Filed Pursuant to Rule 424(b)(5) Registration No. 333-231948

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to the securities has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell the securities and are not soliciting an offer to buy the securities in any jurisdiction where the offer or sale is not permitted.

Subject to completion, dated June 4, 2019

Prospectus supplement (To prospectus dated June 4, 2019)

\$175,000,000



% Convertible Senior Notes due 2024

Interest payable June 1 and December 1

We are offering \$175,000,000 principal amount of our % Convertible Senior Notes due 2024 (the "notes"). The notes will bear interest at a rate of % per year, payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2019. The notes will mature on June 1, 2024, unless earlier repurchased, redeemed or converted. This prospectus supplement and the accompanying prospectus also register the offering and sale of the shares of common stock issuable upon conversion of the notes.

Holders may convert their notes at their option at any time prior to the close of business on the business day immediately preceding December 1, 2023 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on September 30, 2019 (and only during such calendar quarter), if the last reported sale price of our Class A common stock, par value \$0.0001 per share ("Class A common stock"), for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price (as defined in this prospectus supplement) per \$1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on each such trading day; (3) if we call any or all of the notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or (4) upon the occurrence of specified corporate events. On or after December 1, 2023 until the close of business on the business day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election, as described in this prospectus supplement.

The conversion rate will initially be shares of Class A common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of approximately \$ per share of Class A common stock). The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date or if we deliver a notice of redemption, we will, in certain circumstances, increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event or redemption, as the case may be.

We may not redeem the notes prior to June 6, 2022. We may redeem for cash all or any portion of the notes, at our option, on or after June 6, 2022 if the last reported sale price of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the notes

If we undergo a fundamental change, as defined in this prospectus supplement, holders may require us to repurchase for cash all or any portion of their notes at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The notes will be our senior unsecured obligations and will rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the notes; equal in right of payment to any of our unsecured indebtedness that is not so subordinated; effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

We do not intend to apply to list the notes on any securities exchange or any automated dealer quotation system. Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR." The last reported sale price of our Class A common stock on the Nasdaq Global Select Market on June 3, 2019 was \$36.82 per share.

Investing in the notes involves a high degree of risk. See "Risk factors" beginning on page S-10 of this prospectus supplement and the documents incorporated by reference herein for a discussion of certain risks that you should consider in connection with an investment in the notes.

| | Per note | Total |
|---|----------|-------|
| Public offering price(1) | \$ | \$ |
| Underwriting discounts and commissions(2) | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

- (1) Plus accrued interest, if any, from June , 2019
- (2) See "Underwriting (conflicts of interest)" beginning on page S-77 of this prospectus supplement for additional information regarding underwriting compensation.

We have granted the underwriters the right to purchase, exercisable within a 30-day period, up to an additional \$26,250,000 principal amount of notes

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We expect that delivery of the notes will be made to investors in book-entry form through The Depository Trust Company on or about June , 2019.

J.P. Morgan

Goldman Sachs & Co. LLC

RBC Capital Markets

June , 2019

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All references in this prospectus supplement and the accompanying prospectus to "Altair," "the Company," "we," "us," "our" and similar terms refer to Altair Engineering Inc. and its subsidiaries, unless we state otherwise or the context otherwise requires.

About this prospectus supplement

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, gives more general information, some of which may not apply to this offering. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein and any free writing prospectus we have authorized for use in connection with this offering, in their entirety before making an investment decision.

If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information in this prospectus supplement, the accompanying prospectus, any document incorporated by reference herein or therein and any free writing prospectus we have authorized for use in connection with this offering are accurate or complete only as of their respective dates, regardless of the time of delivery of this prospectus supplement, the accompanying prospectus and any authorized free writing prospectus. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus supplement, as permitted by law, we "incorporate by reference" information from other documents that we file with the Securities and Exchange Commission (the "SEC"). This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement and the accompanying prospectus and should be read with the same care. When we update the information contained in this prospectus supplement in documents that have been incorporated by reference herein by making future filings with the SEC, that are incorporated by reference herein, the information included or incorporated by reference in this prospectus supplement is considered to be automatically updated and superseded. In other words, in case of a conflict or inconsistency between information contained in this prospectus supplement and information in the accompanying prospectus or incorporated by reference into this prospectus supplement, you should rely on the information contained in the document that was filed with the SEC later. See "Incorporation of certain documents by reference" in this prospectus supplement.

We are not, and the underwriters are not, making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

You should not consider any information included or incorporated by reference in this prospectus supplement or the accompanying prospectus to be investment, legal or tax advice. You should consult your own counsel, accountants and other advisers for legal, tax, business, financial and related advice regarding the purchase of the notes offered by this prospectus supplement.

Cautionary note regarding forward-looking statements

This prospectus supplement and the accompanying prospectus, including the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus we authorize for use in connection with this offering may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which are subject to risks and uncertainties. These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as "may," "can," "anticipate," "assume," "should," "indicate," "would," "believe," "contemplate," "expect," "seek," "estimate," "continue," "plan," "point to," "project," "predict," "could," "intend," "target," "potential", the negative and plural of these words and other similar words and expressions of the future. There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our ability to acquire new customers because of the difficulty in predicting our software sales cycles;
- · reduced spending on product design and development activities by our customers;
- our dependence on annual renewals of our software licenses;
- · our ability to maintain or protect our intellectual property;
- · our ability to retain key executive members;
- our ability to internally develop new inventions and intellectual property;
- our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments;
- demand for our software by customers other than simulation engineering specialists and in additional industry verticals;
- · acceptance of our business model by investors:
- our ability to integrate companies that we have acquired or may acquire in the future;
- our susceptibility to factors affecting the automotive and financial services industries where we derive a substantial portion of our revenues;
- the accuracy of our estimates regarding expenses and capital requirements;
- our susceptibility to foreign currency risks that arise because of our substantial international operations;
- · the significant quarterly fluctuations of our results;
- · our anticipated use of proceeds from this offering; and
- · our ability to satisfy future liquidity requirements.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Such forward-looking statements included or incorporated by reference in this prospectus supplement, the accompanying prospectus or any applicable free writing prospectus are based on information available to us as of the date such statements were made and our then-current expectations about future events, which are inherently subject to change and involve risks and uncertainties. All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You should not place undue reliance on these forward-looking statements. Actual events or results may differ materially from those expressed or implied by these statements due to various factors, including but not limited to the factors discussed under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 (the "2018 Form 10-K") and under the heading "Risk factors" in this prospectus supplement and the accompanying prospectus.

We do not undertake any obligation to update any forward-looking statements included or incorporated by reference in this prospectus supplement or the accompanying prospectus or any applicable free writing prospectus, whether as a result of new information, future events, or otherwise, except as required by law. All such forward-looking statements should be read as of the time the statements were made and with the recognition that these forward-looking statements may not be complete or accurate at a later date. We have expressed our expectations, beliefs and projections in good faith and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

Prospectus summary

This summary highlights information contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. This summary does not contain all of the information you should consider before investing in our notes. You should read carefully this entire prospectus supplement and the accompanying prospectus, including the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus we authorize for use in connection with this offering, before making an investment decision to purchase our notes, especially the risks of investing in our notes discussed in the section titled "Risk factors" in this prospectus supplement, as well as the consolidated financial statements and notes to those consolidated financial statements incorporated by reference into this prospectus supplement and the accompanying prospectus. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Overview

We are a global technology company providing software and cloud solutions in the areas of product design and development, high performance cloud computing, and data intelligence. We enable organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future.

Our simulation-driven approach to innovation is powered by our broad portfolio of high-fidelity and high-performance physics solvers. Our integrated suite of software optimizes design performance across multiple disciplines encompassing structures, motion, fluids, thermal management, electromagnetics, system modeling, and embedded systems, while also providing data intelligence and true-to-life visualization and rendering. Our high-performance cloud computing solutions maximize the efficient utilization of complex compute resources and streamline the workflow management of compute-intensive tasks for applications including data intelligence, modeling and simulation, and visualization. Our data intelligence products include market leading data preparation, data science and visualization solutions that fuel engineering, scientific, and business decisions.

Our software products represent a comprehensive, open architecture solution for simulation, data intelligence and cloud computing to empower decision making for improved product design and development, manufacturing, energy management and exploration, financial services, health care, and retail operations. We believe our products offer a comprehensive set of technologies to design and optimize high performance, efficient, innovative and sustainable products and processes in an increasingly connected world. Our products are categorized by:

- · Design, Modeling & Visualization;
- Physics Simulation;
- · Data Intelligence;
- · High Performance Cloud Computing; and
- · Internet of Things, or IoT.

We also provide client engineering services to support our customers with long-term ongoing expertise. This has the benefit of embedding us within customers, deepening our understanding of their processes, and allowing us to more quickly perceive trends in the overall market. Our presence at our customers' sites helps us to better tailor our software products' research and development and sales initiatives.

Corporate information

We were incorporated initially in Michigan in 1985 and reincorporated in Delaware in October 2017. Our principal executive offices are located at 1820 E. Big Beaver Road, Troy, Michigan 48083 and our telephone number is (248) 614-2400. Our website address is www.altair.com. Information contained on or accessible through our Internet website is not incorporated by reference into this prospectus supplement, and you should not consider any information contained on, or that can be accessed through, our Internet website as part of this prospectus supplement or in deciding whether to purchase the notes offered hereby.

The offering

The summary below describes the principal terms of the notes. This summary does not contain all of the information that is important relating to an investment in the notes and any shares of our Class A common stock issuable upon conversion thereof. Certain of the terms and conditions described below are subject to important limitations and exceptions. The "Description of Senior Debt Securities" section of the accompanying prospectus, as supplemented by the "Description of notes" section of this prospectus supplement, contains a more detailed description of the terms and conditions of the notes. As used in this section, "we," "our" and "us" refer only to Altair Engineering Inc. and not to any of its subsidiaries.

Issuer

Altair Engineering Inc., a Delaware corporation.

Securities

\$175,000,000 principal amount of % Convertible Senior Notes due 2024 (*plus* an option to purchase up to an additional \$26,250,000 principal amount of notes). This prospectus supplement and the accompanying prospectus also register the offering and sale of the shares of common stock issuable upon conversion of the notes.

Maturity

June 1, 2024, unless earlier repurchased, redeemed or converted.

Interest

% per year. Interest will accrue from June , 2019 and will be payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2019. We will pay additional interest, if any, at our election as the sole remedy relating to the failure to comply with our reporting obligations as described under "Description of notes—Events of default."

Conversion rights

Holders may convert all or any portion of their notes, in multiples of \$1,000 principal amount, at their option at any time prior to the close of business on the business day immediately preceding December 1, 2023 only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on September 30, 2019 (and only during such calendar quarter), if the last reported sale price of our Class A common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the
 "measurement period") in which the "trading price" (as defined under "Description of notes—
 Conversion rights—Conversion upon satisfaction of trading price condition") per \$1,000 principal
 amount of notes for each trading day of the measurement period was less than 98% of the
 product of the last reported sale price of our Class A common stock and the conversion rate on
 each such trading day;
- if we call any or all of the notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or

 upon the occurrence of specified corporate events described under "Description of notes— Conversion rights—Conversion upon specified corporate events."

On or after December 1, 2023 until the close of business on the business day immediately preceding the maturity date, holders may convert all or any portion of their notes, in multiples of \$1,000 principal amount, at the option of the holder regardless of the foregoing circumstances.

The conversion rate for the notes is initially shares of our Class A common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of approximately \$ per share of Class A common stock), subject to adjustment as described in this prospectus supplement.

Upon conversion, we will pay or deliver, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election. If we satisfy our conversion obligation solely in cash or through payment and delivery, as the case may be, of a combination of cash and shares of our Class A common stock, the amount of cash and shares of Class A common stock, if any, due upon conversion will be based on a daily conversion value (as described herein) calculated on a proportionate basis for each trading day in a 50 trading day observation period (as described herein). See "Description of notes—Conversion rights—Settlement upon conversion."

In addition, following certain corporate events that occur prior to the maturity date or in connection with a redemption at our option, we will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event or redemption in certain circumstances as described under "Description of notes—Conversion rights—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period."

You will not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, upon conversion of a note, except in limited circumstances. Instead, interest will be deemed to be paid by the cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock paid or delivered, as the case may be, to you upon conversion of a note.

Redemption at our option

We may not redeem the notes prior to June 6, 2022. We may redeem for cash all or part of the notes, at our option, on or after June 6, 2022 if the last reported sale price of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, *plus* accrued and

unpaid interest to, but excluding, the redemption date. No "sinking fund" is provided for the notes, which means that we are not required to redeem or retire the notes periodically.

See "Description of notes—Optional redemption."

Fundamental change

If we undergo a "fundamental change" (as defined in this prospectus supplement under "Description of notes—Fundamental change permits holders to require us to repurchase notes"), subject to certain conditions, holders may require us to repurchase for cash all or part of their notes in principal amounts of \$1,000 or an integral multiple thereof. The fundamental change repurchase price will be equal to 100% of the principal amount of the notes to be repurchased, *plus* accrued and unpaid interest to, but excluding, the fundamental change repurchase date. See "Description of notes—Fundamental change permits holders to require us to repurchase notes."

Ranking

The notes will be our senior unsecured obligations and will rank:

- senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the notes;
- equal in right of payment to any of our unsecured indebtedness that is not so subordinated;
- effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and
- structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

As of March 31, 2019, our total consolidated indebtedness was \$16.2 million, of which an aggregate of \$14.8 million was secured indebtedness of ours. As of March 31, 2019, our subsidiaries had \$98.0 million of indebtedness and other liabilities (including trade payables, but excluding intercompany obligations and liabilities of a type not required to be reflected on a balance sheet of such subsidiaries in accordance with GAAP) to which the notes would have been structurally subordinated. After giving effect to the issuance of the notes (assuming no exercise of the underwriters' option to purchase additional notes) and the use of proceeds therefrom, our total consolidated indebtedness as of March 31, 2019 would have been \$176.4 million.

The indenture governing the notes will not limit the amount of debt, including secured debt, that we or our subsidiaries may incur.

Use of proceeds

We estimate that the proceeds from this offering will be approximately \$168.6 million (or \$194.0 million if the underwriters exercise their option to purchase additional notes in full), after deducting estimated underwriting discounts and expenses related to this offering.

We intend to use a portion of the net proceeds from this offering to repay outstanding indebtedness under our \$150.0 million revolving credit facility,

which was approximately \$14.8 million as of March 31, 2019, and the remainder of the net proceeds for acquisitions of, or investments in, technologies, solutions or businesses that complement our business and for other general corporate purposes, including working capital, developing and building an addition adjacent to our corporate headquarters facilities and related real estate development matters, sales and marketing activities, general and administrative matters and capital expenditures. These expectations are subject to change. See "Use of proceeds" for additional information.

Risk factors

See "Risk factors" and the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in the notes.

Book-entry form

The notes will be issued in book-entry form and will be represented by permanent global certificates deposited with, or on behalf of, The Depository Trust Company ("DTC") and registered in the name of a nominee of DTC. Beneficial interests in any of the notes will be shown on, and transfers will be effected only through, records maintained by DTC or its nominee and any such interest may not be exchanged for certificated securities, except in limited circumstances.

Absence of a public market for the notes

The notes are new securities and there is currently no established market for the notes. Accordingly, we cannot assure you as to the development or liquidity of any market for the notes. The underwriters have advised us that they currently intend to make a market in the notes. However, they are not obligated to do so, and they may discontinue any market making with respect to the notes without notice. We do not intend to apply for a listing of the notes on any securities exchange or any automated dealer quotation system.

U.S. federal income tax consequences

For a discussion of material U.S. federal income tax considerations applicable to the holding, disposition and conversion of the notes, and the holding and disposition of shares of our Class A common stock issuable upon conversion of the notes, see "Material U.S. federal income tax considerations."

Nasdaq Global Select Market symbol for our Class A common stock

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR."

Trustee, paying agent and conversion agent

U.S. Bank National Association

Conflicts of Interest

Affiliates of J.P. Morgan Securities LLC and RBC Capital Markets, LLC, two of the three book running managers for this offering, will receive more than 5% of the net proceeds of this offering in connection with the repayment of outstanding indebtedness under our revolving credit facility. Accordingly, this offering is

being conducted in accordance with the applicable provisions of Rule 5121 of the Financial Industry Authority, Inc., or FINRA, Conduct Rules because certain of the underwriters will have a "conflict of interest" pursuant to Rule 5121. In accordance with Rule 5121, Goldman Sachs & Co. LLC, the third book running manager for this offering, is acting as the qualified independent underwriter in this offering. Any underwriter that has a conflict of interest pursuant to Rule 5121 will not confirm sales to accounts in which it exercises discretionary authority without the prior written consent of the customer. See the section entitled "Underwriting (conflicts of interest)—Conflicts of interest."

Except as otherwise noted, we have presented the information in this prospectus supplement assuming no exercise by the underwriters in this offering of their option to purchase up to an additional \$26.25 million principal amount of notes.

Summary consolidated financial data

The following tables set forth our summary consolidated financial data as of the dates and for the periods indicated. The summary consolidated financial data as of December 31, 2018 and 2017 and for the years ended December 31, 2018, 2017 and 2016 are derived from our audited consolidated financial statements included in our 2018 Form 10-K, which is incorporated by reference into this prospectus supplement. The summary consolidated financial data as of March 31, 2019 and for the three months ended March 31, 2019 and 2018 are derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, which is incorporated by reference into this prospectus supplement. The unaudited interim consolidated financial statements were prepared on a basis substantially consistent with our audited consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to present fairly the financial position and results of operations for the interim periods presented. The operating results for any period should not be considered indicative of results for any future period and our interim results are not necessarily indicative of the results to be expected for the full year. The following summary consolidated financial data should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and the related notes thereto included in our 2018 Form 10-K and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, each of which is incorporated by reference into this prospectus supplement and the accompanying prospectus.

| | Year ended December 31, | | | Three months ended Ma | | March 31, | |
|---|-------------------------|-----------|-----------|-----------------------|---------|-----------|---------|
| (in thousands, except per share data) | 2018(1) | 2017(1) | 2016(1) | | 2019(1) | | 2018(1) |
| Consolidated statements of operations data: | | | | | | | |
| Revenue: | | | | | | | |
| Total software | \$304,361 | \$244,817 | \$223,818 | \$ | 103,291 | \$ | 89,669 |
| Software related services | 36,945 | 35,397 | 35,770 | | 9,772 | | 9,473 |
| Total software and related services | 341,306 | 280,214 | 259,588 | | 113,063 | | 99,142 |
| Client engineering services | 47,852 | 46,510 | 47,702 | | 12,050 | | 12,080 |
| Other | 7,221 | 6,609 | 5,950 | | 2,746 | | 2,035 |
| Total revenue | 396,379 | 333,333 | 313,240 | | 127,859 | | 113,257 |
| Cost of revenue: | | | | | | | |
| Total software | 45,774 | 36,360 | 31,962 | | 14,352 | | 10,922 |
| Software related services | 26,415 | 26,888 | 27,653 | | 6,518 | | 6,709 |
| Total software | 72,189 | 63,248 | 59,615 | | 20,870 | | 17,631 |
| Client engineering services | 38,979 | 38,131 | 38,106 | | 9,800 | | 10,200 |
| Other | 4,805 | 5,212 | 4,879 | | 2,215 | | 1,211 |
| Total cost of revenue | 115,973 | 106,591 | 102,600 | | 32,885 | | 29,042 |
| Gross profit | 280,406 | 226,742 | 210,640 | | 94,974 | | 84,215 |

| | | Year ended Do | ecember 31, | Three months | ended March 31 |
|--|-----------|---------------|-------------|--------------|----------------|
| (in thousands, except per share data) | 2018(1) | 2017(1) | 2016(1) | 2019(1) | 2018(1) |
| Operating expenses: | | | | | |
| Research and development | 97,592 | 93,234 | 71,325 | 27,516 | 22,703 |
| Sales and marketing | 80,277 | 79,958 | 66,086 | 26,451 | 18,627 |
| General and administrative | 79,751 | 87,979 | 57,202 | 20,329 | 16,990 |
| Amortization of intangible assets | 7,739 | 5,448 | 3,322 | 3,528 | 1,940 |
| Other operating income | (9,597) | (6,620) | (2,742) | (617) | (2,191 |
| Total operating expenses | 255,762 | 259,999 | 195,193 | 77,207 | 58,069 |
| Operating income (loss) | 24,644 | (33,257) | 15,447 | 17,767 | 26,146 |
| Interest expense | 200 | 2,160 | 2,265 | 270 | 16 |
| Other (income) expense, net | (2,580) | 994 | (520) | 390 | (900 |
| Income (loss) before income taxes | 27,024 | (36,411) | 13,702 | 17,107 | 27,030 |
| Income tax expense | 13,309 | 62,996 | 3,539 | 4,088 | 2,346 |
| Net income (loss) | \$ 13,715 | \$ (99,407) | \$ 10,163 | \$ 13,019 | \$ 24,684 |
| Income (loss) per share: | | | | | |
| Net income (loss) per share attributable to common stockholders, basic | \$ 0.20 | \$ (1.89) | \$ 0.21 | \$ 0.18 | \$ 0.39 |
| Net income (loss) per share attributable to common stockholders, diluted | \$ 0.18 | \$ (1.89) | \$ 0.18 | \$ 0.17 | \$ 0.34 |
| Weighted average shares outstanding: | | | | | |
| Weighted average number of shares used in computing net income (loss) per share, basic | 67,468 | 52,466 | 48,852 | 70,786 | 63,638 |
| Weighted average number of shares used in computing net income (loss) per share, diluted | 74,878 | 52,466 | 57,856 | 76,720 | 72,390 |

(1) The year ended December 31, 2018 and three months ended March 31, 2019 and 2018, have been reported under Accounting Standards Codification ("ASC") 606, and the years ended December 31, 2017 and 2016 have been reported under ASC 605 and have not been adjusted under the modified retrospective approach.

| | As of December 31, | | As of March 31, | |
|---|--------------------|-------------|-----------------|---------|
| (in thousands) | 2018 | 2017 | | 2019 |
| Consolidated balance sheet data: | | | | |
| Cash and cash equivalents | \$ 35,345 | \$ 39,213 | \$ | 39,771 |
| Working capital | \$ 26,276 | \$ (53,575) | \$ | 12,562 |
| Total assets | \$483,216 | \$287,871 | \$ | 518,866 |
| Deferred revenue, current and non-current | \$ 66,519 | \$139,762 | \$ | 72,541 |
| Debt | \$ 31,748 | \$ 410 | \$ | 16,139 |
| Total stockholders' equity | \$286,782 | \$ 60,591 | \$ | 301,693 |

Risk factors

Investing in our notes involves a high degree of risk. In addition to the other information contained in this prospectus supplement, the accompanying prospectus and in the documents that we incorporate by reference herein and therein, you should carefully consider the risks discussed below and under the heading "Item IA. Risk Factors" in our 2018 Form 10-K before making a decision about investing in the notes. The risks and uncertainties discussed below and in our 2018 Form 10-K are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of the notes and our Class A common stock could decline and you could lose part or all of your investment.

Risks related to the notes

The notes are effectively subordinated to our secured debt and any liabilities of our subsidiaries.

The notes will rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the notes; equal in right of payment to any of our liabilities that are not so subordinated; effectively junior in right of payment to any of our secured indebtedness (including all amounts outstanding under our revolving credit facility) to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries. In the event of our bankruptcy, liquidation, reorganization or other winding up, our assets that secure debt ranking senior or equal in right of payment to the notes (including all amounts outstanding under our revolving credit facility) will be available to pay obligations on the notes only after the secured debt has been repaid in full from these assets, and the assets of our subsidiaries will be available to pay obligations on the notes only after all claims senior to the notes have been repaid in full. There may not be sufficient assets remaining to pay amounts due on any or all of the notes then outstanding. The indenture governing the notes will not prohibit us from incurring additional senior debt or secured debt, nor does it prohibit any of our subsidiaries from incurring additional liabilities.

As of March 31, 2019, we and our subsidiaries had total consolidated indebtedness of \$16.2 million, of which an aggregate of \$14.8 million was secured indebtedness of ours. As of March 31, 2019, our subsidiaries had \$98.0 million of indebtedness and other liabilities (including trade payables, but excluding intercompany obligations and liabilities of a type not required to be reflected on a balance sheet of such subsidiaries in accordance with GAAP) to which the notes would have been structurally subordinated. After giving effect to the issuance of the notes (assuming no exercise of the underwriters' option to purchase additional notes) and the use of proceeds therefrom, our total consolidated indebtedness as of March 31, 2019 would have been \$176.4 million.

The notes are our obligations only and a substantial portion of our operations are conducted through, and a substantial portion of our consolidated assets are held by, our subsidiaries.

The notes are our obligations exclusively and are not guaranteed by any of our operating subsidiaries. A substantial portion of our operations is conducted through, and a substantial portion of our consolidated assets is held by, our subsidiaries. Accordingly, our ability to service our debt, including the notes, depends in part on the results of operations of our subsidiaries and upon the ability of such subsidiaries to provide us with cash, whether in the form of dividends, loans or otherwise, to pay amounts due on our obligations, including the notes. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to make payments on the notes or to make any funds available for that purpose. In addition, dividends, loans or other distributions to us from such subsidiaries may be subject to contractual and other restrictions and are subject to other business considerations.

After this offering, servicing our debt will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our future indebtedness, including the amounts payable under our revolving credit facility and the notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. In addition, any of our future debt agreements may contain restrictive covenants that may prohibit us from adopting any of these alternatives. Our failure to comply with these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of our debt.

Recent and future regulatory actions and other events may adversely affect the trading price and liquidity of the notes.

We expect that many investors in, and potential purchasers of, the notes will employ, or seek to employ, a convertible arbitrage strategy with respect to the notes. Investors would typically implement such a strategy by selling short the Class A common stock underlying the notes and dynamically adjusting their short position while continuing to hold the notes. Investors may also implement this type of strategy by entering into swaps on our Class A common stock in lieu of or in addition to short selling the Class A common stock.

The SEC and other regulatory and self-regulatory authorities have implemented various rules and taken certain actions, and may in the future adopt additional rules and take other actions, that may impact those engaging in short selling activity involving equity securities (including our Class A common stock) and securities convertible or exchangeable for equity securities (including the notes). Such rules and actions include Rule 201 of SEC Regulation SHO, the adoption by the Financial Industry Regulatory Authority, Inc. and the national securities exchanges of a "Limit Up-Limit Down" program, the imposition of market-wide circuit breakers that halt trading of securities for certain periods following specific market declines, and the implementation of certain regulatory reforms required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Any governmental or regulatory action that restricts the ability of investors in, or potential purchasers of, the notes to effect short sales of our Class A common stock, borrow our Class A common stock or enter into swaps on our Class A common stock could adversely affect the trading price and the liquidity of the notes.

Hedging or arbitrage trading or volatility in the market price and trading volume of our Class A common stock could adversely impact the trading price of the notes.

We expect that the trading price of the notes will be significantly affected by the market price of our Class A common stock. The stock market in recent years has experienced significant price and volume fluctuations that have often been unrelated to the operating performance of companies. The market price of our Class A common stock could fluctuate significantly for many reasons, including in response to the risks described in this section, elsewhere in this prospectus supplement or the documents we have incorporated by reference in this prospectus supplement or for reasons unrelated to our operations, such as reports by industry analysts, investor perceptions or negative announcements by our customers, competitors or suppliers regarding their own performance, as well as industry conditions and general financial, economic and political instability. A decrease in the market price of our Class A common stock would likely adversely impact the trading price of the notes. The market price of our Class A common stock could also be affected by possible sales of our Class A

common stock by investors who view the notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to develop involving our Class A common stock. This hedging or arbitrage trading activity could, in turn, affect the trading price of the notes.

We may still incur substantially more debt or take other actions which would intensify the risks discussed above.

We and our subsidiaries may be able to incur substantial additional debt in the future, subject to the restrictions contained in our debt instruments, some of which may be secured debt. We will not be restricted under the terms of the indenture governing the notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the indenture governing the notes that could have the effect of diminishing our ability to make payments on the notes when due. Our existing revolving credit facility restricts our ability to incur additional indebtedness, including secured indebtedness, but if the facility matures or is repaid, we may not be subject to such restrictions under the terms of any subsequent indebtedness.

We may not have the ability to raise the funds necessary to settle conversions of the notes in cash or to repurchase the notes upon a fundamental change, and our current debt contains, and our future debt may contain, limitations on our ability to pay cash upon conversion or repurchase of the notes.

Holders of the notes will have the right to require us to repurchase their notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest, if any, as described under "Description of notes—Fundamental change permits holders to require us to repurchase notes." In addition, upon conversion of the notes, unless we elect to deliver solely shares of our Class A common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the notes being converted as described under "Description of notes—Conversion rights—Settlement upon conversion." However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of notes surrendered therefor or notes being converted.

In addition, our ability to repurchase the notes or to pay cash upon conversions of the notes may be limited by law, by regulatory authority or by agreements governing our indebtedness including our existing revolving credit facility. Our failure to repurchase notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the notes as required by the indenture would constitute a default under the indenture. A default under the indenture or the occurrence of a fundamental change itself would likely also lead to a default under our revolving credit facility, and may lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the notes or make cash payments upon conversions thereof.

Redemption may adversely affect your return on the notes.

We may not redeem the notes prior to June 6, 2022. We may redeem for cash all or any portion of the notes, at our option, on or after June 6, 2022 if the last reported sale price of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. As a result, we may choose to redeem some or all of the notes, including at times when prevailing interest rates are relatively low. As a result, you may not be able to reinvest the proceeds

you receive from the redemption in a comparable security at an effective interest rate as high as the interest rate on your notes being redeemed. See "Description of notes—Optional redemption."

Our revolving credit facility limits our ability to pay any cash amount upon the conversion or repurchase of the notes.

Our existing revolving credit facility prohibits us from making any cash payments on the conversion or repurchase of the notes if a default under such credit facility exists or would be created thereby. In addition, our ability to make cash payments on the conversion or repurchase of the notes will be limited to the extent we do not satisfy certain financial covenant tests after giving effect to such payments. Any new credit facility that we may enter into may have similar restrictions. Our failure to make cash payments upon the conversion or repurchase of the notes as required under the terms of the notes would permit holders of the notes to accelerate our obligations under the notes.

The conditional conversion feature of the notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the notes is triggered, holders of notes will be entitled to convert the notes at any time during specified periods at their option. See "Description of notes—Conversion rights." If one or more holders elect to convert their notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders of notes do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the notes, could have a material effect on our reported financial results.

Under Financial Accounting Standards Board Accounting Standards Codification 470-20, Debt with Conversion and Other Options ("ASC 470-20"), an entity must separately account for the liability and equity components of the convertible debt instruments (such as the notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the notes is that the equity component is required to be included in the additional paid-in capital section of stockholders' equity on our consolidated balance sheet, and the value of the equity component would be treated as debt discount for purposes of accounting for the debt component of the notes. As a result, we will be required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the notes to their face amount over the term of the notes. We will report larger net losses (or lower net income) in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the trading price of our Class A common stock and the trading price of the notes.

In addition, under certain circumstances, convertible debt instruments (such as the notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of Class A common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to

permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the notes, then our diluted earnings per share would be adversely affected.

Future sales of our Class A common stock or equity-linked securities in the public market, could lower the market price for our Class A common stock and adversely impact the trading price of the notes.

In the future, we may sell shares of our Class A common stock or equity-linked securities to raise capital. In addition, a substantial number of shares of our Class A common stock are reserved for issuance upon the exercise of our outstanding stock options, settlement of other equity incentive awards, and conversion of the notes. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our Class A common stock. The issuance and sale of substantial amounts of Class A common stock or equity-linked securities, or the perception that such issuances and sales may occur, could adversely affect the trading price of the notes and the market price of our Class A common stock and impair our ability to raise capital through the sale of additional equity or equity-linked securities.

Holders of notes will not be entitled to any rights with respect to our Class A common stock, but they will be subject to all changes made with respect to them to the extent our conversion obligation includes shares of our Class A common stock.

Holders of notes will not be entitled to any rights with respect to our Class A common stock (including, without limitation, voting rights and rights to receive any dividends or other distributions on our Class A common stock) prior to the conversion date relating to such notes (if we have elected to settle the relevant conversion by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share)) or the last trading day of the relevant observation period (if we elect to pay and deliver, as the case may be, a combination of cash and shares of our Class A common stock in respect of the relevant conversion), but holders of notes will be subject to all changes affecting our Class A common stock. For example, if an amendment is proposed to our certificate of incorporation or bylaws requiring stockholder approval and the record date for determining the stockholders of record entitled to vote on the amendment occurs prior to the conversion date related to a holder's conversion of its notes (if we have elected to settle the relevant conversion by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share)) or the last trading day of the relevant observation period (if we elect to pay and deliver, as the case may be, a combination of cash and shares of our Class A common stock in respect of the relevant conversion), such holder will not be entitled to vote on the amendment, although such holder will nevertheless be subject to any changes affecting our Class A common stock.

The conditional conversion feature of the notes could result in your receiving less than the value of our Class A common stock into which the notes would otherwise be convertible.

Prior to the close of business on the business day immediately preceding December 1, 2023, you may convert your notes only if specified conditions are met. If the specific conditions for conversion are not met, you will not be able to convert your notes, and you may not be able to receive the value of the cash, Class A common stock or a combination of cash and Class A common stock, as applicable, into which the notes would otherwise be convertible.

Upon conversion of the notes, you may receive less valuable consideration than expected because the value of our Class A common stock may decline after you exercise your conversion right but before we settle our conversion obligation.

Under the notes, a converting holder will be exposed to fluctuations in the value of our Class A common stock during the period from the date such holder surrenders notes for conversion until the date we settle our conversion obligation.

Upon conversion of the notes, we have the option to pay or deliver, as the case may be, cash, shares of our Class A common stock, or a combination of cash and shares of our Class A common stock. If we elect to satisfy our conversion obligation in cash or a combination of cash and shares of our Class A common stock, the amount of consideration that you will receive upon conversion of your notes will be determined by reference to the volume-weighted average price of our Class A common stock for each trading day in a 50 trading day observation period. As described under "Description of notes—Conversion rights—Settlement upon conversion," this period would be (i) subject to clause (ii), if the relevant conversion date occurs prior to December 1, 2023, the 50 consecutive trading day period beginning on, and including, the second trading day immediately succeeding such conversion date; (ii) if the relevant conversion date occurs during a redemption period with respect to the notes as described under "Description of notes—Optional redemption," the 50 consecutive trading days beginning on, and including, the 51st trading day immediately preceding such redemption date; and (iii) if the relevant conversion date occurs on or after December 1, 2023, the 50 consecutive trading days beginning on, and including, the 51st trading day immediately preceding the maturity date. Accordingly, if the price of our Class A common stock decreases during this period, the amount and/or value of consideration you receive will be adversely affected. In addition, if the market price of our Class A common stock at the end of such period is below the average of the daily volume-weighted average prices of our Class A common stock during such period, the value of any shares of our Class A common stock that you will receive in satisfaction of our conversion obligation will be less than the value used to determine the number of shares that you will receive.

If we elect to satisfy our conversion obligation solely in shares of our Class A common stock upon conversion of the notes, we will be required to deliver the shares of our Class A common stock, together with cash for any fractional share, on the second business day following the relevant conversion date. Accordingly, if the price of our Class A common stock decreases during this period, the value of the shares that you receive will be adversely affected and would be less than the conversion value of the notes on the conversion date.

The notes are not protected by restrictive covenants.

The indenture governing the notes will not contain any financial or operating covenants or restrictions on the payments of dividends (other than in connection with adjustments to the conversion rate), the incurrence of indebtedness or the issuance or repurchase of securities by us or any of our subsidiaries. The indenture will not contain any covenants or other provisions to afford protection to holders of the notes in the event of a fundamental change or other corporate transaction involving us except to the extent described under "Description of notes—Fundamental change permits holders to require us to repurchase notes," "Description of notes—Conversion rights—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period" and "Description of notes—Consolidation, merger and sale of assets."

The increase in the conversion rate for notes converted in connection with a make-whole fundamental change or during a redemption period may not adequately compensate you for any lost value of your notes as a result of such transaction or redemption.

If a make-whole fundamental change occurs prior to the maturity date or upon our issuance of a notice of redemption, under certain circumstances, we will increase the conversion rate by a number of additional shares of our Class A common stock for notes converted in connection with such make-whole fundamental change or during the related redemption period. The increase in the conversion rate will be determined based on the date on which the specified corporate transaction becomes effective or the date of the redemption notice, as applicable, and the price paid (or deemed to be paid) per share of our Class A common stock in such transaction or on such redemption notice date, as described below under "Description of notes—Conversion rights—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period." The increase in the conversion rate for notes converted in connection with a make-whole fundamental change

or during a redemption period, as applicable, may not adequately compensate you for any lost value of your notes as a result of such transaction or in connection with the relevant redemption, as applicable. In addition, if the price per share of our Class A common stock paid (or deemed paid) in the transaction or in connection with the relevant redemption, as applicable, is greater than \$ per share or less than \$ per share (in each case, subject to adjustment), no additional shares will be added to the conversion rate. Moreover, in no event will the conversion rate per \$1,000 principal amount of notes as a result of this adjustment exceed shares of Class A common stock, subject to adjustment in the same manner as the conversion rate as set forth under "Description of notes—Conversion rights—Conversion rate adjustments."

Our obligation to increase the conversion rate for notes converted in connection with a make-whole fundamental change or during a redemption period could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness and equitable remedies.

Upon any redemption of the notes on or after June 6, 2022, the cash comprising the redemption price may not fully compensate you for future interest payments or the lost time value of your notes.

On or after June 6, 2022, we may redeem for cash all or any portion of the notes, at our option, if the last reported sale price of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. Upon such redemption, the cash comprising the redemption price may not fully compensate you for any future interest payments that you would have otherwise received or any other lost time value of your notes. See "Description of notes—Optional redemption."

The conversion rate of the notes may not be adjusted for all dilutive events.

The conversion rate of the notes is subject to adjustment for certain events, including, but not limited to, the issuance of certain stock dividends on our Class A common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, cash dividends and certain issuer tender or exchange offers as described under "Description of notes—Conversion rights—Conversion rate adjustments." However, the conversion rate will not be adjusted for other events, such as a third-party tender or exchange offer or an issuance of Class A common stock for cash, that may adversely affect the trading price of the notes or our Class A common stock. An event that adversely affects the value of the notes may occur, and that event may not result in an adjustment to the conversion rate.

Some significant restructuring transactions may not constitute a fundamental change, in which case we would not be obligated to offer to repurchase the notes.

Upon the occurrence of a fundamental change, you have the right to require us to repurchase your notes. However, the fundamental change provisions will not afford protection to holders of notes in the event of other transactions that could adversely affect the notes. For example, transactions such as leveraged recapitalizations, refinancings, restructurings, or acquisitions initiated by us may not constitute a fundamental change requiring us to offer to repurchase the notes. In the event of any such transaction, the holders would not have the right to require us to repurchase the notes, even though each of these transactions could increase the amount of our indebtedness, or otherwise adversely affect our capital structure or any credit ratings, thereby adversely affecting the holders of notes.

We cannot assure you that an active trading market will develop for the notes.

Prior to this offering, there has been no trading market for the notes, and we do not intend to apply to list the notes on any securities exchange or to arrange for quotation on any automated dealer quotation system. We have been informed by the underwriters that they intend to make a market in the notes after the offering is completed. However, the underwriters may cease their market-making at any time without notice. In addition, the liquidity of the trading market in the notes, and the market price quoted for the notes, may be adversely affected by changes in the overall market for this type of security and by changes in our financial performance or prospects or in the prospects for companies in our industry generally. As a result, we cannot assure you that an active trading market will develop for the notes. We believe that historically the market for non-investment grade debt has been subject to severe disruptions that have caused substantial volatility in the prices of securities similar to the notes. The market, if any, for the notes may experience similar disruptions and any such disruptions may materially adversely affect the liquidity in that market or the prices at which you may sell your notes. In addition, subsequent to the initial issuance of the notes, the notes may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar notes, our performance and other factors. If an active trading market does not develop or is not maintained, the market price and liquidity of the notes may be adversely affected. In that case you may not be able to sell your notes at a particular time or you may not be able to sell your notes at a favorable price.

Any adverse rating of the notes may cause their trading price to fall.

We do not intend to seek a rating on the notes. However, if a rating service were to rate the notes and if such rating service were to lower its rating on the notes below the rating initially assigned to the notes or otherwise announces its intention to put the notes on credit watch, the trading price of the notes could decline.

You may be subject to tax if we make or fail to make certain adjustments to the conversion rate of the notes even though you do not receive a corresponding cash distribution.

The conversion rate of the notes is subject to adjustment in certain circumstances, including the payment of cash dividends. If the conversion rate is adjusted as a result of a distribution that is taxable to our Class A common stockholders, such as a cash dividend, you may be deemed to have received a dividend subject to U.S. federal income tax without the receipt of any cash. In addition, a failure to adjust (or to adjust adequately) the conversion rate after an event that increases your proportionate interest in us could be treated as a deemed taxable dividend to you. If a make-whole fundamental change occurs prior to the maturity date or we issue a notice of redemption, under some circumstances, we will increase the conversion rate for notes converted in connection with the make-whole fundamental change or during the related redemption period. Such increase may also be treated as a distribution subject to U.S. federal income tax as a dividend. See "Material U.S. federal income tax considerations." If you are a non-U.S. holder (as defined in "Material U.S. federal income tax considerations"), any deemed dividend would generally be subject to U.S. federal withholding tax at a 30% rate, or such lower rate as may be specified by an applicable treaty, which may be set off against subsequent payment on the notes. See "Material U.S. federal income tax considerations."

Our management has broad discretion in the use of the net proceeds from this offering, and our use of the net proceeds may not enhance our operating results or the price of the notes and our Class A common stock.

We intend to use the net proceed from this offering to repay outstanding indebtedness under our revolving credit facility, for acquisitions of, or investments in, technologies, solutions or businesses that complement our business and for other general corporate purposes, including working capital, developing and building an addition adjacent to our corporate headquarters facilities and related real estate development matters, sales and marketing activities, general and administrative matters and capital expenditures. While we do not have agreements or binding commitments for any specific acquisitions at this time, we continually evaluate potential

acquisition candidates to enhance our product offerings. Accordingly, our management will have considerable discretion over the specific use of the net proceeds that we receive in this offering and might not be able to obtain a significant return, if any, on investment of these net proceeds. You will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds. Until the net proceeds are used, they may be placed in investments that do not produce significant income, may be held in demand deposit accounts, or in investments intended to be highly liquid that may nevertheless lose value. If we do not use the net proceeds that we receive in this offering effectively, our business and prospects could be harmed, and the market price of the notes and our Class A common stock could decline.

Because the notes will initially be held in book-entry form, holders must rely on DTC's procedures to receive communications relating to the notes and exercise their rights and remedies.

We will initially issue the notes in the form of one or more global notes registered in the name of Cede & Co., as nominee of DTC. Beneficial interests in global notes will be shown on, and transfers of global notes will be effected only through, the records maintained by DTC. Except in limited circumstances, we will not issue certificated notes. See "Description of notes—Book-entry, settlement and clearance." Accordingly, if you own a beneficial interest in a global note, then you will not be considered an owner or holder of the notes. Instead, DTC or its nominee will be the sole holder of the notes. Unlike persons who have certificated notes registered in their names, owners of beneficial interests in global notes will not have the direct right to act on our solicitations for consents or requests for waivers or other actions from holders. Instead, those beneficial owners will be permitted to act only to the extent that they have received appropriate proxies to do so from DTC or, if applicable, a DTC participant. The applicable procedures for the granting of these proxies may not be sufficient to enable owners of beneficial interests in global notes to vote on any requested actions on a timely basis. In addition, notices and other communications relating to the notes (including any notice of redemption) will be sent to DTC. We expect DTC to forward any such communications to DTC participants, which in turn would forward such communications to indirect DTC participants. But we can make no assurances that you will timely receive any such communications.

Risks related to our Class A common stock

An active public trading market for our Class A common stock may not be sustained.

Prior to our initial public offering in the fourth quarter of 2017, there had been no public market or active private market for trading shares of our Class A common stock. Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR." However, we cannot assure you that an active trading market will be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the price of shares of Class A common stock. We may need additional financing to execute on our current or future business strategies, including to develop new or enhance existing products and services, acquire businesses and technologies, or otherwise to respond to competitive pressure. An inactive market may impair our ability to raise capital by selling shares and our ability to use our capital stock to acquire other companies or technologies. We cannot predict the prices at which our Class A common stock will trade.

The market price of our Class A common stock can be volatile.

The market price of our Class A common stock has fluctuated substantially since our IPO. Our market price may continue to fluctuate substantially depending on a number of factors, many of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our Class A common stock, since you might not be able to sell your shares at or above the

price you paid for our Class A common stock. Factors that could cause fluctuations in the market price of our Class A common stock include the following:

- price and volume fluctuations in the overall stock market from time to time, including as a result of trends in the economy as a whole;
- · volatility in the market prices and trading volumes of technology stocks;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industries in particular;
- the expiration of market stand-off or contractual lock-up agreements and sales of shares of our Class A common stock by us or our stockholders:
- · the volume of shares of our Class A common stock available for public sale;
- additional shares of our Class A common stock being sold into the market by our existing stockholders, or the anticipation of such sales, including sales of our Class A common stock upon exercise of outstanding options or upon conversion of our Class B common stock into shares of Class A common stock;
- failure of financial analysts to maintain coverage of us, changes in financial estimates by any analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- announcements by us or our competitors of new software or new or terminated significant contracts, commercial relationships or capital commitments;
- public analyst or investor reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes or fluctuations in our operating results;
- actual or anticipated developments in our business, our customers' businesses, or our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or our solutions, or third party proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- · changes in accounting standards, policies, guidelines, interpretations or principles;
- · any major changes in our management or our board of directors;
- · general economic conditions and slow or negative growth of our markets; and
- · other events or factors, including those resulting from war, incidents of terrorism or responses to these events.

In addition, the stock market in general, and the market for technology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may affect the market price of our Class A common stock, regardless of our actual operating performance. In the past, following periods of volatility in the overall market and the market prices of a particular company's securities, securities class action litigation has often been instituted against that company. We may become the target of this type of litigation in the future. Securities litigation, if instituted against us, could result in substantial costs and divert our management's attention and resources from our business.

Any future sales of substantial amounts of our Class A common stock or equity-linked securities in the public markets, or the perception that such sales might occur, could reduce the price that our Class A common stock might otherwise attain and may dilute the voting power and ownership interest in us of our then-existing stockholders.

We have registered the offer and sale of an aggregate of 19,960,830 shares of Class A common stock that have been issued or reserved for future issuance under our equity compensation plans on a Form S-8 registration statement. These shares can be freely sold in the public market upon issuance, unless they are held by "affiliates," as that term is defined in Rule 144 of the Securities Act. Additionally, the number of shares of Class A common stock available for grant and issuance under our 2017 Equity Incentive Plan is subject to an automatic annual increase on January 1 of each year by an amount equal to the lesser of (i) 3% of the number of shares of all classes of our common stock outstanding on December 31 of the preceding calendar year or (ii) a lesser number of shares of Class A common stock determined by our board of directors. We also intend to register the offer and sale of any shares of Class A common stock resulting from such increases. If the holders of these shares choose to sell a large number of shares, they could adversely affect the market price for our Class A common stock.

In addition, in the future, we may sell additional shares of our Class A common stock or equity-linked securities to raise capital. Furthermore, a substantial number of shares of our Class A common stock are reserved for issuance upon conversion of the notes, exercise of our outstanding stock options, or the settlement of other equity incentive awards. We cannot predict the size of future issuances or the effect, if any that they may have on the market price for our Class A common stock. The issuance and sale of substantial amounts of Class A common stock or equity-linked securities, or the perception that such issuances and sales may occur, could adversely affect the trading price of our Class A common stock and the market price of our Class A common stock and impair our ability to raise capital through the sale of additional equity or equity-linked securities.

Subject to certain exceptions described under the caption "Underwriting (conflicts of interest)," we, our directors and our executive officers have agreed not to offer, sell or agree to sell, directly or indirectly, any shares of our common stock or securities convertible into or exercisable or exchangeable for our common stock without the permission of J.P. Morgan Securities LLC, as representative of the underwriters (the "Representative"), for a period of 60 days from the date of this prospectus supplement. When the lock-up period expires, we, such stockholders and our directors and executive officers will be able to sell our shares of common stock in the public market. In addition, the Representative may, in its sole discretion, release all or some portion of the shares of common stock subject to lock-up agreements prior to expiration of the lock-up period. Sales of a substantial number of such shares upon expiration, or the perception that such sales may occur, or early release, of the lock-up could cause our share price to decline or make it more difficult for holders of our Class A common stock to sell such Class A common stock at a time and price that they deem appropriate. Subject to certain limitations, we also may issue our shares of Class A common stock or securities convertible into our Class A common stock from time to time in connection with a financing, an acquisition, investments or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the trading price of our Class A common stock to decline.

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

We have never declared or paid any cash dividends on our Class A common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our Class A common stock in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. Consequently, your only opportunity to achieve a return on your investment in our company will be if the market price of our Class A common stock appreciates and you sell your shares at a profit. There is no guarantee that the price of our Class A common stock will prevail in the market will ever exceed the price that you paid.

Our management team has limited experience managing a public company.

Most members of our management team have limited experience managing a publicly-traded company, interacting with public company investors, and complying with laws pertaining to public companies. Our management team may not successfully or efficiently manage our role as a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These obligations and constituents require significant attention from our senior management and may divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and operating results.

We are incurring increased costs and devote additional management time as a result of operating as a public company.

As a public company, we are incurring legal, accounting and other expenses that we did not incur as a private company. We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are required to comply with the applicable requirements of the Sarbanes-Oxley Act of 2002, or SOX, and the Dodd-Frank Wall Street Reform and Consumer Protection Act, or Dodd-Frank, as well as rules and regulations subsequently implemented by the SEC and the Nasdaq Global Select Market, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices.

As of December 31, 2018, we ceased to be an "emerging growth company", as defined by the Jumpstart Our Business Startups Act, or JOBS Act, which has the effect of expanding disclosure and other obligations applicable to us, including, but not limited to, enhanced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved, along with accelerated compliance with SOX and earlier implementation of certain changes in GAAP such as revenue recognition and leasing standards. Compliance with these requirements increases our legal and financial compliance costs and makes some activities more time consuming and costly. In addition, our management and other personnel need to divert attention from operational and other business matters to devote time to these public company requirements. In particular, we have incurred, and expect to continue to incur, additional expenses and have devoted, and expect to continue to devote, additional management effort toward ensuring compliance with the requirements of Section 404 of SOX, as a result of our ceasing to be an emerging growth company. Although we have already hired additional employees to help comply with these requirements, we may need to further expand our legal and finance departments in the future, which will increase our costs and expenses.

If we fail to maintain effective internal controls, we may not be able to report financial results accurately or on a timely basis, or to detect fraud, which could have a material adverse effect on our business or share price.

Effective internal controls are necessary for us to provide reasonable assurance with respect to our financial reports and to effectively prevent financial fraud. Pursuant to SOX, we are required to periodically evaluate the effectiveness of the design and operation of our internal controls. Internal controls over financial reporting may not prevent or detect misstatements because of inherent limitations, including the possibility of human error or collusion, the circumvention or overriding of controls, or fraud. If we fail to maintain an effective system of internal controls, our business and operating results could be harmed, and we could fail to meet our reporting obligations, which could have a material adverse effect on our business and our share price.

As a public company, we are required to maintain internal controls over financial reporting and to report any material weaknesses in such internal controls. Section 404 of SOX requires annual management assessments of the effectiveness of our internal controls over financial reporting beginning with our 2018 Form 10-K. We have designed, implemented and tested the internal control over financial reporting required to comply with this obligation, which was and is time consuming, costly, and complicated. We have identified material weaknesses in our internal controls over financial reporting for the fiscal years ended December 31, 2016 and 2017, one of which has not been remediated as of our fiscal year 2018. If we identify material weaknesses in our internal control over financial reporting in the future or if we are unable to successfully remediate the identified material weaknesses or, if we are unable to comply with the requirements of Section 404 in a timely manner or assert that our internal control over financial reporting is effective, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Class A common stock could be negatively affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

We are a "controlled company" within the meaning of the rules of the Nasdaq Global Select Market and, as a result, we qualify for, but do not currently intend to rely on, exemptions from certain corporate governance requirements. In the event that we were to rely on these exemptions in the future, you would not have the same protections as are afforded to stockholders of companies that are subject to such requirements.

Upon completion of this offering, our co-founders, James R. Scapa, also our chairman and chief executive officer, and George Christ, will continue to control a majority of the combined voting power of our company. As a result, we may be deemed to be a "controlled company" within the meaning of the Nasdaq corporate governance standards. Under the Nasdaq rules, a company of which more than 50% of the voting power is held by an individual, group or another company is a "controlled company" and need not comply with certain requirements, including the requirement that a majority of the Board consist of independent directors and the requirements that our compensation and nominating and governance committees be composed entirely of independent directors. Since our initial public offering, we have not taken advantage of, and following this offering we do not intend to take advantage of, these exemptions. However, for so long as we qualify as a "controlled company," we have the authority to utilize some or all of these exemptions. If we utilize these exemptions, among other things, we may not have a majority of independent directors and our compensation and nominating and governance committees may not consist entirely of independent directors. Thus, in the event that we were to rely on these exemptions in the future, you would not have the same protections as are afforded to stockholders of companies that are subject to all of the corporate governance requirements of Nasdaq.

The dual class structure of our common stock has the effect of concentrating voting control with certain stockholders who hold shares of our Class B common stock, including our founders, certain of our directors and executive officers and affiliates, who will hold in the aggregate 91% of the voting power of our capital stock

following the completion of this offering. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.

Our Class B common stock has ten votes per share, and our Class A common stock, which is the common stock that underlies the notes we are offering pursuant to this prospectus, has one vote per share. Following this offering, our Class B stockholders, including our founders, certain of our directors and executive officers, and affiliates, will hold, in the aggregate 91% of the voting power of our capital stock. The ten-to-one voting ratio between our Class B and Class A common stock, results in the holders of our Class B common stock collectively controlling a majority of the combined voting power of our common stock and therefore being able to control all matters submitted to our stockholders for approval until 2029, or upon the occurrence of a triggering event at which time all shares of our Class B common stock will automatically convert into shares of our Class A common stock, or on an earlier date, as set forth in our certificate of incorporation.

This concentrated control will limit or preclude your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may feel are in your best interest as one of our stockholders.

Future transfers by holders of our Class B common stock will generally result in those shares converting to Class A common stock, subject to the specific exceptions set forth in our certificate of incorporation, such as certain transfers effected for estate planning purposes and between or among our founders. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long-term. For a description of the dual class structure, see the section entitled "Description of Capital Stock—Class A and Class B Common Stock — Voting rights" in the accompanying prospectus.

We cannot predict the impact our capital structure may have on our stock price.

In July 2017, S&P Dow Jones, a provider of widely followed stock indices, announced that companies with multiple share classes, such as ours, will not be eligible for inclusion in certain of their indices. As a result, our Class A common stock will likely not be eligible for these stock indices. Additionally, FTSE Russell, another provider of widely followed stock indices, has stated that it plans to require new constituents of its indices to have at least five percent of their voting rights in the hands of public stockholders. Many investment funds are precluded from investing in companies that are not included in such indices, and these funds would be unable to purchase our Class A common stock. We cannot assure you that other stock indices will not take a similar approach to S&P Dow Jones or FTSE Russell in the future. Given the sustained flow of investment funds into passive strategies that seek to track certain indexes, exclusion from indices could make our Class A common stock less attractive to investors. As a result, the market price of our Class A common stock could be adversely affected.

If financial or industry analysts do not publish research or reports about our business or if they issue inaccurate or unfavorable commentary or downgrade our Class A common stock, our stock price and trading volume could decline.

The trading market for our Class A common stock may be influenced by the research and reports that industry or financial analysts publish about us or our business. We do not control these analysts, or the content and opinions included in their reports. As a relatively new public company, we may be slow to attract research coverage, and the analysts who publish information about our Class A common stock still have relatively little

experience with our company, which could affect their ability to accurately forecast our results and make it more likely that we fail to meet their estimates. If any of the analysts who cover us issue an inaccurate or unfavorable opinion regarding our stock price, our stock price would likely decline. In addition, the stock prices of many companies in the technology industry have declined significantly after those companies have failed to meet, or often times failed to exceed, the financial guidance publicly announced by the companies or the expectations of analysts. If our financial results fail to meet, or fail to significantly exceed, our announced guidance or the expectations of analysts or public investors, analysts could downgrade our Class A common stock or publish unfavorable research about us. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Certain provisions in our charter documents and Delaware law could prevent an acquisition of our company, limit attempts by our stockholders to replace or remove members of our board of directors or current management and may adversely affect the market price of our Class A common stock.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change in control of our company that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions may also prevent or delay attempts by stockholders to replace or remove our current management or members of our board of directors. These provisions include:

- providing for a dual class common stock structure until 2029 (12 years following the completion of our IPO);
- providing for a classified board of directors with staggered three-year terms, which could delay the ability of stockholders to change the
 membership of a majority of our board of directors;
- authorizing our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- prohibiting stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our chief executive officer, our president, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- requiring the affirmative vote of holders of at least 66-2/3% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to adopt, amend, or repeal provisions of (i) our certificate of incorporation relating to the issuance of preferred stock without stockholder approval, voting rights of our Class A common stock and our Class B common stock, and management of our business, and (ii) our bylaws relating to the ability of stockholders to call a special meeting and amending our bylaws in their entirety, which may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend our bylaws, which may allow our board of directors to take additional actions
 to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend our bylaws to facilitate an unsolicited takeover attempt;
 and
- requiring advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose
 matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of
 proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to the provisions of Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

These and other provisions in our certificate of incorporation, our bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our Class A common stock in the future and result in the market price being lower than it would be without these provisions.

Our bylaws designate courts in the State of Delaware as the sole and exclusive forums for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our bylaws provide that, subject to limited exceptions, a state or federal court located within the State of Delaware will be the sole and exclusive forums for:

- · any derivative action or proceeding brought on our behalf;
- 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;
- any action asserting a claim against us or any of our directors, officers, or employees arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws; or
- · certain other actions asserting a claim against us or our directors, officers, or employees relating to our internal affairs.

Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock are deemed to have notice of and to have consented to these provisions. These provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage such lawsuits against us and our directors, officers, and employees. Alternatively, if a court were to find these provisions of our bylaws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

Use of proceeds

We estimate that the net proceeds from the sale of the notes in this offering will be approximately \$168.6 million, after deducting estimated underwriting discounts and offering expenses payable by us. If the underwriters' option to purchase additional notes in this offering is exercised in full, we estimate that the net proceeds from this offering will be approximately \$194.0 million, after deducting estimated underwriting discounts and offering expenses payable by us.

We intend to use a portion of the net proceeds we receive from this offering to repay outstanding indebtedness under our \$150.0 million revolving credit facility, which was approximately \$14.8 million as of March 31, 2019. We intend to use the remaining net proceeds to us from this offering for acquisitions of, or investments in, technologies, solutions or businesses that complement our business and for other general corporate purposes, including working capital, developing and building an addition adjacent to our corporate headquarters facilities and related real estate development matters, sales and marketing activities, general and administrative matters and capital expenditures. We do not have any agreements or binding commitments for any such acquisitions or investments at this time.

As of March 31, 2019, we had approximately \$14.8 million outstanding under our revolving credit facility provided for under our 2017 amended and restated credit agreement with JPMorgan Chase Bank, N.A., as administrative agent, and a syndicate of lenders. Borrowings under the Credit Agreement bear interest at a rate per annum equal to an agreed upon applicable margin plus, at our option, either the alternate base rate (defined as the greatest of (i) the Prime Rate (as defined in our revolving credit facility) in effect on such day, (ii) the NYFRB Rate (as defined in our revolving credit facility) for a one month interest period ending on such day (or if such day is not a business day, the immediately preceding business day) plus 1.00%) or the Adjusted LIBO Rate. The applicable margin for borrowings under the revolving credit facility is based on our most recently tested consolidated total net leverage ratio and will vary from (a) in the case of Eurodollar loans, 1.25% to 2.00%, and (b) in the case of ABR Loans (as defined in our revolving credit facility) or swingline loans, 0.25% to 1.00%. We pay a commitment fee ranging from 0.15% to 0.30% on the unused portion of the revolving credit facility.

Affiliates of J.P. Morgan Securities LLC and RBC Capital Markets, LLC are lenders under our revolving credit facility and will receive their pro rata portions of any amounts repaid under such facility from the proceeds of this offering. See "Underwriting (conflicts of interest)—Conflicts of interest."

We will have broad discretion over the uses of the net proceeds in this offering. Pending these uses, we may invest the net proceeds from this offering in short-term, investment-grade interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

Market information for our Class A common stock

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR." On June 3, 2019, the last reported sale price of our Class A common stock on the Nasdaq Global Select Market was \$36.82 per share. As of April 29, 2019, we had approximately 84 registered stockholders of record of our Class A common stock and four registered stockholders of record of our Class B common stock, and we believe a substantially greater number of beneficial owners who hold shares of Class A common stock through brokers, banks or other nominees through the facilities of DTC.

Dividend policy

We have never declared or paid any cash dividends on our common stock, including our Class A common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our Class A common stock in the foreseeable future. The terms of our revolving credit facility also restrict our ability to pay dividends, and we may also enter into credit agreements or other borrowing arrangements in the future that will restrict our ability to declare or pay cash dividends on our capital stock. Any future determination regarding the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant. There can be no assurance that any dividends will be paid in the future.

Capitalization

The following table sets forth our consolidated cash and cash equivalents and capitalization as of March 31, 2019:

- · on an actual basis; and
- on an as adjusted basis to give effect to this offering of notes (assuming the underwriters in this offering do not exercise their option to
 purchase additional notes), after deducting estimated underwriting discounts and offering expenses payable by us, and assuming that
 \$14.8 million of such net proceeds are used to reduce the balance outstanding under our revolving credit facility, as of March 31, 2019, and
 the remainder of such proceeds are held as cash or cash equivalents.

You should read this table in conjunction with "Use of proceeds" as well as our "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the related notes, included in our Quarterly Report on Form 10-Q for the guarter ended March 31, 2019, which is incorporated by reference herein.

| | As of March 31, 2019 | | | |
|--|---|----------|---------------------|--|
| | | | As | |
| | Actual | | adjusted | |
| | (unaudited) | | | |
| | (in thousands, except share and per share data) | | | |
| Cash and cash equivalents | \$ 39,771 | ma per s | 193,506 | |
| Debt: | | | | |
| % convertible senior notes due 2024(1) | \$ _ | \$ | 175,000 | |
| Credit agreement—revolving credit facility | 14,844 | | · — | |
| Other | 1,378 | | 1,378 | |
| Total Debt | 16,222 | | 176,378 | |
| Stockholders' equity: | | | | |
| Preferred stock, \$0.0001 par value per share: 45,000,000 shares authorized, no shares | | | | |
| issued or outstanding, actual and as adjusted | | | _ | |
| Class A common stock, \$0.0001 par value per share: 513,796,572 shares authorized, | | | | |
| 38,760,042 shares issued and outstanding, actual and as adjusted(2) | 4 | | 4 | |
| Class B common stock, \$0.0001 par value per share: 41,203,428 shares authorized, | 2 | | 0 | |
| 32,170,732 shares issued and outstanding, actual and as adjusted(2) | 3 | | 301.150 | |
| Additional paid-in capital(3) Accumulated deficit | 381,159 (68,986) | | 381,159 (68,986) | |
| Accumulated other comprehensive loss | (10,487) | | (10,487) | |
| Total stockholders' equity(3) | 301,693 | | 301,693 | |
| Total capitalization(3) | \$ 317,915 | \$ | 478,071 | |

⁽¹⁾ In accordance with Financial Accounting Standards Board Accounting Standards Codification 470-20, Debt with Conversion and Other Options ("ASC 470-20"), convertible debt that may be entirely or partially settled in cash (such as the notes being offered in this offering) is required to be separated into a liability and an equity component, such that interest expense reflects the issuer's non-convertible debt interest cost. On the issuance date, the value of the conversion option of the notes, representing the equity component, will be recorded as additional paid-in capital within stockholders' equity and as an original issue discount to the notes, which reduces their initial carrying value. The carrying value of the notes, net of the discount recorded, will be accreted up to the principal amount of the notes from the issuance date until maturity. ASC 470-20 does not affect the actual amount that we are required to repay. The amount shown in the table above for the notes is the aggregate principal amount of the notes, without reflecting the debt discount for the value of the conversion option as well as the estimated underwriters' discounts and offering expenses payable by us related to this offering.

⁽²⁾ The total number of shares of our common stock outstanding set forth in the table above is based on 38,760,042 shares of our Class A common stock and 32,170,732 shares of our Class B common stock, outstanding as of March 31, 2019, and excludes:

 ^{7,260,245} shares of our Class A common stock reserved for future equity awards under our 2017 Equity Incentive Plan, or our 2017 Plan;

- 4,234,856 shares of our Class A common stock issuable upon exercise of stock options outstanding as of March 31, 2019, with an exercise price of \$ 0.000025, under our 2001 Non-Qualified Stock Option Plan;
- 356,715 of our Class A common stock issuable upon exercise of stock options outstanding as of March 31, 2019, with a weighted average exercise price of \$0.66, under our 2001 Incentive and Non-Qualified Stock Option Plan;
- 1,419,830 shares of our Class A common stock issuable upon exercise of stock options outstanding as of March 31, 2019, with a weighted average exercise price of \$4.17, under our 2012 Incentive and Non-Qualified Stock Option Plan;
- 766,624 shares of our Class A common stock issuable upon the vesting and settlement of RSUs outstanding as of March 31, 2019 under our 2017 Plan;
- 20,000 shares of our Class A common stock issuable upon exercise of stock options outstanding as of March 31, 2019, with a weighted average exercise price of \$38.11, under our 2017 Plan;
- 145,000 shares of our Class A common stock issuable in the future pursuant to our SIMSOLID acquisition;
- shares of our Class A common stock underlying the notes offered hereby; and
- · any automatic increases in the number of shares of our Class A common stock reserved for future issuance under our 2017 Plan.
- (3) The issuance of the notes in this offering (after giving effect to the application of ASC 470-20 as described in note (1) above) will result in an increase to additional paid-in capital and, therefore, an increase in total stockholders' equity and total capitalization. However, amounts shown in the table above do not reflect the application of ASC 470-20 to the notes.

Description of notes

We will issue the % Convertible Senior Notes due 2024 (the "notes") under a base indenture (the "base indenture") and a supplemental indenture with respect to the notes (the "supplemental indenture" and together with the base indenture, the "indenture"), each to be dated as of the date of initial issuance of the notes, and in each case between us and U.S. Bank National Association, as trustee (the "trustee"). This description of the notes supplements and, to the extent it is inconsistent, replaces the description of the general provisions of the notes and the base indenture in the accompanying prospectus. The terms of the notes include those expressly set forth in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act").

You may request a copy of the indenture from us as described under "Where you can find more information."

The following description is a summary of the material provisions of the notes and the indenture and does not purport to be complete. This summary is subject to and is qualified by reference to all of the provisions of the notes and the indenture, including the definitions of certain terms used in the indenture. We urge you to read these documents because they, and not this description, define your rights as a holder of the notes.

For purposes of this description, references to "we," "our" and "us" refer only to Altair Engineering Inc. and not to its subsidiaries. We use the terms "Class A common stock" in this prospectus supplement to refer to our Class A common stock, par value \$0.0001 per share, and "Class B common stock" to refer to our Class B common stock, par value \$0.0001 per share.

General

The notes will:

- be our general unsecured, senior obligations;
- initially be limited to an aggregate principal amount of \$175.0 million (or \$201.25 million if the underwriters' option to purchase additional notes is exercised in full);
- bear cash interest from June , 2019 at an annual rate of % payable semiannually on June 1 and December 1 of each year, beginning on December 1, 2019;
- be subject to redemption at our option, in whole or in part on or after June 6, 2022 if the last reported sale price of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide written notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date as described under "—Optional redemption;"
- be subject to repurchase by us at the option of the holders following a fundamental change (as defined below under "—Fundamental change permits holders to require us to repurchase notes") occurring prior to the maturity date at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date;
- · mature on June 1, 2024, unless earlier converted, redeemed or repurchased;

- · be issued in denominations of \$1,000 and integral multiples of \$1,000 in excess thereof; and
- be represented by one or more registered notes in global form, but in certain limited circumstances may be represented by notes in definitive form. See "Book-entry, settlement and clearance."

Subject to satisfaction of certain conditions and during the periods described below, the notes may be converted at an initial conversion rate of shares of Class A common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of approximately per share of Class A common stock). The conversion rate is subject to adjustment if certain events occur.

We will settle conversions of notes by paying or delivering, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election, as described under "—Conversion rights—Settlement upon conversion." You will not receive any separate cash payment for interest, if any, accrued and unpaid to the conversion date except under the limited circumstances described below.

The indenture will not limit the amount of debt, including secured debt, that may be issued by us or our subsidiaries under the indenture or otherwise. The indenture will not contain any financial covenants and will not prevent us from paying dividends or issuing or repurchasing our securities or from repaying indebtedness. Other than restrictions described under "—Fundamental change permits holders to require us to repurchase notes" and "—Consolidation, merger and sale of assets" below and except for the provisions set forth under "—Conversion rights —Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period," the indenture will not contain any covenants or other provisions designed to afford holders of the notes protection in the event of a highly leveraged transaction involving us or in the event of a decline in our credit rating as the result of a takeover, recapitalization, highly leveraged transaction or similar restructuring involving us that could adversely affect such holders.

We may, without the consent of, or notice to, the holders, reopen the indenture for the notes and issue additional notes under the indenture with the same terms as the notes offered hereby (other than differences in the issue date, the issue price and interest accrued prior to the issue date of such additional notes) in an unlimited aggregate principal amount; *provided* that if any such additional notes are not fungible with the notes initially offered hereby for U.S. federal income tax purposes, such additional notes will have one or more separate CUSIP numbers.

We do not intend to list the notes on any securities exchange or any automated dealer quotation system.

Except to the extent the context otherwise requires, we use the term "notes" in this prospectus supplement to refer to each \$1,000 principal amount of notes. References in this prospectus supplement to a "holder" or "holders" of notes that are held through The Depository Trust Company ("DTC") are references to owners of beneficial interests in such notes, unless the context otherwise requires. However, we and the trustee will treat the person in whose name the notes are registered (Cede & Co., in the case of notes held through DTC) as the owner of such notes for all purposes. References herein to the "close of business" refer to 5:00 p.m., New York City time, and to the "open of business" refer to 9:00 a.m., New York City time.

Purchase and cancellation

We will cause all notes surrendered for payment, repurchase (including as described below), redemption, registration of transfer or exchange or conversion, if surrendered to any person that we control other than the trustee (including any of our agents, subsidiaries or affiliates), to be delivered to the trustee for cancellation. All notes delivered to the trustee shall be cancelled promptly by the trustee. Except for notes surrendered for transfer or exchange, no notes shall be authenticated in exchange for any notes cancelled as provided in the indenture.

We may, to the extent permitted by law, and directly or indirectly (regardless of whether such notes are surrendered to us), repurchase notes in the open market or otherwise, whether by us or our subsidiaries or through a private or public tender or exchange offer or through counterparties to private agreements, including by cash-settled swaps or other derivatives, in each case, without prior written notice to or consent of the holders of the notes. We will cause any notes so repurchased (other than notes repurchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the trustee for cancellation, and they will no longer be considered "outstanding" under the indenture upon their repurchase, and upon receipt of a written order from us, the trustee will cancel all notes so surrendered.

Payments on the notes; paying agent and registrar; transfer and exchange

We will pay or cause the paying agent to pay the principal of, and interest on, notes in global form registered in the name of or held by DTC or its nominee by wire transfer in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global note.

We will pay or cause the paying agent to pay the principal of any certificated notes at the office or agency designated by us for that purpose. We have initially designated the trustee as our paying agent and registrar and its corporate trust office located in the United States of America as a place where notes may be presented for payment or for registration of transfer. We may, however, change the paying agent or registrar without prior notice to the holders of the notes, and we may act as paying agent or registrar. Interest on certificated notes will be payable (i) to holders having an aggregate principal amount of \$5,000,000 or less, by check mailed to the holders of these notes and (ii) to holders having an aggregate principal amount of more than \$5,000,000, either by check mailed to each holder or, upon application by such a holder to the registrar not later than the relevant regular record date, by wire transfer in immediately available funds to that holder's account within the United States if such holder has provided the trustee or paying agent (if other than the trustee) with the requisite information necessary to make such wire transfer, which application shall remain in effect until the holder notifies, in writing, the registrar of the notes to the contrary.

A holder of notes may transfer or exchange notes at the office of the registrar in accordance with the indenture. The registrar and the trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents. No service charge will be imposed by us, the trustee or the registrar for any registration of transfer or exchange of notes, but we may require a holder to pay a sum sufficient to cover any transfer tax or other similar governmental charge required by law or permitted by the indenture. We are not required to transfer or exchange any note selected for redemption or surrendered for conversion or required repurchase upon a fundamental change. A holder of a beneficial interest in a note in global form may transfer or exchange such beneficial interest in accordance with the indenture and the applicable procedures of DTC. See "—Book-entry, settlement and clearance."

The registered holder of a note will be treated as its owner for all purposes.

Interest

The notes will bear cash interest at a rate of % per year until maturity. Interest on the notes will accrue from June , 2019 or from the most recent date on which interest has been paid or duly provided for. Interest will be payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2019.

Interest will be paid to the person in whose name a note is registered at the close of business on May 15 or November 15 (whether or not a business day), as the case may be, immediately preceding the relevant interest payment date (each, a "regular record date"). Interest on the notes will be computed on the basis of a 360-day year composed of twelve 30-day months and, for partial months, on the basis of the number of days actually elapsed in a 30-day month.

If any interest payment date, the maturity date or any earlier required repurchase date upon a fundamental change of a note falls on a day that is not a business day, the required payment will be made on the next succeeding business day with the same force and effect as if made on the relevant scheduled payment date, and no interest on such payment will accrue in respect of the delay. The term "business day" means, with respect to any note, any day other than a Saturday, a Sunday or a day on which the Federal Reserve Bank of New York is authorized or required by law or executive order to close or be closed.

Unless the context otherwise requires, all references to interest in this prospectus supplement include additional interest, if any, payable at our election as the sole remedy relating to the failure to comply with our reporting obligations as described under "—Events of default."

Ranking

The notes will be our general unsecured obligations that rank senior in right of payment to all of our indebtedness that is expressly subordinated in right of payment to the notes. The notes will rank equal in right of payment with all of our liabilities that are not so subordinated. The notes will effectively rank junior in right of payment to any of our secured indebtedness, including all amounts outstanding under our revolving credit facility, to the extent of the value of the assets securing such indebtedness. Although our revolving credit facility currently contains such limitations, the indenture governing the notes will not by itself limit our ability to incur additional indebtedness in the future, including secured indebtedness, and such indebtedness may be substantial. In the event of our bankruptcy, liquidation, reorganization or other winding up, our assets that secure secured debt will be available to pay obligations on the notes only after all indebtedness under such secured debt has been repaid in full from such assets. We advise you that there may not be sufficient assets remaining to pay amounts due on any or all of the notes then outstanding.

The notes will rank structurally junior to all indebtedness and other liabilities of our subsidiaries (including trade payables). A substantial portion of our operations is conducted through our subsidiaries. The notes will not be guaranteed by any of our current or future subsidiaries. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay amounts due with respect to the notes or to make any funds available therefor, whether by dividends, loans or other payments. Our right to receive any assets of any of our subsidiaries upon such subsidiary's bankruptcy, liquidation or reorganization, and, therefore, the right of the holders of notes to participate in those assets, will be subject to prior claims of creditors of the subsidiary, including trade creditors, and such subsidiary may not have sufficient assets remaining to make any payments to us as a shareholder or otherwise. We advise you that there may not be sufficient assets remaining to pay amounts due on any or all the notes then outstanding.

As of March 31, 2019, our total consolidated indebtedness was approximately \$16.2 million, of which an aggregate of approximately \$14.8 million was secured indebtedness of ours. As of March 31, 2019, our subsidiaries had approximately \$98.0 million of indebtedness and other liabilities (including trade payables, but excluding intercompany obligations and liabilities of a type not required to be reflected on a balance sheet of such subsidiaries in accordance with GAAP) to which the notes would have been structurally subordinated. After giving effect to the issuance of the notes (assuming no exercise of the underwriters' option to purchase additional notes) and the use of proceeds from this offering as described in "Use of proceeds," our total consolidated indebtedness as of March 31, 2019 would have been \$176.4 million.

The ability of our subsidiaries to pay dividends and make other payments to us may be restricted by, among other things, our future debt instruments, applicable corporate and other laws and regulations as well as agreements to which our subsidiaries may become a party. We may not be able to pay the cash portion of any settlement amount upon conversion of the notes, or to pay cash for the fundamental change repurchase price if a holder requires us to repurchase notes upon a fundamental change as described below. See "Risk factors—

Risks related to the notes—We may not have the ability to raise the funds necessary to settle conversions of the notes in cash or to repurchase the notes upon a fundamental change, and our current debt contains, and our future debt may contain, limitations on our ability to pay cash upon conversion or repurchase of the notes."

Optional redemption

No "sinking fund" is provided for the notes, which means we are not required to redeem or retire the notes periodically. Prior to June 6, 2022, the notes will not be redeemable. On or after June 6, 2022, we may redeem all or part of the notes, at our option, if the last reported sale price (as defined under "—Conversion rights—Settlement upon conversion") of our Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide the holders written notice of redemption (a "redemption notice date"). In the case of any optional redemption, we will provide not less than 60 nor more than 75 scheduled trading days' written notice before the redemption date (provided that if we elect physical settlement (as defined under "—Conversion rights—Settlement upon conversion") for conversions that occur during the related redemption period, we may provide not less than 10 nor more than 30 scheduled trading days' written notice) to the trustee, the conversion agent (if other than the trustee), the paying agent and each holder of notes, and we will redeem the notes at a redemption price equal to 100% of the principal amount of such notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. Any notes redeemed by us will be paid for in cash. The redemption date must be a business day and we may not specify a redemption date that falls on or after December 1, 2023.

Notwithstanding the foregoing, if we set a redemption date between a regular record date and the corresponding interest payment date, we will not pay accrued interest to any holder of notes to be redeemed, and will instead pay the full amount of the relevant interest payment on such interest payment date to the holder of record on such regular record date, and the redemption price will be 100% of the principal amount of the notes to be redeemed.

With respect to any notes that are converted during a redemption period as described under "—Conversion Rights—General," we will, under certain circumstances, increase the conversion rate for the notes so surrendered for conversion by a number of additional shares as described under "—Conversion rights—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period."

If we decide to redeem fewer than all of the outstanding notes, the notes to be redeemed will be selected according to DTC's applicable procedures, in the case of notes represented by a global note, or, in the case of notes in certificated form, the trustee shall select, pro rata or by lot or in such other manner as it shall deem appropriate and fair, notes to be redeemed in whole or in part.

If the trustee selects a portion of your notes for redemption and you convert a portion of such notes, the converted portion will be deemed to be from the portion selected for redemption.

In the event of any redemption in part, we will not be required to register the transfer of or exchange any note so selected for redemption, in whole or in part, except the unredeemed portion of any such note being redeemed in part.

No notes may be redeemed if the principal amount of the notes has been accelerated, and such acceleration has not been rescinded, on or prior to the redemption date (except in the case of an acceleration resulting from a default by us in the payment of the redemption price with respect to such notes).

Conversion rights

General

Prior to the close of business on the business day immediately preceding December 1, 2023, the notes will be convertible only upon satisfaction of one or more of the conditions described under the headings "—Conversion upon satisfaction of sale price condition," "—Conversion upon satisfaction of trading price condition," "—Conversion upon redemption," and "—Conversion upon specified corporate events." On or after December 1, 2023 until the close of business on the business day immediately preceding the maturity date, holders may convert all or any portion of their notes at the conversion rate at any time irrespective of the foregoing conditions.

The conversion rate for the notes will initially be shares of Class A common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of approximately \$ per share of Class A common stock). The conversion rate is subject to adjustment if certain events occur. The conversion price at any given time will be computed by dividing \$1,000 by the applicable conversion rate at such time. Accordingly, an adjustment to the conversion rate will result in a corresponding (but inverse) adjustment to the conversion price.

Upon conversion of a note, we will satisfy our conversion obligation by paying or delivering, as the case may be, cash, shares of our Class A common stock or a combination of cash and shares of our Class A common stock, at our election, all as set forth below under "—Settlement upon conversion." If we satisfy our conversion obligation solely in cash or through payment and delivery, as the case may be, of a combination of cash and shares of our Class A common stock, the amount of cash and shares of Class A common stock, if any, due upon conversion will be based on a daily conversion value (as defined below) calculated on a proportionate basis for each trading day in a 50 trading day observation period (as defined below under "—Settlement upon conversion"). The trustee will initially act as the conversion agent.

A holder may convert fewer than all of such holder's notes so long as the notes converted are in minimum denominations of \$1,000 or integral multiples of \$1,000 in excess thereof.

If we call notes for redemption, a holder of notes may convert all or any portion of its notes only until the close of business on the scheduled trading day immediately preceding the redemption date unless we fail to pay the redemption price (in which case a holder of notes may convert such notes until the redemption price has been paid or duly provided for). If a holder elects to convert notes from, and including, the redemption notice date until the close of business on the scheduled trading day immediately preceding the related redemption date (any such period, a "redemption period"), we will, under certain circumstances, increase the conversion rate for the notes as described under "— Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period." If a holder of notes has submitted notes for purchase upon a fundamental change, the holder may convert those notes only if that holder first validly withdraws its fundamental change purchase notice.

Upon conversion, you will not receive any separate cash payment for accrued and unpaid interest, if any, except as described below, and we will not adjust the conversion rate for any accrued and unpaid interest on the notes. We will not issue fractional shares of our Class A common stock upon conversion of notes. Instead, we will pay cash in lieu of delivering any fractional share as described under "—Settlement upon conversion." Our payment and delivery, as the case may be, to you of the cash, shares of our Class A common stock or a combination thereof, as the case may be, into which a note is convertible will be deemed to satisfy in full our obligation to pay:

- · the principal amount of the note; and
- accrued and unpaid interest, if any, to, but excluding, the relevant conversion date.

As a result, accrued and unpaid interest, if any, to, but excluding, the relevant conversion date will be deemed to be paid in full rather than cancelled, extinguished or forfeited. Upon a conversion of notes into a combination of cash and shares of our Class A common stock, accrued and unpaid interest will be deemed to be paid first out of the cash paid upon such conversion.

Notwithstanding the immediately preceding paragraph, if notes are converted after the close of business on a regular record date for the payment of interest and prior to the open of business on the corresponding interest payment date, holders of such notes at the close of business on such regular record date will receive the full amount of interest payable on such notes on the corresponding interest payment date notwithstanding the conversion. Notes surrendered for conversion during the period from the close of business on any regular record date to the open of business on the immediately following interest payment date, however, must be accompanied by funds equal to the amount of interest payable on the notes so converted on the corresponding interest payment date (regardless of whether the converting holder was the holder of record on such regular record date); provided that no such payment need be made:

- for conversions following the close of business on the regular record date immediately preceding the maturity date;
- if we have specified a fundamental change repurchase date that is after a regular record date and on or prior to the business day immediately following the corresponding interest payment date;
- if we have specified a redemption date that is after a regular record date and on or prior to the business day immediately following the corresponding interest payment date; or
- to the extent of any overdue interest, if any overdue interest exists at the time of conversion with respect to such note.

Therefore, for the avoidance of doubt, all record holders on the regular record date immediately preceding the maturity date, any redemption date and any fundamental change repurchase date described in the bullets in the preceding paragraph will receive and retain the full interest payment due on the maturity date or other applicable interest payment date regardless of whether their notes have been converted following such regular record date.

If a holder converts notes, we will pay any documentary, stamp or similar issue or transfer tax due on any issuance of any shares of our Class A common stock upon the conversion, unless the tax is due because the holder requests such shares to be issued in a name other than the holder's name, in which case the holder will pay that tax.

Holders may surrender their notes for conversion only under the following circumstances:

Conversion upon satisfaction of sale price condition

Prior to the close of business on the business day immediately preceding December 1, 2023, a holder may surrender all or any portion of its notes for conversion at any time during any calendar quarter commencing after the calendar quarter ending on September 30, 2019 (and only during such calendar quarter), if the last reported sale price of the Class A common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day.

The "last reported sale price" of our Class A common stock on any date means the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case,

the average of the average bid and the average ask prices) on that date as reported in composite transactions for the principal U.S. national or regional securities exchange on which our Class A common stock is traded. If our Class A common stock is not listed for trading on a U.S. national or regional securities exchange on the relevant date, the "last reported sale price" will be the last quoted bid price per share for our Class A common stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization. If our Class A common stock is not so quoted, the "last reported sale price" will be the average of the mid-point of the last bid and ask prices per share for our Class A common stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by us for this purpose. The "last reported sale price" will be determined without regard to after-hours trading or any other trading outside of regular trading session hours.

Except for determining amounts due upon conversion, "trading day" means a day on which (i) trading in our Class A common stock (or other security for which a closing sale price must be determined) generally occurs on The Nasdaq Global Select Market or, if our Class A common stock (or such other security) is not then listed on The Nasdaq Global Select Market, on the principal other U.S. national or regional securities exchange on which our Class A common stock (or such other security) is not then listed on a U.S. national or regional securities exchange, on the principal other market on which our Class A common stock (or such other security) is then traded, and (ii) a last reported sale price for our Class A common stock (or closing sale price for such other security) is available on such securities exchange or market. If our Class A common stock (or such other security) is not so listed or traded, "trading day" means a "business day."

Conversion upon satisfaction of trading price condition

Prior to the close of business on the business day immediately preceding December 1, 2023, a holder of notes may surrender all or any portion of its notes for conversion at any time during the five business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" per \$1,000 principal amount of notes, as determined following a request by a holder of notes in accordance with the procedures described below, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on each such trading day (the "trading price condition").

The "trading price" of the notes on any date of determination means the average of the secondary market bid quotations obtained by the bid solicitation agent for \$2,000,000 principal amount of notes at approximately 3:30 p.m., New York City time, on such determination date from three independent nationally recognized securities dealers we select for this purpose; *provided* that if three such bids cannot reasonably be obtained by the bid solicitation agent but two such bids are obtained, then the average of the two bids shall be used, and if only one such bid can reasonably be obtained by the bid solicitation agent, that one bid shall be used. If the bid solicitation agent cannot reasonably obtain at least one bid for \$2,000,000 principal amount of notes from a nationally recognized securities dealer, then the trading price per \$1,000 principal amount of notes will be deemed to be less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate. If (x) we are not acting as bid solicitation agent, and we do not, when we are required to, instruct the bid solicitation agent in writing to obtain bids, or if we give such written instruction to the bid solicitation agent, and the bid solicitation agent fails to obtain such bids, or (y) we are acting as bid solicitation agent and we fail to obtain such bids, then, in either case, the trading price per \$1,000 principal amount of notes will be deemed to be less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on each trading day of such failure.

The bid solicitation agent (if other than us) shall have no obligation to solicit bids as described above unless we have requested such solicitation in writing; and we shall have no obligation to make such request (or, if we are

acting as bid solicitation agent, we shall have no obligation to solicit such bids) unless a holder of at least \$1,000,000 aggregate principal amount of notes provides us with reasonable evidence that the trading price per \$1,000 principal amount of notes would be less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate. At such time, we shall instruct the bid solicitation agent (if other than us) to solicit, or if we are acting as bid solicitation agent, we shall solicit, such bids beginning on the next trading day and on each successive trading day until the trading price per \$1,000 principal amount of notes is greater than or equal to 98% of the product of the last reported sale price of our Class A common stock and the conversion rate and we shall instruct the three independent nationally recognized securities dealers to deliver bids to the bid solicitation agent. We will determine the trading price per \$1,000 principal amount of the notes for each trading day in accordance with the bids so solicited. If the trading price condition has been met, we will so notify in writing the holders, the trustee and the conversion agent (if other than the trustee) on or within one business day of such determination. If, at any time after the trading price condition has been met, the trading price per \$1,000 principal amount of notes is greater than or equal to 98% of the product of the last reported sale price of our Class A common stock and the conversion rate for such trading day, we will so notify the holders, the trustee and the conversion agent (if other than the trustee) in writing that the trading price condition is no longer met and thereafter neither we nor the bid solicitation agent (if other than us) shall be required to solicit bids again until another qualifying request is made as provided above.

We will initially act as the bid solicitation agent for the notes.

Conversion upon notice of redemption

If we call any or all of the notes for redemption prior to the close of business on the business day immediately preceding December 1, 2023, holders may convert all or any portion of their notes at any time prior to the close of business on the scheduled trading day prior to the redemption date, even if the notes are not otherwise convertible at such time. After that time, the right to convert such notes on account of our delivery of a notice of redemption will expire, unless we default in the payment of the redemption price, in which case a holder of notes may convert all or any portion of its notes until the redemption price has been paid or duly provided for.

Conversion upon specified corporate events

Certain distributions

If, prior to the close of business on the business day immediately preceding December 1, 2023, we elect to:

- issue to all or substantially all holders of our Class A common stock any rights, options or warrants (other than a distribution of rights
 pursuant to a stockholder rights plan where such rights have not separated from our Class A common stock) entitling them, for a period of
 not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of our Class A
 common stock at a price per share that is less than the average of the last reported sale prices of our Class A common stock for the 10
 consecutive trading day period ending on, and including, the trading day immediately preceding the date of announcement of such
 issuance; or
- distribute to all or substantially all holders of our Class A common stock our assets, securities or rights to purchase our securities (other than a distribution of rights pursuant to a stockholder rights plan where such rights have not separated from our Class A common stock), which distribution has a per share value, as reasonably determined by our board of directors or a committee thereof, exceeding 10% of the last reported sale price of our Class A common stock on the trading day preceding the date of announcement for such distribution.

then, in either case, we must notify in writing the holders of the notes (with a copy to the trustee and the conversion agent (if other than the trustee) (such notification, the "Certain Distributions Notification") (x) at least 60 scheduled trading days prior to or (y) if in the Certain Distributions Notification we elect physical settlement (as defined under "—Settlement upon conversion") in respect of any conversions with conversion dates that occur after delivery to the holders of the Certain Distributions Notification until the Certain Distributions Conversion Period End Date (as defined below), at least 10 scheduled trading days prior to, in either case, the ex-dividend date for such issuance or distribution. Once we have given such notice, holders may surrender all or any portion of their notes for conversion at any time until the earlier of the close of business on the business day immediately preceding the ex-dividend date for such issuance or distribution and our announcement that such issuance or distribution will not take place, even if the notes are not otherwise convertible at such time (such earlier date and time, the "Certain Distributions Conversion Period End Date").

Holders of the notes may not convert their notes pursuant to this provision if they participate (other than in the case of a share split or share combination), at the same time and upon the same terms as holders of our Class A common stock and solely as a result of holding the notes, in any of the transactions described above without having to convert their notes as if they held a number of shares of Class A common stock equal to the applicable conversion rate, multiplied by the principal amount (expressed in thousands) of notes held by such holder.

Certain corporate events

If (i) a transaction or event that constitutes a (x) "fundamental change" (as defined under "—Fundamental change permits holders to require us to repurchase notes") or (y) a "make-whole fundamental change" (as defined under "—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period") occurs prior to the close of business on the business day immediately preceding December 1, 2023, regardless of whether a holder has the right to require us to repurchase the notes as described under Fundamental change permits holders to require us to repurchase notes," or (ii) we are a party to a share exchange event (as defined under - Recapitalizations, reclassifications and changes of our Class A common stock") (other than a share exchange event that is solely for the purpose of changing our jurisdiction of organization that (x) does not constitute a fundamental change or a make-whole fundamental change and (y) results in a reclassification, conversion or exchange of outstanding shares of our Class A common stock solely into shares of common stock of the surviving entity and such common stock becomes reference property for the notes) that occurs prior to the close of business on the business day immediately preceding December 1, 2023 (each such fundamental change, make-whole fundamental change or share exchange event, a "corporate event"), then, in each case, all or any portion of a holder's notes may be surrendered for conversion at any time from or after the effective date of such corporate event until the earlier of (a) 35 trading days after the effective date of such corporate event or, if such corporate event also constitutes a fundamental change, until the close of business on the business day immediately preceding the related fundamental change repurchase date and (b) the business day immediately preceding the maturity date. We will notify holders, the trustee and the conversion agent (if other than the trustee) in writing as promptly as practicable following the date we publicly announce such corporate event but in no event later than the effective date of such corporate event.

Conversions on or after December 1, 2023

On or after December 1, 2023, a holder may convert all or any portion of its notes at any time prior to the close of business on the business day immediately preceding the maturity date regardless of the foregoing conditions.

Conversion procedures

If you hold a beneficial interest in a global note, to convert you must comply with DTC's procedures for converting a beneficial interest in a global note and, if required, pay funds equal to interest payable on the next interest payment date to which you are not entitled and, if required, pay all transfer or similar taxes, if any. As such, if you are a beneficial owner of the notes, you must allow for sufficient time to comply with DTC's procedures if you wish to exercise your conversion rights.

If you hold a certificated note, to convert you must:

- complete and manually sign the conversion notice on the back of the note, or a facsimile of the conversion notice;
- deliver the conversion notice, which is irrevocable, and the note to the conversion agent;
- · if required, furnish appropriate endorsements and transfer documents; and
- if required, pay funds equal to the interest payable on the next interest payment date to which you are not entitled.

We will pay any documentary, stamp or similar issue or transfer tax on the issuance of any shares of our Class A common stock upon conversion of the notes, unless the tax is due because the holder requests such shares to be issued in a name other than the holder's name, in which case the holder will pay the tax.

We refer to the date you comply with the relevant procedures for conversion described above as the "conversion date."

If a holder has already delivered a repurchase notice as described under "—Fundamental change permits holders to require us to repurchase notes" with respect to a note, the holder may not surrender that note for conversion until the holder has withdrawn the repurchase notice in accordance with the relevant provisions of the indenture. If a holder submits its notes for required repurchase, the holder's right to withdraw the fundamental change repurchase notice and convert the notes that are subject to repurchase will terminate at the close of business on the business day immediately preceding the relevant fundamental change repurchase date.

Settlement upon conversion

Upon conversion, we may choose to pay or deliver, as the case may be, either cash ("cash settlement"), shares of our Class A common stock ("physical settlement") or a combination of cash and shares of our Class A common stock ("combination settlement"), as described below. We refer to each of these settlement methods as a "settlement method."

All conversions for which the relevant conversion date occurs on or after December 1, 2023 or during a redemption period, will be settled using the same settlement method. Except for any conversions for which the relevant conversion date occurs during a redemption period and any conversions for which the relevant conversion date occurs on or after December 1, 2023, we will use the same settlement method for all conversions with the same conversion date, but we will not have any obligation to use the same settlement method with respect to conversions with different conversion dates. That is, prior to December 1, 2023 and other than during a redemption period, we may choose for notes converted on one conversion date to settle through physical settlement, and choose for notes converted on another conversion date to settle through cash settlement or combination settlement.

If we elect a settlement method, we will inform in writing holders so converting, the trustee and the conversion agent (if other than the trustee) of the settlement method we have selected no later than the close of business on the trading day immediately following the related conversion date (or in the case of any conversion for which the relevant conversion date occurs (i) during a redemption period as described under "— Optional redemption," in the related notice of redemption or (ii) on or after December 1, 2023, no later than the close of business on the business day immediately preceding December 1, 2023). If we do not timely elect a settlement method as described in the preceding sentence, we will no longer have the right to elect cash settlement or physical settlement for such conversion or during such period and we will be deemed to have elected combination settlement in respect of our conversion obligation, as described below, and the specified dollar amount (as defined below) per \$1,000 principal amount of notes will be equal to \$1,000. If we timely elect combination settlement, but we do not timely notify converting holders, the trustee and the conversion agent (if other than the trustee) of the specified dollar amount per \$1,000 principal amount of notes to be converted, such specified dollar amount will be deemed to be \$1,000. Notwithstanding anything to the contrary in the foregoing, we will be permitted to irrevocably elect "physical settlement" in any Certain Distributions Notification as described above under "Conversion rights—Conversion upon specified corporate events—Certain Distributions Notification until the Certain Distributions Conversion Period End Date. It is our current intent and policy to settle conversions of the notes through combination settlement with a specified dollar amount per \$1,000 principal amount of notes of \$1,000.

Settlement amounts will be computed as follows:

- if we elect physical settlement, we will deliver to the converting holder in respect of each \$1,000 principal amount of notes being converted a number of shares of Class A common stock equal to the conversion rate;
- if we elect cash settlement, we will pay to the converting holder in respect of each \$1,000 principal amount of notes being converted cash
 in an amount equal to the sum of the daily conversion values for each of the 50 consecutive trading days during the related observation
 period; and
- if we elect (or are deemed to have elected) combination settlement, we will pay or deliver, as the case may be, to the converting holder in respect of each \$1,000 principal amount of notes being converted a "settlement amount" equal to the sum of the daily settlement amounts for each of the 50 consecutive trading days during the related observation period.

The "daily settlement amount," for each of the 50 consecutive trading days during the observation period, shall consist of:

- cash equal to the lesser of (i) the maximum cash amount per \$1,000 principal amount of notes to be received upon conversion as specified
 in the notice specifying our chosen settlement method (or deemed specified as set forth above) (the "specified dollar amount"), if any,
 divided by 50 (such quotient, the "daily measurement value") and (ii) the daily conversion value; and
- if the daily conversion value exceeds the daily measurement value, a number of shares of our Class A common stock equal to (i) the difference between the daily conversion value and the daily measurement value, *divided by* (ii) the daily VWAP for such trading day.

The "daily conversion value" means, for each of the 50 consecutive trading days during the observation period, 2.0% of the product of (1) the conversion rate on such trading day and (2) the daily VWAP for such trading day.

The "daily VWAP" means the per share volume-weighted average price as displayed under the heading "Bloomberg VWAP" on Bloomberg page "ALTR <equity> AQR" (or its equivalent successor if such page is not

available) in respect of the period from the scheduled open of trading until the scheduled close of trading of the primary trading session on such trading day (or if such volume-weighted average price is unavailable, the market value of one share of our Class A common stock on such trading day determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained for this purpose by us). The "daily VWAP" will be determined without regard to after-hours trading or any other trading outside of the regular trading session trading hours.

The "observation period" with respect to any note surrendered for conversion means:

- subject to the immediately succeeding bullet, if the relevant conversion date occurs prior to December 1, 2023, the 50 consecutive trading day period beginning on, and including, the second trading day immediately succeeding such conversion date;
- if the relevant conversion date occurs during a redemption period with respect to the notes as described under "—Optional redemption," the 50 consecutive trading days beginning on, and including, the 51st scheduled trading day immediately preceding the relevant redemption date; and
- if the relevant conversion date occurs on or after December 1, 2023, the 50 consecutive trading days beginning on, and including, the 51st scheduled trading day immediately preceding the maturity date.

For the purposes of determining amounts due upon conversion only, "trading day" means a day on which (i) there is no "market disruption event" (as defined below) and (ii) trading in our Class A common stock generally occurs on The Nasdaq Global Select Market or, if our Class A common stock is not then listed on The Nasdaq Global Select Market, on the principal other U.S. national or regional securities exchange on which our Class A common stock is then listed or, if our Class A common stock is not then listed on a U.S. national or regional securities exchange, on the principal other market on which our Class A common stock is then listed or admitted for trading. If our Class A common stock is not so listed or admitted for trading, "trading day" means a "business day."

"Scheduled trading day" means a day that is scheduled to be a trading day on the principal U.S. national or regional securities exchange or market on which our Class A common stock is listed or admitted for trading. If our Class A common stock is not so listed or admitted for trading, "scheduled trading day" means a "business day."

For the purposes of determining amounts due upon conversion, "market disruption event" means (i) a failure by the primary U.S. national or regional securities exchange or market on which our Class A common stock is listed or admitted for trading to open for trading during its regular trading session or (ii) the occurrence or existence prior to 1:00 p.m., New York City time, on any scheduled trading day for our Class A common stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in our Class A common stock or in any options contracts or futures contracts relating to our Class A common stock.

Except as described under "—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period" and "—Recapitalizations, reclassifications and changes of our Class A common stock," we will deliver the consideration due in respect of conversion on the second business day immediately following the relevant conversion date, if we elect to satisfy our conversion obligation through physical settlement, or on the second business day immediately following the last trading day of the relevant observation period, in the case of any other settlement method.

We will pay cash in lieu of delivering any fractional share of Class A common stock issuable upon conversion based on the daily VWAP for the relevant conversion date (in the case of physical settlement) or based on the daily VWAP for the last trading day of the relevant observation period (in the case of combination settlement).

Each conversion will be deemed to have been effected as to any notes surrendered for conversion on the conversion date; *provided*, *however*, that the person in whose name any shares of our Class A common stock shall be issuable upon such conversion will be treated as the holder of record of such shares as of the close of business on the conversion date (in the case of physical settlement) or the last trading day of the relevant observation period (in the case of combination settlement).

Exchange in lieu of conversion

When a holder surrenders its notes for conversion, we may, at our election, direct the conversion agent to surrender, on or prior to the trading day immediately following the conversion date, such notes to one or more financial institutions designated by us for exchange in lieu of conversion (an "exchange election"). To accept any notes surrendered for conversion, the designated financial institution must agree to timely pay or deliver, as the case may be, in exchange for such notes, the cash, shares of our Class A common stock, or combination of cash or shares of our Class A common stock that would otherwise be due on conversion as described above under the section titled "—Conversion rights— Settlement upon conversion" (the "conversion consideration"). If we make an exchange election, we will, by the close of business on the trading day following the relevant conversion date, notify in writing the trustee, the conversion agent (if other than the trustee) and the holder surrendering its notes for conversion that we have made the exchange election and will notify the designated financial institution of the settlement method we have elected with respect to such conversion and the relevant deadline for delivery of the conversion consideration.

Any notes exchanged by the designated financial institution will remain outstanding, subject to applicable DTC procedures. If the designated financial institution agrees to accept any notes for exchange but does not timely pay or deliver, as the case may be, the related conversion consideration, or if such designated financial institution does not accept the notes for exchange, we will pay or deliver, as the case may be, the relevant conversion consideration, as, and at the time, required pursuant to the indenture as if we had not made the exchange election.

Our designation of any financial institution to which the notes may be submitted for exchange does not require such financial institution to accept any notes.

Conversion rate adjustments

The conversion rate will be adjusted as described below, except that we will not make any adjustments to the conversion rate if holders of the notes participate (other than in the case of (x) a share split or share combination or (y) a tender or exchange offer), at the same time and upon the same terms as holders of our Class A common stock and solely as a result of holding the notes, in any of the transactions described below without having to convert their notes as if they held a number of shares of Class A common stock equal to the conversion rate, *multiplied by* the principal amount (expressed in thousands) of notes held by such holder.

(1) If we exclusively issue shares of our Class A common stock as a dividend or distribution on shares of our Class A common stock, or if we effect a share split or share combination in respect of our Class A common stock, the conversion rate will be adjusted based on the following formula:

$$CR_1 = CR_0 \times OS_1$$
 OS_0

where,

CR₀ the conversion rate in effect immediately prior to the open of business on the ex-dividend date of such dividend or distribution, or immediately prior to the open of business on the effective date of such share split or share combination, as applicable;

 CR_1 the conversion rate in effect immediately after the open of business on such ex-dividend date or effective date, as applicable;

OS₀ the number of shares of our Class A common stock outstanding immediately prior to the open of business on such ex-dividend date or effective date, as applicable, before giving effect to any such dividend, distribution, share split or share combination, as the case may be: and

OS₁ the number of shares of our Class A common stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination, as the case may be.

Any adjustment made under this clause (1) shall become effective immediately after the open of business on the ex-dividend date for such dividend or distribution, or immediately after the open of business on the effective date for such share split or share combination, as applicable. If any dividend or distribution of the type described in this clause (1) is declared but not so paid or made, the conversion rate shall be immediately readjusted, effective as of the date our board of directors or a committee thereof determines not to pay such dividend or distribution, to the conversion rate that would then be in effect if such dividend or distribution had not been declared.

(2) If we issue to all or substantially all holders of our Class A common stock any rights, options or warrants (other than a distribution of rights pursuant to a stockholder rights plan) entitling them, for a period of not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of our Class A common stock at a price per share that is less than the average of the last reported sale prices of our Class A common stock for the 10 consecutive trading day period ending on, and including, the trading day immediately preceding the date of announcement of such issuance, the conversion rate will be increased based on the following formula:

$$CR_1 = CR_0 \times \underbrace{\begin{array}{c} OS_0 + \\ X \\ OS_0 + \\ Y \end{array}}$$

where,

CR₀ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such issuance;

CR₁ = the conversion rate in effect immediately after the open of business on such ex-dividend date;

OS₀ = the number of shares of our Class A common stock outstanding immediately prior to the open of business on such ex-dividend date:

X = the total number of shares of our Class A common stock issuable pursuant to such rights, options or warrants; and

Y = the number of shares of our Class A common stock equal to the aggregate price payable to exercise such rights, options or warrants, *divided by* the average of the last reported sale prices of our Class A common stock over the 10 consecutive trading day period ending on, and including, the trading day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this clause (2) will be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the open of business on the ex-dividend date for such issuance. To the extent that such rights, options or warrants are not exercised prior to their expiration or shares of our Class A common stock are not delivered after the expiration of such rights, options or warrants, the conversion rate shall be decreased to the conversion rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of our Class A common stock actually delivered. If such rights, options or warrants are not so issued, the conversion rate shall be decreased to the conversion rate that would then be in effect if such ex-dividend date for such issuance had not occurred.

For the purpose of this clause (2), and for the purpose of the first bullet point under "—Conversion upon specified corporate events—Certain distributions," in determining whether any rights, options or warrants entitle the holders of our Class A common stock to subscribe for or purchase shares of our Class A common stock at a price per share that is less than such average of the last reported sale prices of our Class A common stock for the 10 consecutive trading day period ending on, and including, the trading day immediately preceding the date of announcement of such issuance, and in determining the aggregate offering price of such shares of Class A common stock, there shall be taken into account any consideration received by us for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by our board of directors or a committee thereof.

- (3) If we distribute shares of our capital stock, evidences of our indebtedness, other assets or property of ours or rights, options or warrants to acquire our capital stock or other securities, to all or substantially all holders of our Class A common stock, excluding:
 - dividends, distributions or issuances (including share splits) as to which an adjustment was effected or will be so effected in accordance with the 1% provision (as defined below) pursuant to clause (1) or (2) above;
 - dividends or distributions paid exclusively in cash as to which the provisions set forth in clause (4) below shall apply;
 - except as otherwise described below, a distribution of rights pursuant to a stockholder rights plan of ours;
 - dividends or distributions of reference property in exchange for or upon conversion of our Class A common stock in a share exchange event described in "—Recapitalizations, reclassifications, and changes of our Class A common stock;" and
 - spin-offs as to which the provisions set forth below in this clause (3) shall apply;

then the conversion rate will be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

CR₀ the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such distribution;

 $\mathsf{CR_1}$ the conversion rate in effect immediately after the open of business on such ex-dividend date;

SP₀ the average of the last reported sale prices of our Class A common stock over the 10 consecutive trading day period ending on, and including, the trading day immediately preceding the ex-dividend date for such distribution; and

FMV = the fair market value (as determined by our board of directors or a committee thereof) of the shares of capital stock, evidences of indebtedness, assets, property, rights, options or warrants distributed with respect to each outstanding share of our Class A common stock on the ex-dividend date for such distribution.

Any increase made under the portion of this clause (3) above will become effective immediately after the open of business on the ex-dividend date for such distribution. If such distribution is not so paid or made, the conversion rate shall be decreased to be the conversion rate that would then be in effect if such distribution had not been declared. Notwithstanding the foregoing, if "FMV" (as defined above) is equal to or greater than "SP₀" (as defined above), in lieu of the foregoing increase, each holder of a note shall receive, in respect of each \$1,000 principal amount thereof, at the same time and upon the same terms as holders of our Class A common stock, the amount and kind of our capital stock, evidences of our indebtedness, other assets or property of ours or rights, options or warrants to acquire our capital stock or other securities that such holder would have received if such holder owned a number of shares of Class A common stock equal to the conversion rate in effect on the ex-dividend date for the distribution.

With respect to an adjustment pursuant to this clause (3) where there has been a payment of a dividend or other distribution on our Class A common stock of shares of capital stock of any class or series, or similar equity interest, of or relating to a subsidiary or other business unit, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange, which we refer to as a "spin-off," the conversion rate will be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{FMV_0 + MP_0}{MP_0}$$

where,

 $CR_0 =$ the conversion rate in effect immediately prior to the end of the valuation period (as defined below);

CR₁ = the conversion rate in effect immediately after the end of the valuation period;

FMV₀ = the average of the last reported sale prices of the capital stock or similar equity interest distributed to holders of our Class A common stock applicable to one share of our Class A common stock (determined by reference to the definition of last reported sale price set forth under "—Conversion upon satisfaction of sale price condition" as if references therein to our Class A common stock were to such capital stock or similar equity interest) over the first 10 consecutive trading day period after, and including, the ex-dividend date of the spin-off (the "valuation period"); provided that if there is no last reported sale price of the capital stock or similar equity interest distributed to holders of our Class A common stock on such ex-dividend date, the "valuation period" shall be the first ten consecutive trading day period after, and including, the first date such last reported sale price is available; and

 MP_0 = the average of the last reported sale prices of our Class A common stock over the valuation period.

The increase to the conversion rate under the preceding paragraph will occur at the close of business on the last trading day of the valuation period; *provided* that (x) in respect of any conversion of notes for which physical settlement is applicable, if the relevant conversion date occurs during the valuation period, the reference to "10" in the preceding paragraph shall be deemed replaced with such lesser number of trading days as have elapsed between the ex-dividend date for such spin-off and such conversion date in determining the conversion rate and (y) in respect of any conversion of notes for which cash settlement or combination settlement is applicable, for any trading day that falls within the relevant observation period for such conversion and within the valuation period, the reference to "10" in the preceding paragraph shall be deemed replaced with such lesser number of trading days as have elapsed between the ex-dividend

date for such spin-off and such trading day in determining the conversion rate as of such trading day of such observation period. If any dividend or distribution that constitutes a spin-off is declared but not so paid or made, the conversion rate shall be immediately decreased, effective as of the date our board of directors or a committee thereof determines not to pay or make such dividend or distribution, to the conversion rate that would then be in effect if such dividend or distribution had not been declared or announced.

(4) If we pay or make any cash dividend or distribution to all or substantially all holders of our Class A common stock, the conversion rate will be adjusted based on the following formula:

$$CR_1 = CR_0 \times \begin{array}{c} & \underline{SP_0} \\ & \underline{SP_0} \\ & C \end{array}$$

where,

CR₀ the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such dividend or distribution;

CR₁ the conversion rate in effect immediately after the open of business on the ex-dividend date for such dividend or distribution;

SP₀ the last reported sale price of our Class A common stock on the trading day immediately preceding the ex-dividend date for such dividend or distribution; and

C = the amount in cash per share we distribute to all or substantially all holders of our Class A common stock.

Any increase made under this clause (4) shall become effective immediately after the open of business on the ex-dividend date for such dividend or distribution. If such dividend or distribution is not so paid, the conversion rate shall be decreased, effective as of the date our board of directors or a committee thereof determines not to make or pay such dividend or distribution, to be the conversion rate that would then be in effect if such dividend or distribution had not been declared.

Notwithstanding the foregoing, if "C" (as defined above) is equal to or greater than " SP_0 " (as defined above), in lieu of the foregoing increase, each holder of a note shall receive, for each \$1,000 principal amount of notes it holds, at the same time and upon the same terms as holders of shares of our Class A common stock, the amount of cash that such holder would have received if such holder owned a number of shares of our Class A common stock equal to the conversion rate in effect on the ex-dividend date for such cash dividend or distribution.

(5) If we or any of our subsidiaries make a payment in respect of a tender or exchange offer for our Class A common stock that is subject to the then-applicable tender offer rules under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than an odd-lot tender offer pursuant to Rule 13e-4(h)(5) under the Exchange Act), to the extent that the cash and value of any other consideration included in the payment per share of Class A common stock exceeds the average of the last reported sale prices of our Class A common stock over the 10 consecutive trading day period commencing on, and including, the trading day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer, the conversion rate will be increased based on the following formula:

$$CR_1 = CR0 \times \underbrace{AC + (SP_1 \times OS_1)}_{OS_0 \times SP_1}$$

where,

- CR₀ the conversion rate in effect immediately prior to the close of business on the 10th trading day immediately following, and including, the trading day next succeeding the date such tender or exchange offer expires (the date such tender or exchange offer expires, the "expiration date");
- CR₁ the conversion rate in effect immediately after the close of business on the 10th trading day immediately following, and including, the trading day next succeeding the expiration date:
- AC = the aggregate value of all cash and any other consideration (as determined by our board of directors or a committee thereof) paid or payable for the shares of Class A common stock purchased in such tender or exchange offer;
- OS₀ the number of shares of our Class A common stock outstanding immediately prior to the expiration date (prior to giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer);
- OS₁ the number of shares of our Class A common stock outstanding immediately after the expiration date (after giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer); and
- SP₁ the average of the last reported sale prices of our Class A common stock over the 10 consecutive trading day period commencing on, and including, the trading day next succeeding the expiration date.

The increase to the conversion rate under the preceding paragraph will occur at the close of business on the 10th trading day immediately following, and including, the trading day next succeeding the date such tender or exchange offer expires; *provided* that (x) in respect of any conversion of notes for which physical settlement is applicable, if the relevant conversion date occurs during the 10 trading days immediately following, and including, the trading day next succeeding the expiration date of any tender or exchange offer, references to "10" or "10th" in the preceding paragraph shall be deemed replaced with such lesser number of trading days as have elapsed from, and including, the trading day next succeeding such expiration date of such tender or exchange offer to, and including, such conversion date in determining the conversion rate and (y) in respect of any conversion of notes for which cash settlement or combination settlement is applicable, for any trading day that falls within the relevant observation period for such conversion and within the 10 trading days immediately following, and including, the trading day next succeeding the expiration date of any tender or exchange offer, references to "10" or "10th" in the preceding paragraph shall be deemed replaced with such lesser number of trading days as have elapsed from, and including, the trading day next succeeding such expiration date of such tender or exchange offer and such trading day in determining the conversion rate as of such trading day.

In the event that we or one of our subsidiaries is obligated to purchase shares of our Class A common stock pursuant to any such tender offer or exchange offer, but we are, or such subsidiary is, permanently prevented by applicable law from consummating any such purchases, or all such purchases are rescinded, then the conversion rate shall be decreased to be the conversion rate that would then be in effect if such tender offer or exchange offer had not been made or had been made only in respect of the purchases that have been consummated.

Notwithstanding the foregoing, if a conversion rate adjustment becomes effective on any ex-dividend date as described above, and a holder that has converted its notes on or after such ex-dividend date and on or prior to the related record date would be treated as the record holder of shares of our Class A common stock as of the related conversion date as described under "—Settlement upon conversion" based on an adjusted conversion rate for such ex-dividend date, then, notwithstanding the foregoing conversion rate adjustment provisions, the

conversion rate adjustment relating to such ex-dividend date will not be made for such converting holder. Instead, such holder will be treated as if such holder were the record owner of the shares of our Class A common stock on an unadjusted basis and participate in the related dividend, distribution or other event giving rise to such adjustment.

As used in this section, "ex-dividend date" means the first date on which the shares of our Class A common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from us or, if applicable, from the seller of our Class A common stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market, and "effective date" means the first date on which the shares of our Class A common stock trade on the applicable exchange or in the applicable market, regular way, reflecting the relevant share split or share combination, as applicable.

As used in this section, "record date" means, with respect to any dividend, distribution or other transaction or event in which the holders of our Class A common stock (or other applicable security) have the right to receive any cash, securities or other property or in which our Class A common stock (or such other security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of holders of our Class A common stock (or such other security) entitled to receive such cash, securities or other property (whether such date is fixed by our board of directors or a duly authorized committee thereof, statute, contract or otherwise).

Subject to the applicable listing standards of The Nasdaq Global Select Market, we are permitted to increase the conversion rate of the notes by any amount for a period of at least 20 business days if our board of directors or a committee thereof determines that such increase would be in our best interest. Subject to the applicable listing standards of The Nasdaq Global Select Market, we may also (but are not required to) increase the conversion rate to avoid or diminish income tax to holders of our Class A common stock or rights to purchase shares of our Class A common stock in connection with a dividend or distribution of shares (or rights to acquire shares) or similar event.

A holder may, in some circumstances, including a distribution of cash dividends to holders of our shares of Class A common stock, be deemed to have received a distribution subject to U.S. federal income tax as a result of an adjustment or the nonoccurrence of an adjustment to the conversion rate. For a discussion of the U.S. federal income tax treatment of an adjustment to the conversion rate, see "Material U.S. federal income tax considerations."

If we have a rights plan in effect upon conversion of the notes into Class A common stock, you will receive, in addition to any shares of Class A common stock received in connection with such conversion, the rights under the rights plan. However, if, prior to any conversion, the rights have separated from the shares of Class A common stock in accordance with the provisions of the applicable rights plan, the conversion rate will be adjusted at the time of separation as if we distributed to all or substantially all holders of our Class A common stock, shares of our capital stock, evidences of indebtedness, assets, property, rights, options or warrants as described in clause (3) above, subject to readjustment in the event of the expiration, termination or redemption of such rights.

Except as stated herein, we will not adjust the conversion rate for the issuance of shares of our Class A common stock or any securities convertible into or exchangeable for shares of our Class A common stock or the right to purchase shares of our common stock or such convertible or exchangeable securities. For example, the conversion rate will not be adjusted:

 upon the issuance of any shares of our Class A common stock pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on our securities and the investment of additional optional amounts in shares of our Class A common stock under any plan;

- upon the issuance of any shares of our Class A common stock or options or rights to purchase those shares pursuant to any present or
 future employee, director or consultant benefit plan or program of or assumed by us or any of our subsidiaries (other than a rights plan as
 described above);
- upon the issuance of any shares of our Class A common stock pursuant to any option, warrant, right or exercisable, exchangeable or convertible security not described in the preceding bullet and outstanding as of the date the notes were first issued;
- upon the repurchase of any shares of our Class A common stock pursuant to an open-market share repurchase program or other buy-back transaction (including, without limitation, through any structured or derivative transactions such as accelerated share repurchase derivatives) that is not a tender offer or exchange offer of the nature described under clause (5) above;
- · solely for a change in the par value of our Class A common stock; or
- · for accrued and unpaid interest, if any.

If an adjustment to the conversion rate otherwise required by the provisions described above would result in a change of less than 1% to the conversion rate, then, notwithstanding the foregoing, we may, at our election, defer and carry forward such adjustment, except that all such deferred adjustments must be given effect immediately upon the earliest to occur of the following: (i) when all such deferred adjustments would result in an aggregate change of at least 1% to the conversion rate; (ii) the conversion date of (if physical settlement applies to such conversion), or each trading day of the applicable observation period for (if cash settlement or combination settlement applies to such conversion), any note; (iii) the date a fundamental change or make-whole fundamental change occurs; and (iv) December 1, 2023. The provisions described in the preceding sentence are referred to as the "1% provision."

Adjustments to the conversion rate will be calculated to the nearest 1/10,000th of a share.

Recapitalizations, reclassifications and changes of our Class A common stock

In the case of:

- any recapitalization, reclassification or change of our Class A common stock (other than changes in par value or resulting from a subdivision or combination),
- · any consolidation, merger or combination involving us,
- any sale, conveyance, transfer or lease of all or substantially all of our and our subsidiaries' consolidated property and assets, taken as a whole, to another person, or
- · any statutory share exchange,

in each case, as a result of which our Class A common stock would be converted into, or exchanged for, stock, other securities, other property or assets (including cash or any combination thereof) (any such event, a "share exchange event"), then, at the effective time of the share exchange event, we or the successor or acquiring corporation, as the case may be, will execute with the trustee a supplemental indenture, without the consent of holders, providing that at and after the effective time of the share exchange event, the right to convert each \$1,000 principal amount of notes will be changed into a right to convert such principal amount of notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Class A common stock equal to the conversion rate immediately prior to such share exchange event would have owned or been entitled to receive (the "reference").

property") upon such share exchange event. However, at and after the effective time of the share exchange event, (i) we or the successor or acquiring corporation, as the case may be, will continue to have the right to determine the form of consideration to be paid or delivered, as the case may be, upon conversion of notes, as set forth under "-Settlement upon conversion" and (ii)(x) any amount payable in cash upon conversion of the notes as set forth under "-Settlement upon conversion" will continue to be payable in cash, (y) any shares of our Class A common stock that we would have been required to deliver upon conversion of the notes as set forth under "-Settlement upon conversion" will instead be deliverable in the amount and type of reference property that a holder of that number of shares of our Class A common stock would have received in such share exchange event and (z) the daily VWAP will be calculated based on the value of a unit of reference property that a holder of one share of our Class A common stock would have received in such share exchange event. If the share exchange event causes our Class A common stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), the reference property into which the notes will be convertible will be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of our Class A common stock. If the holders of our Class A common stock receive only cash in such share exchange event, then for all conversions that occur after the effective date of such share exchange event (i) the consideration due upon conversion of each \$1,000 principal amount of notes shall be solely cash in an amount equal to the conversion rate in effect on the conversion date (as may be increased as described under "-Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period"), multiplied by the price paid per share of Class A common stock in such share exchange event and (ii) we will satisfy our conversion obligation by paying such cash amount to converting holders on the second business day immediately following the conversion date. We will notify in writing holders, the trustee and the conversion agent (if other than the trustee) of the weighted average of the types and amounts of consideration received by the holders of our Class A common stock as soon as practicable after such determination is made.

The supplemental indenture providing that the notes will be convertible into reference property will also provide for anti-dilution and other adjustments that are as nearly equivalent as possible to the adjustments described under "—Conversion rate adjustments" above. If the reference property in respect of any such share exchange event includes shares of stock, securities or other property or assets (other than cash or cash equivalents) of a company other than us or the successor or purchasing corporation, as the case may be, in such share exchange event, such other company will also execute such supplemental indenture, and such supplemental indenture will contain such additional provisions to protect the interests of the holders, including the right of holders to require us to repurchase their notes upon a fundamental change as described under "—Fundamental change permits holders to require us to repurchase notes" below, as the board of directors reasonably considers necessary by reason of the foregoing. We will agree in the indenture not to become a party to any such share exchange event unless its terms are consistent with the foregoing.

Adjustments of prices

Whenever any provision of the indenture requires us to calculate the last reported sale prices, the daily VWAPs, the daily conversion values or the daily settlement amounts over a span of multiple days (including, without limitation, an observation period and the period, if any, for determining the "stock price" for purposes of a make-whole fundamental change), our board of directors or a committee thereof will make appropriate adjustments to each to account for any adjustment to the conversion rate that becomes effective, or any event requiring an adjustment to the conversion rate where the ex-dividend date, effective date or expiration date of the event occurs, at any time during the period when the last reported sale prices, the daily VWAPs, the daily conversion values or the daily settlement amounts are to be calculated.

Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period

If (i) the "effective date" (as defined below) of a "fundamental change" (as defined below and determined after giving effect to any exceptions to or exclusions from such definition, but without regard to the proviso in clause (2) of the definition thereof, a "make-whole fundamental change") occurs prior to the maturity date of the notes, and a holder elects to convert its notes in connection with such make-whole fundamental change or (ii) we issue a notice of redemption as set forth under "—Optional redemption" and a holder elects to convert notes during the related redemption period, we will, under certain circumstances, increase the conversion rate for the notes so surrendered for conversion by a number of additional shares of Class A common stock (the "additional shares"), as described below. A conversion of notes will be deemed for these purposes to be "in connection with" such make-whole fundamental change if the relevant conversion date occurs during the period from, and including, the effective date of the make-whole fundamental change up to, and including, the close of business on the business day immediately prior to the related fundamental change repurchase date (or, in the case of a make-whole fundamental change that would have been a fundamental change but for the proviso in clause (2) of the definition thereof, the 35th trading day immediately following the effective date of such make-whole fundamental change) (such period, the "make-whole fundamental change period").

Upon surrender of notes for conversion in connection with a make-whole fundamental change or during a redemption period, we will, at our option, satisfy our conversion obligation by physical settlement, cash settlement or combination settlement, based on the conversion rate as increased to reflect the additional shares pursuant to the table set forth below, as described under "—Settlement upon conversion." However, if the consideration for our Class A common stock in any make-whole fundamental change described in clause (2) of the definition of fundamental change is composed entirely of cash, for any conversion of notes following the effective date of such make-whole fundamental change, the conversion obligation will be calculated based solely on the "stock price" (as defined below) for the transaction and will be deemed to be an amount of cash per \$1,000 principal amount of converted notes equal to the conversion rate (including any increase to reflect the additional shares as described in this section), multiplied by such stock price. In such event, the conversion obligation will be determined and paid to holders in cash on the second business day following the conversion date. We will notify in writing holders, the trustee and the conversion agent (if other than the trustee) of the effective date of any make-whole fundamental change no later than five business days after such effective date.

The number of additional shares, if any, by which the conversion rate will be increased will be determined by reference to the table below, based on the date on which the make-whole fundamental change occurs or becomes effective (the "effective date") or the redemption notice date, as applicable, and the price paid (or deemed to be paid) per share of our Class A common stock in the make-whole fundamental change or on the redemption notice date (the "stock price"). If the holders of our Class A common stock receive in exchange for their Class A common stock only cash in a make-whole fundamental change described in clause (2) of the definition of fundamental change, the stock price will be the cash amount paid per share. Otherwise, the stock price will be the average of the last reported sale prices of our Class A common stock over the five consecutive trading day period ending on, and including, the trading day immediately preceding the effective date of the make-whole fundamental change or the redemption notice date, as the case may be. In the event that a conversion during a redemption period would also be deemed to be in connection with a make-whole fundamental change, a holder of the notes to be converted will be entitled to a single increase to the conversion rate with respect to the first to occur of the applicable redemption notice date or the effective date of the applicable make-whole fundamental change, and the later event will be deemed not to have occurred for purposes of this section.

The stock prices set forth in the column headings of the table below will be adjusted as of any date on which the conversion rate for the notes is otherwise adjusted. The adjusted stock prices will equal the stock prices immediately prior to such adjustment, *multiplied* by a fraction, the numerator of which is the conversion rate immediately prior to the adjustment giving rise to the stock price adjustment and the denominator of which is the conversion rate as so adjusted. The number of additional shares as set forth in the table below will be adjusted in the same manner and at the same time as the conversion rate as set forth under "—Conversion rate adjustments."

The following table sets forth the number of additional shares by which the conversion rate will be increased per \$1,000 principal amount of notes for each stock price and effective date or redemption notice date, as applicable:

| | Stock price | | | | | | | | | | | | | |
|---------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|--|
| Effective date/redemption notice date | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | |
| June , 2019 | | | | | | | | | | | | | | |
| June 1, 2020 | | | | | | | | | | | | | | |
| June 1, 2021 | | | | | | | | | | | | | | |
| June 1, 2022 | | | | | | | | | | | | | | |
| June 1, 2023 | | | | | | | | | | | | | | |
| June 1, 2024 | | | | | | | | | | | | | | |

The exact stock prices and effective dates or redemption notice dates may not be set forth in the table above, in which case:

- If the stock price is between two stock prices in the table or the effective date or redemption notice date, as the case may be, is between two effective dates or redemption notice dates, as applicable, in the table, the number of additional shares by which the conversion rate will be increased will be determined by a straight-line interpolation between the number of additional shares set forth for the higher and lower stock prices and the earlier and later effective dates or redemption notice dates, as applicable, based on a 365-day year.
- If the stock price is greater than \$ per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.
- If the stock price is less than \$ per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.

Notwithstanding the foregoing, in no event will the conversion rate per \$1,000 principal amount of notes exceed shares of Class A common stock, subject to adjustment in the same manner as the conversion rate as set forth under "—Conversion rate adjustments."

Our obligation to increase the conversion rate for notes converted in connection with a make-whole fundamental change or during a redemption period could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness and equitable remedies.

Fundamental change permits holders to require us to repurchase notes

If a "fundamental change" (as defined below in this section) occurs at any time prior to the maturity date, holders will have the right, at their option, to require us to repurchase for cash all of their notes, or any portion

of the principal amount thereof that is equal to \$1,000 or an integral multiple of \$1,000. The fundamental change repurchase date will be a date specified by us that is not less than 20 or more than 35 business days following the date of our fundamental change notice as described below. The fundamental change repurchase date shall be subject to postponement in order to allow us to comply with applicable law as a result of changes to such applicable law occurring after the date of the indenture.

The fundamental change repurchase price we are required to pay will be equal to 100% of the principal amount of the notes to be repurchased, *plus* accrued and unpaid interest to, but excluding, the fundamental change repurchase date (unless the fundamental change repurchase date falls after a regular record date but on or prior to the interest payment date to which such regular record date relates, in which case we will instead pay the full amount of accrued and unpaid interest to the holder of record on such regular record date, and the fundamental change repurchase price will be equal to 100% of the principal amount of the notes to be repurchased).

A "fundamental change" will be deemed to have occurred at the time after the notes are originally issued if any of the following occurs:

- a "person" or "group" within the meaning of Section 13(d) of the Exchange Act, other than us, our direct or indirect wholly owned subsidiaries and our and their employee benefit plans, files a Schedule TO (or any successor schedule, form or report) or any schedule. form or report under the Exchange Act disclosing that such person or group has become the direct or indirect "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, of (i) our Class A common stock representing more than 50% of the voting power of our Class A common stock or (ii) our common equity representing more than 50% of the voting power of our common equity on an aggregate basis; provided that, for purposes of both clauses (i) and (ii), the voting power of our Class A common stock and our Class B common stock directly or indirectly "beneficially owned," as defined in Rule 13d-3 under the Exchange Act, by a Permitted Holder (as defined below) or any Permitted Transferee (as defined in our Certificate of Incorporation as in effect on the date of the indenture, a "Permitted Transferee") of such Permitted Holder will exclude (A) any shares of our Class A common stock and our Class B common stock directly or indirectly beneficially owned by such Permitted Holder (or any Permitted Transferee of such Permitted Holder) on the date of the indenture for so long as such shares of our Class A common stock or Class B common stock, as the case may be, are directly or indirectly beneficially owned by such Permitted Holder (or any Permitted Transferee of such Permitted Holder) and (B) any shares of our Class A common stock directly or indirectly beneficially owned by such Permitted Holder (or any Permitted Transferee of such Permitted Holder) that are acquired after the date of the indenture by such Permitted Holder (or any Permitted Transferee of such Permitted Holder) pursuant to equity grants (or the exercise or conversion thereof by such Permitted Holder (or any Permitted Transferee of such Permitted Holder)) outstanding on the date of the indenture or subsequently granted under one or more of our equity incentive plans:
- (2) the consummation of (A) any recapitalization, reclassification or change of our Class A common stock (other than changes resulting from a subdivision or combination or the conversion of our Class B common stock into Class A common stock in accordance with our Certificate of Incorporation as in effect on the date of the indenture) as a result of which our Class A common stock would be converted into, or exchanged for, stock, other securities, other property or assets; (B) any share exchange, consolidation or merger of us pursuant to which our Class A common stock will be converted into cash, securities or other property or assets; or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of us and our subsidiaries, taken as a whole, to any person other than one of our direct or indirect wholly owned subsidiaries; provided, however, that a transaction described in clause (B) in which the holders of all classes of our common equity immediately prior to such

transaction own, directly or indirectly, more than 50% of all classes of common equity of the continuing or surviving corporation or transferee or the parent thereof immediately after such transaction in substantially the same proportions as such ownership immediately prior to such transaction shall not be a fundamental change pursuant to this clause (2);

- (3) our stockholders approve any plan or proposal for the liquidation or dissolution of us; or
- (4) our Class A common stock (or other common stock underlying the notes) ceases to be listed or quoted on any of The New York Stock Exchange, The Nasdaq Global Select Market or The Nasdaq Global Market (or any of their respective successors).

A transaction or transactions described in clauses (1) or (2) above will not constitute a fundamental change, however, if at least 90% of the consideration received or to be received by our Class A common stockholders, excluding cash payments for fractional shares and cash payments made in respect of dissenters' statutory appraisal rights, in connection with such transaction or transactions consists of shares of common stock that are listed or quoted on any of The New York Stock Exchange, The Nasdaq Global Select Market or The Nasdaq Global Market (or any of their respective successors) or will be so listed or quoted when issued or exchanged in connection with such transaction or transactions and as a result of such transaction or transactions such consideration, excluding cash payments for fractional shares and cash payments made in respect of dissenters' statutory appraisal rights (subject to the provisions set forth above under "—Conversion rights—Settlement upon conversion") becomes reference property for the notes.

If any transaction in which our Class A common stock is replaced by the securities of another entity occurs, following completion of any related make-whole fundamental change period (or, in the case of a transaction that would have been a fundamental change or a make-whole fundamental change but for the immediately preceding paragraph, following the effective date of such transaction), references to us in the definition of "fundamental change" above shall instead be references to such other entity.

"Permitted Holders" means (a) James R. Scapa, our Co-Founder and our Chairman and Chief Executive Officer as of the date of the indenture, and (b) George J. Christ, our Co-Founder.

For purposes of the definition of "fundamental change" above, any transaction that constitutes a fundamental change pursuant to both clause (1) and clause (2) of such definition (without giving effect to the proviso to clause (2)) shall be deemed a fundamental change solely under clause (2) of such definition (subject to the proviso to clause (2)).

On or before the 20th day after the occurrence of a fundamental change, we will provide to all holders of the notes and the trustee and paying agent a written notice of the occurrence of the fundamental change and of the resulting repurchase right. Such notice shall state, among other things:

- the events causing a fundamental change;
- · the effective date of the fundamental change;
- the last date on which a holder may exercise the repurchase right;
- the fundamental change repurchase price;
- · the fundamental change repurchase date;
- the name and address of the paying agent and the conversion agent, if applicable;
- · if applicable, the conversion rate and any adjustments to the conversion rate;

- that the notes with respect to which a fundamental change repurchase notice has been delivered by a holder may be converted only if the
 holder validly withdraws the fundamental change repurchase notice in accordance with the terms of the indenture; and
- · the procedures that holders must follow to require us to repurchase their notes.

Simultaneously with providing such notice, we will publish the information on our website, through a press release, or through such other public medium as we may use at that time.

To exercise the fundamental change repurchase right, you must deliver, on or before the close of business on the business day immediately preceding the fundamental change repurchase date, the notes to be repurchased, duly endorsed for transfer, together with a written repurchase notice, to the paying agent. Each repurchase notice must state:

- if certificated, the certificate numbers of your notes to be delivered for repurchase;
- the portion of the principal amount of notes to be repurchased, which must be \$1,000 or a multiple thereof; and
- that the notes are to be repurchased by us pursuant to the applicable provisions of the notes and the indenture.

If the notes are not in certificated form, such repurchase notice must comply with appropriate DTC procedures.

Holders may withdraw any repurchase notice (in whole or in part) by a written notice of withdrawal delivered to the paying agent prior to the close of business on the business day immediately preceding the fundamental change repurchase date. The notice of withdrawal shall state:

- the principal amount of the withdrawn notes, which must be \$1,000 or an integral multiple thereof;
- if certificated notes have been issued, the certificate numbers of the withdrawn notes; and
- the principal amount, if any, which remains subject to the repurchase notice, which must be \$1,000 or an integral multiple thereof.

If the notes are not in certificated form, such notice of withdrawal must comply with appropriate DTC procedures.

We will be required to repurchase the notes on the fundamental change repurchase date. Holders who have exercised the repurchase right will receive payment of the fundamental change repurchase price on the later of (i) the fundamental change repurchase date and (ii) the time of book-entry transfer or the delivery of the notes. If the paying agent holds money sufficient to pay the fundamental change repurchase price of the notes on the fundamental change repurchase date, then, with respect to the notes that have been properly surrendered for repurchase and have not been validly withdrawn:

- the notes will cease to be outstanding and interest will cease to accrue (whether or not book-entry transfer of the notes is made or whether or not the notes are delivered to the paying agent); and
- all other rights of the holder will terminate (other than the right to receive the fundamental change repurchase price).

In connection with any repurchase offer pursuant to a fundamental change repurchase notice, we will, if required by applicable law:

• comply with the provisions of Rule 13e-4, Rule 14e-1 and any other tender offer rules under the Exchange Act that may then be applicable;

- · file a Schedule TO or any other required schedule under the Exchange Act; and
- otherwise comply in all material respects with all federal and state securities laws in connection with any offer by us to repurchase the notes;

in each case, so as to permit the rights and obligations under this "—Fundamental change permits holders to require us to repurchase notes" to be exercised in the time and in the manner specified in the indenture.

To the extent that, as a result of a change in laws or regulations occurring after the first date on which the notes are issued, the provisions of any securities laws conflict with the provisions of the indenture relating to our obligations to purchase the notes upon a fundamental change, we will comply with applicable securities laws and regulations and will not be deemed to have breached our obligations under such provisions of the indenture by virtue of such conflict.

No notes may be repurchased on any date at the option of holders upon a fundamental change if the principal amount of the notes has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a default by us in the payment of the fundamental change repurchase price with respect to such notes).

Notwithstanding anything to the contrary herein, we will not be required to repurchase, or to make an offer to repurchase, the notes upon a fundamental change if a third party makes such an offer in the same manner, at the same time and otherwise in compliance with the requirements for an offer made by us as set forth in the indenture, and such third party purchases all notes properly surrendered and not validly withdrawn under its offer in the same manner, at the same time and otherwise in compliance with the requirements for an offer made by us as set forth in the indenture.

The repurchase rights of the holders could discourage a potential acquirer of us. The fundamental change repurchase feature, however, is not the result of management's knowledge of any specific effort to obtain control of us by any means or part of a plan by management to adopt a series of anti-takeover provisions.

The term fundamental change is limited to specified transactions and may not include other events that might adversely affect our financial condition. In addition, the requirement that we offer to repurchase the notes upon a fundamental change may not protect holders in the event of a highly leveraged transaction, reorganization, merger or similar transaction involving us.

Furthermore, holders may not be entitled to require us to repurchase their notes or be entitled to an increase in the conversion rate upon conversion as described under "—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period" in circumstances involving a significant change in the composition of our board unless such change is in connection with a fundamental change or make-whole fundamental change as described herein.

The definition of fundamental change includes a phrase relating to the sale, lease or other transfer of "all or substantially all" of our consolidated assets. There is no precise, established definition of the phrase "substantially all" under applicable law. Accordingly, the ability of a holder of the notes to require us to repurchase its notes as a result of the sale, lease or other transfer of less than all of our assets may be uncertain.

If a fundamental change were to occur, we may not have enough funds to pay the fundamental change repurchase price. Our ability to repurchase the notes for cash may also be limited by restrictions on our ability to obtain funds for such repurchase through dividends from our subsidiaries, the terms of our then existing borrowing arrangements or otherwise. See "Risk factors—Risks related to the notes—We may not have the ability to raise the funds necessary to settle conversions of the notes in cash or to repurchase the notes upon a

fundamental change, and our current debt contains, and our future debt may contain, limitations on our ability to pay cash upon conversion or repurchase of the notes." If we fail to repurchase the notes when required following a fundamental change, we will be in default under the indenture. The occurrence of the fundamental change would likely constitute an event of default under our revolving credit agreement, which also restricts our ability to pay cash upon the occurrence of a fundamental change. In addition, we have, and may in the future incur, other indebtedness with similar change in control provisions permitting holders of such other indebtedness to accelerate that indebtedness or to require us to repurchase that indebtedness upon the occurrence of similar events or on some specific dates.

Consolidation, merger and sale of assets

The indenture will provide that we shall not consolidate with or merge with or into, or sell, convey, transfer or lease all or substantially all of our properties and assets to, another person, unless (i) the resulting, surviving or transferee person (if not us) is a corporation organized and existing under the laws of the United States of America, any State thereof or the District of Columbia, and such corporation (if not us) expressly assumes by supplemental indenture all of our obligations under the notes and the indenture; and (ii) immediately after giving effect to such transaction, no default or event of default has occurred and is continuing under the indenture. Upon any such consolidation, merger or sale, conveyance, transfer or lease, the resulting, surviving or transferee person (if not us) shall succeed to, and may exercise every right and power of, ours under the indenture, and we shall be discharged from our obligations under the notes and the indenture except in the case of any such lease.

Although these types of transactions will be permitted under the indenture, certain of the foregoing transactions could constitute a fundamental change permitting each holder to require us to repurchase the notes of such holder as described above.

For purposes of this covenant, the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of one or more of our subsidiaries to another person, which properties and assets, if held by us instead of such subsidiaries, would constitute all or substantially all of our properties and assets on a consolidated basis, shall be deemed to be the sale, conveyance, transfer or lease of all or substantially all of our properties and assets to another person.

This "—Consolidation, merger and sale of assets" section replaces the section of the accompanying prospectus under the heading "Description of Senior Debt Securities—Consolidation, merger or sale" in its entirety and Article 10 and Section 4.05 of the base indenture will not apply to the notes.

Events of default

Each of the following is an event of default with respect to the notes:

- (1) default in any payment of interest on any note when due and payable and the default continues for a period of 30 days;
- (2) default in the payment of principal of any note when due and payable at its stated maturity, upon optional redemption, upon any required repurchase, upon declaration of acceleration or otherwise;
- (3) our failure to comply with our obligation to convert the notes in accordance with the indenture upon exercise of a holder's conversion right, and such failure continues for five business days;
- (4) our failure to give a fundamental change notice as described under "—Fundamental change permits holders to require us to repurchase notes," notice of a make-whole fundamental change as described

under "—Increase in conversion rate upon conversion upon a make-whole fundamental change or during a redemption period" or notice of a specified distribution or specified corporate event as described under "—Conversion rights—Conversion upon specified corporate events," in each case when due;

- (5) our failure to comply with our obligations under "—Consolidation, merger and sale of assets";
- (6) our failure for 60 days, after we have received written notice from the trustee or the holders of at least 25% in aggregate principal amount of the notes then outstanding, to comply with any of our other agreements contained in the notes or the indenture;
- (7) default by us or any of our subsidiaries with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of \$25.0 million (or its foreign currency equivalent) in the aggregate of us and/or any such subsidiary, whether such indebtedness now exists or shall hereafter be created (i) resulting in such indebtedness becoming or being declared due and payable prior to its stated maturity or (ii) constituting a failure to pay the principal of any such indebtedness when due and payable (after the expiration of all applicable grace periods) at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise, if such acceleration shall not have been rescinded or annulled or such failure to pay or default shall not have been cured or waived, or such indebtedness shall not have been paid or discharged, as the case may be, within 30 days after written notice to us by the trustee, or to us and the trustee by holders of at least 25% in principal amount of the outstanding notes, has been received;
- (8) certain events of bankruptcy, insolvency, or reorganization of us or any of our significant subsidiaries (as defined below); or
- (9) a final judgment or judgments for the payment of \$25.0 million (or its foreign currency equivalent) or more (excluding any amounts covered by insurance) in the aggregate rendered against us or any of our significant subsidiaries, which judgment is not discharged, bonded, paid, waived or stayed within 60 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished.

For purposes of clauses (8) and (9), the term "significant subsidiary" has the meaning set forth in Article 1, Rule 1-02 of Regulation S-X promulgated by the SEC in effect as of the date of the indenture, provided that, in the case of a subsidiary that meets the criteria of clause (3) of the definition thereof but not clause (1) or (2) thereof, such subsidiary shall not be deemed to be a significant subsidiary unless the subsidiary's income or loss from continuing operations before income taxes, extraordinary items and cumulative effect of a change in accounting principle exclusive of amounts attributable to any noncontrolling interests for the last completed fiscal year prior to the date of such determination exceeds \$15 million.

If an event of default occurs and is continuing, the trustee by notice to us, or the holders of at least 25% in principal amount of the outstanding notes by written notice to us and the trustee, may declare 100% of the principal of and accrued and unpaid interest, if any, on all the notes to be due and payable. In case of certain events of bankruptcy, insolvency or reorganization involving us, 100% of the principal of and accrued and unpaid interest on the notes will automatically become due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately.

Notwithstanding the foregoing, the indenture will provide that, to the extent we elect, the sole remedy for an event of default relating to (i) our failure to file with the trustee pursuant to Section 314(a)(1) of the Trust Indenture Act any documents or reports that we are required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act or (ii) our failure to comply with our obligations as set forth under "— Reports" below, will,

after the occurrence of such an event of default, consist exclusively of the right to receive additional interest on the notes at a rate equal to: (i) 0.25% per annum of the principal amount of the notes outstanding for each day during the period beginning on, and including, the date on which such event of default first occurs and ending on the earlier of (x) the date on which such event of default is cured or validly waived in accordance with the indenture and (y) the 135th day immediately following, and including, the date on which such event of default has not been cured or validly waived prior to the 136th day immediately following, and including, the date on which such event of default first occurs, 0.50% per annum of the principal amount of notes outstanding for each day during the period beginning on, and including, the 136th day immediately following, and including, the date on which such event of default first occurs and ending on the earlier of (x) the date on which the event of default is cured or validly waived in accordance with the indenture and (y) the 270th day immediately following, and including, the date on which such event of default first occurs. In no event will the additional interest described in this paragraph accrue at a rate in excess of 0.25% per annum during the initial 135-day period or 0.50% per annum during the subsequent 135-day period pursuant to the indenture, regardless of the number of events or circumstances giving rise to the requirement to pay such additional interest.

If we so elect, such additional interest will be payable in the same manner and on the same dates as the stated interest payable on the notes and will accrue on all outstanding notes from, and including, the date on which such event of default first occurs to, and including, the 270th day thereafter (or such earlier date on which such event of default is cured or validly waived in accordance with the indenture). On the 271st day after such event of default (if such event of default is not cured or validly waived in accordance with the indenture prior to such 271st day), such additional interest will cease to accrue and the notes will be subject to acceleration as provided above. The provisions of the indenture described in this paragraph will not affect the rights of holders of any notes in the event of the occurrence of any other event of default. In the event we do not elect to pay the additional interest following an event of default in accordance with this paragraph or we have elected to make such payment but do not pay the additional interest when due, the notes will be immediately subject to acceleration as provided above.

In order to elect to pay the additional interest as the sole remedy during the first 270 days after the occurrence of an event of default relating to the failure to comply with the reporting obligations in accordance with the two immediately preceding paragraphs, we must notify all holders of notes, the trustee and the paying agent of such election prior to the beginning of such 270-day period. Upon our failure to timely give such notice, the notes will be immediately subject to acceleration as provided above.

If any portion of the amount payable on any note upon acceleration is considered by a court to be unearned interest, the court could disallow recovery of any such portion.

The holders of a majority in principal amount of the outstanding notes may waive all past defaults (except with respect to nonpayment of principal or interest, with respect to the failure to deliver the consideration due upon conversion or with respect to the breach of certain covenants specified in the indenture) and rescind any such acceleration with respect to the notes and its consequences if (i) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (ii) all existing events of default, other than the nonpayment of the principal of and interest on the notes that have become due solely by such declaration of acceleration, have been cured or waived.

Each holder shall have the right to receive payment or delivery, as the case may be, of:

- the principal (including the redemption price and the fundamental change repurchase price, if applicable) of;
- · accrued and unpaid interest, if any, on; and

· the consideration due upon conversion of,

its notes, on or after the respective due dates expressed or provided for in the indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, and such right to receive such payment or delivery, as the case may be, on or after such respective dates shall not be impaired or affected without the consent of such holder.

If an event of default occurs and is continuing, the trustee will be under no obligation to exercise any of the rights or powers under the indenture at the request or direction of any of the holders unless such holders have offered to the trustee indemnity or security satisfactory to it against any loss, liability or expense. Except to enforce the right to receive payment of principal or interest when due, or the right to receive payment or delivery of the consideration due upon conversion, no holder may pursue any remedy with respect to the indenture or the notes unless:

- (1) such holder has previously given the trustee written notice that an event of default is continuing;
- (2) holders of at least 25% in principal amount of the outstanding notes have requested the trustee to pursue the remedy;
- (3) such holders have offered the trustee security or indemnity satisfactory to it against any loss, liability or expense;
- (4) the trustee has not complied with such request within 60 days after the receipt of the request and the offer of such security or indemnity;
- (5) the holders of a majority in principal amount of the outstanding notes have not given the trustee a direction that, in the opinion of the trustee, is inconsistent with such request within such 60-day period.

Subject to certain restrictions, the holders of a majority in principal amount of the outstanding notes are given the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or of exercising any trust or power conferred on the trustee.

The indenture will provide that in the event an event of default has occurred and is continuing under such indenture, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. The trustee, however, may refuse to follow any direction that conflicts with law or the indenture or that the trustee determines is unduly prejudicial to the rights of any other holder or that would involve the trustee in personal liability. Prior to taking any action under the indenture, the trustee will be entitled to indemnification or security satisfactory to it against any loss, liability or expense caused by taking or not taking such action.

The indenture will provide that if a default occurs and is continuing and is actually known to the trustee, the trustee must deliver to each holder notice of the default within 90 days after it occurs. Except in the case of a default in the payment of principal of or interest on any note or a default in the payment or delivery of the consideration due upon conversion, the trustee may withhold notice if and so long as the trustee in good faith determines that withholding notice is in the interests of the holders. In addition, we are required to deliver to the trustee, within 120 days after the end of each fiscal year, a certificate indicating whether the signers thereof know of any default that occurred during the previous year. We are also required to deliver to the trustee, within 30 days after a responsible officer of our company obtains knowledge of the occurrence thereof, written notice of any events that would constitute a default under the indenture, their status and what action we are taking or proposing to take in respect thereof; provided that we are not required to deliver such notice if such default has been cured within the applicable grace period (if any) provided in the indenture.

Payments of the redemption price, the fundamental change repurchase price, principal and interest that are not made when due will accrue interest per annum at the then-applicable interest rate from the required payment date.

This "—Events of default" section replaces the section of the accompanying prospectus under the heading "Description of Senior Debt Securities—Events of default under the senior indenture" in its entirety.

Modification and amendment

Subject to certain exceptions, the indenture or the notes may be amended with the consent of the holders of at least a majority in principal amount of the notes then outstanding (including without limitation, consents obtained in connection with a repurchase of, or tender or exchange offer for, notes) and, subject to certain exceptions, any past default or compliance with any provisions may be waived with the consent of the holders of a majority in principal amount of the notes then outstanding (including, without limitation, consents obtained in connection with a repurchase of, or tender or exchange offer for, notes). However, without the consent of each holder of an outstanding note affected, no amendment may, among other things:

- (1) reduce the principal amount of notes whose holders must consent to an amendment, supplement or waiver;
- (2) reduce the rate of or extend the stated time for payment of interest on any note;
- (3) reduce the principal of or extend the stated maturity of any note;
- (4) make any change that adversely affects the conversion rights of any note other than as permitted or required by the indenture;
- (5) reduce the redemption price or the fundamental change repurchase price of any note or amend or modify in any manner adverse to the holders of notes our obligation to make such payments, whether through an amendment or waiver of provisions in the covenants, definitions or otherwise:
- (6) make any note payable in money, or at a place of payment, other than that stated in the note;
- (7) change the ranking of the notes;
- (8) impair the right of any holder to receive payment of principal and interest on such holder's notes on or after the due dates therefor or to institute suit for the enforcement of any payment on or with respect to such holder's notes; or
- (9) make any change in the amendment provisions that require each holder's consent or in the waiver provisions.

Without the consent of any holder, we and the trustee may amend the indenture or any note to:

- (1) cure any ambiguity, omission, defect or inconsistency;
- (2) provide for the assumption by a successor corporation of our obligations under the indenture;
- (3) add guarantees with respect to the notes;
- (4) secure the notes:
- (5) add to our covenants or events of default for the benefit of the holders or surrender any right or power conferred upon us under the indenture;

- (6) make any change that does not adversely affect the rights of any holder;
- (7) increase the conversion rate as provided in the indenture;
- (8) provide for the acceptance of appointment by a successor trustee or facilitate the administration of the trusts under the indenture by more than one trustee or paying agent;
- (9) irrevocably elect a settlement method or a specified dollar amount, or eliminate our right to elect a settlement method;
- (10) in connection with any share exchange event described under "—Conversion rights—Recapitalizations, reclassifications and changes of our Class A common stock" above, provide that the notes are convertible into reference property, subject to the provisions described under "—Conversion rights—Settlement upon conversion" above, and make certain related changes to the terms of the notes to the extent expressly required by the indenture:
- (11) comply with any requirement of the SEC in connection with the qualification of the indenture under the Trust Indenture Act; or
- (12) conform the provisions of the indenture to the "Description of notes" section in the preliminary prospectus supplement, as supplemented by the related pricing term sheet.

Holders do not need to approve the particular form of any proposed amendment. It will be sufficient if such holders approve the substance of the proposed amendment. After an amendment under the indenture becomes effective, we are required to deliver to the holders (with a copy to the trustee) a notice briefly describing such amendment. However, the failure to give such notice to all the holders, or any defect in the notice, will not impair or affect the validity of the amendment.

This "—Modification and amendment" section replaces the section of the accompanying prospectus under the heading "Description of Senior Debt Securities—Modification of indenture; waiver" in its entirety.

Discharge

We may satisfy and discharge our obligations under the indenture by delivering to the securities registrar for cancellation all outstanding notes or by depositing with the trustee or delivering to the holders, as applicable, after the notes have become due and payable, whether at maturity, at any redemption date, at any fundamental change repurchase date, upon conversion or otherwise, cash or cash and/or shares of Class A common stock, solely to satisfy outstanding conversions, as applicable, sufficient to pay all of the outstanding notes and paying all other sums payable under the indenture by us. Such discharge is subject to terms contained in the indenture.

This "—Discharge" section replaces the section of the accompanying prospectus under the heading "Description of Senior Debt Securities—Discharge" in its entirety.

Calculations in respect of notes

Except as otherwise provided above, we will be responsible for making all calculations called for under the notes. These calculations include, but are not limited to, determinations of the stock price, the last reported sale prices of our Class A common stock, the daily VWAPs, the daily conversion values, the daily settlement amounts, accrued interest payable on the notes and the conversion rate of the notes. We will make all these calculations in good faith and, absent manifest error, our calculations will be final and binding on holders of notes. We will provide a schedule of our calculations to each of the trustee and the conversion agent, and each

of the trustee and the conversion agent is entitled to rely conclusively upon the accuracy of our calculations without independent verification. The trustee will forward our calculations to any holder of notes upon the written request of that holder.

Reports

The indenture will provide that any documents or reports that we are required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act (excluding any such information, documents or reports, or portions thereof, subject to confidential treatment and any correspondence with the SEC) must be filed by us with the trustee within 15 days after the same are required to be filed with the SEC (giving effect to any grace period provided by Rule 12b-25 or any successor rule under the Exchange Act). Documents filed by us with the SEC via the EDGAR system (or any successor thereto) will be deemed to be filed with the trustee as of the time such documents are filed via the EDGAR system (or any successor thereto), it being understood that the trustee shall not be responsible for determining whether such filings have been made. Delivery of reports, information and documents to the trustee under the indenture is for informational purposes only and the information and the trustee's receipt of the foregoing shall not constitute constructive notice of any information contained therein, or determinable from information contained therein including our compliance with any of its covenants thereunder (as to which the trustee is entitled to rely exclusively on an officer's certificate).

Trustee

U.S. Bank National Association is the initial trustee, security registrar, paying agent and conversion agent for the notes. U.S. Bank National Association, in each of its capacities, including without limitation as trustee, security registrar, paying agent and conversion agent, assumes no responsibility for the accuracy or completeness of the information concerning us or our affiliates or any other party contained in this document or the related documents or for any failure by us or any other party to disclose events that may have occurred and may affect the significance or accuracy of such information.

Governing law

The indenture will provide that it and the notes, and any claim, controversy or dispute arising under or related to the indenture or the notes, will be governed by and construed in accordance with the laws of the State of New York.

Book-entry, settlement and clearance

The global notes

The notes will be initially issued in the form of one or more registered notes in global form, without interest coupons (the "global notes"). Upon issuance, each of the global notes will be deposited with the trustee as custodian for DTC and registered in the name of Cede & Co., as nominee of DTC.

Ownership of beneficial interests in a global note will be limited to persons who have accounts with DTC ("DTC participants") or persons who hold interests through DTC participants. We expect that under procedures established by DTC:

- upon deposit of a global note with DTC's custodian, DTC will credit portions of the principal amount of the global note to the accounts of the DTC participants designated by the underwriters; and
- ownership of beneficial interests in a global note will be shown on, and transfer of ownership of those interests will be effected only
 through, records maintained by DTC (with respect to interests of DTC

participants) and the records of DTC participants (with respect to other owners of beneficial interests in the global note).

Beneficial interests in global notes may not be exchanged for notes in physical, certificated form except in the limited circumstances described below.

Book-entry procedures for the global notes

All interests in the global notes will be subject to the operations and procedures of DTC and, therefore, you must allow for sufficient time in order to comply with these procedures if you wish to exercise any of your rights with respect to the notes. We provide the following summary of those operations and procedures solely for the convenience of investors. The operations and procedures of DTC are controlled by that settlement system and may be changed at any time. Neither we nor the underwriters nor the trustee are responsible for those operations or procedures.

DTC has advised us that it is:

- a limited purpose trust company organized under the laws of the State of New York;
- a "banking organization" within the meaning of the New York State Banking Law;
- · a member of the Federal Reserve System;
- · a "clearing corporation" within the meaning of the Uniform Commercial Code; and
- a "clearing agency" registered under Section 17A of the Exchange Act.

DTC was created to hold securities for its participants and to facilitate the clearance and settlement of securities transactions between its participants through electronic book-entry changes to the accounts of its participants. DTC's participants include securities brokers and dealers, including the underwriters; banks and trust companies; clearing corporations and other organizations. Indirect access to DTC's system is also available to others such as banks, brokers, dealers and trust companies; these indirect participants clear through or maintain a custodial relationship with a DTC participant, either directly or indirectly. Investors who are not DTC participants may beneficially own securities held by or on behalf of DTC only through DTC participants or indirect participants in DTC.

So long as DTC's nominee is the registered owner of a global note, that nominee will be considered the sole owner or holder of the notes represented by that global note for all purposes under the indenture. Except as provided below, owners of beneficial interests in a global note:

- will not be entitled to have notes represented by the global note registered in their names;
- · will not receive or be entitled to receive physical, certificated notes; and
- will not be considered the owners or holders of the notes under the indenture for any purpose, including with respect to the giving of any direction, instruction or approval to the trustee under the indenture.

As a result, each investor who owns a beneficial interest in a global note must rely on the procedures of DTC to exercise any rights of a holder of notes under the indenture (and, if the investor is not a participant or an indirect participant in DTC, on the procedures of the DTC participant through which the investor owns its interest).

Payments of principal and interest with respect to the notes represented by a global note will be made by the trustee to DTC's nominee as the registered holder of the global note. Neither we nor the trustee (including in its

capacity as paying agent) will have any responsibility or liability for the payment of amounts to owners of beneficial interests in a global note, for any aspect of the records relating to or payments made on account of those interests by DTC, or for maintaining, supervising or reviewing any records of DTC relating to those interests.

Payments by participants and indirect participants in DTC to the owners of beneficial interests in a global note will be governed by standing instructions and customary industry practice and will be the responsibility of those participants or indirect participants and DTC.

Transfers between participants in DTC will be effected under DTC's procedures and will be settled in same-day funds.

Certificated notes

Notes in physical, certificated form will be issued and delivered to each person that DTC identifies as a beneficial owner of the related notes only if:

- DTC notifies us at any time that it is unwilling or unable to continue as depositary for the global notes and a successor depositary is not appointed within 90 days;
- DTC ceases to be registered as a clearing agency under the Exchange Act and a successor depositary is not appointed within 90 days; or
- an event of default with respect to the notes has occurred and is continuing and such beneficial owner requests that its notes be issued in physical, certificated form.

Material U.S. federal income tax considerations

The following is a summary of the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of the notes and any Class A common stock received on conversion thereof, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon current provisions of the Internal Revenue Code, or Code, existing and proposed U.S. Treasury regulations promulgated thereunder, current administrative rulings, and judicial decisions, all as in effect as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal tax consequences different from those set forth below. We have not obtained, and do not intend to obtain, any opinion of counsel or ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any non-U.S., state or local jurisdiction or under any non-income tax laws, including U.S. federal gift and estate tax laws, except to the limited extent set forth below. In addition, this discussion does not address the potential application of the tax on net investment income or the alternative minimum tax, except to the limited extent set forth below. This discussion may not apply, in whole or in part, to particular beneficial owners in light of their individual circumstances or to beneficial owners subject to special treatment under the U.S. federal income tax laws, including, without limitation:

- insurance companies, banks or other financial institutions;
- tax-exempt organizations;
- pension plans;
- · controlled foreign corporations or passive foreign investment companies;
- · brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of tax accounting for their securities holdings;
- persons that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below);
- · certain former citizens or long-term residents of the United States;
- persons that hold our notes or any Class A common stock received on conversion thereof as a position in a hedging transaction, straddle, conversion transaction, synthetic security or other integrated investment; and
- persons required under Section 451(b) of the Code to conform to the timing of income accruals with respect to the notes or any Class A common stock received on conversion thereof to their financial statements.

In addition, this discussion is limited to persons who purchase the notes for cash at original issue and at their "issue price" (the first price at which a substantial amount of the notes is sold to the public for cash, excluding sales to bond houses, brokers or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers) and who hold the notes as capital assets within the meaning of Section 1221 of the Code.

For purposes of this discussion, a "U.S. holder" is a beneficial owner of a note or a share of Class A common stock received upon conversion of the note that is, for U.S. federal income tax purposes:

- · an individual citizen or resident of the United States;
- a corporation, or such other entity treated as a corporation, created or organized in the United States or under the laws of the United States or any political subdivision thereof;
- · an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust whose administration is subject to the primary supervision of a U.S. court and which has one or more "United States persons" (as defined in the Code) who have the authority to control all substantial decisions of the trust, or which has made a valid election to be treated as a United States person.

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of a note or share of Class A common stock received upon conversion of the note that is, for U.S. federal income tax purposes:

- · a nonresident alien individual;
- a corporation, or such other entity taxable as a corporation, created or organized in or under the law of a country (or a political subdivision thereof) other than the United States; or
- a foreign estate or trust, which generally is an estate or trust that is not a U.S. holder.

This discussion does not address the tax treatment of partnerships, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes. Generally, the tax treatment of a person treated as a partner in such an entity will depend on the status of the partner, the activities of the partner and the partnership, and certain determinations made at the partner level. Accordingly, partnerships that hold our notes or any Class A common stock received on conversion thereof, and partners in such partnerships, should consult their tax advisors.

U.S. holders

The following discussion is a summary of material U.S. federal income tax considerations applicable to a U.S. holder of our notes or shares of Class A common stock received on conversion.

Payment of Interest. Payments of stated interest on our notes generally will be taxable to a U.S. holder as ordinary income at the time that such payments are received or accrued, in accordance with such U.S. holder's method of accounting for U.S. federal income tax purposes.

This discussion assumes that the notes will be issued with less than a de minimis amount of original issue discount. If, however, the notes' principal amount exceeds the issue price by at least a de minimis amount, as determined under applicable U.S. Treasury regulations, a U.S. holder will be required to include such excess of principal amount over issue price in income as original issue discount, as it accrues, in accordance with a constant yield method based on a compounding of interest before the receipt of cash payments attributable to this income.

Additional interest. As described under the heading "Description of Notes—Events of Default," we may be required to pay additional interest on the notes in certain circumstances. We intend to take the position that the notes should not be treated as contingent payment debt instruments because of the anticipated remote possibility of such additional payments. Our determination that the notes are not contingent payment debt instruments, while not binding on the IRS, is binding on U.S. holders unless they disclose their contrary position

in the manner required by applicable U.S. Treasury regulations. Assuming such position is respected by the IRS, any additional interest paid to a U.S. holder would be taxable as additional ordinary income when received or accrued, in accordance with the U.S. holder's method of accounting for U.S. federal income tax purposes. However, the IRS may take a position contrary to our position, which could materially and adversely affect the timing and character of income with respect to the notes. In particular, if our notes were treated as contingent payment debt instruments, U.S. holders would be required to accrue interest income at a higher rate on the notes and to treat any gain recognized on the sale or other disposition of a note (including any gain realized on the conversion of a note) as ordinary income rather than as capital gain. The remainder of the discussion assumes that the notes are not treated as contingent payment debt instruments.

Sale, exchange, or other taxable disposition of notes, including a conversion of the notes for cash. A U.S. holder will generally recognize gain or loss upon the sale, exchange, or other taxable disposition of a note, including a conversion of the note into solely cash, equal to the difference between the amount realized upon the sale, exchange, or other taxable disposition (less an amount equal to any accrued but unpaid interest, which will be taxable as interest income as discussed above to the extent not previously included in income by the U.S. holder) and the U.S. holder's adjusted U.S. federal income tax basis in the note. A U.S. holder's adjusted tax basis in a note will generally be its cost for that note plus the amount, if any, included in income on an adjustment to the conversion rate of the notes. Any such gain or loss generally will be capital gain or loss. Capital gains of non-corporate U.S. holders (including individuals) derived in respect of capital assets held for more than one year currently are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations under the Code.

Conversion of notes into Class A common stock. A U.S. holder who receives solely stock and cash in lieu of a fractional share of stock upon conversion will generally not recognize any gain or loss, except to the extent of cash received in lieu of a fractional share, which will be taxable as a gain or loss as described below, and except to the extent of the fair market value of Class A common stock received with respect to accrued interest, which will be taxable as interest income as discussed above to the extent not previously included in income by the U.S. holder.

A U.S. holder's tax basis in the shares of our Class A common stock received upon a conversion (other than stock attributable to accrued interest, the tax basis of which will equal its fair market value) will equal the tax basis in the note that was converted (excluding the portion of the tax basis that is allocable to any fractional share). A U.S. holder's holding period for shares of our Class A common stock will generally include the period during which the U.S. holder held the notes, except that the holding period of any Class A common stock received with respect to accrued interest will commence on the day after the date of receipt.

The amount of gain or loss recognized on the receipt of cash in lieu of a fractional share will be equal to the difference between the amount of cash a U.S. holder receives in respect of the fractional share and the portion of the U.S. holder's tax basis in the note that is allocable to the fractional share. Any gain recognized on conversion generally will be capital gain and will be long-term capital gain if, at the time of the conversion, the note has been held for more than one year.

If a U.S. holder surrenders notes for conversion and such notes are exchanged with an entity other than us, including pursuant to the procedure described under "Description of notes—Exchange in lieu of conversion" the U.S. holder will be required to recognize gain or loss as described under "—Sale, exchange, or other Taxable disposition of notes, including a conversion of the notes for cash." In such case, the U.S. holder's adjusted tax basis in the Class A common stock received will equal the fair market value of the stock on the date of the exchange, and the U.S. holder's holding period in the Class A common stock received will begin on the day after the date of the exchange.

Conversion of notes into a combination of Class A common stock and cash. If a combination of cash and Class A common stock is received in exchange for a U.S. holder's notes upon conversion, we intend to take the position that the conversion should be treated as a recapitalization. In this case, gain, but not loss, will be recognized in an amount equal to the excess of the fair market value of the Class A common stock and cash received (other than amounts attributable to accrued interest, which will be taxable as interest income as discussed above to the extent not previously included in income by the U.S. holder) over the U.S. holder's tax basis in the note, but such gain will only be recognized to the extent of such cash received (excluding cash attributable to accrued interest or received in lieu of a fractional share).

The amount of gain or loss recognized on the receipt of cash in lieu of a fractional share will be equal to the difference between the amount of cash a U.S. holder receives in respect of the fractional share and the portion of the U.S. holder's tax basis in the note that is allocable to the fractional share.

Any gain recognized on conversion generally will be capital gain and will be long-term capital gain if, at the time of the conversion, the note has been held for more than one year.

The tax basis in the shares of our Class A common stock received upon a conversion (other than Class A common stock attributable to accrued interest, the tax basis of which will equal its fair market value, but including a fractional share deemed received) will equal the tax basis in the note that was converted (excluding the portion of the tax basis that is allocable to any fractional share), reduced by the amount of any cash received (other than cash received in lieu of a fractional share and cash attributable to accrued interest), and increased by the amount of gain, if any, recognized (other than with respect to a fractional share). A U.S. holder's holding period for shares of our Class A common stock will include the period during which the U.S. holder held the notes except that the holding period of any common stock received with respect to accrued interest will commence on the day after the date of receipt.

Alternative treatments of the conversion of the notes into cash and common stock are possible. For example, the conversion of a note into cash and common stock may instead be treated for U.S. federal income tax purposes as in part a conversion into stock and in part a payment in redemption of a portion of the note. U.S. holders should consult their tax advisors regarding the tax treatment of the receipt of cash and stock in exchange for notes upon conversion, including any alternative treatments.

If a U.S. holder surrenders notes for conversion and such notes are exchanged with an entity other than us, including pursuant to the procedure described under "Description of notes—Exchange in lieu of conversion" the U.S. holder will be required to recognize gain or loss as described under "—Sale, exchange, or other taxable disposition of notes, including a conversion of the notes for cash." In such case, the U.S. holder's adjusted tax basis in the Class A common stock received will equal the fair market value of the stock on the date of the exchange, and the U.S. holder's holding period in the Class A common stock received will begin on the day after the date of the exchange.

Constructive distribution. The conversion rate of our notes is subject to adjustment in certain circumstances. Under Section 305(c) of the Code, certain adjustments (or failures to make adjustments) in the conversion rate of our notes that have the effect of increasing a U.S. holder's proportionate interest in our assets or earnings may result in a constructive distribution for U.S. federal income tax purposes equal to the value of such increase even though such U.S. holder has not received any cash or property as a result of such adjustments. However, adjustments to the conversion rate made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interest of the holders of the notes will generally not be deemed to result in a constructive distribution. In addition, adjustments to the conversion rate of our notes that are not made in connection with other shareholders of the Company receiving a distribution of money or other property generally will not give rise to a constructive distribution.

Certain of the possible conversion rate adjustments provided in the notes (including, without limitation, upon the payments of cash distributions to holders of common stock or in connection with a make-whole fundamental change) will not qualify as being pursuant to a bona fide reasonable adjustment formula. If such adjustments are made, depending on the facts at the time, including whether we have paid in the past or will pay in the future distributions on our stock or interest on other convertible debt, a U.S. holder may be deemed to have received a distribution even though such U.S. holder has not received any cash or property because of such adjustments. Any constructive distribution would be taxable as a dividend, return of capital, or capital gain in accordance with rules regarding distributions on stock described below. It is not clear whether a constructive dividend deemed paid would be eligible for the preferential rates of U.S. federal income tax applicable to certain dividends paid to non-corporate beneficial owners. It is also not clear whether corporate beneficial owners would be entitled to claim the dividends-received deduction with respect to any such constructive dividends.

Class A common stock. As discussed in the section titled "Dividend Policy," we do not anticipate paying any cash dividends or making distributions of other property on our Class A common stock in the foreseeable future. However, if we do make distributions of cash or property on our Class A common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. For individual U.S. holders, such dividends currently are generally taxed at the lower applicable long-term capital gains rates, provided certain holding period and other requirements are satisfied. For corporate U.S. holders, dividends received may be eligible for the dividends-received deduction, subject to applicable limitations. To the extent distributions exceed both our current and our accumulated earnings and profits, the excess will constitute a return of capital and will first reduce a U.S. holder's tax basis in our Class A common stock, but not below zero, and then will be treated by a U.S. holder as gain from the sale of stock.

Upon the sale, exchange, or other taxable disposition of our Class A common stock, a U.S. holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon such taxable disposition and (ii) the U.S. holder's tax basis in the Class A common stock. Such capital gain or loss will be long-term capital gain or loss if a U.S. holder's holding period in the Class A common stock is more than one year at the time of the taxable disposition. Long-term capital gains recognized by certain non-corporate U.S. holders (including individuals) are generally subject to a reduced rate of U.S. federal income tax. The deductibility of capital losses is subject to certain limits under the Code.

Net investment income tax. Certain U.S. holders who are individuals, estates or trusts will be required to pay an additional 3.8% tax on, among other things, interest, dividends and capital gains from the sale, exchange, redemption, retirement or other taxable disposition of notes and our Class A common stock.

Information reporting and backup withholding. Information reporting requirements generally will apply to payments of interest on the notes, distributions on shares of common stock (including constructive distributions deemed paid) and to the proceeds of a sale of a note or shares of common stock received on conversion thereof unless a U.S. holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if a U.S. holder fails to provide its correct taxpayer identification number or certification of exempt status, or fails to report in full interest and dividend income. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment may be refunded or credited against a non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS. We are generally required to report any basis effects on the notes held by a U.S. holder of corporate actions we take, such as distributions to our stockholders. Proposed U.S. Treasury regulations, on which we may rely prior to the issuance of final regulations, specify how the date and amount of

constructive distributions are determined, and provide that our determination of those items will generally control the timing and amount of any constructive distributions (or portions thereof) a U.S. holder would be required to include in taxable income.

Non-U.S. holders

The following is a summary of the U. S. federal income tax considerations applicable to a non-U.S. holder (as defined above) of notes or shares of Class A common stock received on conversion thereof.

Payments of interest. Subject to the discussion below on effectively connected income, the gross amount of payments to a non-U.S. holder of interest that does not qualify for the portfolio interest exemption will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the interest or such lower rate as may be specified by an applicable income tax treaty. The 30% withholding tax will not apply to any payment to a non-U.S. holder of interest on a note under the "portfolio interest exemption" provided the interest is not considered contingent, as described in "—U.S. holders—additional interest" above, and the non-U.S. holder:

- does not actually (or constructively) own 10% or more of the total combined voting power of all classes of our stock entitled to vote within the meaning of the Code and applicable U.S. Treasury regulations;
- is not a "controlled foreign corporation" with respect to which we are a "related person," in each case, within the meaning of the Code; and
- either (1) properly certifies its non-U.S. status on an IRS Form W-8BEN or W-8BEN-E (or applicable successor form) or (2) holds a note through a financial institution or other agent acting on such non-U.S. holder's behalf that satisfies the certification requirements of applicable U.S. Treasury regulations.

Interest received by a non-U.S. holder that is effectively connected with such non-U.S. holder's conduct of a trade or business in the United States (and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by such non-U.S. holder in the United States) (for purposes of this discussion, "U.S. Trade or Business Income"), is generally exempt from the 30% withholding tax if certain certification and disclosure requirements are satisfied.

To claim the benefit of a tax treaty exemption from or reduction in withholding, or to claim exemption from withholding because the income is U.S. Trade or Business Income, a non-U.S. holder must provide us with a properly completed and executed IRS Form W-8BEN, W-8BEN-E or W-8ECI (or such successor forms as the IRS designates), as applicable. These forms must be periodically updated. A non-U.S. holder who is claiming the benefits of a treaty may be required in certain instances to obtain a U.S. taxpayer identification number and to provide certain documentary evidence issued by foreign governmental authorities to prove residence in the foreign country. If a non-U.S. holder holds our notes through a financial institution or other agent acting on such non-U.S. holder's behalf, appropriate documentation will need to be provided to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dividends and constructive dividends. Any dividends paid to a non-U.S. holder with respect to shares of our Class A common stock received on conversion of a note (and any deemed dividends resulting from certain adjustments, or failure to make adjustments, to the conversion rate including, without limitation, for cash dividends paid to holders of our common stock, see "—U.S. holders—constructive distribution" above) will be subject to withholding tax at a 30% rate (or lower applicable treaty rate). Because any constructive dividend a non-U.S. holder is deemed to receive would not give rise to any cash from which any applicable withholding tax could be satisfied, this tax would be withheld from any amount owed to the non-U.S. holder, including, but not limited to, interest payments, cash or shares of Class A common stock otherwise due on conversion, dividends

or sales proceeds subsequently paid or credited to the non-U.S. holder. Dividends and constructive dividends that constitute U.S. Trade or Business Income are not subject to the withholding tax, but instead are subject to U.S. federal income tax on a net-income basis at the same rates applicable to United States persons. Certain certification requirements and disclosure requirements must be complied with in order for U.S. Trade or Business Income to be exempt from withholding. Any such U.S. Trade or Business Income received by a corporate non-U.S. holder may, under certain circumstances, be subject to an additional branch profits tax at a 30% rate (or lower applicable treaty rate).

To receive a reduced treaty rate, a non-U.S. holder must provide us with an IRS Form W-8BEN or W-8BEN-E (or applicable successor form) and certify qualification for the reduced rate. If a non-U.S. holder is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, such non-U.S. holder may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. If a non-U.S. holder holds a note through a financial institution or other agent acting on such non-U.S. holder's behalf, appropriate documentation will need to be provided to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Sale, exchange, conversion or other disposition of notes or shares of Class A common stock. Subject to the discussion below under the headings ""—Information reporting and backup withholding" and "—Withholdable payments to foreign financial institutions and other foreign entities," a non-U.S. holder generally will not be required to pay U.S. federal income tax or withholding tax on any gain recognized upon the sale, exchange or other taxable disposition of our notes or shares of Class A common stock received on conversion thereof, including a conversion of notes into cash or into a combination of cash and Class A common stock. unless:

- such gain is U.S. Trade or Business Income (as defined above) in which case the non-U.S. holder will be required to pay tax on the net gain derived from the disposition at the rates and in the manner applicable to United States persons, and an additional branch profits tax at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty) may also apply to a corporate non-U.S. holder;
- such non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or
 more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case the non-U.S.
 holder will be required to pay a flat 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the gain derived
 from the sale or disposition, which gain may be offset by U.S.-source capital losses for the taxable year of the sale or disposition; or
- we are or have been a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding such non-U.S. holder's disposition of, or holding period for, our Class A common stock, in which case the non-U.S. holder generally will be taxed on the net gain derived from the sale or disposition at the rates applicable to United States persons.

An individual non-U.S. holder described in the first bullet point above will be subject to tax on the net gain derived from the sale, exchange, conversion or other taxable disposition under regular graduated U.S. federal income tax rates. An individual non-U.S. holder described in the second bullet point above will be subject to a flat 30% tax on the gain derived from the sale, exchange, conversion or other taxable disposition, which may be offset by U.S. source capital losses, even though such non-U.S. holder is not considered a resident of the United States. A corporate non-U.S. holder that falls under the first bullet point above will be subject to tax on any net gain in the same manner as if such non-U.S. holder was a "United States person," as defined under the Code and, in addition, may be subject to the branch profits tax equal to 30% of such non-U.S. holder's U.S. Trade or Business Income or at such lower rate as may be specified by an applicable income tax treaty.

We believe that we are not currently and will not become a USRPHC and the remainder of this discussion so assumes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our Class A common stock is regularly traded on an established securities market, such Class A common stock will be treated as U.S. real property interests only if a non-U.S. holder actually or constructively holds more than 5% of such regularly traded Class A common stock at any time during the shorter of the five-year period preceding such non-U.S. holder's disposition of, or holding period for, our Class A common stock. Non-U.S. holders should consult with tax advisors regarding any applicable income tax or other treaties that may provide for different rules.

Any Class A common stock that a non-U.S. holder receives on the sale, exchange, conversion or other disposition of a note that is attributable to accrued interest will not give rise to gain, as described above, but will instead generally be subject to the rules for taxation of interest described above under "—Payments of interest."

Information reporting and backup withholding. We (or the applicable paying agent) must report annually to the IRS the amount of interest and distributions paid (including constructive distributions deemed paid) on our notes and Class A common stock paid to non-U.S. holders and the amount of tax withheld, if any. A similar report will be sent to each non-U.S. holder. Copies of this information reporting may also be made available under the provisions of a specific income tax treaty or agreement with the tax authorities in a non-U.S. holder's country of residence.

We are generally required to report any basis effects on the notes held by a non-U.S. holder of corporate actions we take, such as distributions to our stockholders. Proposed U.S. Treasury regulations, on which we may rely prior to the issuance of final regulations, specify how the date and amount of constructive distributions are determined, and provide that our determination of those items will generally control the timing and amount of any constructive distributions (or portions thereof) a non-U.S. holder would be required to include in taxable income.

Non-U.S. holders will generally be subject to backup withholding (at a current rate of 24%) for interest or dividends paid to such non-U.S. holders unless an exemption is established such as by, for example, properly certifying non-U.S. status on an IRS Form W-8BEN or W-8BEN-E (or applicable successor form). Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that a holder is a United States person.

Information reporting and backup withholding generally are not required with respect to the amount of any proceeds from the sale or other disposition of our notes or Class A common stock by a non-U.S. holder outside the United States through a foreign office of a foreign broker that does not have certain specified connections to the United States. However, if a non-U.S. holder sells or otherwise disposes of notes or shares of Class A common stock through a U.S. broker or the U.S. offices of a foreign broker, the broker will generally be required to report the amount of proceeds paid to such non-U.S. holder to the IRS and also to backup withhold on that amount unless the broker is provided appropriate certification of status as a non-United States person or an exemption is otherwise established. Information reporting will also apply if a non-U.S. holder sells shares of Class A common stock through a foreign broker deriving more than a specified percentage of its income from U.S. sources or having certain other connections to the United States, unless such broker has documentary evidence in its records that such non-U.S. holder is a non-United States person and certain other conditions are met, or an exemption is otherwise established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment may be refunded or credited against a non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS. Non-U.S. holders should consult with tax advisors regarding the application of the information reporting and backup withholding rules to investment in our notes.

Withholdable payments to foreign financial institutions and other foreign entities. The Foreign Account Tax Compliance Act, or FATCA, imposes a U.S. federal withholding tax of 30% on certain payments to "foreign financial institutions" (as specifically defined under these rules) and certain other non-United States persons that fail to comply with certain information reporting and certification requirements pertaining to their direct and indirect U.S. securityholders and/or U.S. account holders. Such payments include interest and constructive dividends on the notes and dividends on our Class A common stock. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult with tax advisors regarding the possible implications of this legislation and any applicable intergovernmental agreements on investment in our notes.

Federal estate tax. Our Class A common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of their death will generally be includable in the decedent's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax unless an applicable estate tax treaty or other treaty provides otherwise. Investors are urged to consult with tax advisors regarding the U.S. federal estate tax consequences of the ownership or disposition of our Class A common stock.

THIS DISCUSSION IS NOT TAX ADVICE. BENEFICIAL OWNERS ARE URGED TO CONSULT WITH TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR NOTES OR ANY CLASS A COMMON STOCK RECEIVED ON CONVERSION THEREOF ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX RULES OR UNDER THE LAWS OF ANY STATE, LOCAL, NON-U.S. OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

Underwriting (conflicts of interest)

We are offering the notes described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC, Goldman Sachs & Co. LLC and RBC Capital Markets, LLC are acting as book-running managers of the offering, and J.P. Morgan Securities LLC is acting as representative of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the principal amount of the notes listed next to its name in the following table:

Name amount of notes

J.P. Morgan Securities LLC

Goldman Sachs & Co. LLC

RBC Capital Markets, LLC

Principal

Total \$ 175,000,000

The underwriters are committed to purchase all the notes offered by us if they purchase any notes. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the notes directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession of up to % of the principal amount. After the initial offering of the notes to the public, the offering price and other selling terms may be changed by the underwriters. Sales of notes made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to an additional \$26,250,000 principal amount of notes from us. The underwriters have 30 days from the date of this prospectus supplement to exercise this option to purchase additional notes. If any notes are purchased with this option to purchase additional notes, the underwriters will purchase notes in approximately the same proportion as shown in the table above. If any additional notes are purchased, the underwriters will offer the additional notes on the same terms as those on which the notes are being offered.

The underwriting fee is equal to the public offering price per note less the amount paid by the underwriters to us per note. The following table shows the underwriting discounts and commissions to be paid to the underwriters, assuming both no exercise and full exercise of the underwriters' option to purchase additional notes.

| | Without option to purchase additional notes exercise | With full option to purchase additional notes exercise |
|----------|---|---|
| Per note | \$ | \$ |
| Total | \$ | \$ |

We estimate that the total expenses of this offering, including registration, filing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$1.2 million.

We also have agreed to reimburse the underwriters for certain of their expenses, as set forth in the underwriting agreement, including an amount of up to \$30,000, that may be incurred in connection with the review by the Financial Industry Regulatory Authority, Inc. of the terms of the offering.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a certain principal amount of notes to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representative to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

New issue of notes

The notes are a new issue of securities, and there is currently no established trading market for such notes. We do not intend to apply for the notes to be listed on any securities exchange or to arrange for the notes to be quoted on any quotation system.

The underwriters have advised us that they intend to make a market in the notes, but they are not obligated to do so. The underwriters may discontinue any market-making in the notes at any time in their sole discretion without notice. Accordingly, we cannot assure you that a liquid trading market will develop for the notes. If an active trading market for the notes does not develop, the market price and liquidity of the notes may be adversely affected. If the notes are traded, they may trade at a discount from their initial public offering price depending on prevailing interest rates, the market for similar securities, our performance and other factors.

No sale of similar securities

We have agreed that we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our Class A common stock or Class B common stock, or securities convertible into or exchangeable or exercisable for any shares of our Class A common stock or Class B common stock, or publicly disclose the intention to undertake any of the foregoing, or (ii) enter into any swap or other agreement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC for a period of 60 days after the date of this prospectus supplement, other than: the notes to be sold hereunder or shares of our Class A common stock issued upon conversion of the notes sold hereunder; any shares of our common stock awarded, issued upon the exercise of options or purchase rights, or issued upon vesting of equity awards and/or settlement of other awards granted under our existing equity compensation plans; the grant of stock options, restricted stock awards, restricted stock units or any other awards under our existing equity compensation plans; the issuance of shares of our Class A common stock, in an amount not to exceed five percent of our outstanding securities, calculated as of the closing of this offering, in connection with business combinations and other comparable corporate transactions.

Our directors and executive officers have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 60 days after the date of this prospectus supplement, may not, without the prior written consent of J.P. Morgan Securities LLC, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or

dispose of, directly or indirectly, any shares of our Class A common stock or Class B common stock, or any securities convertible into or exercisable or exchangeable for our Class A common stock or Class B common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such directors and executive officers, in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), or publicly disclose the intention to undertake any of the foregoing, or (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or (3) make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Price stabilization and short positions; repurchase of notes or Class A common stock

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR".

In connection with the offering of the notes, the underwriters may engage in over-allotment, stabilizing transactions and syndicate covering transactions in the notes and shares of our Class A common stock. Over-allotment involves sales in excess of the offering size, which creates a short position for the underwriters. Stabilizing transactions involve bids to purchase the notes or shares of our Class A common stock in the open market for the purpose of pegging, fixing or maintaining the price of the notes. Syndicate covering transactions involve purchases of the notes or shares of our Class A common stock in the open market after the distribution has been completed in order to cover short positions. Stabilizing transactions and syndicate covering transactions may cause the price of the notes or our Class A common stock to be higher than it otherwise would be.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, as amended, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the notes, including the imposition of penalty bids. This means that if the representative of the underwriters purchases notes in the open market in stabilizing transactions or to cover short sales, the representative can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the notes and/or the Class A common stock or preventing or retarding a decline in the market price of the notes and/or the Class A common stock, and, as a result, the price of the notes and/or the Class A common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

Other relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. Affiliates of J.P. Morgan Securities LLC and RBC Capital Markets, LLC are lenders under our revolving credit facility and will receive more than 5% of the net

proceeds of this offering in connection with the repayment of outstanding loans under our revolving credit facility. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Conflicts of interest

The offering is being conducted in accordance with the applicable provisions of Rule 5121 of the FINRA Conduct Rules because certain of the underwriters will have a "conflict of interest" pursuant to Rule 5121(f)(5)(C)(i). Affiliates of J.P. Morgan Securities LLC and RBC Capital Markets, LLC will receive more than 5% of the net proceeds of this offering in connection with the repayment of outstanding loans under our revolving credit facility. See the section entitled "Use of proceeds." As such, any underwriter that has a conflict of interest pursuant to Rule 5121 will not confirm sales to accounts in which it exercises discretionary authority without the prior written consent of the customer. In accordance with Rule 5121, Goldman Sachs & Co. LLC has assumed the responsibilities of acting as a "qualified independent underwriter." In its role as a qualified independent underwriter, Goldman Sachs & Co. LLC has participated in the preparation of the registration statement and the prospectus and has exercised the usual standards of due diligence with respect thereto. We have agreed to indemnify Goldman Sachs & Co. LLC against certain liabilities incurred in connection with acting as a qualified independent underwriter, including liabilities under the Securities Act.

Selling restrictions

General

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

Canada

The notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a

misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European economic area

The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the "Insurance Mediation Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, the "Prospectus Directive"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPS Regulation. This prospectus supplement has been prepared on the basis that any offer of notes in any Member State of the EEA will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of notes. This prospectus supplement is not a prospectus for the purposes of the Prospectus Directive.

United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order"), and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons").

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as the basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Hong Kong

The notes have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the notes has been or may be issued or has been or may be in the possession of any

person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Japan

The notes have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the notes nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any "resident" of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re- offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor.

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except:

- (1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (2) where no consideration is or will be given for the transfer;
- (3) where the transfer is by operation of law;
- (4) as specified in Section 276(7) of the SFA; or
- (5) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Legal matters

Lowenstein Sandler LLP will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of Altair Engineering Inc. Certain legal matters will be passed upon for the underwriters by Goodwin Procter LLP.

Experts

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2018, and the effectiveness of our internal control over financial reporting as of December 31, 2018, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and our management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2018 are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing

The consolidated financial statements of Datawatch Corporation as of September 30, 2018 and 2017 and for each of the years in the two-year period ended September 30, 2018 incorporated in this prospectus by reference from Altair Engineering Inc.'s Current Report on Form 8-K/A filed on February 22, 2019, have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their reports thereon, incorporated herein by reference, and have been incorporated in this prospectus and registration statement in reliance upon such reports and upon the authority of such firm as experts in accounting and auditing.

Where you can find more information

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the notes offered by this prospectus supplement. This prospectus supplement, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. Our SEC filings, including the complete registration statement of which this prospectus supplement is a part, are available to the public from commercial document retrieval services and also available at the Internet website maintained by the SEC at http://www.sec.gov. You also may access these filings on our website at www.altair.com. We do not incorporate the information on our website into this prospectus supplement or the accompanying prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus supplement or the accompanying prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus supplement or the accompanying prospectus).

Incorporation of certain documents by reference

The SEC allows us to "incorporate by reference" into this prospectus supplement the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement, and information that

we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and all documents we file pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act on or after the date of this prospectus supplement and prior to the termination of the offering under this prospectus supplement (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 1, 2019.
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed with the SEC on May 9, 2019.
- Our Current Reports on Form 8-K, filed with the SEC on March 12, 2019, May 16, 2019 and June 4, 2019; and our Current Report on Form 8-K/A, filed with the SEC on February 22, 2019.
- Our <u>definitive Proxy Statement on Schedule 14A</u>, filed with the SEC on April 4, 2019 (solely with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2018).
- The description of our Class A common stock contained in our Registration Statement on <u>Form 8-A</u> (Registration No. 001-38263), filed with the SEC on October 27, 2017 pursuant to Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

We are not incorporating by reference any information furnished under items 2.02 or 7.01 (or corresponding information furnished under item 9.01 or included as an exhibit) in any past or future current report on Form 8-K that we may furnish to the SEC, unless otherwise specified in such current report. The documents listed above or subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act in each year during which the offering made pursuant to this prospectus supplement is in effect prior to the filing with the SEC of our Annual Report on Form 10-K covering such year shall cease to be incorporated by reference in this prospectus supplement from and after the filing of such Annual Report.

Any statement contained herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in any subsequently filed incorporated document modifies or supersedes such statement. Any statement contained in an incorporated document shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed incorporated document modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

This prospectus supplement is part of a registration statement on Form S-3 filed with the SEC under the Securities Act. This prospectus supplement does not contain all of the information set forth in the registration statement. You should read the registration statement for further information about us.

Documents incorporated by reference herein are available from us, without charge, excluding all exhibits unless specifically incorporated by reference in the documents. You may obtain documents incorporated by reference in this prospectus supplement by writing to us at the following address or by calling us at the telephone number listed below:

Altair Engineering Inc. 1820 E. Big Beaver Road Troy, Michigan 48083 (248) 614-2400 Attention: General Counsel

PROSPECTUS



Class A Common Stock Preferred Stock Senior Debt Securities Warrants Units

We may from time to time issue, in one or more series or classes, Class A common stock, preferred stock, senior debt securities, warrants and/or units. We may offer these securities separately or together in units. We will specify in the accompanying prospectus supplement the terms of the securities being offered. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents, and any fees, conversions or discount arrangements, in the accompanying prospectus supplement. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement.

In addition, certain selling securityholders to be identified in a prospectus supplement may use this prospectus from time to time to offer securities. Specific terms of these securities will be provided in supplements to this prospectus.

You should read this document and any prospectus supplement or amendment carefully before you invest in our securities.

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "ALTR." Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading "Risk Factors" contained in this prospectus beginning on page 4 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission ("SEC"), nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 4, 2019

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All references in this prospectus to "Altair," "the Company," "we," "us," "our" and similar terms refer to Altair Engineering Inc. and its subsidiaries, unless we state otherwise or the context otherwise requires.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a "shelf" registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference".

You should rely only on the information contained, or incorporated by reference, in this prospectus and any accompanying prospectus supplement, and any free writing prospectus we authorize for use in connection with the applicable offering. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information in this prospectus, any accompanying prospectus supplement, any document incorporated by reference herein or therein or any free writing prospectus we have authorized for use in connection with the applicable offering are accurate or complete only as of their respective dates, regardless of the time of delivery of this prospectus, the accompanying prospectus supplement and any authorized free writing prospectus. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus, as permitted by law, we "incorporate by reference" information from other documents that we file with the SEC. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus and any accompanying prospectus supplement and should be read with the same care. When we update the information contained in this prospectus or in documents that have been incorporated by reference herein by making future filings with the SEC that are incorporated by reference herein or through a related prospectus supplement, the information included or incorporated by reference in this prospectus is considered to be automatically updated and superseded. In other words, in case of a conflict or inconsistency between information contained in this prospectus and information in any accompanying prospectus supplement or incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed with the SEC later. See "Incorporation of Certain Documents by Reference" in this prospectus.

This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and any accompanying prospectus supplement, including the documents incorporated by reference into this prospectus and any accompanying prospectus supplement, and any free writing prospectus we authorize for use in connection with the applicable offering may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which are subject to risks and uncertainties. These forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as "may," "can," "anticipate," "assume," "should," "indicate," "would," "believe," "contemplate," "expect," "seek," "estimate," "continue," "plan," "point to," "project," "predict," "could," "intend," "target," "potential", the negative and plural of these words and other similar words and expressions of the future.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Such forward-looking statements included or incorporated by reference in this prospectus, any accompanying prospectus supplement or any applicable free writing prospectus are based on information available to us as of the date such statements were made and our then-current expectations about future events, which are inherently subject to change and involve risks and uncertainties. All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You should not place undue reliance on these forward-looking statements. Actual events or results may differ materially from those expressed or implied by these statements due to various factors, including but not limited to the factors discussed under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 and under the heading "Risk Factors" in this prospectus or any accompanying prospectus supplement.

We do not undertake any obligation to update any forward-looking statements included or incorporated by reference in this prospectus or any accompanying prospectus supplement or any applicable free writing prospectus, whether as a result of new information, future events, or otherwise, except as required by law. All such forward-looking statements should be read as of the time the statements were made and with the recognition that these forward-looking statements may not be complete or accurate at a later date. We have expressed our expectations, beliefs and projections in good faith and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

THE COMPANY

We are a global technology company providing software and cloud solutions in the areas of product design and development, high performance cloud computing, and data intelligence. We enable organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future.

Our simulation-driven approach to innovation is powered by our broad portfolio of high-fidelity and high-performance physics solvers. Our integrated suite of software optimizes design performance across multiple disciplines encompassing structures, motion, fluids, thermal management, electromagnetics, system modeling, and embedded systems, while also providing data intelligence and true-to-life visualization and rendering. Our high-performance cloud computing solutions maximize the efficient utilization of complex compute resources and streamline the workflow management of compute-intensive tasks for applications including data intelligence, modeling and simulation, and visualization. Our data intelligence products include market leading data preparation, data science and visualization solutions that fuel engineering, scientific, and business decisions.

Our software products represent a comprehensive, open architecture solution for simulation, data intelligence and cloud computing to empower decision making for improved product design and development, manufacturing, energy management and exploration, financial services, health care, and retail operations. We believe our products offer a comprehensive set of technologies to design and optimize high performance, efficient, innovative and sustainable products and processes in an increasingly connected world. Our products are categorized by:

- Design, Modeling & Visualization;
- Physics Simulation;
- Data Intelligence;
- High Performance Cloud Computing; and
- Internet of Things, or IoT.

We also provide client engineering services to support our customers with long-term ongoing expertise. This has the benefit of embedding us within customers, deepening our understanding of their processes, and allowing us to more quickly perceive trends in the overall market. Our presence at our customers' sites helps us to better tailor our software products' research and development and sales initiatives.

We were incorporated initially in Michigan in 1985 and reincorporated in Delaware in October 2017. Our principal executive offices are located at 1820 E. Big Beaver Road, Troy, Michigan 48083 and our telephone number is (248) 614-2400. Our website address is *www.altair.com*. Information contained on or accessible through our Internet website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our Internet website as part of this prospectus or in deciding whether to purchase the securities offered hereby.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus, any prospectus supplement and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in any prospectus supplement and in the documents incorporated herein by reference, including (i) our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which is on file with the SEC and is incorporated herein by reference, (ii) our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, which is on file with the SEC and is incorporated herein by reference and (iii) other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities as set forth in the applicable prospectus supplement. We will not receive any proceeds from sales of securities offered by any selling securityholders under this prospectus.

DESCRIPTION OF CAPITAL STOCK

General

The following is a summary of the rights of our Class A and Class B common stock and preferred stock and certain provisions of our certificate of incorporation and bylaws. This summary does not purport to be complete and is qualified in its entirety by the provisions of our certificate of incorporation and bylaws, copies of which are filed as exhibits to the registration statement of which this prospectus is a part.

Our authorized capital stock consists of 600,000,000 shares, with a par value of \$0.0001 per share, of which:

- 513,796,572 shares are designated as Class A common stock;
- 41,203,428 shares are designated as Class B common stock; and
- 45,000,000 shares are designated as preferred stock.

Our board of directors is authorized, without stockholder approval, except as required by the listing standards of the Nasdaq Global Select Market, to issue additional shares of our capital stock.

As of April 29, 2019, we had 39,107,990 shares of our Class A common stock and 32,105,738 shares of our Class B common outstanding and no shares of preferred stock outstanding. As of April 29, 2019, we had approximately 84 registered stockholders of record of our Class A common stock and four registered stockholders of record of our Class B common stock, and we believe a substantially greater number of beneficial owners who hold shares of Class A common stock through brokers, banks or other nominees.

Class A and Class B Common Stock

Voting rights

Holders of our Class A common stock and Class B common stock have identical rights, provided however that, except as otherwise expressly provided in our certificate of incorporation or required by applicable law, on any matter that is submitted to a vote of our stockholders, holders of Class A common stock are entitled to one vote per share of Class A common stock and holders of Class B common stock are entitled to 10 votes per share of Class B common stock. Holders of shares of Class A common stock and Class B common stock vote together as a single class on all matters (including the election of directors) submitted to a vote of stockholders, unless otherwise required by Delaware law or our certificate of incorporation. Delaware law could require either holders of our Class A common stock or Class B common stock to vote separately as a single class in the following circumstances:

- if we were to seek to amend our certificate of incorporation to increase or decrease the par value of a class of our capital stock, then that class would be required to vote separately to approve the proposed amendment; and
- if we were to seek to amend our certificate of incorporation in a manner that alters or changes the powers, preferences or special rights of a class of our capital stock in a manner that affected its holders adversely, then that class would be required to vote separately to approve the proposed amendment.

Under our certificate of incorporation, we may not issue any shares of Class B common stock, other than those shares issuable upon exercise of options, warrants, or similar rights to acquire Class B common stock outstanding immediately prior to the filing of the certificate of incorporation with the Secretary of State of the State of Delaware and in connection with stock dividends, unless that issuance is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

We have not provided for cumulative voting for the election of directors in our certificate of incorporation. Our certificate of incorporation and bylaws provide for a classified board of directors consisting of three classes of

approximately equal size, each class serving staggered three-year terms. Only one class will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

No preemptive or similar rights

Our classes of common stock are not entitled to preemptive rights and are not subject to conversion, redemption or sinking fund provisions.

Economic rights

Except as otherwise expressly provided in our certificate of incorporation or required by applicable law, shares of Class A common stock and Class B common stock have the same rights and privileges and rank equally, share ratably and are identical in all respects as to all matters, including, without limitation those described below.

Dividends and distributions

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of Class A common stock and Class B common stock are entitled to share equally, identically and ratably, on a per share basis, with respect to any dividend or distribution of cash, property or shares of our capital stock paid or distributed by us, unless different treatment of the shares of each such class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class. In the event a dividend or distribution is paid in the form of shares of Class A common stock or Class B common stock or rights to acquire shares of such stock, the holders of Class A common stock shall receive Class A common stock, or rights to acquire Class B common stock, as the case may be, and the holders of Class B common stock shall receive Class B common stock, or rights to acquire Class B common stock, as the case may be.

Liquidation rights

Upon our liquidation, dissolution or winding-up, the holders of Class A common stock and Class B common stock are entitled to share equally, identically and ratably in all assets remaining after the payment of any liabilities and the liquidation preferences and any accrued or declared but unpaid dividends, if any, with respect to any outstanding preferred stock, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Change of control transactions

Upon (A) the closing of the sale, transfer or other disposition of all or substantially all of our assets, (B) the consummation of a merger, consolidation, business combination or share transfer which results in our voting securities outstanding immediately prior to the transaction (or the voting securities issued with respect to our voting securities outstanding immediately prior to the transaction) representing less than a majority of the combined voting power of our voting securities or the voting securities of the surviving or acquiring entity, (C) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons of securities of the Company if, after closing, the transferee person or group would hold 50% or more of our outstanding voting stock (or the outstanding voting stock of the surviving or acquiring entity), (D) any voluntary or involuntary recapitalization, liquidation, dissolution or winding-up, or (E) the issuance by us of voting securities representing more than 2% of our total voting power to a person who held 50% or less of our total voting power immediately prior to such transaction and who following such transaction holds more than 50% of our total voting power, the holders of Class A common stock and Class B common stock will be treated equally and identically with respect to shares of

Class A common stock or Class B common stock owned by them, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Subdivisions and combinations

If we subdivide or combine in any manner outstanding shares of Class A common stock or Class B common stock, the outstanding shares of the other class will be subdivided or combined in the same manner, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting as a separate class.

Conversion

Each share of our Class B common stock is automatically convertible into one share of our Class A common stock pursuant to the terms of our certificate of incorporation upon the occurrence of certain events. With respect to all beneficial owners, as defined in our certificate of incorporation, of Class B common stock, each share of Class B common stock will convert automatically into one share of Class A common stock (i) upon the date specified by affirmative vote of the holders of at least 66-2/3% of the outstanding shares of Class B common stock, (ii) if the executive holder, as defined in our certificate of incorporation, is neither (x) an executive officer of the company nor (y) a director of the company, (iii) upon the date on which the executive holder has beneficial ownership of less than 10% of the capital stock of the company, or (iv) upon the 12 year anniversary of the date of filing of our certificate of incorporation in connection with our initial public offering.

With respect to each individual beneficial owner of Class B common stock, each share of Class B common stock held by a beneficial owner will convert automatically into one share of Class A common stock (i) at any time at the option of such owner, (ii) upon any transfer, whether or not for value, except for certain transfers described in our certificate of incorporation, including, without limitation, transfers from a founder, as defined in our certificate, to another founder, or certain permitted transferees, or (iii) in the event any beneficial owner owns shares of Class B common stock constituting less than 3% of the outstanding shares of Class B common stock.

Each share of Class B common stock held by all beneficial owners of Class B common stock, except the executive holder, will convert automatically into one share of Class A common stock in the event the key holders, as defined in our certificate of incorporation, beneficially own, in the aggregate, more shares of Class B common stock than the executive holder, in which event the only holder of Class B common stock will be the executive holder.

In addition, upon the death or incapacity of a beneficial owner of Class B common stock, other than the executive holder, each share of Class B common stock held by such beneficial owner will convert automatically into one share of Class A common stock, immediately upon such death or incapacity, except, with respect to the key holders, such automatic conversion will occur on the date which is nine (9) months after the date of such death or incapacity. Upon the death or incapacity of the executive holder, each share of Class B common stock held by all beneficial owners of Class B common stock will convert automatically into one share of Class A common stock on the date which is nine (9) months after the date of such death or incapacity.

Preferred stock

Pursuant to our certificate of incorporation, our board of directors has the authority, without further action by the stockholders, to issue from time to time up to 45,000,000 shares of preferred stock in one or more series. Our board of directors may designate the rights, preferences, privileges and restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, redemption rights, liquidation preference, sinking fund terms and the number of shares constituting any series or the designation of any series. The issuance of preferred stock could have the effect of restricting dividends on the Class A and Class B common stock, diluting the voting

power of the Class A and Class B common stock, impairing the liquidation rights of the Class A and Class B common stock or delaying, deterring or preventing a change in control. Such issuance could have the effect of decreasing the market price of the Class A and Class B common stock. We currently have no plans to issue any shares of preferred stock.

Anti-takeover effects of Delaware law and our certificate of incorporation and bylaws

Our certificate of incorporation and bylaws contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, could discourage takeovers, coercive or otherwise. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

Dual class stock. As described above under the heading "Description of capital stock—Class A and Class B common stock—Voting rights," our certificate of incorporation provides for a dual class common stock structure, which provides our founders and certain others with significant influence over all matters requiring stockholder approval, including the election of directors and significant corporate transactions, such as a merger or other sale of our company or its assets.

Issuance of undesignated preferred stock. As discussed above under the heading "Description of capital stock—Preferred stock," our board of directors has the ability to designate and issue preferred stock with voting or other rights or preferences that could deter hostile takeovers or delay changes in our control or management.

Limits on ability of stockholders to act by written consent or call a special meeting. Our certificate of incorporation provides that our stockholders may not act by written consent. This limit on the ability of stockholders to act by written consent may lengthen the amount of time required to take stockholder actions. As a result, the holders of a majority of our capital stock would not be able to amend the bylaws or remove directors without holding a meeting of stockholders called in accordance with the bylaws.

In addition, our bylaws provide that special meetings of the stockholders may be called only by the chairman of our board of directors, the chief executive officer, the president (in the absence of a chief executive officer) or a majority of our board of directors. A stockholder may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for advance notification of stockholder nominations and proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of the board of directors. These advance notice procedures may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed and may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempt to obtain control of our company.

Board classification. Our certificate of incorporation provides that our board of directors is divided into three classes, one class of which is elected each year by our stockholders. The directors in each class serve for a three-year term. Our classified board of directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us because it generally makes it more difficult for stockholders to replace a majority of the directors.

Election and removal of directors. Our certificate of incorporation and bylaws contain provisions that establish specific procedures for appointing and removing members of our board of directors. Under our certificate of

incorporation and bylaws, vacancies and newly created directorships on our board of directors may be filled only by a majority of the directors then serving on our board of directors. Under our certificate of incorporation and bylaws, directors may be removed only for cause.

No cumulative voting. The Delaware General Corporation Law provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless our certificate of incorporation provides otherwise. Our certificate of incorporation and bylaws do not expressly provide for cumulative voting. Without cumulative voting, a minority stockholder may not be able to gain as many seats on our board of directors as the stockholder would be able to gain if cumulative voting were permitted. The absence of cumulative voting makes it more difficult for a minority stockholder to gain a seat on our board of directors to influence our board of directors' decision regarding a takeover.

Amendment of charter provision. Any amendment of the above provisions in our certificate of incorporation would require approval by holders of at least two-thirds of our then outstanding Class A and Class B common stock, voting together as a single class.

Delaware anti-takeover statute. We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage attempts that might result in a premium over the market price for the shares of Class A common stock held by stockholders.

The provisions of Delaware law and the provisions of our certificate of incorporation and bylaws could have the effect of discouraging others from attempting hostile takeovers and as a consequence, they might also inhibit temporary fluctuations in the market price of our Class A common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is also possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Choice of forum

Our bylaws provide that, subject to limited exceptions, a state or federal court located within the State of Delaware will be the sole and exclusive forums for any derivative action or proceeding brought on our behalf, 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, any action asserting a claim against us or any of our directors, officers, or employees arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws, or certain other actions asserting a claim against us or our directors, officers, or employees relating to our internal affairs.

DESCRIPTION OF SENIOR DEBT SECURITIES

We may issue senior debt securities, including senior convertible debt, in one or more series. While the terms we have summarized below will apply generally to any future senior debt securities we may offer under this prospectus, the applicable prospectus supplement or free writing prospectus will describe the specific terms of any senior debt securities offered through that prospectus supplement or free writing prospectus. The terms of any senior debt securities we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below.

We will evidence each series of senior debt securities we will issue by a senior indenture that we enter into with a trustee. We will indicate the name and address of the trustee in the prospectus supplement relating to the particular series of senior debt securities being offered. We have filed a form of senior indenture as an exhibit to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of senior debt securities containing the terms of the senior debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC. Unless the context requires otherwise, whenever we refer to the "indenture," we also are referring to any supplemental indentures that specify the terms of a particular series of senior debt securities.

The senior indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term "trustee" to refer to the trustee under the senior indenture.

The following summaries of material provisions of the senior debt securities and the senior indenture are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of senior debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the senior debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the senior debt securities.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of senior debt securities being offered, including:

- the title;
- · the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of senior debt securities in global form, and, if so, the terms and who the depository will be;
- · the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any senior debt securities held by a person who is not a
 United States person for tax purposes, and whether we can redeem the senior debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- · whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;

- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of senior debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of senior debt securities and the currency or currency unit in which the senior debt securities are payable;
- whether the senior indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios:
- a discussion of certain material or special United States federal income tax considerations applicable to the senior debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the senior debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of senior debt securities, if other than minimum denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of senior debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the senior debt securities, including any additional events of
 default or covenants provided with respect to the senior debt securities, and any terms that may be required by us or advisable under
 applicable laws or regulations or advisable in connection with the marketing of the senior debt securities.

Conversion or exchange rights

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of senior debt securities may be convertible into or exchangeable for our Class A common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our Class A common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of senior debt securities receive would be subject to adjustment.

Consolidation, merger or sale

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the senior indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the senior indenture or the senior debt securities, as appropriate. If the senior debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the senior debt securities into securities that the holders of the senior debt securities would have received if they had converted the senior debt securities before the consolidation, merger or sale.

Events of default under the senior indenture

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the following are events of default under the senior indenture with respect to any series of senior debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the senior debt securities or the senior indenture, other than a covenant specifically relating to another series of senior debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of senior debt securities.

If an event of default with respect to senior debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of senior debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding senior debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

If an event of default under the senior indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under the senior indenture at the request or direction of any of the holders of the applicable series of senior debt securities, unless such holders have offered the trustee indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding senior debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the senior debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the senior indenture; and
- the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the senior debt securities of any series will have the right to institute a proceeding under the senior indenture or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the trustee of a continuing event of default with respect to that series;

- the holders of at least 25% in aggregate principal amount of the outstanding senior debt securities of that series have made written request, and such holders have offered indemnity to the trustee or security reasonably satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding senior debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of senior debt securities if we default in the payment of the principal, premium, if any, or interest on, the senior debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the senior indenture.

Modification of indenture; waiver

Subject to the terms of the indenture for any series of senior debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- · to comply with the provisions described above under "Description of Senior Debt Securities—Consolidation, Merger or Sale;"
- · to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of senior debt securities, as set forth in the indenture;
- to provide for the issuance of and establish the form and terms and conditions of the senior debt securities of any series as provided under "Description of Senior Debt Securities—General," to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of senior debt securities, or to add to the rights of the holders of any series of senior debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated senior debt securities and to make all appropriate changes for such purpose;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not materially adversely affect the interests of any holder of senior debt securities of any series.

In addition, under the senior indenture, the rights of holders of a series of senior debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding senior debt securities of each series that is affected. However, subject to the terms of the indenture for any series of senior debt securities that we may issue or as otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, we and the trustee

may make the following changes only with the consent of each holder of any outstanding senior debt securities affected:

- extending the stated maturity of the series of senior debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any senior debt securities; or
- reducing the percentage of senior debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

The senior indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, we can elect to be discharged from our obligations with respect to one or more series of senior debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of senior debt securities of the series;
- replace stolen, lost or mutilated senior debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- · recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- · appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the senior debt securities of the series on the dates payments are due.

Form, exchange and transfer

We will issue the senior debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in minimum denominations of \$1,000 and any integral multiple thereof. The senior indenture provide that we may issue senior debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

At the option of the holder, subject to the terms of the senior indenture and the limitations applicable to global securities described in the applicable prospectus supplement or free writing prospectus, the holder of the senior debt securities of any series can exchange the senior debt securities for other senior debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the senior indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement or free writing prospectus, holders of the senior debt securities may present the senior debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the senior debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement or free writing prospectus the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any senior debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the senior debt securities of each series.

If we elect to redeem the senior debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any senior debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any senior debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any senior debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any senior debt securities we are redeeming in part.

Information concerning the trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the senior indenture. Upon an event of default under the indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the senior indenture at the request of any holder of senior debt securities unless it is offered security and indemnity satisfactory to it against the costs, expenses and liabilities that it might incur.

Payment and paying agents

Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make payment of the interest on any senior debt securities on any interest payment date to the person in whose name the senior debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the senior debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to senior debt securities of each series. We will name in the applicable prospectus supplement or free writing prospectus any other paying agents that we initially designate for the senior debt securities of a particular series. We will maintain a paying agent in each place of payment for the senior debt securities of a particular series.

Subject to applicable abandoned property laws, all money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any senior debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing law

The senior indenture and the senior debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of senior debt securities

The senior debt securities will rank equally in right of payment to all our other senior debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF OTHER SECURITIES

We will set forth in the applicable prospectus supplement a description of any warrants or units issued by us that may be offered and sold pursuant to this prospectus.

GLOBAL SECURITIES

Book-entry, delivery and form

Unless we indicate differently in a prospectus supplement, the securities initially will be issued in book-entry form and represented by one or more global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depositary, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depositary to its nominee or by the nominee to the depositary, or by the depositary or its nominee to a successor depositary or to a nominee of the successor depositary.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a "banking organization" within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- · a "clearing corporation" within the meaning of the New York Uniform Commercial Code; and
- a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended, or Exchange
 Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants' accounts, thereby eliminating the need for physical movement of securities certificates. "Direct participants" in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC's records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants' records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC's records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depositary and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depositary or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depositary with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depositary is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depositary for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depositary is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;
- · we determine, in our sole discretion, not to have such securities represented by one or more global securities; or
- · an Event of Default has occurred and is continuing with respect to such series of securities,

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depositary directs. It is expected that these directions will be based upon directions received by the depositary from its participants with respect to ownership of beneficial interests in the global securities.

We have obtained the information in this section and elsewhere in this prospectus concerning DTC and DTC's book-entry system from sources that are believed to be reliable, but we take no responsibility for the accuracy of this information.

SELLING SECURITYHOLDERS

Information about selling securityholders, where applicable, will be set forth in a prospectus supplement, in a post-effective amendment or in filings we make with the SEC under the Exchange Act that are incorporated by reference.

PLAN OF DISTRIBUTION

We or any selling securityholders may offer and sell the securities being offered hereby in one or more of the following ways from time to time:

- to or through underwriters;
- · on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- · in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- · through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- · ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal
 to facilitate the transaction:
- · purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- · broker-dealers may agree with a selling securityholder to sell a specified number of securities at a stipulated price per security;
- · a combination of any such methods of sale; and
- · any other method permitted pursuant to applicable law.

We will identify the specific plan of distribution, including any underwriters, dealers, agents, or other purchasers, persons, or entities and any applicable compensation, in a prospectus supplement, in an amendment to the registration statement of which this prospectus is a part, or in other filings we make with the SEC under the Exchange Act, which are incorporated by reference.

LEGAL MATTERS

Lowenstein Sandler LLP will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of Altair Engineering Inc. Additional legal matters may be passed upon for us, any selling securityholders or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2018, and the effectiveness of our internal control over financial reporting as of December 31, 2018, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and our management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2018 are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

The consolidated financial statements of Datawatch Corporation as of September 30, 2018 and 2017 and for each of the years in the two-year period ended September 30, 2018 incorporated in this Prospectus by reference from Altair Engineering Inc.'s Current Report on Form 8-K/A filed on February 22, 2019, have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their reports thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such reports and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed our registration statement on Form S-3 with the SEC under the Securities Act. We also file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings, including the registration statement and the exhibits to the registration statement, are available to the public at the SEC's web site at www.sec.gov. These documents may also be accessed on our website at www.altair.com. Information contained on our website is not incorporated by reference into this prospectus and you should not consider information contained on our web site to be part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us as indicated above. Forms of any indenture or other documents establishing the terms of the offered securities are filed as exhibits to the registration statement or will be filed through an amendment to our registration statement on Form S-3 or under cover of a Current Report on Form 8-K and incorporated in this prospectus by reference. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and all documents we file pursuant to Section 13(a), 13(c), 14, or 15(d) of the Exchange Act on or after the date of this prospectus and prior to the termination of the offering under this prospectus (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

• Our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 1, 2019.

- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed with the SEC on May 9, 2019.
- Our Current Reports on Form 8-K, filed with the SEC on March 12, 2019, May 16, 2019 and June 4, 2019; and our Current Report on Form 8-K/A, filed with the SEC on February 22, 2019.
- Our <u>definitive Proxy Statement on Schedule 14A</u>, filed with the SEC on April 4, 2019 (solely with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2018).
- The description of our Class A common stock contained in our Registration Statement on Form 8-A (Registration No. 001-38263), filed with the SEC on October 27, 2017 pursuant to Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

We are not incorporating by reference any information furnished under items 2.02 or 7.01 (or corresponding information furnished under item 9.01 or included as an exhibit) in any past or future current report on Form 8-K that we may furnish to the SEC, unless otherwise specified in such current report. The documents listed above or subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act in each year during which the offering made pursuant to this prospectus is in effect prior to the filing with the SEC of our Annual Report on Form 10-K covering such year shall cease to be incorporated by reference in this prospectus from and after the filing of such Annual Report.

Any statement contained herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in any subsequently filed incorporated document or a related prospectus supplement modifies or supersedes such statement. Any statement contained in an incorporated document shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed incorporated document or a related prospectus supplement modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

This prospectus is part of a registration statement on Form S-3 filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement. You should read the registration statement for further information about us.

Documents incorporated by reference herein are available from us, without charge, excluding all exhibits unless specifically incorporated by reference in the documents. You may obtain documents incorporated by reference in this prospectus by writing to us at the following address or by calling us at the telephone number listed below:

Altair Engineering Inc. 1820 E. Big Beaver Road Troy, Michigan 48083 (248) 614-2400 Attention: General Counsel \$175,000,000



% Convertible Senior Notes due 2024

Prospectus supplement

J.P. Morgan

Goldman Sachs & Co. LLC

RBC Capital Markets

June , 2019