loan account (and the same shall thereafter bear interest at the same rate as the other Loans).

1.3 Overadvances. If at any time or for any reason the total of all outstanding Revolving Loans exceeds the Revolving Loan Credit Limit or the total amount of all Loans, Ancillary Services and all other monetary Obligations ex-ceeds the Overall Credit Limit (each an "Overadvance"), Borrower shall immediately pay the amount of the Overadvance to Agent, with-out notice or demand. Without limiting Borrower's obliga-tion to repay to Agent the amount of any Overadvance, Borrower agrees to pay Agent interest on the outstanding amount of any Overadvance, on demand, at the Default Rate.

1.4 Fees. Borrower shall pay Agent for the benefit of Lenders the fees shown on the Schedule, which are in addition to all interest and other sums payable to Agent and Lenders and are not refundable. Fees shall be allocated among the Lenders as they shall agree in writing from time to time.

1.5 Revolving Loan Requests. To obtain a Revolving Loan, Borrower shall make a request to Agent by submitting a Notice of Borrowing to Agent in the form of Exhibit B hereto or by making the request by telephone confirmed by a Notice of Borrowing on the same day. Revolving Loan requests received after 1:00 PM Eastern Time will be deemed made on the next Business Day. Agent and Lenders may rely on any Notice of Borrowing or telephone request for a Revolving Loan given by a person whom Agent believes is an authorized representative of Borrower, and Borrower will indemnify Agent and Lenders for any loss they suffer as a result of that reliance.

1.6 Ancillary Services

(a) ***Ancillary Service--Definitions.*** As used herein, "Ancillary Services Limit" shall mean, at any time, the Ancillary Services Limit set forth in the Schedule. As used herein, "Ancillary Services" means any of the products or services requested by Borrower and approved by PWB, including, without limitation, Automated Clearing House transactions, corporate credit card services, Letters of Credit, and other treasury management services. As used herein, "Ancillary Services Reserves" shall mean the aggregate of the following: (i) any outstanding and undrawn amounts under all Letters of Credit issued hereunder, (ii) corporate credit card services provided to Borrower, and (iii) the total amount of any Automated Clearing House processing reserves.

(b) ***Ancillary Services***. At any time and from time to time from the date hereof through the Business Day immediately prior to the Maturity Date, Borrower may request the provision of Ancillary Services from PWB. The aggregate amount of the Obligations relating to Ancillary Services at any time shall not exceed the Ancillary Services Limit. PWB may, in its sole discretion, charge as Revolving Loans any amounts for which PWB becomes liable to third parties in connection with the provision of the

Ancillary Services, in accordance with the agreements pertaining to the same. The terms and conditions (including repayment and fees) of such Ancillary Services shall be subject to the terms and conditions of PWB's standard forms of application and agreement for the applicable Ancillary Services, which Borrower hereby agrees to execute, to the extent not already executed. All present and future indebtedness, liabilities and obligations of Borrower to Lender under, in connection with or relating to Letters of Credit or other Ancillary Services shall be included in the term "Obligations" for all purposes of this Agreement.

(c) ***Letters of Credit.*** Subject to Sections 1.6(a) and (b) above, at the request of Borrower, PWB may, in its Good Faith Business Judgment, issue or arrange for the issuance of commercial or standby letters of credit ("Letters of Credit") for the account of Borrower, in each case in form and substance satisfactory to PWB in its Good Faith Business Judgment. Borrower shall pay PWB's standard fees and charges in connection with all Letters of Credit and all other all bank charges (including charges of PWB's letter of credit department) in connection with the Letters of Credit (collectively, the "Letter of Credit Fees"). Each Letter of Credit shall have an expiry date no later than six months after the Maturity Date. Borrower hereby agrees to indemnify and hold Lenders harmless from any loss, cost, expense, or liability, arising out of or in connection with any Letters of Credit (collectively, "Losses"), including without limitation payments made by Lenders, expenses, and reasonable attorneys' fees incurred by Lenders, excluding, however, any Losses resulting from the gross negligence or willful misconduct of Lenders. Borrower agrees to be bound by the regulations and interpretations of the issuer of any Letters of Credit guaranteed by PWB and opened for Borrower's account or by PWB's interpretations of any Letter of Credit issued by PWB for Borrower's account, and Borrower understands and agrees that PWB shall not be liable for any error, negligence, or mistake, whether of omission or commission, in following Borrower's instructions or those contained in the Letters of Credit or any modifications, amendments, or supplements thereto. Borrower understands that Letters of Credit may require PWB to indemnify the issuing bank for certain costs or liabilities arising out of claims by Borrower against such issuing bank. Borrower hereby agrees to indemnify and hold PWB harmless with respect to any loss, cost, expense, or liability incurred by PWB under any Letter of Credit as a result of PWB's indemnification of any such issuing bank, excluding, however, any Losses resulting from the gross negligence or willful misconduct of PWB. The provisions of this Loan Agreement, as it pertains to Letters of Credit, and any other Loan Documents relating to Letters of Credit are cumulative.

(d) ***Collateralization of Ancillary Services Obligations on Maturity Date.*** Without limiting the generality of the provisions of Section 6.3 hereof, if on the Maturity Date, or on any earlier effective date of termination, there are any outstanding Letters of Credit is-sued by PWB or issued by another institution based upon an application, guarantee, indemnity or similar agreement on the part of PWB, or other Obligations relating to other Ancillary Services, then on such date Borrower shall provide to PWB for the benefit of Lenders cash collateral in an amount equal to 102.5% of the face amount of all such Letters of Credit, plus the full amount of all other Ancillary Services Reserves, and all interest, fees and costs due or to become due in connection there-with (as estimated by Lender in its Good Faith Business Judgment), to secure all of the Obligations relating to said Letters of Credit and other Ancillary Services, pursuant to PWB's then standard form cash pledge agreement.

(e) ***Collateralization of Obligations Extending Beyond Maturity.*** If Borrower has not secured to Lenders' satisfaction its Obligations with respect to any Ancillary Services by the Maturity Date, then, effective as of such date, without limiting Lenders' other rights and remedies, the balance in any deposit accounts held by any Lender and any certificates of deposit or time deposit accounts issued by any Lender in Borrower's name (and any interest paid thereon or proceeds thereof, including any amounts payable upon the maturity or liquidation of such certificates or accounts), shall automatically secure such Obligations to the extent of the then continuing or outstanding Ancillary Services. Borrower authorizes Lenders to hold such balances in pledge and to decline to honor any drafts thereon or any requests by Borrower or any other Person to pay or otherwise transfer any part of such balances for so long as the applicable Ancillary Services are outstanding or continue. Without limiting the foregoing, all Obligations relating to Ancillary Services shall be due and payable on the Maturity Date.

(f) ***Remedies.*** Without limiting the provisions of Section 7.2 of this Agreement or any other provisions of this Agreement, upon the occurrence and during the continuance of any Event of Default, and at any time thereafter, Agent may, at its option, and shall upon the request of Required Lenders, at their option, and without notice or demand of any kind (all of which are hereby expressly waived by Borrower), demand that Borrower: (i) deposit cash with PWB in an amount equal to the amount of any Ancillary Services Reserves, as collateral security for the repayment of all Obligations, and (ii) pay in advance all Letter of Credit fees and other fees relating to Ancillary Services scheduled to be paid or payable over the remaining term of the Letters of Credit or applicable Ancillary Service, and Borrower shall promptly deposit and pay such amounts. Without limiting any of Agent's or any Lender's rights and remedies, from and after the occurrence and during the continuance of any Event of Default, Letter of Credit Fees shall be increased by an additional three percent per annum.

2. SECURITY INTEREST. To secure the payment and per-formance of all of the Obligations when due, Borrower hereby grants to Agent for the benefit of Agent and Lenders, a security interest in all of the following (collectively, the "Collateral"): all right, title and interest of Borrower in and to all of the following, whether now owned or hereafter arising or acquired and wherever located: all Accounts; all Inventory; all Equipment; all Deposit Accounts; all General Intangibles (including without limitation all Intellectual Property); all Investment Property; all Other Property; and any and all claims, rights and interests in any of the above,

and all guaranties and security for any of the above, and all substitutions and replacements for, additions, accessions, attachments, accessories, and improvements to, and proceeds (including proceeds of any insurance policies, pro-ceeds of proceeds and claims against third parties) of, any and all of the above, and all Borrower's books relating to any and all of the above.

Notwithstanding the foregoing, the Collateral shall not include any of the following property (the "Excluded Property"):

(i) property which consists of a license of Intellectual Property to Borrower, pursuant to a license which is nonassignable by its terms without the consent of the licensor thereof (but only to the extent such prohibition on assignability is enforceable under applicable law, including, without limitation, Section 9408 of the Code), and as to any such licenses, Borrower represents and warrants that they are non-exclusive and replaceable on commercially reasonable terms;

(ii) property which consists of a lease of Equipment leased to Borrower pursuant to a capital lease which by its terms is non-assignable (but only to the extent such prohibition on assignability is enforceable under applicable law, including, without limitation, Sections 9407 of the Code);

(iii) Equipment as to which the granting of a security interest in it is prohibited by enforceable provisions of applicable law, provided that upon the cessation of any such prohibition, such Equipment shall automatically become part of the Collateral; or

(iv) property that is subject to a Lien that is permitted pursuant to clause (i) of the definition of Permitted Liens, if the grant of a security interest with respect to such property would be prohibited by the agreement creating such Permitted Lien or would otherwise constitute a default thereunder, but only to the extent such prohibition is enforceable under applicable law, and provided, that such property will be deemed "Collateral" hereunder upon the termination and release of such Permitted Lien; or

(v) property that consists of outstanding capital stock of any "controlled foreign corporation" (as that term is defined in the Internal Revenue Code of 1986, as amended) in excess of 65% of the voting power of all classes of capital stock of such controlled foreign corporation entitled to vote;

provided, that any assets excluded from the Collateral in this paragraph shall not include any proceeds, products, substitutions or replacements of such Collateral (unless such proceeds, products, substitutions or replacements would otherwise constitute assets that are excluded from the Collateral pursuant to this definition).

Borrower represents and warrants to Lender that Excluded Property which is material to Borrower's business or includes Intellectual Property which is licensed by the Borrower to its customers or incorporated in products licensed or sold by the Borrower to its customers is generally available on commercially reasonable terms.

3. REPRESENTATIONS, WARRANTIES AND COVENANTS OF BORROWER.

In order to induce Agent and Lenders to enter into this Agreement and to make Loans, Borrower represents and warrants to Agent and Lenders as follows, and Borrower covenants that Borrower will at all times comply with all of the following covenants, throughout the term of this Agreement and until all Obligations (other than inchoate indemnification obligations) have been paid and performed in full:

3.1 Corporate Existence and Authority. Borrower is, and will continue to be, duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization. Borrower is and will con-tinue to be qualified and licensed to do business in all ju-risdictions in which any failure to do so would reasonably be expected to result in a Material Adverse Change. The execution, delivery and performance by Borrower of this Agreement, and all other documents contemplated hereby now are, and in the future will be (i) duly and validly authorized, (ii) not subject to any consents, which have not been obtained, (iii) enforceable against Borrower in accordance with their terms (except as en-forcement may be limited by equitable principles and by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to creditors' rights generally), and (iv) not in violation of Borrower's articles or certificate of incorporation, or Borrower's by-laws, or any law or any material agreement or instru-ment, which is binding upon Borrower or its property, and (v) not grounds for acceleration of any indebtedness or obligations in excess of $500,000 in the aggregate, under any agreement or instru-ment which is binding upon Borrower or its property.

3.2 Name; Trade Names and Styles. As of the date hereof, the name of Borrower set forth in the heading to this Agreement is its correct name. Listed in the Representations are all prior names of Borrower and all of Borrower's present and prior trade names, as of the date hereof. Borrower shall give Agent 30 days' prior written notice before changing its name, and prompt written notice after starting to do business under any other name. Borrower has complied, and will in the future comply, in all material respects, with all laws relating to the conduct of business under a fictitious business name.

3.3 Place of Business; Location of Collateral. As of the date hereof, the ad-dress set forth in the heading to this Agreement is Borrower's chief executive office. In addition, as of the date hereof, Borrower has places of business and Collateral is located only at the locations set forth in the Representations. Borrower will give Agent written notice within 30 days of changing its chief

execu-tive office, or moving any of the Collateral to a location other than Borrower's Address or one of the locations set forth in the Representations, except that Borrower may maintain sales offices in the ordinary course of business at which not more than a total of $250,000 fair market value of Equipment is located, and Borrower may maintain Equipment at customer locations in the ordinary course of business.

3.4 Title to Collateral; Perfection; Permitted Liens.

(a) Borrower is now, and will at all times in the future be, the sole owner of all the Collateral, except for items of Equipment which are leased to Borrower, and except for non-exclusive licenses granted by Borrower to its customers in the ordinary course of business. The Collateral now is and will remain free and clear of any and all Liens and adverse claims, except for Permitted Liens. Agent for the benefit of Lenders now has, and will continue to have, a first-priority perfected and enforceable security in-terest in all of the Collateral, subject only to Permitted Liens, and Borrower will at all times defend Agent and Lenders and the Collateral against all claims of others.

(b) Borrower has set forth in the Representations all of Borrower's Deposit Accounts as of the date hereof, and Borrower will give Agent prompt written notice upon establishing any new Deposit Accounts and will cause the institution where any such new Deposit Account is maintained (if such new Deposit Account is maintained within the United States) to execute and deliver to Agent for the benefit of Lenders a control agreement in form sufficient to perfect Agent's security interest in the Deposit Account for the benefit of Agent and Lenders and otherwise satisfactory to Agent in its Good Faith Business Judgment. Nothing herein limits any requirements which may be set forth in the Schedule as to where Deposit Accounts will be maintained.

(c) In the event that Borrower shall at any time after the date hereof have any commercial tort claims against others, which it is asserting or intends to assert, and in which the potential recovery exceeds $100,000, Borrower shall promptly notify Agent thereof in writing and provide Agent with such information regarding the same as Agent shall request. Such notification to Agent shall constitute a grant of a security interest in the commercial tort claim and all proceeds thereof to Agent for the benefit of Lenders, and Borrower shall execute and deliver all such documents and take all such actions as Agent shall request in connection therewith.

(d) Whenever any Collateral with a value in excess of $500,000 is located upon premises in which any third party has an interest (other than Equipment maintained at customer locations in the ordinary course of business), Borrower shall, whenever requested by Agent, use commercially reasonable efforts to cause such third party to exe-cute and deliver to Agent, in form reasonably acceptable to Agent, such landlord agreements, waivers, subordinations and other agreements as Agent shall specify in its Good Faith Business Judgment. Borrower will keep in full force and effect, and will comply with all material terms of, any lease of real property where any of the Collateral now or in the future may be located.

(e) Except as disclosed in the Representations, Borrower is not a party to, nor is it bound by, any license or other agreement that is important for the conduct of Borrower's business and that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property important for the conduct of Borrower's business.

(f) Borrower is the sole owner of the Intellectual Property, except for non-exclusive licenses granted by Borrower to its customers in the ordinary course of business. To the best of Borrower's knowledge, each of the Copyrights, Trademarks and Patents is valid and enforceable, and no part of the Intellectual Property has been judged invalid or unenforceable, in whole or in part, and no claim has been made to Borrower that any part of the Intellectual Property violates the rights of any third party except to the extent such claim would not reasonably be expected to result in liability of the Borrower exceeding $500,000 or cause a Material Adverse Change.

3.5 Maintenance of Collateral. Borrower will maintain the Collateral in good working condition (ordinary wear and tear excepted), and Borrower will not use the Collateral for any unlawful purpose. Borrower will promptly advise Agent in writing of any loss or damage to Collateral in excess of $500,000.

3.6 Books and Records. Borrower has maintained and will maintain at Borrower's Address books and records, which are complete and accurate in all material respects, and comprise an accounting system in ac-cordance with GAAP.

3.7 Financial Condition, Statements and Reports. All financial statements now or in the future delivered to Agent or a Lender have been, and will be, prepared in conformity with GAAP, and now and in the future will fairly present the results of operations and fi-nancial condition of Borrower, in accordance with GAAP, at the times and for the pe-riods therein stated (except for non-compliance with FAS 123R in monthly financial statements, and, in the case of interim financial statements, for the lack of footnotes and subject to year-end adjustments). Between the last date covered by any such statement provided to Agent and the date hereof, there has been no Material Adverse Change.

3.8 Tax Returns and Payments; Pension Contributions. Borrower has timely filed, and will timely file, all required tax returns and reports, and Borrower has timely paid, and will timely pay, all foreign, federal, state and local taxes, as-sessments, deposits and contributions now or in the future owed by Borrower, except for inadvertent failures to make payments not exceeding $250,000 which are promptly rectified when discovered. Borrower may, however, defer pay-ment of any contested taxes, provided that

Borrower (i) in good faith contests Borrower's obligation to pay the taxes by appropriate proceedings promptly and diligently insti-tuted and conducted, (ii) notifies Agent in writing of the commencement of, and any material development in, the proceedings, and (iii) posts bonds or takes any other steps required to keep the contested taxes from becoming a Lien upon any of the Collateral. Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid, and shall continue to pay all amounts necessary to fund all pre-sent and future pension, profit sharing and deferred com-pensation plans in accordance with their terms, and Borrower has not and will not withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower exceeding $250,000, in-cluding any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

3.9 Compliance with Law.

(a) Borrower has complied, and will in the future comply, in all material respects, with all provisions of all foreign, federal, state and local laws and regulations applicable to Borrower, including, but not limited to, those relating to Borrower's ownership of real or personal prop-erty, the conduct and licensing of Borrower's business, and all environmental matters. Borrower has obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all governmental authorities that are necessary for the continued operation of Borrower’s business as currently conducted, except where the failure to do so would not reasonably be expected to result in liability of the Borrower in excess of $500,000 or result in a Material Adverse Change.

(b) Borrower is not in violation and shall not violate any of the country or list based economic and trade sanctions administered and enforced by OFAC or as otherwise published from time to time. Neither Borrower, nor to the knowledge of Borrower, any director, officer, employee, agent, affiliate or representative thereof, (i) is a Sanctioned Person or a Sanctioned Entity, (ii) has its assets located in a Sanctioned Entity, (iii) derives revenues from investments in, or transactions with a Sanctioned Person or a Sanctioned Entity or (iv) is owned or controlled by a Sanctioned Entity or a Sanctioned Person.

(c) Borrower is in compliance with, and will continue to comply with, all applicable Anti-Terrorism Laws. No part of the proceeds of the Loans will be used, directly or indirectly, for any payments to any government official or employee, political party, official of a political party, candidate for political office, or anyone else acting in an official capacity, in order to obtain, retain or direct business or obtain any improper advantage, in violation of the United States Foreign Corrupt Practices Act of 1977, as amended.

3.10 Litigation. As of the date hereof, there is no claim, suit, litigation, proceeding or investiga-tion pending or, to Borrower’s knowledge, threat-ened against or affecting Borrower in any court or before any governmental agency (or any basis therefor known to Borrower) involving any claim against Borrower of more than $500,000. Borrower will promptly inform Agent in writing of any claim, proceeding, litigation or investigation in the future threatened or instituted against Borrower involving any claim against Borrower of more than $500,000.

3.11 Use of Proceeds. All proceeds of all Loans shall be used solely for Borrower’s working capital and for payment of the Indebtedness referred to in Section 8(a)(1) of the Schedule. Borrower is not purchasing or carrying any “margin stock” (as defined in Regulation U of the Board of Governors of the Federal Reserve System) and no part of the proceeds of any Loan will be used to purchase or carry any “margin stock” or to extend credit to others for the purpose of purchasing or carrying any “margin stock.”

3.12 Solvency, Payment of Debts. Borrower is able to pay its debts (including trade debts) as they mature; the fair saleable value of Borrower’s assets exceeds the fair value of its liabilities; and Borrower is not left with unreasonably small capital after the transactions contemplated by this Agreement.

3.13 Broker’s Fees. Borrower does not have any obligation to any Person in respect of any finder’s, broker’s, investment banking or similar fee in connection with any of the transactions contemplated under the Loan Documents (other than fees that will have been paid on or prior to the date hereof).

4. ACCOUNTS.

4.1 Representations Relating to Accounts. Borrower represents and warrants to Agent and Lenders as follows: Each Account with respect to which Revolving Loans are requested by Borrower shall, on the date each Revolving Loan is requested and made, (i) represent an undisputed bona fide existing un-conditional obligation of the Account Debtor created by the sale, delivery, and acceptance of goods or the rendition of services, or the non-exclusive licensing of Intellectual Property, in the ordinary course of Borrower's business, and (ii) meet the Minimum Eligibility Requirements set forth in Section 8 below.

4.2 Representations Relating to Documents and Legal Compliance. Borrower represents and warrants to Agent and Lenders as follows: All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Accounts are and shall be true and cor-rect in all material respects, and all such invoices, instruments and other docu-ments and all of Borrower's books and records are and shall be genuine and in all respects what they purport to be. All sales and other transactions underlying or giving rise to each Account shall comply in all material respects with all applicable laws and governmental

rules and regulations. To the best of Borrower's knowledge, all signatures and endorsements on all documents, instru-ments, and agreements relating to all Accounts are and shall be genuine, and all such documents, instruments and agreements are and shall be legally enforceable in accor-dance with their terms.

4.3 Schedules and Documents relating to Accounts. If requested by Agent, Borrower shall furnish Agent with copies (or, at Agent's request, originals) of all contracts, orders, invoices, and other similar documents, and Borrower warrants the genuineness of all of the fore-going. In addition, Borrower shall deliver to Agent, on its request, the originals of all instruments, chattel paper, security agreements, guarantees and other documents and property evidencing or securing any Accounts, in the same form as received, with all necessary endorsements, and copies of all credit memos.

4.4 Cash Collateral Account.

(a) Within 90 days after the date hereof, Borrower shall establish (i) a post office box, as designated by Agent (the "Lockbox"), over which Agent shall have exclusive and unrestricted access; and (ii) a cash collateral account at PWB in Borrower's name (the "Cash Collateral Account"), over which PWB and Agent shall have exclusive and unrestricted access. Commencing within 90 days after the date hereof and continuing at all times thereafter, Borrower shall immediately deposit any funds received by Borrower from any source (including without limitation all proceeds of Accounts and all other Collateral) into the Cash Collateral Account, and Borrower shall direct all of its Account Debtors (i) to make any wire or other electronic transfer of funds owing to Borrower directly to the Cash Collateral Account, and (ii) to mail or deliver all checks or other forms of payment for amounts owing to Borrower to the Lockbox. Except for funds deposited into the Cash Collateral Account, all funds received by Borrower from any source shall immediately be directed to the Lockbox. Agent shall collect the mail delivered to the Lockbox, open such mail, and endorse and deposit all items to the Cash Collateral Account.

(b) All funds flowing through the Lockbox shall automatically be transferred to the Cash Collateral Account. Borrower shall hold in trust for Lender all amounts that Borrower receives from Account Debtors despite the directions to make payments to the Cash Collateral Account, and immediately deliver such payments to PWB in their original form as received from the payor, with proper endorsements for deposit into the Cash Collateral Account. Borrower irrevocably authorizes Agent and Lenders to transfer to the Cash Collateral Account any funds from Account Debtors that have been deposited into any other accounts of Borrower or that Borrower has received by wire transfer, check, cash, or otherwise. Agent for the benefit of Lenders shall have all right, title and interest in all of the items from time to time held in the Cash Collateral Account and their proceeds. Neither Borrower nor any person claiming through Borrower shall have any right or control over the use of, or any right to withdraw any amount from, the Cash Collateral Account, which shall be under the sole control of Agent for the benefit of Lenders.

(c) Agent and PWB shall transfer all sums collected in the Cash Collateral Account into Borrower's operating account maintained with PWB, promptly after receipt of such sums in immediately available funds, provided that if a Default or Event of Default has occurred and is continuing, Agent shall have the right to apply amounts held in the Cash Collateral Account to the outstanding balance of the Obligations on a daily basis.

4.5 Disputes. Borrower shall not forgive (completely or partially), compromise or settle any Account for less than payment in full, or agree to do any of the foregoing, except that Borrower may do so, provided that: (i) Borrower does so in good faith, in a commercially reasonable manner, in the ordinary course of business, and in arm's length transactions, which are re-ported to Agent on the regular reports provided to Agent; (ii) no Default or Event of Default has occurred and is con-tinuing; and (iii) taking into account all such discounts, set-tlements and forgiveness, the total outstanding Revolving Loans will not exceed the Revolving Loan Credit Limit.

4.6 Verification. Agent may, from time to time after the occurrence and during the continuation of an Event of Default, verify directly with the respective Account Debtors the validity, amount and other matters relating to the Accounts, by means of mail, telephone or otherwise, either in the name of Borrower or Agent or such other name as Agent may choose, and Agent or its designee may, at any time after the occurrence and during the continuation of an Event of Default, notify Account Debtors that it has a security interest in the Accounts.

4.7 No Liability. Neither Agent nor Lenders shall be responsible or liable for any error, act, omission, or delay of any kind occurring in the settlement, failure to settle, collection or failure to collect any Account, or for settling any Account in good faith for less than the full amount thereof, nor shall Agent or Lenders be deemed to be responsible for any of Borrower's obligations under any contract or agreement giving rise to an Account. Nothing in this Section 4.9 shall, however, relieve Agent or a Lender from liability for its own gross negligence or willful misconduct.

5. ADDITIONAL DUTIES OF BORROWER.

5.1 Financial and Other Covenants. Borrower shall at all times comply with the financial and other covenants set forth in the Schedule.

5.2 Insurance. Borrower shall, at all times insure all of the tangible personal property Collateral and carry such other business insurance, with financially sound and reputable insurance companies, in such form and amounts as Agent may reasonably require

and that are customary and in accordance with standard practices for Borrower’s industry and locations, and Borrower shall provide evidence of such insurance to Agent. All such insurance policies shall name Agent for the benefit of Lenders as loss payee, and shall contain a lenders loss payee en-dorsement in form reasonably acceptable to Agent and shall name Agent for the benefit of Lenders as an additional insured with regard to liability coverage. Upon receipt of the proceeds of any such insurance, Agent shall apply such proceeds in reduction of the Obligations as Agent shall determine in its sole discretion, except that, provided no Default or Event of Default has occurred and is continuing, Agent shall release to Borrower insurance proceeds totaling less than $500,000, which shall be utilized by Borrower for the purchase of assets used or useful in the Borrower’s business. Agent may require reason-able assurance that the insurance proceeds so released will be so used. If Borrower fails to provide or pay for any in-surance, Agent for the benefit of Lenders may, but is not obligated to, obtain the same at Borrower's expense. Borrower shall promptly de-liver to Agent copies of all material reports made to insurance companies.

5.3 Reports. Borrower, at its expense, shall provide Agent with the written reports set forth in the Schedule, and such other written reports with respect to Borrower as Agent shall from time to time reasonably request.

5.4 Access to Collateral, Books and Records. At rea-sonable times, and on one Business Day’s notice, Agent, or its agents, shall have the right to inspect the Collateral, and the right to audit and copy Borrower's books and records. The foregoing inspections and audits shall be at Borrower’s expense and the charge therefor shall be Agent’s then current standard charge for the same, plus reasonable out-of-pocket expenses (including without limitation any additional costs and expenses of outside auditors retained by Agent), provided that, if no Default or Event of Default has occurred and is continuing, Borrower shall not be obligated to pay for more than two such audits or inspections in any calendar year.

5.5 Negative Covenants. Except as may be permitted in the Schedule, Borrower shall not, without Agent's prior written consent (which shall be a matter of its Good Faith Business Judgment), do any of the following:

(i) merge or con-solidate with another corporation or entity (other than mergers or consolidations of a wholly-owned Subsidiary into another wholly-owned Subsidiary or into Borrower, with Borrower being the surviving Person);

(ii) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto;

(iii) acquire all or substantially all of the capital stock of another Person, or all or a substantial part of the business or property of another Person;

(iv) convey, sell, lease, transfer or otherwise dispose of (collectively, a “Transfer”), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, other than: (i) Transfers of Inventory in the ordinary course of business; (ii) Transfers of non-exclusive licenses and similar arrangements for the use of the property of Borrower or its Subsidiaries in the ordinary course of business and other non-perpetual licenses in the ordinary course of business that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States, in each case not interfering in any material respect with the business of Borrower or its Subsidiaries; provided that the duration of the exclusivity does not extend beyond three (3) years; (iii) Transfers of obsolete, damaged, worn-out or surplus Equipment and Inventory or property and Equipment no longer used or useful in the conduct of Borrower’s business; (iv) Transfers permitted under clauses (vi), (xi), or (xiii) of this Section 5.5; (v) Grants of Liens that constitute Permitted Liens; (vi) transfers or dispositions of Permitted Investments in the ordinary course of business, including the sale or disposition of delinquent notes, charge-offed accounts or accounts receivable for collection purposes in the ordinary course of business; (vii) sales or transfers from Borrower to a wholly-owned Subsidiary that is a co-borrower hereunder or to the extent such sale or transfer constitutes a Permitted Investment; (viii) asset sales in which the sale price is at least equal to the fair market value of the asset sold and the consideration received is cash or cash equivalents of debt of Borrower being assumed by the purchaser, provided, that the aggregate amount of such asset sales does not exceed $50,000 in any fiscal year and no Event of Default has occurred and continuing at the time of each such sale (before and after giving effect to such asset sale); (ix) dispositions of owned or leased vehicles in the ordinary course of business; and (x) Transfers of other assets of Borrower or its Subsidiaries that do not in the aggregate exceed $500,000 in any fiscal year;

(v) store any Collateral with any ware-houseman or other third party with a total value in excess of $500,000, unless Borrower has used commercially reasonable efforts to cause such ware-houseman or other third party to execute an agreement in favor of Agent for the benefit of Lenders in such form as Agent shall specify in its Good Faith Business Judgment;

(vi) sell any Inventory on a sale-or-return, guaranteed sale, consignment, or other con-tingent basis;

(vii) make any loans of any money or other assets or any other Investments, other than Permitted Investments;

(viii) create, incur, assume or permit to be outstanding any Indebtedness other than Permitted Indebtedness;

(ix) create, incur, assume or suffer to exist Lien upon any of its property, whether now owned or hereafter acquired, other than Permitted Liens;

(x) guarantee or otherwise become liable with respect to the obligations of another Person, except for guaranties of the obligations of Borrower's wholly-owned Subsidiaries in the ordinary course of business, which are not for borrowed money;

(xi) pay or declare any dividends or make any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock, or permit any of its Subsidiaries to do so, except that (a) Borrower may repurchase the stock (including restricted stock units) of former employees, consultants or directors pursuant to stock repurchase agreements by the cancellation of indebtedness owed by such former employee, consultant or director to Borrower regardless of whether an Event of Default exists, (b) Borrower may convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (c) Borrower may pay dividends solely in common stock, (d) Borrower may make payments of cash in lieu of fractional shares upon conversion of convertible securities or upon any stock dividend, stock split or combination or business combination, (e) Borrower may make acquisitions of capital stock (including restricted stock units) of Borrower, solely by issuance of capital stock, in connection with either (i) the exercise of stock options or warrants by way of cashless exercise or (ii) in connection with the satisfaction of withholding tax obligations related to the exercise of stock options, and (f) Borrower may redeem, retire or purchase any capital stock (including restricted stock units) of Borrower from any officer, director, employee or consultant of Borrower or its Subsidiaries upon the resignation, termination or death of such officer, director, employee or consultant in an aggregate amount not to exceed $500,000 in any fiscal year provided that at the time of such purchase and after giving effect thereto no Event of Default has occurred and is continuing;

(xii) engage, directly or indirectly, in any business other than the businesses currently engaged in by Borrower or reasonably related thereto, or become an "investment company" within the meaning of the Investment Company Act of 1940;

(xiii) directly or indirectly enter into, or permit to exist, any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person, (b) sales of equity securities by Borrower in connection with a bona fide equity financing or capitalization of Borrower, and (c) Investments permitted under sub-clauses (ii) or (vi) of the definition of Permitted Investments; or

(xiv) reincorporate in another state or change its form of organization without giving Agent 20 Business Days prior written notice and executing and delivering such documents and taking such actions as Agent shall reasonably request in order to continue this Agreement in full force and effect;

(xv) change its fiscal year (other than a one-time change in Borrower's fiscal year from December 31st to September 30th so long as Borrower has given Agent 20 Business Days prior written notice of such change);

(xvi) create a Subsidiary, unless, within five Business Days after the formation of such Subsidiary, pursuant to documents and agreements reasonably requested by Agent, such Subsidiary (other than a Foreign Sub) has become a co-borrower under this Agreement, and granted a first priority perfected security interest (subject only to Permitted Liens) in its property and assets to Agent for the benefit of Lenders.

(xvii) dissolve or elect to dissolve, except that a wholly-owned Subsidiary of Borrower may dissolve if all of its assets are distributed to Borrower.

5.6 Litigation Cooperation. Should any third-party suit or proceeding be instituted by or against Agent or any Lender with re-spect to any Collateral or relating to Borrower, Borrower shall, without expense to Agent or Lenders, make available Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Agent and Lenders may deem them reasonably necessary in order to prosecute or defend any such suit or proceeding; provided that nothing herein shall require Borrower to provide any information that is subject to attorney-client privilege.

5.7 Notification of Changes. Borrower will give Agent written notice of any change in its chief executive officer or chief financial officer within ten Business Days of the date of such change.

5.8 Registration of Intellectual Property Rights.

(a) Without limiting the terms of subsection (b) below, Borrower shall within the period required by Section 6(h) of the Schedule, give Lender written notice of any applications or registrations it files or obtains with respect to Intellectual Property filed with the United States Patent and Trademark Office, including the date of any such filing and the registration or application numbers, if any.

(b) Borrower shall (i) give Lender within the period required by Section 6(h) of the Schedule, notice of the filing of any applications or registrations with the United States Copyright Office, including the title of such intellectual property rights registered, as such title appears on such applications or registrations, and the date such applications or registrations were filed; (ii) promptly upon the request of Lender, execute such documents as Lender may reasonably request for Lender to maintain its perfection in the Intellectual Property rights to be registered by Borrower; (iii) upon the request of Lender, either deliver to Lender or file such documents with the United States Patent and Trademark Office or United States Copyright Office, as applicable; (iv) promptly upon the request of Lender, provide Lender with a copy of such applications or registrations together with any exhibits,

evidence of the filing of any documents requested by Lender to be filed for Lender to maintain the perfection and priority of its security interest in such Intellectual Property rights.

(c) Borrower shall use commercially reasonable efforts to (i) protect, defend and maintain the validity and enforceability of the Intellectual Property that is material to Borrower, (ii) detect infringements of the Intellectual Property, and (iii) not allow any material Intellectual Property that is material to Borrower to be abandoned, forfeited or dedicated to the public without the written consent of Lender, which shall not be unreasonably withheld.

(d) Lender shall have the right, but not the obligation, to take, at Borrower's sole expense, any actions that Borrower is required under this Section 5.8 to take but which Borrower fails to take, after 15 days' notice to Borrower. Borrower shall reimburse and indemnify Lender for all reasonable costs and reasonable expenses incurred in the reasonable exercise of its rights under this Section.

5.9 Consent of Inbound Licensors. Prior to entering into, or becoming bound by, any material inbound license or agreement in the future, Borrower shall: (i) provide written notice to Agent of the material terms of such license or agreement with a description of its likely impact on Borrower's business or financial condition; and (ii) in good faith use commercially reasonable efforts to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for Borrower's interest in such licenses or contract rights to be deemed Collateral and for Agent to have a security interest therein, provided, however, that the failure to obtain any such consent or waiver shall not constitute a default under this Agreement.

5.10 Further Assurances. Borrower agrees, at its ex-pense, on request by Agent, to execute all documents and take all actions, as Agent, may reasonably deem neces-sary or useful in order to perfect and maintain Agent's and Lenders' perfected first-priority security interest in the Collateral (subject only to Permitted Liens), and in order to fully consummate the transactions contemplated by this Agreement.

6. TERM.

6.1 Maturity Date. This Agreement shall continue in effect until the maturity date set forth on the Schedule (the "Maturity Date"), subject to Section 6.2 below.

6.2 Early Termination. This Agreement may be termi-nated prior to the Maturity Date as follows: (i) by Borrower, effective three Business Days after written notice of termination is given to Agent; or (ii) by Agent at any time after the occurrence and during the continuance of an Event of Default, without notice, effective immediately upon written notice to Borrower.

6.3 Payment of Obligations. On the Maturity Date or on any earlier effective date of termination, Borrower shall pay and perform in full all Obligations, whether evidenced by installment notes or otherwise, and whether or not all or any part of such Obligations are otherwise then due and payable. Notwithstanding any termination of this Agreement, all of Agent's and Lenders' security interests in all of the Collateral and all of the terms and provisions of this Agreement shall continue in full force and effect until all Obligations (other than inchoate indemnification obligations) have been paid and performed in full; pro-vided that each of Agent and Lenders may, in its sole discretion, refuse to make any further Loans or provide any Ancillary Services after termination. No termination shall in any way affect or impair any right or remedy of Agent or Lenders, nor shall any such termination re-lieve Borrower of any Obligation to Agent and Lenders, until all of the Obligations (other than inchoate indemnification obligations) have been paid and performed in full. Agent shall, at Borrower's expense, release or terminate all financing statements and other filings in favor of Agent as may be required to fully terminate Agent's and Lenders' security interests, provided that there are no suits, actions, proceedings or claims pending or threatened against any Person indemnified by Borrower under this Agreement with respect to which indemnity has been or may be sought, upon Agent's receipt of the following, in form and content satisfactory to Agent: (i) cash payment in full of all of the Obligations and performance by Borrower of all non-monetary Obligations under this Agreement, (ii) written confirmation by Borrower that the commitment of Lenders to make Loans and provide Ancillary Services under this Agreement has terminated, and (iii) an agreement by Borrower to indemnify Agent and Lenders for any payments received by Agent and Lenders that are applied to the Obligations that may subsequently be returned or otherwise not paid for any reason.

7. EVENTS OF DEFAULT AND REMEDIES.

7.1 Events of Default. The occurrence of any of the following events shall constitute an "Event of Default" un-der this Agreement, and Borrower shall give Agent im-mediate written notice thereof:

(a) Any warranty, represen-tation, statement, report or certificate made or delivered to Agent or a Lender by Borrower or any of Borrower's officers, em-ployees or agents, now or in the future, shall be untrue or misleading in a material respect when made or deemed to be made; or

(b) Borrower shall fail to pay when due any Loan or any interest thereon or fail to pay any other monetary Obligation within three Business Days of the same becoming due; or

(c) any Overadvance occurs, unless it is cured within two Business Days after it occurs; or

(d) Borrower shall fail to comply with any non-monetary Obligation which by its nature cannot be cured, or shall fail to comply with the provisions of Section 3.1 (titled "Corporate Existence", but solely as it relates to failure of Borrower to continue to be duly organized and validly existing under the laws of the jurisdiction of its incorporation or organization), Section 3.8 (titled "Tax Returns and Payments; Pension Contributions"), Section 4.4 (titled "Lockbox"), Section 5.2 (titled "Insurance"), Section 5.4 (titled "Access to Collateral, Books and Records"), Section 5.5 (titled "Negative Covenants"), Section 5 of the Schedule (titled "Financial Covenants"), Section 6 of the Schedule (titled "Reporting"), or Section 8 of the Schedule (titled "Additional Provisions"); or

(e) Borrower shall fail to per-form any other non-monetary Obligation, which failure is not cured within ten Business Days after the date due; provided, however, that if the default cannot by its nature be cured within such ten-day period or cannot after diligent attempts by Borrower be cured within such ten-day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional reasonable period (which shall not in any case exceed an additional ten Business Days) to attempt to cure such default, and within such reasonable time period the failure to have cured such default shall not be deemed an Event of Default (but no Loans shall be made during such cure period); or

(f) any Collateral becomes subject to any Lien (other than a Permitted Lien) which is not cured within 10 days af-ter the occurrence of the same; or

(g) any Collateral is attached, seized, subjected to a writ or distress warrant, or is levied upon, and such attachment, seizure, writ or distress warrant or levy has not been removed, discharged or rescinded within 10 days, or if Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct all or any material part of its business affairs, or if a judgment or other claim above $300,000 becomes a Lien on any of the Collateral which is not removed or fully bonded within 10 days after it arises, or if a notice of lien, levy, or assessment is filed of record with respect to any of the Collateral by the United States Government, or any department, agency, or instrumentality thereof, or by any state, county, municipal, or governmental agency; or

(h) a default or event of default shall occur under any document or agreement evidencing or relating to any Permitted Indebtedness in excess of $500,000 (after the expiration of any cure period under the documents relating thereto), unless waived by the holder of such Permitted Indebtedness; or

(i) a final judgment or judgments for the payment of money (not covered by independent third-party insurance as to which liability has been accepted by such carrier) in an amount, individually or in the aggregate, of at least $500,000 shall be rendered against Borrower, and within 30 days after the entry, assessment or issuance thereof, the same shall not be satisfied, discharged or paid, or after execution thereof, stayed or bonded pending appeal, or such judgments are not discharged prior to the expiration of any such stay (provided that no Loans shall be made prior to the satisfaction, payment, discharge, stay, or bonding of such judgments); or

(j) Dissolution, termina-tion of existence, temporary or permanent suspension of business, insolvency or business failure of Borrower or any Guarantor; or appointment of a receiver, trustee or custo-dian, for all or any part of the property of, assignment for the benefit of creditors by, or the commencement of any Insolvency Proceeding by Borrower or any Guarantor; or

(k) the com-mencement of any Insolvency Proceeding against Borrower or any Guarantor, which is not cured by the dismissal thereof within 45 days after the date commenced (but no Loans or other extensions of credit need be made or provided by Lenders until such dismissal had occurred); or

(l) any revocation or termination of, or limita-tion or denial of liability upon, or default under, any guaranty of the Obligations, or any document or agreement securing such guaranty or relating thereto, or any attempt to do any of the foregoing, or death of any Guarantor; or

(m) a Change in Control shall occur; or

(n) Borrower shall generally not pay its debts as they become due, or Borrower shall conceal, remove or transfer any part of its property, with intent to hinder, delay or defraud its creditors, or make or suffer any transfer of any of its prop-erty which may be fraudulent under any bankruptcy, fraudulent conveyance or similar law; or

(o) a Material Adverse Change shall occur; or

(p) any Loan Document, other than in connection with the satisfaction in full of the Obligations, ceases to be in full force and effect or ceases to give Agent and Lenders a valid and perfected Lien in the Collateral with the priority required by the relevant Loan Document; or Borrower contests in any manner the validity or enforceability of any Loan Document.

A Lender may cease making any Loans and providing any Ancillary Services hereunder during any of the above cure periods, and thereafter if an Event of Default has occurred and is continuing.

7.2 Remedies. Upon the occurrence and during the continuance of any Event of Default, and at any time thereafter, Agent may at its option, and shall upon the request of Required Lenders, at their option, and without notice or demand of any kind (all of which are hereby expressly waived by Borrower), may do any one or more of the following: (a) Cease making Loans or other-wise extending credit to Borrower under this Agreement or any other Loan Document; (b) Accelerate and de-clare all or any part of the Obligations to be immediately due, payable, and performable, notwithstanding any de-ferred or installment payments allowed by any instrument evidencing or relating to any Obligation; provided, however, that upon the occurrence and continuance of any Event of Default described in Section 7.1(j), 7.1(k) or Section 7.1(n), the obligation of Lenders to make Loans and provide Ancillary Services shall automatically terminate and the Obligations shall automatically become due and payable; (c) Take posses-sion of any or all of the Collateral wherever it may be found, and for that purpose Borrower hereby authorizes Agent without judicial process to enter onto any of Borrower's premises without interference to search for, take possession of, keep, store, or remove any of the Collateral, and remain on the premises or cause a custo-dian to remain on the premises in exclusive control thereof, without charge for so long as Agent deems it necessary, in its Good Faith Business Judgment, in order to complete the enforcement of its rights under this Agreement or any other agreement; provided, however, that should Agent seek to take posses-sion of any of the Collateral by court process, Borrower hereby irrevocably waives: (i) any bond and any surety or security relating thereto required by any statute, court rule or otherwise as an incident to such possession; (ii) any demand for possession prior to the commencement of any suit or action to recover possession thereof; and (iii) any requirement that Agent retain possession of, and not dis-pose of, any such Collateral until after trial or final judg-ment; (d) Require Borrower to assemble any or all of the Collateral and make it available to Agent at places desig-nated by Agent which are reasonably convenient to Agent and Borrower, and to remove the Collateral to such locations as Agent may deem advisable; (e) Complete the processing, manufacturing or repair of any Collateral prior to a disposition thereof and, for such purpose and for the purpose of removal, Agent shall have the right to use Borrower's premises, vehicles, hoists, lifts, cranes, and other Equip-ment and all other property without charge; (f) Sell, lease or otherwise dispose of any of the Collateral, in its condi-tion at the time Agent obtains possession of it or after further manufacturing, processing or repair, at one or more public and/or private sales, in lots or in bulk, for cash, ex-change or other property, or on credit, and to adjourn any such sale from time to time without notice other than oral announcement at the time scheduled for sale. Agent shall have the right to conduct such disposition on Borrower's premises without charge, for such time or times as Agent deems reasonable, or on Agent's premises, or elsewhere and the Collateral need not be located at the place of dis-position. Agent (or any entity formed by Agent, at the direction of the Required Lenders, for this purpose) may directly or through any Affiliate purchase or lease any Collateral at any such pub-lic disposition, and if permissible under applicable law, at any private disposition. Any sale or other disposition of Collateral shall not relieve Borrower of any liability Borrower may have if any Collateral is defective as to title or physical condition or otherwise at the time of sale; (g) demand payment of, and collect any Accounts and General Intangibles comprising Collateral and, in connec-tion therewith, Borrower irrevocably authorizes Agent to endorse or sign Borrower's name on all collections, receipts, instruments and other documents, to take posses-sion of and open mail addressed to Borrower and remove therefrom payments made with respect to any item of the Collateral or proceeds thereof, and, in Agent's Good Faith Business Judgment, to grant extensions of time to pay, compromise claims and settle Accounts and the like for less than face value; (h) demand and receive possession of any of Borrower's federal and state income tax returns and the books and records utilized in the preparation thereof or re-ferring thereto; and (i) set off any of the Obligations against any general, special or other Deposit Accounts of Borrower maintained with Agent or any Lender. All reasonable attorneys' fees, expenses, costs, liabilities and obligations incurred by Agent and Lenders with respect to the foregoing shall be added to and become part of the Obligations, shall be due on demand, and shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations. Without limiting any of Agent's or any Lender’s rights and remedies, from and after the occurrence and during the continuance of any Event of Default, the interest rate applicable to the Obligations shall be increased by an additional three percent per annum (the “Default Rate”).

7.3 Standards for Determining Commercial Reasonableness. Borrower, Agent and Lenders agree that a sale or other disposition (collectively, “Sale”) of any Collateral which complies with the following standards will conclu-sively be deemed to be commercially reasonable: (i) notice of the Sale is given to Borrower at least ten days prior to the Sale, and, in the case of a public Sale, notice of the Sale is published at least five days before the date of the Sale in a newspaper of general circulation in the county where the Sale is to be conducted; (ii) notice of the Sale describes the Collateral in general, non-specific terms; (iii) the Sale is conducted at a place designated by Agent, with or without the Collateral being present; (iv) the Sale commences at any time between 8:00 a.m. and 6:00 p.m.; (v) payment of the purchase price in cash or by cashier’s check or wire transfer is required; (vi) with respect to any Sale of any of the Collateral, Agent may (but is not obligated to) direct any prospective purchaser to ascertain directly from Borrower any and all information concerning the same. Agent shall be free to employ other methods of noticing and selling the Collateral, in its discretion, if they are commercially reasonable.

7.4 Investment Property. If a Default or an Event of Default has occurred and is continuing, Borrower shall hold all payments on, and proceeds of, and distributions with respect to, Investment Property in trust for Agent for the benefit of Lenders, and Borrower shall deliver all such payments, proceeds and distributions to Agent for the benefit of Lenders, immediately upon receipt,

in their original form, duly endorsed, to be applied to the Obligations in such order as Agent shall determine. Borrower recognizes that Agent may be unable to make a public sale of any or all of the Investment Property, by reason of prohibitions contained in applicable securities laws or otherwise, and expressly agrees that a private sale to a restricted group of purchasers for investment and not with a view to any distribution thereof shall be considered a commercially reasonable sale thereof.

7.5 Power of Attorney. Upon the occurrence and during the continuance of any Event of Default, without limiting Agent's or any Lender's other rights and remedies, Borrower grants to Agent an irrevocable power of attorney coupled with an interest, authorizing and permitting Agent (acting through any of its employees, attorneys or agents) at any time, at its option, but without obligation, with or without notice to Borrower, and at Borrower's expense, to do any or all of the following, in Borrower's name or otherwise, but Agent agrees that if it exercises any right hereunder, it will do so in good faith and in a commercially reasonable manner: (a) execute on behalf of Borrower any docu-ments that Agent may, in its Good Faith Business Judgment, deem advis-able in order to perfect and maintain Agent's and Lenders' security in-terest in the Collateral, or in order to exercise a right of Borrower, Agent or any Lender, or in order to fully consummate all the transactions contemplated under this Agreement, and all other Loan Documents; (b) execute on behalf of Borrower, any invoices relating to any Account, any draft against any Account Debtor and any notice to any Account Debtor, any proof of claim in bankruptcy, any Notice of Lien, claim of mechanic's, materialman's or other Lien, or assignment or satisfaction of mechanic's, materialman's or other Lien; (c) take control in any manner of any cash or non-cash items of payment or proceeds of Collateral; en-dorse the name of Borrower upon any instruments, or doc-uments, evidence of payment or Collateral that may come into Agent's or any Lender's possession; (d) endorse all checks and other forms of remittances received by Agent or any Lender; (e) pay, contest or settle any Lien and adverse claim in or to any of the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; (f) grant extensions of time to pay, compromise claims and settle Accounts and General Intangibles for less than face value and execute all releases and other documents in connection therewith; (g) pay any sums required on account of Borrower's taxes or to secure the release of any Liens therefor, or both; (h) settle and adjust, and give releases of, any insurance claim that relates to any of the Collateral and obtain payment therefor; (i) instruct any third party having custody or con-trol of any books or records belonging to, or relating to, Borrower to give Agent the same rights of access and other rights with respect thereto as Agent has under this Agreement; and (j) take any action or pay any sum re-quired of Borrower pursuant to this Agreement and any other Loan Documents; (k) enter into a short-form intellectual property security agreement consistent with the terms of this Agreement for recording purposes only or modify, in its sole discretion, any intellectual property security agreement entered into between Borrower and Agent without first obtaining Borrower's approval of or signature to such modification by amending exhibits thereto, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Borrower after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Borrower no longer has or claims to have any right, title or interest; and (l) file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral; provided Agent may exercise such power of attorney to sign the name of Borrower on any of the documents described in clauses (k) and (l) above, regardless of whether an Event of Default has occurred. Any and all reasonable sums paid and any and all reasonable costs, expenses, lia-bilities, obligations and attorneys' fees incurred by Agent or any Lender with respect to the foregoing shall be added to and become part of the Obligations, shall be payable on demand, and shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations. In no event shall Agent's or any Lender's rights under the foregoing power of attorney or any of Agent's or any Lender's other rights under this Agreement be deemed to indicate that Agent or any Lender is in control of the busi-ness, management or properties of Borrower.

7.6 Application of Proceeds. All proceeds realized as the result of any Sale of the Collateral shall be applied by Agent first to the reasonable costs, expenses, liabilities, obligations and attorneys' fees incurred by Agent and Lenders in the exercise of its rights under this Agreement, second to the interest due upon any of the Obligations and fees due with respect to Ancillary Services Obligations pro rata based upon the Lenders' respective Pro Rata Shares of the Obligations, and third to the principal of the Obligations, pro rata based upon the Lenders' respective Pro Rata Shares of the Obligations. Any surplus shall be paid to Borrower or other persons legally entitled thereto; Borrower shall remain liable to Agent and Lenders for any deficiency. If, Agent, in its Good Faith Business Judgment, directly or indirectly en-ters into a deferred payment or other credit transaction with any purchaser at any Sale of Collateral, Agent shall have the option, exercisable at any time, in its Good Faith Business Judgment, of either reducing the Obligations by the principal amount of purchase price or deferring the reduction of the Obligations until the actual receipt by Agent of the cash therefor.

7.7 Remedies Cumulative. In addition to the rights and remedies set forth in this Agreement, Agent and Lenders shall have all the other rights and remedies accorded a secured party un-der the Code and under all other applicable laws, and under any other instrument or agreement now or in the future entered into between Agent and any Lender and Borrower, and all of such rights and remedies are cumulative and none is exclusive. Exercise or partial exercise by Agent or any Lender of one or more of its rights or remedies shall not be deemed an election, nor bar Agent or any Lender from sub-sequent exercise or partial exercise of any other rights or remedies. The failure or delay of Agent or any Lender to exercise any rights or remedies shall not operate as a waiver thereof, but all rights and remedies shall continue in full force and ef-fect until all of the Obligations have been fully paid and performed.

8. DEFINITIONS. As used in this Agreement, the fol-lowing terms have the following meanings:

"Account Debtor" means the obligor on an Account.

"Accounts" means all present and future "accounts" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all accounts receivable and other sums owing to Borrower.

"Affiliate" means, with respect to any Person, a relative, partner, shareholder, director, officer, or employee of such Person, or any parent or subsidiary of such Person, or any Person controlling, controlled by or under common control with such Person.

"this Agreement", "the Loan Agreement" and "this Loan Agreement" refer collectively to this Loan and Security Agreement and the Schedule and all exhibits and schedules thereto, as the same may be modified, amended or restated from time to time by a written agreement signed by Borrower and Agent and Lenders.

"Anti-Terrorism Laws" means any applicable laws relating to terrorism or money laundering, including Executive Order No. 13224, the USA PATRIOT Act, the applicable laws comprising or implementing the Bank Secrecy Act, and the applicable laws administered by the United States Treasury Department's Office of Foreign Assets Control and any other enabling legislation or executive order relating thereto (as any of the foregoing applicable laws may from time to time be amended, renewed, extended or replaced).

"Business Day" means a day on which Agent is open for business.

"Change in Control" means:

(i) a sale, lease, license or other disposition of all or substantially all of the assets of Borrower,

(ii) any consolidation or merger of Borrower with or into any other corporation or other entity or person, or any other corporate reorganization, in which the holders of the capital stock of Borrower immediately prior to such consolidation, merger or reorganization, hold less than fifty percent (50%) of the voting power of the surviving entity (or, if the surviving entity is a wholly owned subsidiary, its parent) immediately after such consolidation, merger or reorganization; or

(iii) any transaction or series of related transactions in which in excess of fifty percent (50%) of Borrower's voting power is transferred; provided that a Change of Control shall not include (x) any consolidation or merger effected exclusively to change the domicile of Borrower, or (y) any transaction or series of transactions principally for bona fide equity financing purposes in which cash is received by Borrower or any successor; or

(iv) a transaction, other than a bona fide investment or series of investments in equity securities of Borrower from investors acceptable to Lender in its Good Faith Business Judgment, in which any "person" or "group" (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors, empowering such "person" or "group" to elect a majority of the Board of Directors of Borrower, who did not have such power before such transaction.

"Code" means the Uniform Commercial Code as adopted and in effect in the State of New York from time to time.

"Collateral" has the meaning set forth in Section 2 above.

"Contingent Obligation" means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to (i) any indebtedness, lease, dividend, letter of credit or other obligation of another, including, without limitation, any such obligation directly or indirectly guaranteed, endorsed, co-made or discounted or sold with recourse by that Person, or in respect of which that Person is otherwise directly or indirectly liable; (ii) any obligations with respect to undrawn letters of credit, corporate credit cards or merchant services issued for the account of that Person; and (iii) all obligations arising under any interest rate, currency or commodity swap agreement, interest rate cap agreement, interest rate collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; provided, however, that the term "Contingent Obligation" shall not include endorsements for collection or deposit in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the stated or determined amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by such Person in good faith; provided, however, that such amount shall not in any event exceed the maximum amount of the obligations under the guarantee or other support arrangement.

"continuing" and "during the continuance of" when used with reference to a Default or Event of Default means that the Default or Event of Default has occurred and has not been either waived in writing by Agent and Required Lenders or cured within any applicable cure period.

"Copyrights" means any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held.

"Default" means any event which with notice or passage of time or both, would constitute an Event of Default.

"Default Rate" has the meaning set forth in Section 7.2 above.

"Deposit Accounts" means all present and future "deposit accounts" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all general and special bank accounts, demand accounts, checking accounts, savings accounts and certificates of deposit.

"Eligible Accounts" means collectively Eligible Borrower Accounts and Eligible UK Accounts.

"Eligible Borrower Accounts" means Accounts and General Intangibles arising in the ordinary course of Borrower's business from the sale of goods or the rendition of services, or the non-exclusive licensing of Intellectual Property, which Agent, in its Good Faith Business Judgment, shall deem eligible for borrowing. Without limiting the fact that the determina-tion of which Accounts are eligible for borrowing is a matter of Agent's Good Faith Business Judgment, the following (the "Minimum Eligibility Requirements") are the minimum requirements for an Account to be an Eligible Account:

(i) the Account must not be outstanding for more than 120 days from its invoice date (the "Eligibility Period");

(ii) the Account must not represent progress billings, or be due under a fulfillment or requirements contract with the Account Debtor;

(iii) the Account must not be subject to any contingencies (including Accounts arising from sales on consignment, guaranteed sale, bill and hold, sale on approval, or other terms pursuant to which payment by the Account Debtor may be condi-tional);

(iv) the Account must not be owing from an Account Debtor with whom Borrower has any dispute (whether or not relating to the particular Account), but if an Account is owing from an Account Debtor with whom Borrower has any dispute, the Account will not be Eligible under this clause (iv) only to the extent of the amount of the dispute;

(v) the Account must not be owing from an Affiliate of Borrower;

(vi) the Account must not be owing from an Account Debtor which is subject to any Insolvency Proceeding, or becomes insolvent, or from which collection of the Account is doubtful (as determined by Agent in its Good Faith Business Judgment);

(vii) the Account must not be owing from the United States or any department, agency or instrumentality thereof (unless there has been compliance, to Agent's satisfaction, with the United States Assignment of Claims Act);

(viii) the Account must not be owing from an Account Debtor located outside the United States;

(ix) the Account must have been billed to the Account Debtor and must not represent deposits (such as good faith deposits) or other property of the Account Debtor held by Borrower for the performance of services or delivery of goods which Borrower has not yet performed or delivered;

(x) the Account must not be owing from an Account Debtor to whom Borrower is or may be liable for goods purchased from such Account Debtor or otherwise (but, in such case, the Account will be deemed not eligible only to the extent of any amounts owed by Borrower to such Account Debtor).

Accounts owing from one Account Debtor will not be deemed Eligible Accounts to the extent they exceed 25% of the total Eligible Accounts outstanding. In addi-tion, if more than 25% of the Accounts owing from an Account Debtor are outstanding for a period longer than their Eligibility Period or are otherwise not Eligible Accounts, then all Accounts owing from that Account Debtor will be deemed ineligible for borrowing. Agent may, from time to time, in its Good Faith Business Judgment, revise the Minimum Eligibility Requirements, upon 30 days prior written notice to Borrower.

"Eligible UK Accounts" means Accounts which meet all of the requirements of "Eligible Borrower Accounts", except for the fact that (i) they arise in the ordinary course of the UK Sub's business, (ii) they are owing to the UK Sub, (ii) they are owing from an Account Debtor located outside the United States, and (iv) they are owing in British Pounds; provided that Eligible UK Accounts may not constitute more than 30% of the total of Eligible Borrower Accounts and Eligible UK Accounts.

"Equipment" means all present and future "equipment" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"Event of Default" means any of the events set forth in Section 7.1 of this Agreement.

"Federal Funds Effective Rate" means, for any day, a rate per annum (rounded upward to the nearest 1/100th of 1%) equal to the rate published by the Federal Reserve Bank of New York on the preceding Business Day or, if no such rate is so published, the average rate per annum, as determined by Agent, quoted for overnight Federal Funds transactions last arranged prior to such day.

"Foreign Subs" has the meaning given in Section 8(d) of the Schedule.

"GAAP" means generally accepted accounting principles consistently applied, as in effect from time to time in the United States.

"General Intangibles" means all present and future "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all Intellectual Property, payment intangibles, royalties, contract rights, goodwill, franchise agreements, purchase orders, customer lists, route lists, telephone numbers, domain names, claims, income tax refunds, security and other deposits, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"Good Faith Business Judgment" means Agent's and Lenders' business judgment, exercised honestly and in good faith and not arbitrarily.

"Guarantor" means any Person who has guaranteed, or in the future guarantees, any of the Obligations.

"including" means including (but not limited to).

"Indebtedness" means (a) all indebtedness created, assumed or incurred in any manner by Borrower representing money borrowed (including by the issuance of debt securities, notes, bonds debentures or similar instruments), (b) all indebtedness for the deferred purchase price of property or services, (c) the Obligations, (d) obligations and liabilities of any Person secured by a Lien or claim on property owned by Borrower, even though Borrower has not assumed or become liable therefor, (e) obligations and liabilities created or arising under any capital lease or conditional sales contract or other title retention agreement with respect to property used or acquired by Borrower, even though the rights and remedies of the lessor, seller or lender are limited to repossession or otherwise limited; (f) all obligations of Borrower on or with respect to letters of credit, bankers' acceptances and other similar extensions of credit whether or not representing obligations for borrowed money; and (g) the amount of any Contingent Obligations.

"Intellectual Property" means all of Borrower's right, title, and interest in and to the following: Copyrights, Trademarks and Patents; any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held; any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held; any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above; all licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use; and all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"Insolvency Proceeding" means any proceeding commenced by or against any Person or entity under any provision of the United States Bankruptcy Code, as amended, or under any other state, federal or other bankruptcy or insolvency law, now or hereafter in effect, including assignments for the benefit of creditors, formal or informal moratoria, compositions, extension generally with its creditors, or proceedings seeking reorganization, arrangement, readjustment of debt, dissolution or liquidation, or other relief.

"Inventory" means all present and future "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit, and including any returned goods and any documents of title representing any of the above.

"Investment" means any beneficial ownership interest in any Person (including stock, securities, partnership interest, limited liability company interest, or other interests), and any loan, advance or capital contribution to any Person, including the creation or capital contribution to a wholly-owned or partially-owned subsidiary)

"Investment Property" means all present and future investment property, securities, stocks, bonds, debentures, debt securities, partnership interests, limited liability company interests, options, security entitlements, securities accounts, commodity contracts, commodity accounts, and all financial assets held in any securities account or otherwise, and all options and warrants to purchase any of the foregoing, wherever located, and all other securities of every kind, whether certificated or uncertificated.

"Lien" means any mortgage, lien, deed of trust, charge, pledge, security interest or other encumbrance. For the avoidance of doubt, a license of rights is not a "Lien".

"Loan Documents" means, collectively, this Agreement, the Representations, and all other present and future documents, instruments and agreements between Agent, or Agent and Lenders and Borrower, including, but not limited to those relating to this Agreement, and all amendments and modifications thereto and replacements therefor.

"Material Adverse Change" means a material adverse effect on (i) the operations, business or financial condition of Borrower taken as a whole, (ii) the ability of Borrower to repay the Obligations or otherwise perform its obligations under the Loan Documents, or (iii) Borrower's interest in, or the value, perfection or priority of Agent's security interest in the Collateral for the benefit of Lenders.

"Obligations" means all present and future Loans, ad-vances, debts, liabilities, obligations, guaranties, covenants, duties and indebtedness at any time owing by Borrower to Agent or any Lender, whether evidenced by this Agreement or any note or other instrument or document, or otherwise, whether aris-ing from an extension of credit, opening of a letter of credit, banker's acceptance, loan, guaranty, indemnifica-tion, Ancillary Services, or otherwise, whether direct or indirect (including, without limitation, those acquired by assignment and any participation by Agent in Borrower's debts owing to oth-ers, and any interest and other obligations that accrue after the commencement of an Insolvency Proceeding), absolute or contingent, due or to become due, includ-ing, without limitation, all interest, charges, expenses, fees, attorney's fees, expert witness fees, audit fees, letter of credit fees, collateral monitoring fees, closing fees, facility fees, termination fees, minimum interest charges and any other sums chargeable to Borrower under this Agreement or under any other Loan Documents.

"OFAC" means The Office of Foreign Assets Control of the U.S. Department of the Treasury.

"Other Property" means the following as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and all rights relating thereto: all present and future "commercial tort claims" (including without limitation any commercial tort claims identified in the Representations), "documents", "instruments", "promissory notes", "chattel paper", "letters of credit", "letter-of-credit rights", "fixtures", "farm products" and "money"; and all other goods and personal property of every kind, tangible and intangible, whether or not governed by the Code.

"Overadvance" is defined in Section 1.3.

"Patents" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"Payment" means all checks, wire transfers and other items of payment received by Agent (including proceeds of Accounts and payment of the Obligations in full) for credit to Borrower's outstanding Loans.

"Permitted Indebtedness" means:

(i) the Obligations;

(ii) trade payables incurred in the ordinary course of business;

(iii) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(iv) capitalized leases and purchase money Indebtedness secured by Permitted Liens in an aggregate amount not exceeding $5,000,000 at any time outstanding, provided the amount of such capitalized leases and purchase money Indebtedness do not exceed, at the time they were incurred, the lesser of the cost or fair market value of the property so leased or financed with such Indebtedness;

(v) Subordinated Debt;

(vi) Indebtedness of Borrower to any Subsidiary;

(vii) Contingent Obligations of Borrower permitted under Section 5.5 (x);

(viii) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness in clauses (ii) through (viii) above, provided that the principal amount thereof is not increased and the terms thereof are not modified to impose more burdensome terms upon Borrower.

"Permitted Investments" means:

(i) Investments existing on the date hereof and disclosed on Exhibit C;

(ii) Marketable direct obligations issued or unconditionally guaranteed by the United States of America or any agency or any State thereof maturing within one year from the date of acquisition thereof, commercial paper maturing no more than one year from the date of creation thereof and currently having rating of at least A-2 or P-2 from either Standard & Poor's Corporation or Moody's Investors Service, Agent's or a Lender's certificates of deposit maturing no more than one year from the date of investment therein, and Agent's or a Lender's money market accounts; Investments in regular deposit or checking accounts held with Agent or a Lender or subject to a control agreement in favor of Agent for the benefit of Lenders;

(iii) Investments of a Borrower in another Borrower and Investments in Foreign Subs permitted by Section 8(d) of the Schedule;

(iv) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of Borrower's business; and

(v) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business;

(vi) Investments permitted under Section 5.5(xi);

(vii) Investments not to exceed $250,000 in the aggregate in any fiscal year consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business; and (ii) the acceptance of notes from employees, officers or directors for the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors;

(viii) Deposit and securities accounts maintained with banks and other financial institutions to the extent expressly permitted under Section 8(b) of the Schedule; and

(ix) joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the nonexclusive licensing of technology, the development of technology or the providing of technical support, provided that any cash investments by Borrower do not exceed $250,000 in the aggregate in any fiscal year.

"Permitted Liens" means the following:

(i) purchase money security interests in specific items of Equipment;

(ii) leases of specific items of Equipment;

(iii) Liens for taxes not yet payable;

(iv) security interests which are consented to in writing by Agent, which consent may be withheld in its Good Faith Business Judgment, and which are subordinate to the security interest of Agent and Lenders pursuant to a Subordination Agreement in such form and containing such provisions as Agent shall specify in its Good Faith Business Judgment;

(v) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default, provided no action is taken to enforce the same against any Collateral unless such action has been bonded or stayed pending appeal;

(vi) security interests being terminated substantially concurrently with this Agreement;

(vii) Liens incurred on deposits made in the ordinary course of business in connection with workers compensation, unemployment insurance, social security and other like laws or to secure the performance of statutory obligations, in an aggregate amount not exceeding $250,000 at any time;

(viii) Liens of mechanics, materialmen, workers, repairmen, fillers and common carriers arising by operation of law for amounts that are not yet due and payable or which are being contested in good faith by Borrower by appropriate proceedings, in an aggregate amount not exceeding $250,000 at any time; and

(ix) deposits or pledges of cash to secure bids, tenders, contracts (other than contracts for the payment of money), leases, surety and appeal bonds and other obligations of a like nature arising in the ordinary course of business, in an aggregate amount not exceeding $100,000 at any time.

Agent will have the right to require, as a condition to its consent under sub-paragraph (iv) above, that the holder of the additional se-curity interest or voluntary Lien sign a subordination agreement in such form and substance as Agent shall specify, acknowledge that the secu-rity interest is subordinate to the security interest in favor of Agent and Lenders, and agree not to take any action to enforce its subordinate security interest so long as any Obligations remain outstanding, and that Borrower agree that any un-cured default in any obligation secured by the subordinate security interest shall also constitute an Event of Default under this Agreement.

"Person" means any individual, sole proprietorship, partnership, joint venture, limited liability company, trust, unincorporated organiza-tion, association, corporation, government, or any agency or political division thereof, or any other entity.

"Prime Rate" means the variable rate of interest per annum equal to the higher of (a) the rate of interest from time to time published by the Board of Governors of the Federal Reserve System as the "Bank Prime Loan" rate in Federal Reserve Statistical Release H.I5(519) entitled "Selected Interest Rates" or any successor publication of the Federal Reserve System reporting the Bank Prime Loan rate or its equivalent, or (b) the Federal Funds Effective Rate plus fifty (50) basis points. The statistical release generally sets forth a Bank Prime Loan rate for each Business Day. The applicable Bank Prime Loan rate for any date not set forth shall be the rate set forth for the last preceding date. In the event the Board of Governors of the Federal Reserve System ceases to publish a Bank Prime Loan rate or its equivalent, the rate for purposes of sub-clause (a) of this definition shall be a variable rate of interest per annum equal to the highest of the "prime rate", "reference rate", "base rate", or other similar rate announced from time to time by any of the three largest banks (based on combined capital and surplus) headquartered in New York, New York (with the understanding that any such rate may merely be a reference rate and may not necessarily represent the lowest or best rate actually charged to any customer by any such bank.

"Representations" means the written Representations and Warranties provided by Borrower to Agent referred to in the Schedule.

"Reserves" means, as of any date of determination, such amounts as Agent may from time to time establish and revise in its Good Faith Business Judgment, reducing the amount of Revolving Loans, and other financial accommodations which would

otherwise be available to Borrower under the lending formulas provided in the Schedule: (a) to reflect events, conditions, contingencies or risks which, as determined by Agent in its Good Faith Business Judgment, do or may adversely affect (i) the Collateral or any other property which is security for the Obligations or its value (including without limitation any increase in delinquencies of Accounts), (ii) the assets, business or prospects of Borrower or any Guarantor, or (iii) the security interests and other rights of Agent and Lenders in the Collateral (including the enforceability, perfection and priority thereof); or (b) to reflect Agent's good faith belief that any Collateral report or financial information furnished by or on behalf of Borrower or any Guarantor to Agent is or may have been incomplete, inaccurate or misleading in any material respect; or (c) in respect of any state of facts which Agent determines in good faith constitutes an Event of Default or may, with notice or passage of time or both, constitute an Event of Default.

"Required Lenders" is defined in Exhibit A hereto.

"Sanctioned Entity" means (a) a country or a government of a country, (b) an agency of the government of a country, (c) an organization directly or indirectly controlled by a country or its government, or (d) a Person resident in or determined to be resident in a country, in each case, that is subject to a country sanctions program administered and enforced by OFAC.

"Sanctioned Person" means a Person named on the OFAC-maintained list of "Specially Designated Nationals" (as defined by OFAC).

"Subordinated Debt" means unsecured Indebtedness on terms satisfactory to Agent in its Good Faith Business Judgment (which shall include, without limitation, no current cash payments and a due date on or after three months after the Maturity Date), and which is subordinated to the Obligations pursuant to a Subordination Agreement between Agent for the benefit of Lenders and the holder of such Indebtedness, in such form as Agent shall specify in its Good Faith Business Judgment.

"Subsidiary" means, with respect to any Person, a Person of which more than 50% of the voting stock or other equity interests is owned or controlled, directly or indirectly, by such Person or one or more Affiliates of such Person.

"Trademarks" means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

"UK Sub" is defined in Section 8(d) of the Schedule.

"USA PATRIOT Act" means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Public Law 107-56, as the same has been, or shall hereafter be, renewed, extended, amended or replaced.

Other Terms. All accounting terms used in this Agreement, unless otherwise indicated, shall have the meanings given to such terms in accordance with GAAP, consistently applied. All other terms contained in this Agreement, unless otherwise indicated, shall have the meanings provided by the Code, to the extent such terms are defined therein.

8A. AGENTED CREDIT PROVISIONS. The Agented Credit Provisions in Exhibit A hereto are a part of this Agreement and are incorporated herein by this reference

9. GENERAL PROVISIONS.

9.1 Application of Payments. All payments with re-spect to the Obligations may be applied, and in Agent's Good Faith Business Judgment reversed and re-applied, to the Obligations, in such order and manner as Agent shall determine in its Good Faith Business Judgment. Agent shall not be required to credit Borrower's account for the amount of any item of payment which is unsatisfactory to Agent in its Good Faith Business Judgment, and Agent may charge Borrower's loan account for the amount of any item of payment which is returned to Agent unpaid. In computing interest on the Obligations, all Payments will be deemed received and applied by Agent on account of the Obligations when received in immediately available funds, provided that, if such immediately available funds are received after 1:00 PM Eastern Time on any day, they shall be deemed received and so applied on the next Business Day.

9.2 Increased Costs and Reduced Return. If a Lender shall have determined that the adoption or implementation of, or any change in, any law, rule, treaty or regulation, or any policy, guideline or directive of, or any change in, the interpretation or administration thereof by, any court, central bank or other administrative or governmental authority, or compliance by Lender with any directive of, or guideline from, any central bank or other Governmental Authority or the introduction of, or change in, any accounting principles applicable to Lender (whether or not having the force of law) shall (i) subject the Lender to any tax, duty or other charge with respect to this Agreement or any Loan made hereunder, or change the basis of taxation of payments to Lender of any amounts payable hereunder (except for taxes on the overall net income of Lender), (ii) impose, modify or deem applicable any reserve, special deposit or similar requirement against any Loan, or against assets of or held by, or deposits with or for the account of, or credit extended by, Lender, or (iii) impose on Lender any other condition regarding this Agreement or any Loan, and the result of any event referred to in clauses (i), (ii) or (iii) above shall be to increase the cost to Lender of making any Loan,

or agreeing to make any Loan or to reduce any amount received or receivable by Lender, then, upon demand by Lender, Borrower shall pay to Lender such additional amounts as will compensate the Lender for such increased costs or reductions in amount. For purposes of this Agreement, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, guidelines and directives in connection therewith and (ii) all requests, rules, guidelines, or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States regulatory authorities, in each case pursuant to Basel III, shall in each case, be deemed to have been adopted and gone into effect after the date of this Agreement. All amounts payable under this Section shall bear interest from the date of demand by the Lender until payment in full to the Lender at the highest interest rate applicable to the Obligations. With respect to this Section 9.2, Lender shall treat Borrower no differently than Lender treats other similarly situated Borrowers. A certificate of the Lender claiming compensation under this Section, specifying the event herein above described and the nature of such event shall be submitted by the Lender to Borrower, setting forth the additional amount due and an explanation of the calculation thereof, and the Lender's reasons for invoking the provisions of this Section, and the same shall be final and conclusive absent manifest error.

9.3 Charges to Accounts. Agent may, in its discretion, require that Borrower pay monetary Obligations in cash to Agent, or charge them to Borrower’s Revolving Loan account (in which event they will bear interest at the same rate appli-cable to the Revolving Loans), or any of Borrower’s Deposit Accounts maintained with Agent or a Lender.

9.4 Monthly Accountings. Agent may provide Borrower monthly with an account of advances, charges, expenses and payments made pursuant to this Agreement. Such account shall be deemed correct, accurate and bind-ing on Borrower and an account stated (except for reverses and reapplications of payments made and corrections of er-rors discovered by Agent), unless Borrower notifies Agent in writing to the contrary within 60 days after such account is rendered, describing the nature of any al-leged errors or omissions.

9.5 Notices. All notices to be given under this Agreement shall be in writing and shall be given either personally or by reputable private delivery service or by regular first-class mail, or certified mail return receipt re-quested, addressed (i) to Borrower at the address shown in the heading to this Agreement, or (ii) to Agent and Lenders at the addresses shown in the heading to this Agreement, or (iii) for either party at any other address designated in writing by one party to the other party. All no-tices shall be deemed to have been given upon delivery in the case of notices personally delivered, or at the expira-tion of one Business Day following delivery to the private delivery service, or two Business Days following the de-posit thereof in the United States mail, with postage pre-paid.

9.6 Severability. Should any provision of this Agreement be held by any court of competent jurisdiction to be void or unenforceable, such defect shall not affect the remainder of this Agreement, which shall continue in full force and effect.

9.7 Integration. This Agreement and such other written agreements, documents and instruments as may be exe-cuted in connection herewith are the final, entire and com-plete agreement among Borrower, Agent and Lenders and super-sede all prior and contemporaneous negotiations and oral representations and agreements, all of which are merged and integrated in this Agreement. There are no oral under-standings, representations or agreements between the par-ties which are not set forth in this Agreement or in other written agreements signed by the parties in connection herewith.

9.8 Waivers; Indemnity. The failure of Agent or any Lender at any time or times to require Borrower to strictly comply with any of the pro-visions of this Agreement or any other Loan Document shall not waive or diminish any right of Agent later to demand and re-ceive strict compliance therewith. Any waiver of any de-fault shall not waive or affect any other default, whether prior or subsequent, and whether or not similar. None of the provisions of this Agreement or any other Loan Document shall be deemed to have been waived by any act or knowledge of Agent or any Lender or its agents or employees, but only by a specific written waiver signed by an authorized officer of Agent or Lender and delivered to Borrower. Borrower waives the benefit of all statutes of limitations relating to any of the Obligations or this Agreement or any other Loan Document, and Borrower waives demand, protest, notice of protest and notice of de-fault or dishonor, notice of payment and nonpayment, re-lease, compromise, settlement, extension or renewal of any commercial paper, instrument, account, General Intangible, document or guaranty at any time held by Agent or any Lender on which Borrower is or may in any way be liable, and notice of any action taken by Agent or any Lender, unless expressly required by this Agreement. Borrower hereby agrees to indemnify Agent and Lenders and their respective affiliates, subsidiaries, parent, directors, officers, employees, agents, and attorneys, and to hold them harmless from and against any and all claims, debts, liabilities, demands, obligations, actions, causes of action, penalties, costs and expenses (including reasonable attor-neys' fees), of every kind, which they may sustain or incur based upon or arising out of any of the Obligations, or any relationship or agreement among Agent or any Lender and Borrower, or any other matter, relating to Borrower or the Obligations; provided that this indemnity shall not extend to damages proximately caused by the indemnitee’s own gross negligence or willful misconduct. Notwithstanding any provision in this Agreement to the contrary, the indemnity agreement set forth in this Section shall survive any termination of this Agreement and shall for all purposes continue in full force and effect.

9.9 Liability. NEITHER AGENT OR ANY LENDER NOR ANY OF ANY OF THEIR AFFILIATES, SUBSIDIARIES, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS OR ATTORNEYS SHALL BE LIABLE FOR ANY CLAIMS, DE-MANDS, LOSSES OR DAMAGES, OF ANY KIND WHATSOEVER, MADE, CLAIMED, INCURRED OR SUFFERED BY

BORROWER OR ANY OTHER PARTY THROUGH THE ORDINARY NEGLIGENCE OF AGENT OR ANY LENDER, OR ITS PARENT OR ANY OF ITS AFFILIATES, SUBSIDIARIES, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS OR ATTORNEYS, BUT NOTHING HEREIN SHALL RELIEVE AGENT OR ANY LENDER FROM LIABILITY FOR ITS OWN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. NEITHER NOR ANY LENDER NOR ANY OF THEIR AFFILIATES, SUBSIDIARIES, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS OR ATTORNEYS SHALL BE RESPONSIBLE OR LIABLE TO BORROWER OR TO ANY OTHER PARTY FOR ANY INDIRECT, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES WHICH MAY BE ALLEGED AS A RESULT OF ANY FINANCIAL ACCOMMODATION HAVING BEEN EXTENDED, SUSPENDED OR TERMINATED UNDER THIS AGREEMENT OR AS A RESULT OF ANY OTHER ACT, OMISSION OR TRANSACTION.

9.10 Amendment. The terms and provisions of this Agreement may not be waived or amended, except in a writing executed by Borrower and a duly authorized offi-cer of Agent and Required Lenders.

9.11 Time of Essence. Time is of the essence in the performance by Borrower of each and every obligation under this Agreement.

9.12 Attorneys’ Fees and Costs. Borrower shall reim-burse Agent and Lenders for all reasonable attorneys’ and consultant’s fees (including without limitation those of their outside counsel and in-house counsel, and whether incurred before, during or after an Insolvency Proceeding), and all fil-ing, recording, search, title insurance, appraisal, audit, and other reasonable costs incurred by Agent and Lenders, pursuant to, or in connection with, or relating to this Agreement (whether or not a lawsuit is filed), including, but not limited to, any reasonable attorneys' fees and costs Agent and any Lender incurs in order to do the following: prepare and negotiate this Agreement and all present and future documents relating to this Agreement; obtain legal advice in connection with this Agreement or Borrower; en-force, or seek to enforce, any of its rights; prosecute ac-tions against, or defend actions by, Account Debtors; commence, intervene in, or defend any action or proceed-ing; initiate any complaint to be relieved of any automatic stay in bankruptcy; file or prosecute any probate claim, bankruptcy claim, third-party claim, or other claim; exam-ine, audit, copy, and inspect any of the Collateral or any of Borrower's books and records; protect, obtain possession of, lease, dispose of, or otherwise enforce Agent’s or any Lender’s secu-rity interest in, the Collateral; and otherwise represent Agent or any Lender in any litigation relating to Borrower. All attorneys' fees and costs to which Agent or any Lender may be entitled pursuant to this Paragraph shall immediately become part of Borrower's Obligations, shall be due on demand, and shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations.

9.13 Benefit of Agreement. The provisions of this Agreement shall be binding upon and inure to the benefit of the respective successors, assigns, heirs, beneficiaries and representatives of Borrower and Agent and Lenders; provided, however, that (i) Borrower may not assign or transfer any of its rights under this Agreement without the prior written consent of Agent and Required Lenders, and any prohibited assignment shall be void. No consent by Agent and Required Lenders to any assignment shall re-lease Borrower from its liability for the Obligations.

9.14 Joint and Several Liability. If Borrower consists of more than one Person, their liability shall be joint and several, and the compromise of any claim with, or the re-lease of, any Borrower shall not constitute a compromise with, or a release of, any other Borrower.

9.15 Limitation of Actions. Any claim or cause of action by Borrower against Agent or any Lender, its directors, officers, employees, agents, accountants or attorneys, based upon, arising from, or relating to this Loan Agreement, or any other Loan Document, or any other transaction contemplated hereby or thereby or relating hereto or thereto, or any other matter, cause or thing whatsoever, occurred, done, omitted or suffered to be done by Agent or such Lender, its directors, officers, employees, agents, accountants or attorneys, shall be barred unless asserted by Borrower by the commencement of an action or proceeding in a court of competent jurisdiction by the filing of a complaint within one year after the first act, occurrence or omission upon which such claim or cause of action, or any part thereof, is based, and the service of a summons and complaint on an officer of Agent or such Lender, or on any other person authorized to accept service on behalf of Agent or such Lender, within thirty (30) days thereafter. Borrower agrees that such one-year period is a reasonable and sufficient time for Borrower to investigate and act upon any such claim or cause of action. The one-year period provided herein shall not be waived, tolled, or extended except by the written consent of Agent or such Lender in its sole discretion. This provision shall survive any termination of this Loan Agreement or any other Loan Document.

9.16 Paragraph Headings; Construction. Paragraph headings are only used in this Agreement for convenience. The parties acknowledge that the headings may not describe completely the subject matter of the applica-ble paragraph, and the headings shall not be used in any manner to construe, limit, define or interpret any term or provision of this Agreement. This Agreement has been fully reviewed and negotiated between the parties and no uncertainty or ambiguity in any term or provision of this Agreement shall be construed strictly against any party under any rule of construction or otherwise.

9.17 Public Announcement. Borrower hereby agrees that Agent and any Lender may make a public announcement of the transactions contemplated by this Agreement, and may publicize the same in marketing materials, newspapers, tombstones, and other publications, and otherwise, and in connection therewith may use Borrower’s name, tradenames and logos.

9.18 Confidentiality. Agent and Lenders agrees to use the same degree of care that it exercises with respect to its own proprietary information, to maintain the confidentiality of any and all proprietary, trade secret or confidential information provided to or received by Agent and Lenders from Borrower, which indicates that it is confidential or would reasonably be understood to be confidential, including business plans and forecasts, non-public financial information, confidential or secret processes, formulae, devices and contractual information, customer lists, and employee relation matters, provided that Agent and Lenders may disclose such information to their officers, directors, employees, attorneys, accountants, affiliates, participants, prospective participants, assignees and prospective assignees, and such other Persons to whom they shall at any time be required to make such disclosure in accordance with applicable law or regulatory authority, and provided, that the foregoing provisions shall not apply to disclosures made by them in their Good Faith Business Judgment in connection with the enforcement of its rights or remedies after an Event of Default. The confidentiality agreement in this Section supersedes any prior confidentiality agreement of Agent or any Lender relating to Borrower.

9.19 PATRIOT Act Notice. Agent and Lenders hereby notify Borrower that pursuant to the requirements of the USA PATRIOT Act, they are required to obtain, verify and record information that identifies Borrower and each of its Subsidiaries, which information includes the names and addresses of each Borrower and each of its Subsidiaries and other information that will allow them, as applicable, to identify Borrower and each of its Subsidiaries in accordance with the USA PATRIOT Act.

9.20 APPLICABLE LAW. **THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PRINCIPLES (BUT INCLUDING AND GIVING EFFECT TO SECTIONS 5-1401 AND 5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW), EXCEPT TO THE EXTENT ANY SUCH OTHER LOAN DOCUMENT EXPRESSLY SELECTS THE LAW OF ANOTHER JURISDICTION AS GOVERNING LAW THEREOF, IN WHICH CASE THE LAW OF SUCH OTHER JURISDICTION SHALL GOVERN.**

9.21 CONSENT TO JURISDICTION. **BORROWER HEREBY CONSENTS TO THE JURISDICTION OF ANY STATE OR FEDERAL COURT LOCATED WITHIN THE COUNTY OF NEW YORK, STATE OF NEW YORK AND IRREVOCABLY AGREES THAT, SUBJECT TO AGENT'S ELECTION, ALL ACTIONS OR PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE OTHER LOAN DOCUMENTS SHALL BE LITIGATED IN SUCH COURTS PROVIDED THAT, NOTWITHSTANDING THE FOREGOING, NOTHING HEREIN SHALL LIMIT THE RIGHT OF AGENT OR ANY LENDER TO BRING PROCEEDINGS AGAINST BORROWER IN THE COURTS OF ANY OTHER JURISDICTION. BORROWER EXPRESSLY SUBMITS AND CONSENTS TO THE JURISDICTION OF THE AFORESAID COURTS AND WAIVES ANY DEFENSE OF FORUM NON CONVENIENS. BORROWER HEREBY WAIVES PERSONAL SERVICE OF ANY AND ALL PROCESS AND AGREES THAT ALL SUCH SERVICE OF PROCESS MAY BE MADE UPON BORROWER BY CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED, ADDRESSED TO BORROWER, AT THE ADDRESS SET FORTH IN THIS AGREEMENT AND SERVICE SO MADE SHALL BE COMPLETE TEN (10) DAYS AFTER THE SAME HAS BEEN POSTED. IN ANY LITIGATION, TRIAL, ARBITRATION OR OTHER DISPUTE RESOLUTION PROCEEDING RELATING TO THIS AGREEMENT OR ANY OF THE OTHER LOAN DOCUMENTS, ALL DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS OF BORROWER OR OF ITS AFFILIATES SHALL BE DEEMED TO BE EMPLOYEES OR MANAGING AGENTS OF BORROWER FOR PURPOSES OF ALL APPLICABLE LAW OR COURT RULES REGARDING THE PRODUCTION OF WITNESSES BY NOTICE FOR TESTIMONY (WHETHER IN A DEPOSITION, AT TRIAL OR OTHERWISE). BORROWER AGREES THAT AGENT'S, LENDER'S OR THEIR COUNSEL IN ANY SUCH DISPUTE RESOLUTION PROCEEDING MAY EXAMINE ANY OF THESE INDIVIDUALS AS IF UNDER CROSS-EXAMINATION AND THAT ANY DISCOVERY DEPOSITION OF ANY OF THEM MAY BE USED IN THAT PROCEEDING AS IF IT WERE AN EVIDENCE DEPOSITION. BORROWER IN ANY EVENT WILL USE ALL COMMERCIALLY REASONABLE EFFORTS TO PRODUCE IN ANY SUCH DISPUTE RESOLUTION PROCEEDING, AT THE TIME AND IN THE MANNER REQUESTED BY THEM, ALL PERSONS, DOCUMENTS (WHETHER IN TANGIBLE, ELECTRONIC OR OTHER FORM) OR OTHER THINGS UNDER ITS CONTROL AND RELATING TO THE DISPUTE.**

[Signatures on Next Page]

9.22 Mutual Waiver of Jury Trial. **Agent and Lenders AND BORROWER EACH ACKNOWLEDGE THAT THE RIGHT TO TRIAL BY JURY IS A CONSTITUTIONAL RIGHT, BUT THAT IT MAY BE WAIVED. EACH OF THE PARTIES, AFTER CONSULTING OR HAVING HAD THE OPPORTUNITY TO CONSULT, WITH COUNSEL OF THEIR CHOICE, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LITIGATION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY RELATED INSTRUMENT OR LOAN DOCUMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT OR ANY COURSE OF CONDUCT, DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN), ACTION OR INACTION OF ANY OF THEM. THESE PROVISIONS SHALL NOT BE DEEMED TO HAVE BEEN MODIFIED IN ANY RESPECT OR RELINQUISHED BY ANY PARTY HERETO, EXCEPT BY A WRITTEN INSTRUMENT EXECUTED BY EACH OF THEM. IF FOR ANY REASON THE PROVISIONS OF THIS SECTION ARE VOID, INVALID OR UNENFORCEABLE, THE SAME SHALL NOT AFFECT ANY OTHER TERM OR PROVISION OF THIS AGREEMENT, AND ALL OTHER TERMS AND PROVISIONS OF THIS AGREEMENT SHALL BE UNAFFECTED BY THE SAME AND CONTINUE IN FULL FORCE AND EFFECT.**

Borrower:

Cardlytics, Inc.

By________________________________
Title ____________________________

Agent and Lender:

PACIFIC WESTERN Bank

By________________________________
Title ____________________________

[Signature Page--Loan and Security Agreement]

Schedule to

Loan and Security Agreement

Borrower: **Cardlytics, Inc.**

Address: **675 Ponce de Leon Avenue NE, Suite 6000**
Atlanta, Georgia 30308

Date: **May 21, 2018**

This Schedule forms an integral part of the Loan and Security Agreement between PACIFIC WESTERN BANK ("PWB"), and the borrower named above (the "Borrower") of even date, and all references to "this Loan Agreement" include this Schedule.

1. LOANS, ANCILLARY SERVICES, CREDIT LIMIT
(Section 1.1).

The Loans shall consist of Revolving Loans (the "Revolving Loans") and a Term Loan (the "Term Loan") as follows. ("Loans" as used in this Loan Agreement means, collectively, the Term Loan and the Revolving Loans.)

(a) Revolving Loans.

(1) Amount. The Revolving Loans shall be in an amount up to the lesser of the following (the "Revolving Loan Credit Limit"):

(a) an amount equal to $30,000,000 (the "Maximum Revolving Loan Amount"); or

(b) 85% (an "Advance Rate") of the amount of Borrower's Eligible Accounts (as defined in Section 8 above).

Agent may, from time to time, adjust the Advance Rate, in its Good Faith Business Judgment, upon notice to Borrower, based on changes in collection experience with respect to Accounts, or other issues or factors relating to the Accounts or other Collateral or Borrower.

(2) Revolving Loan Maturity Date. Subject to the terms and conditions of this Loan Agreement, Revolving Loans may be borrowed, repaid and re-borrowed, until the Maturity Date, on which date the entire unpaid principal balance of the Revolving Loans and all accrued and unpaid interest thereon shall be due and payable. After the Maturity Date no further Revolving Loans shall be made.

(b) Term Loan.

(1) Disbursement of Term Loan. The Term Loan shall be in the original principal amount of $20,000,000, and, subject to the terms and conditions in this Loan Agreement, shall be disbursed to Borrower, in one disbursement, within two Business Days after the date hereof.

(2) Principal Payments. On the Maturity Date, the entire unpaid principal balance of the Term Loan and all accrued and unpaid interest thereon shall be due and payable. Notwithstanding the foregoing, Borrower may prepay the Term Loan, in whole or in part, at any time without premium or penalty; provided that any such prepayment includes all accrued and unpaid interest on the Term Loan at the time of such prepayment.

(c) Lenders. Each Lender, severally, agrees to lend to the Borrower its Pro Rata Share of Loans hereunder. Initially, the Lenders' Pro Rata Shares of the Loans shall be as follows: PWB: 100%

Ancillary Services Limit: $1,350,800.

Overall Credit Limit: Notwithstanding any provisions herein to the contrary, in no event shall the total Obligations (including without limitation the Term Loan, the Revolving Loans, and Obligations relating to Ancillary Services) at any time outstanding exceed $51,350,800 (the "Overall Credit Limit").

2. INTEREST.

Interest Rates (Section 1.2):

(a) Revolving Loans: The Revolving Loans shall bear interest at a rate based on the unrestricted cash deposits maintained by the Borrower with Agent ("Deposits"), as follows:

(i) If the total Deposits on the last day of a month exceed $40,000,000, the interest rate in effect during the following month shall be equal to the Prime Rate in effect from time to time, minus 0.75% per annum;

(ii) If the total Deposits on the last day of a month are equal to or less than $40,000,000, but the total Deposits on the last day of such month exceed $20,000,000, then the interest rate in effect during the following month shall be equal to the Prime Rate in effect from time to time, minus 0.50% per annum;

(iii) If the total Deposits on the last day of a month are equal to or less than $20,000,000, then the interest rate in effect during the

following month shall be equal to the Prime Rate in effect from time to time;

(iv) The interest rate in effect during May, 2018, the month in which this Agreement is being executed and delivered, shall be the interest rate under clause (i) above.

(b) Term Loan: The Term Loan shall bear interest at a rate equal to the Prime Rate in effect from time to time, minus 2.75% per annum.

(c) Calculation: Interest shall be calculated on the basis of a 360-day year for the actual number of days elapsed. The interest rate applicable to the Obligations shall change on each date there is a change in the Prime Rate. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable law.

3. FEES (Section 1.4):

Loan Fee: None.

Unused Line Fee: In the event, in any calendar quarter (or portion thereof at the beginning and end of the term hereof), the average daily principal balance of the Revolving Loans outstanding during the month is less than the Maximum Revolving Loan Amount, Borrower shall pay Agent for the benefit of Lenders an unused line fee in an amount equal to 0.15% per annum on the difference between the Maximum Revolving Loan Amount and the average daily principal balance of the Revolving Loans outstanding during the quarter, which unused line fee shall be computed and paid quarterly, in arrears, on the first day of the following month and upon termination of this Loan Agreement.

Success Fee: In the event Borrower realizes revenue (in accordance with GAAP) of $200,000,000 or more during any twelve-month period ending at the end of any month after the date hereof, Borrower shall pay Lender a one-time Success Fee in the amount of $75,000 within 30 days after the end of such month.

4. Maturity Date

(Section 6.1): May 21, 2020.

5. Financial Covenants

(Section 5.1): Borrower shall comply with each of the following covenants. Compliance shall be determined as of the end of each month, except as otherwise specifically provided below:

Minimum Liquidity: Borrower shall at all times maintain Liquidity of not less than $5,000,000.

As used herein, "Liquidity" means, on any day, the sum of (i) Borrower's unrestricted cash maintained in demand deposit accounts with Lender, plus (ii) Revolving Loans available to be borrowed by Borrower hereunder, on such day.

Minimum Revenue: Borrower shall maintain revenue, determined in accordance with GAAP, in the following amounts for each twelve-month period ending at following dates:

Twelve Months Ending	Minimum Revenue (000s omitted)
4/30/2018	$124,500
5/31/2018	$125,750
6/30/2018	$127,000
7/31/2018	$128,250
8/31/2018	$129,500
9/30/2018	$130,750
10/31/2018	$132,000
11/30/2018	$133,250
12/31/2018	$134,500
1/31/2019	$135,750
2/28/2019	$137,000
*	*

***** For periods after February 28, 2019, the above covenants shall be determined as follows: On or before February 28, 2019, and February 28 in each succeeding year, Borrower shall submit to Lender financial projections for Borrower for the succeeding 12-month period, on a monthly basis, as approved by Borrower's Board of Directors, and Lender and Borrower shall attempt to agree in writing on the financial covenants which Borrower shall be required to comply with for such periods. If for any reason Borrower and Lender are not able to agree in writing on the same, prior to March 31, 2019, or March 31 of any subsequent year, or if such projections are not received by Lender within 60 days after the beginning of any fiscal year, then the financial covenants for such periods during such fiscal year shall be determined by Lender, in Lender's Good Faith Business Judgment.

6. Reporting
(Section 5.3):

Borrower shall provide Agent with the following, all of which shall be in form acceptable to Agent in its Good Faith Business Judgment:

(a) Monthly accounts receivable agings, aged by invoice date, with borrowing base certificate, within 30 days after the end of each month;

(b) Monthly accounts payable agings, aged by invoice date, within 30 days after the end of each month;

(c) Quarterly unaudited financial statements, as soon as available, and in any event within 45 days after the end of fiscal quarter;

(d) Annual operating budgets and financial projections (including income statements, balance sheets and cash flow statements, by month) for each fiscal year of Borrower within 60 days after the beginning of such fiscal year, approved by Borrower’s board of directors;

(e) Annual financial statements, as soon as available, and in any event within 90 days following the end of Borrower's fiscal year, certified by, and with an unqualified opinion of, independent certified public accountants of nationally recognized standing or otherwise reasonably acceptable to Agent;

(f) Each of the monthly reports in subsection (a) and the financial statements in subsection (e) above shall be accompanied by Compliance Certificates, in the form of Exhibit D hereto, signed by the Chief Financial Officer of Borrower, certifying that as of the end of such period Borrower was in full compliance with all of the terms and conditions of this Loan Agreement, and setting forth calculations and accompanied by supporting documentation showing compliance with the financial covenants set forth in this Agreement and such other information as Agent shall reasonably request;

(g) promptly upon receipt, each management letter prepared by Borrower’s independent certified public accounting firm regarding Borrower’s management control systems;

(h) such budgets, sales projections, operating plans or other financial information generally prepared by Borrower in the ordinary course of business as Agent may reasonably request from time to time; and

(i) within 30 days of the last day of each fiscal quarter, a report signed by Borrower, in form reasonably acceptable to Agent, listing any applications or registrations that Borrower has made or filed in respect of any Patents, Copyrights or Trademarks and the status of any outstanding applications or registrations, as well as any material change in Borrower’s Intellectual Property, including but not limited to any subsequent ownership right of Borrower in or to any Trademark, Patent or Copyright not specified in exhibits to any Intellectual Property Security Agreement delivered to Agent by Borrower in connection with this Loan Agreement;

(j) Promptly (and in any event within two Business Days), notice in writing of the occurrence of any Default or Event of Default;

(k) Promptly (and in any event within two Business Days), notice in writing of any matter that has resulted or could reasonably be expected to result in a Material Adverse Change; and

(l) Promptly (and in any event within two Business Days), notice in writing of the threat or institution of, any material development in, any claim, suit, litigation, proceeding or investigation which could reasonably be expected to result in a Material Adverse Change.

7. Borrower Information:

Borrower represents and warrants that the information set forth in the Borrower Information Certificate dated May 20, 2018, previously submitted to Agent (the “Representations”) is true and correct as of the date hereof.

8. ADDITIONAL PROVISIONS:

(a) **Additional Conditions Precedent.** In addition to any other conditions to the first disbursement of the Loans set forth in this Loan Agreement, the first disbursement of the Loans is subject to the following additional conditions precedent:

(1) **Payment of Existing Indebtedness.** All Indebtedness of Borrower to Ally Bank and PWB under Loan and Security Agreement between Borrower and them dated September 14, 2016 is paid in full, and all Indebtedness of Borrower to Columbia Partners, L.L.C. and Investment Management and National Electrical Benefit Fund and their successors and assigns is paid in full, and all Liens relating thereto shall be terminated of record.

(2) **Restricted Deposit Account.** Borrower shall deposit the sum of $20,000,000 in a restricted Deposit Account with Agent (the “Pledged Account”), which shall at all times prior to the payment in full of the Term Loan be maintained with, and under the exclusive control of Agent, as part of the Collateral.

(3) **Insurance Requirements.** In addition to the post-closing insurance requirements set forth below, Borrower shall provide Agent with the following with respect to the insurance requirements in Section 5.2 of this Loan Agreement:

(i) **Property Insurance**. An Acord Form 28 showing

evidence of property insurance, naming Agent as a certificate holder.

(ii) **Liability Insurance.** An Acord Form 25 showing Agent as a certificate holder.

(iii) **Insurance Companies**. All insurance required pursuant to this Loan Agreement shall be issued by insurance companies in good standing with a current rating of A- or better by A.M. Best Company and a Financial Size Category of VIII or higher.

(iv) **Name and Address.** The Agent name and address format on all insurance related documentation shall be as follows:

Pacific Western Bank, its successors and assigns, as agent
406 Blackwell Street, Suite 240
Durham, NC 27701
Attn: Loan Operations Department

(b) **Deposit Accounts.** Borrower shall at all times maintain all of its Deposit Accounts and all of its investment accounts with PWB; provided that Borrower may maintain up to a total not to exceed $250,000 in Deposit Accounts at other institutions, subject to a control agreement among Borrower, such institution and Agent, in form and substance satisfactory to Agent in its Good Faith Business Judgment.

(c) **Foreign Subsidiaries; Foreign Assets.**

(1) **Representations.** Borrower represents and warrants that it has no partially-owned or wholly-owned Subsidiaries which are not Borrowers hereunder, except for Subsidiaries organized under the laws of a jurisdiction other than the United States or any state or territory thereof or the District of Columbia (“Foreign Subs”), which are as follows: Cardlytics UK Limited, a company organized under the laws of England and Wales (the “UK Sub”) and a wholly-owned subsidiary to be organized under the laws of the Republic of India (the “Indian Sub”).

(2) **Investments.** Borrower may make Investments in the Foreign Subs, in an aggregate amount not to exceed the amount necessary to fund the current operating expenses of the Foreign Subs (taking into account their revenue from other sources); provided that the total of such investments and loans in any fiscal year to all such Foreign Subs shall not exceed $3,000,000. The foregoing shall constitute

"Permitted Investments" for purposes of this Loan Agreement.

(3) **Foreign Assets.** Borrower covenants that the total amount maintained by Borrower in foreign bank accounts owned by Borrower shall not, at any time, exceed $500,000. Borrower shall not permit any of the assets of any of the Foreign Subs to be subject to any security interest, lien or encumbrance, except for Liens that would be Permitted Liens if the Foreign Sub was a Borrower hereunder (other than Liens securing Indebtedness for borrowed money), and Borrower shall not agree with any other Person to restrict its ability to cause a Foreign Sub to grant any security interest in, or lien or encumbrance on, its assets.

(d) **Perfection of Security Interest in Stock of Foreign Sub.** Within 60 days after the date hereof, Borrower shall execute and deliver all such documents as are necessary to grant Agent for the benefit of Lenders, a security interest in 100% of the non-voting stock and 65% of the voting stock of all classes of the UK Sub, as Agent's UK counsel shall recommend, together with certified resolutions or other evidence of authority with respect to the execution and delivery of such documents, and Borrower shall take such actions as shall be reasonably necessary in order to perfect such security interest. Within 60 days after the formation of the Indian Sub, Borrower shall execute and deliver all such documents as are necessary to grant Agent for the benefit of Lenders, a security interest in 100% of the non-voting stock and 65% of the voting stock of all classes of the Indian Sub, as Agent's Indian counsel shall recommend, together with certified resolutions or other evidence of authority with respect to the execution and delivery of such documents, and Borrower shall take such actions as shall be reasonably necessary in order to perfect such security interest. Throughout the term of this Loan Agreement, Borrower shall cause such documents and perfected security interests to continue in full force and effect.

(e) **Post-Closing Insurance Requirements.** Within 30 days after the date hereof, Borrower shall provide the following to Agent:

(1) **Property Insurance.** A Lender's Loss Payable endorsement showing Agent as a lender's loss payee.

(2) **Liability Insurance.** An endorsement to Borrower's liability insurance policy showing Agent as an additional insured.

(f) **Audit.** Without limiting the generality of Section 5.4, Borrower agrees to cooperate with Lender to enable Lender to complete an

audit of Borrower pursuant to Section 5.4 within 90 days after the date hereof.

(g) **Extensions of Deadlines.** Deadlines for actions by Borrower to complete matters set forth in this Section 8 after the date hereof may be extended by Agent from time to time in its sole discretion, provided such extension is in a written extension signed by Agent and delivered to Borrower. The granting of any such extension shall not be deemed to imply any agreement to provide any further extensions.

[Signatures on Next Page]

Borrower:

Cardlytics, Inc.

By________________________________

Title ______________________________

Agent and Lender:

PACIFIC WESTERN BANK

By________________________________

Title ______________________________

[Signature Page--Schedule to Loan and Security Agreement]

Exhibit A

Agented Credit Provisions

Exhibit B

Notice of Borrowing

[To be printed on Borrower's letterhead]

Request for Loan

Date: ________ __, 20__

Pacific Western Bank
406 Blackwell Street, Suite 240
Durham, NC 27701
Attn: Loan Operations Department

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement dated as of May 21, 2018 (as amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement") by and between Cardlytics, Inc. ("Borrower"), Pacific Western Bank, as Agent, and and Pacific Western Bank ("Lender"). Capitalized terms used but not defined herein shall have the meanings given such terms in the Loan Agreement. Pursuant to the Loan Agreement, Borrower gives notice that it hereby requests a Loan under the Loan Agreement in the amount of $__________ on ______________, 20__.

The Borrower hereby certifies that the representations and warranties contained in the Loan Agreement and in each other Loan Document, certificate or other writing delivered to the Agent and Lenders pursuant thereto are true and correct in all material respects on and as the date first above written (other than those which expressly relate only to a specific earlier date), and no Default or Event of Default has occurred and is continuing as of the date hereof or would result from such requested Loan requested hereby or from the application of proceeds thereof.

The proceeds of the Loan requested hereby should be transmitted to Borrower in accordance with the following wire transfer instructions:

Bank Name
City, State & ZIP
ABA Routing No.
Account Name:
Account No:
Amount:
Reference:

Very truly yours,

Cardlytics, Inc.

By:_________________________________
Name:
Title:

Exhibit C

Existing Investments: None

Exhibit D

Form of Compliance Certificate

Exhibit 21.1

List of Subsidiaries of Cardlytics, Inc.

Company Name	**Jurisdiction**
Cardlytics UK Limited	England and Wales
Cardlytics Services India Private Limited	India

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Scott D. Grimes, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cardlytics, Inc. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    c. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 14, 2018

By: /s/ Scott D. Grimes
Scott D. Grimes
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David T. Evans, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cardlytics, Inc. (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   c. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 14, 2018

By: /s/ David T. Evans

David T. Evans
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATIONS OF
PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Scott D. Grimes, Chief Executive Officer of Cardlytics, Inc. (the "Company"), and David T. Evans, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2018 (the "Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date:	August 14, 2018	By:	/s/ Scott D. Grimes
			Scott D. Grimes
			Chief Executive Officer *(Principal Executive Officer)*
Date:	August 14, 2018	By:	/s/ David T. Evans
			David T. Evans
			Chief Financial Officer *(Principal Financial and Accounting Officer)*

This certification accompanies the Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date of this Report, irrespective of any general incorporation language contained in such filing.

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.