

Digital Realty Trust, Inc.
Form 424B5
August 02, 2017
Table of Contents

**Filed Pursuant to Rule 424(b)(5)
Registration No. 333-219562**

The information in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and they are not soliciting an offer to buy these securities, in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 2, 2017

PRELIMINARY PROSPECTUS SUPPLEMENT

TO PROSPECTUS DATED JULY 28, 2017

Shares

% Series J Cumulative Redeemable Preferred Stock

(Liquidation Preference \$25.00 per share)

We are offering _____ shares of our _____ % series J cumulative redeemable preferred stock, par value \$0.01 per share, which we refer to in this prospectus supplement as the series J preferred stock. We will pay cumulative dividends on the series J preferred stock from the date of original issue at a rate of _____ % per annum of the \$25.00 liquidation preference per share (equivalent to an annual rate of \$ _____ per share). Dividends on the series J preferred stock will be payable quarterly in arrears on or about the last day of March, June, September and December of each year, beginning December 31, 2017. The series J preferred stock will rank on parity with our outstanding preferred stock and senior to our common stock with respect to dividend rights and rights upon our liquidation, dissolution or winding up.

Generally, we are not allowed to redeem the series J preferred stock prior to _____, 2022 except in limited circumstances to preserve our status as a real estate investment trust, or REIT, and pursuant to the special optional redemption provision described below. On or after _____, 2022 we may, at our option, redeem the series J preferred stock, in whole or in part, at any time or from time to time, for cash at a redemption price of \$25.00 per

share, plus all accrued and unpaid dividends on such series J preferred stock up to but excluding the redemption date. In addition, upon the occurrence of a change of control, as a result of which neither our common stock, par value \$0.01 per share, nor the common securities of the acquiring or surviving entity (or American Depositary Receipts, or ADRs, representing such securities) is listed on the New York Stock Exchange, or NYSE, the NYSE MKT LLC, or the NYSE MKT, or the NASDAQ Stock Market, or NASDAQ, or listed or quoted on a successor exchange or quotation system, we may, at our option, redeem the series J preferred stock, in whole or in part within 120 days after the first date on which such change of control occurred, by paying \$25.00 per share, plus any accrued and unpaid dividends to, but not including, the date of redemption. If we exercise any of our redemption rights relating to the series J preferred stock, the holders of series J preferred stock will not have the conversion right described below. The series J preferred stock has no stated maturity and is not subject to mandatory redemption or any sinking fund. Holders of shares of the series J preferred stock will generally have no voting rights except for limited voting rights if we fail to pay dividends for six or more quarterly periods (whether or not consecutive) and in certain other circumstances.

Upon the occurrence of a change of control, as a result of which neither our common stock nor the common securities of the acquiring or surviving entity (or ADRs representing such securities) is listed on the NYSE, the NYSE MKT or NASDAQ or listed or quoted on a successor exchange or quotation system, each holder of series J preferred stock will have the right (unless, prior to the Change of Control Conversion Date (as defined herein), we have provided or provide notice of our election to redeem the series J preferred stock) to convert some or all of the series J preferred stock held by it into a number of shares of our common stock per share of series J preferred stock to be converted equal to the lesser of:

the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference plus the amount of any accrued and unpaid dividends to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a series J preferred stock dividend payment and prior to the corresponding series J preferred stock dividend payment date, in which case no additional amount for such accrued and unpaid dividends will be included in this sum) by (ii) the Common Stock Price (as defined herein); and

, or the Share Cap, subject to certain adjustments;

subject, in each case, to provisions for the receipt of alternative consideration as described in this prospectus supplement.

We are organized and conduct our operations to qualify as a REIT for federal income tax purposes. To assist us in complying with certain federal income tax requirements applicable to REITs, our charter contains certain restrictions relating to the ownership and transfer of our capital stock, including an ownership limit of 9.8% on the series J preferred stock.

No market currently exists for the series J preferred stock. We intend to file an application to list the series J preferred stock on the NYSE under the symbol DLR Pr J . If the application is approved, trading of the series J preferred stock on the NYSE is expected to commence within 30 days after the date of initial delivery of the series J preferred stock.

An investment in our series J preferred stock involves risks. See Risk Factors beginning on page S-22 of this prospectus supplement and page 2 of the accompanying prospectus for certain risk factors relevant to an investment in the series J preferred stock.

	Price to Public⁽¹⁾	Underwriting Discount	Proceeds to Us, before expenses⁽¹⁾⁽²⁾
Per Share			
Total			

(1) Plus accrued dividends, if any, from the original date of issue.

(2) Assumes no exercise of the underwriters' option to purchase additional shares described below.

We have granted the underwriters an option to purchase up to an additional _____ shares of the series J preferred stock within 30 days from the date of this prospectus supplement.

The underwriters expect to deliver shares of the series J preferred stock through The Depository Trust Company on or about _____, 2017.

Neither the United States Securities and Exchange Commission, or the SEC, 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.

Joint Book-Running Managers

BofA Merrill Lynch

Citigroup

Wells Fargo Securities

The date of this prospectus supplement is _____, 2017.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-1
<u>RISK FACTORS</u>	S-22
<u>FORWARD-LOOKING STATEMENTS</u>	S-27
<u>USE OF PROCEEDS</u>	S-30
<u>CAPITALIZATION</u>	S-31
<u>DESCRIPTION OF THE SERIES J PREFERRED STOCK</u>	S-33
<u>SUPPLEMENTAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS</u>	S-47
<u>UNDERWRITING (CONFLICTS OF INTEREST)</u>	S-48
<u>LEGAL MATTERS</u>	S-52
<u>EXPERTS</u>	S-53
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-54
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	S-55

Prospectus

<u>About This Prospectus</u>	1
<u>Our Company</u>	2
<u>Risk Factors</u>	3
<u>Where You Can Find More Information</u>	4
<u>Incorporation of Certain Documents by Reference</u>	5
<u>Forward-Looking Statements</u>	6
<u>Use of Proceeds</u>	8
<u>Ratio of Earnings to Fixed Charges and Preferred Dividends</u>	9
<u>General Description of Securities</u>	10
<u>Description of Common Stock</u>	11
<u>Description of Preferred Stock</u>	13
<u>Description of Depositary Shares</u>	24
<u>Description of Warrants</u>	27
<u>Description of Debt Securities and Related Guarantees</u>	29
<u>Restrictions on Ownership and Transfer</u>	38
<u>Description of the Partnership Agreement of Digital Realty Trust, L.P.</u>	42
<u>Material Provisions of Maryland Law and of the Charter and Bylaws of Digital Realty Trust, Inc.</u>	49
<u>United States Federal Income Tax Considerations</u>	55
<u>Selling Securityholders</u>	80
<u>Plan of Distribution</u>	81
<u>Legal Matters</u>	83
<u>Experts</u>	84

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering of the series J preferred stock and also adds to and updates information contained in the accompanying prospectus as well as the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to the series J preferred stock we are offering. To the extent any inconsistency or conflict exists between the information included in this prospectus supplement and the information included in the accompanying prospectus, the information included or incorporated by reference in this prospectus supplement updates and supersedes the information in the accompanying prospectus. This prospectus supplement incorporates by reference important business and financial information about us that is not included in or delivered with this prospectus supplement.

It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus in making your investment decision. You should also read and consider the information contained in the documents identified under the heading **Where You Can Find More Information**.

Unless otherwise indicated or unless the context requires otherwise, all references in this prospectus supplement and the accompanying prospectus to **we**, **us**, **our**, **the company** or **our company** refer to Digital Realty Trust, Inc. together with our consolidated subsidiaries, including Digital Realty Trust, L.P., a Maryland limited partnership, of which Digital Realty Trust, Inc. is the sole general partner and which we refer to in this prospectus supplement and the accompanying prospectus as **the operating partnership** or **our operating partnership**.

All references in this prospectus supplement to **our operating partnership's global revolving credit facility** mean our operating partnership's \$2.0 billion senior unsecured revolving credit facility and global senior credit agreement, and all references in this prospectus supplement to **our operating partnership's term loan facility** mean our operating partnership's senior unsecured multi-currency term loan facility and term loan agreement, which governs a \$1.25 billion five-year senior unsecured term loan and a \$300 million seven-year senior unsecured term loan.

Turn-Key Flex, **Powered Base Buildings**, **POD Architecture** and **Critical Facilities Management** are trademarks of our company. All other trademarks or trade names appearing in this prospectus supplement and the accompanying prospectus are the property of their respective owners.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and any **free writing prospectus** we authorize to be delivered to you. We have not, and the underwriters have not, authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell or soliciting an offer to buy the series J preferred stock in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, and any authorized **free writing prospectus** is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates. The descriptions set forth in this prospectus supplement replace and supplement, where inconsistent, the description of the general terms and provisions set forth in the accompanying prospectus.

The distribution of this prospectus supplement, the accompanying prospectus and any authorized **free writing prospectus** and the offering of the series J preferred stock in certain jurisdictions may be restricted by law. If you possess this prospectus supplement, the accompanying prospectus or any authorized **free writing prospectus**, you

should find out about and observe these restrictions. This prospectus supplement, the accompanying prospectus and any authorized free writing prospectus are not an offer to sell the series J preferred stock and are not soliciting an offer to buy the series J preferred stock in any jurisdiction where the offer or sale is not permitted or where the person making the offer or sale is not qualified to do so or to any person to whom it is not permitted to make such offer or sale. See Underwriting (Conflicts of Interest) in this prospectus supplement.

S-ii

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

You should read the following summary together with the more detailed information regarding our company and the financial statements appearing elsewhere in this prospectus supplement and the accompanying prospectus or incorporated by reference in this prospectus supplement and the accompanying prospectus, including under the caption Risk Factors.

Digital Realty Trust, Inc.

Overview

We own, acquire, develop and operate data centers. As of March 31, 2017, our portfolio consisted of 145 operating properties, including three properties held for sale and 14 properties held as investments in unconsolidated joint ventures, of which 104 are located throughout the United States, 32 are located in Europe, four are located in Asia, three are located in Australia and two are located in Canada. We are diversified in major metropolitan areas where data center and technology customers are concentrated, including the Atlanta, Boston, Chicago, Dallas, Los Angeles, New York, Northern Virginia, Phoenix, San Francisco, Seattle and Silicon Valley metropolitan areas in the United States, the Amsterdam, Dublin, Frankfurt, London and Paris metropolitan areas in Europe and the Singapore, Sydney, Melbourne, Hong Kong and Osaka metropolitan areas in the Asia Pacific region. The portfolio consists of data centers, Internet gateway data centers and office and other non-data center space. We operate as a real estate investment trust (REIT) for United States federal income tax purposes and our operating partnership is the entity through which we conduct our business and own our assets.

As of March 31, 2017, the properties in our portfolio, including the 14 properties held as investments in unconsolidated joint ventures, were approximately 89.4% leased, excluding approximately 1.5 million square feet of space under active development and approximately 1.7 million square feet of space held for future development.

Our principal executive offices are located at Four Embarcadero Center, Suite 3200, San Francisco, California 94111. Our telephone number is (415) 738-6500. Our website is located at www.digitalrealty.com. The information found on, or accessible through, our website is not incorporated into, and does not form a part of, this prospectus supplement, the accompanying prospectus or any other report or document we file with or furnish to the SEC.

Our Competitive Strengths

We believe we distinguish ourselves from other owners, acquirors and managers of technology-related real estate through our competitive strengths, which include:

High-Quality Global Portfolio that is Difficult to Replicate. Our portfolio contains state-of-the-art data center facilities with extensive tenant improvements in 33 metropolitan areas across 12 countries. Our portfolio of data center facilities is equipped to meet the power and cooling requirements for customers with smaller footprints up to the most demanding corporate IT applications. Many of the properties in our portfolio are located on major aggregation points formed by the physical presence of multiple major telecommunications service providers, which reduces our customers' costs and operational risks and enhances the attractiveness of our properties. In addition, our strategically located global data center campuses offer our customers a place to grow as their businesses grow, and we believe that expanding connectivity offerings in our campus facilities will also enhance the attractiveness of these

facilities. Further, the network density, interconnection infrastructure and connectivity-centric customers in certain of our facilities have led

S-1

Table of Contents

to the formation of densely connected ecosystems that are difficult to replicate and valuable to customers. We believe that a high-quality global portfolio like ours could not be easily replicated today on a cost-competitive basis.

Presence in Key Metropolitan Areas. Our portfolio is located in 33 major metropolitan areas where data center and technology tenants are concentrated, including the Atlanta, Boston, Chicago, Dallas, Los Angeles, New York, Northern Virginia, Phoenix, San Francisco, Seattle and Silicon Valley metropolitan areas in the United States, the Amsterdam, Dublin, Frankfurt, London and Paris metropolitan areas in Europe and the Singapore, Sydney, Melbourne, Hong Kong and Osaka metropolitan areas in the Asia Pacific region. Our portfolio is geographically diversified so that no one metropolitan area represented more than approximately 11.8% of the aggregate annualized rent of our portfolio as of March 31, 2017.

Proven Experience Attracting and Retaining Customers. We have considerable experience in identifying and attracting new customers and retaining existing customers. Our specialized data center sales force provides a robust pipeline of new clients, while existing customers continue to grow and expand with us. During the three months ended March 31, 2017, we commenced new leases totaling approximately 0.3 million square feet, which represent approximately \$38.4 million in annualized GAAP rent. During the three months ended March 31, 2017, we signed new leases totaling approximately 0.2 million square feet, which represent approximately \$50.4 million in annualized GAAP rent. These leases were comprised of Powered Base Buildings[®], Turn-Key Flex[®], interconnection and colocation space and space for ancillary office and other uses. In addition, we also signed renewal leases totaling \$46 million of annualized GAAP rental revenue during the three months ended March 31, 2017, representing an increase in rental rates of approximately 3% on a cash basis and 5% on a GAAP basis compared to rental rates under the expiring leases.

Demonstrated Investment Acumen. We have developed detailed, standardized procedures for evaluating acquisitions, including income-producing properties as well as vacant buildings and land suitable for development, to ensure that they meet our strategic, financial, technical and other criteria. These procedures and our in-depth knowledge of the technology and data center industries as well as the real estate industry allow us to identify strategically located properties and evaluate investment opportunities efficiently and, as appropriate, commit and close quickly. Our broad network of contacts within a highly fragmented universe of sellers and brokers of technology-related real estate enables us to capitalize on acquisition opportunities. As a result, we acquired a substantial portion of our properties before they were broadly marketed by real estate brokers.

Flexible Data Center Solutions. We provide a full spectrum of flexible, customer-oriented solutions designed to meet the needs of domestic and international companies across multiple industry verticals. Our Turn-Key Flex[®] and colocation data centers are move-in ready, physically secure facilities with the power and cooling capabilities to support mission-critical IT enterprise applications. We believe our Turn-Key Flex[®] facilities are effective solutions for customers who may lack the bandwidth, capital budget, expertise or desire to provide their own extensive data center infrastructure, management and security. We also believe that our colocation and interconnection platform offers a number of options for customers looking for small to larger footprints and connectivity solutions. For customers who possess the ability to build and operate their own facility, our Powered Base Building[®] solution provides the

physical location, required power and network access necessary to support a state-of-the-art data center. Furthermore, our data center campuses offer our customers the opportunity to expand and grow in or near their existing deployments within a campus. Our Critical Facilities Management[®] services and team of technical

S-2

Table of Contents

engineers and data center operations experts provide 24/7 support for these mission-critical facilities.

Leading Colocation and Interconnection Platform. We believe we are a leading provider of colocation, interconnection and cloud-enablement services globally. We believe interconnection is an attractive line of business that would be difficult to build organically and enhances the overall value proposition of our colocation and large-footprint data center product offerings. In addition to enhancing our presence in top-tier locations throughout the U.S. and Europe providing significant opportunities for additional growth, we believe our acquisition in July 2016 of eight high-quality, carrier-neutral data centers in Europe from Equinix, which we refer to as the European Portfolio Acquisition, and our acquisition in October 2015 of Telx, a premier provider of data center colocation, interconnection and cloud enablement solutions, greatly expanded our product mix to appeal to a broader spectrum of data center customers.

Differentiating Development Advantages. Our extensive development activity, operating scale and process-based approach to data center design, construction and operations result in significant cost savings and added value for our customers. We have leveraged our purchasing power by securing global purchasing agreements and developing relationships with major equipment manufacturers, reducing costs and shortening delivery timeframes on key components, including major mechanical and electrical equipment. Utilizing our innovative modular data center design referred to as POD Architecture[®], we deliver what we believe to be a technically superior data center environment at significant cost savings. In addition, by utilizing our POD Architecture[®] to develop new Turn-Key Flex[®] facilities in our existing Powered Base Building[®] facilities, on average we are able to deliver a fully commissioned facility in under 30 weeks. Finally, our access to capital allows us to provide data center solutions for customers who do not want to invest their own capital.

Diverse Customer Base Across a Wide Variety of Industry Sectors. We use our in-depth knowledge of the requirements and trends for social networking, mobile communications, analytics, cloud and content providers, network providers, information technology services providers and data center users, including financial services companies, to market our properties to domestic and international customers with specific technology needs. At March 31, 2017, we had over 2,300 customers across a variety of industry verticals, ranging from cloud and information technology services to financial services, manufacturing, energy, gaming, life sciences and consumer products. Our largest customer, IBM, accounted for approximately 7.7% of the aggregate annualized rent as of March 31, 2017 and no other single customer accounted for more than approximately 5.7% of the aggregate annualized rent of our portfolio.

Experienced and Committed Management Team and Organization. Our senior management team has many years of experience in the technology or real estate industries, including experience as investors in, advisors to and founders of technology companies. We believe that our senior management team's extensive knowledge of both the real estate and the technology industries provides us with a key competitive advantage. Further, a significant portion of compensation for our senior management team and directors is in the form of common equity interests in our company and our minimum stock ownership requirements further align their interests with those of external stockholders. We have also implemented an employee stock purchase plan, which allows our employees to increase their ownership

in the company.

S-3

Table of Contents

Business and Growth Strategies

Our primary business objective is to maximize value creation on a per share and unit basis through achieving superior organic growth, prudently allocating capital and preserving the flexibility of our balance sheet. Our business strategies to achieve these objectives are:

Achieve Superior Returns on Development Inventory. We believe that achieving appropriate risk-adjusted returns on our business, including on our development pipeline and leasing transactions, will deliver superior stockholder returns. At March 31, 2017, we had approximately 1.5 million square feet of space under active development for Turn-Key Flex[®] and Powered Base Building[®] products in five U.S. metropolitan areas, three European metropolitan areas and one Asian metropolitan area, consisting of approximately 0.7 million square feet of base building construction and 0.7 million square feet of data center construction. We may continue to build out our development pipeline when justified by anticipated returns. We also believe that providing an even stronger value proposition to our customers, including through new and enhanced product offerings, as well as improving operational efficiencies, will further drive improved returns for our business.

Provide Foundational Services to Enable Customers and Partners. We believe that our global infrastructure platform, through which we offer the foundational services of space, power and connectivity, will enable our customers and partners to serve their customers and grow their businesses. We believe our internet gateway facilities, individual data centers and data center campuses are attractive to a wide variety of customers and partners of all sizes. Furthermore, we believe our colocation and interconnection offerings, as well as the densely connected ecosystems that have developed within our facilities, are valuable and critical to our customers and partners.

Prudently Allocate Capital. We believe that the accretive deployment of capital at sufficiently positive spreads above our cost of capital enables us to increase cash flow and create long-term stockholder value. Our relationships with corporate information technology groups, technology tenants and real estate brokers who are dedicated to serving these tenants provide us with ongoing access to potential investment opportunities and frequently enable us to avoid competitive bidding. In addition, the specialized nature of technology-related real estate makes it more difficult for traditional real estate investors to underwrite, resulting in reduced competition for investments relative to other property types. We believe this dynamic creates an opportunity for us to generate better risk-adjusted returns on our capital. We employ a collaborative approach to deal analysis, risk management and asset allocation, focusing on key elements, such as market fundamentals, accessibility to fiber and power, and the local regulatory environment.

Preserve the Flexibility of Our Balance Sheet. We are committed to maintaining a conservative capital structure. We target a debt-to-Adjusted EBITDA ratio at or less than 5.5x, fixed charge coverage of greater than three times, and floating rate debt at less than 20% of total outstanding debt. In addition, we strive to maintain a well-laddered debt maturity schedule, and we seek to maximize the menu of our available sources of capital, while minimizing the cost. Since Digital Realty Trust, Inc.'s initial public offering in 2004, our company has raised approximately \$18.0 billion of capital through common,

preferred and convertible preferred equity offerings, exchangeable debt offerings, non-exchangeable bond offerings, our global revolving credit facility, our term loan facility, private notes facilities, secured mortgage financings and refinancings, joint venture partnerships and sales of non-core assets. We endeavor to maintain financial flexibility while using our liquidity and access to capital to support operations, including our acquisition, leasing and development programs and global campus expansion, which are important sources of our growth.

S-4

Table of Contents

Maximize Property-Level Cash Flow. We aggressively manage our properties to maximize cash flow. We often acquire properties with substantial in-place cash flow and some vacancy, which enables us to create upside through lease-up. We control our costs by negotiating expense pass-through provisions in tenant leases for operating expenses, including power costs and certain capital expenditures. We also control costs by driving operating efficiencies, which include focusing on centralizing functions and optimizing operations as well as improving processes and technologies. We believe that expanding our global data center campuses will also contribute to operating efficiencies because we expect to achieve economies of scale on our campus environments.

Leverage Strong Industry Relationships. We use our strong industry relationships with national and regional corporate enterprise information technology groups and technology-intensive companies to identify and comprehensively respond to their data center needs. Our sales professionals are real estate and technology industry specialists who can develop complex facility solutions for the most demanding data center and other technology tenants.

Recent Developments

Preferred Stock Redemption

On April 5, 2017, we redeemed all 7,300,000 outstanding shares of our 6.625% series F cumulative redeemable preferred stock, or the series F preferred stock, for \$25.01840 per share. The redemption price was equal to the liquidation preference of \$25.00 per share, plus accrued and unpaid dividends up to but not including the redemption date. We funded the redemption with borrowings under our operating partnership's global revolving credit facility, which the operating partnership distributed to Digital Realty Trust, Inc. in connection with the operating partnership's redemption of all 7,300,000 of its outstanding series F preferred units held by Digital Realty Trust, Inc.

Forward Equity Settlement

On May 16, 2016, we entered into forward sale agreements with each of Bank of America, N.A., Citibank N.A. and JPMorgan Chase Bank, N.A., London Branch (collectively, the Forward Counterparties), relating to the forward issuance and sale of 14,375,000 shares of our common stock at a public offering price of \$96.00 per share.

On September 27, 2016, we physically settled a portion of the forward sale agreements by issuing an aggregate of 12,000,000 shares of our common stock to the Forward Counterparties in exchange for net proceeds of approximately \$1.1 billion. Following such settlement, 2,375,000 shares of our common stock remained subject to the forward sale agreements. On May 19, 2017, we physically settled the remaining shares subject to the forward sale agreements by issuing an aggregate of 2,375,000 shares of our common stock to the Forward Counterparties in exchange for net proceeds of approximately \$211 million.

Euro Note Private Placement

On May 22, 2017, Digital Euro Finco, LLC, a wholly owned indirect finance subsidiary of the operating partnership, issued and sold 125 million aggregate principal amount of its Floating Rate Guaranteed Notes due 2019, which we refer to as the Euro Notes, to an institutional investor in a private placement. The Euro Notes bear interest at a rate per annum, reset quarterly, equal to three-month EURIBOR plus 0.50%, and the interest rate for the initial interest period is 0.169%. Interest on the Euro Notes is payable quarterly in arrears on February 22, May 22, August 22 and November 22 of each year, beginning on August 22, 2017. The Euro Notes are senior unsecured obligations of Digital Euro Finco, LLC and are fully and unconditionally guaranteed by Digital Realty Trust, Inc. and Digital Realty Trust,

L.P.

S-5

Table of Contents

Net proceeds from the offering were approximately 124.6 million after deducting estimated offering expenses. We used the net proceeds from the offering of the Euro Notes to temporarily repay borrowings under the global revolving credit facility and for general corporate purposes.

DFT Merger

On June 8, 2017, we entered into an Agreement and Plan of Merger (the *DFT Merger Agreement*) with DuPont Fabros Technology, Inc., a Maryland corporation (*DFT*), and DuPont Fabros Technology, L.P., a Maryland limited partnership (the *DFT OP* and, together with DuPont, the *DFT Parties*) pursuant to which, subject to the satisfaction or waiver of certain conditions, the *DFT Parties* will be merged with and into our wholly owned subsidiaries (the *DFT Merger*). Pursuant to the terms and conditions in the *DFT Merger Agreement*, at the effective time of the *DFT Merger*, (i) each share of *DFT* common stock, \$0.001 par value per share, issued and outstanding immediately prior to the effective time will be converted into the right to receive 0.545 (the *Exchange Ratio*) shares of our common stock, \$0.01 par value per share, (the *Common Consideration*); and (ii) each share of 6.625% Series C Cumulative Redeemable Perpetual Preferred Stock, \$0.001 par value per share, of *DFT* (the *DFT Preferred Stock*) will be converted into the right to receive one share of a newly designated class of preferred stock of Digital Realty Trust, Inc., the 6.625% Series C Cumulative Redeemable Perpetual Preferred Stock, par value \$0.01 per share, having substantially similar rights, privileges, preferences and interests as the *DFT Preferred Stock*. In addition, (i) each outstanding share of restricted *DFT* common stock will vest and all restrictions thereon will lapse, and each such restricted share will be cancelled in exchange for the right to receive the *Common Consideration*, (ii) each outstanding award of performance stock units granted by *DFT* will vest and be cancelled and converted into the right to receive the *Common Consideration*, and (iii) each outstanding and unexercised option to purchase shares of *DFT* common stock will be automatically converted into an option covering a number of shares of our common stock equal to the number of shares of *DFT* common stock subject to such option immediately prior to the effective time of the *DFT Merger* multiplied by the *Exchange Ratio*, rounded down to the nearest whole share, with an exercise price per share equal to the exercise price per share of such option immediately prior to the effective time of the *DFT Merger*, divided by the *Exchange Ratio*, rounded up to the nearest whole cent.

Also at the effective time of the *DFT Merger*, each unit of partnership interests in the *DFT OP* issued and outstanding immediately prior to the effective time held by a limited partner of the *DFT OP* will be converted into the right to receive 0.545 common units in our operating partnership. In the alternative, limited partners in the *DFT OP* may elect to redeem their units of partnership interests in the *DFT OP* in order to receive the *Common Consideration*.

The consummation of the *DFT Merger* is subject to certain customary closing conditions, including, among others, approval by the holders of a majority of the outstanding shares of *DFT* common stock, approval of the issuance of our common stock by a majority of the votes cast by the holders of our common stock at a special meeting of our stockholders, the absence of certain legal impediments to the consummation of the *DFT Merger*, the effectiveness of a registration statement on Form S-4 filed by Digital Realty Trust, Inc. in connection with the *DFT Merger*, approval for listing on the New York Stock Exchange of the shares of our common stock to be issued in connection with the *DFT Merger*, the absence of a material adverse effect on either Digital Realty Trust, Inc. or *DFT* and compliance by the parties to the *DFT Merger Agreement* with their respective obligations under the *DFT Merger Agreement*. The obligations of the parties to consummate the *DFT Merger* are not subject to any financing condition or the receipt of any financing by us. We have, therefore, obtained a financing commitment to provide a senior unsecured bridge loan facility in the principal amount of up to \$1.4 billion (the *Bridge Loan Facility*) to fund, if necessary, the repayment, redemption and/or discharge of *DFT* debt obligations and the payment of certain transaction fees and expenses in connection with the *DFT Merger* pursuant to a commitment letter (the *Bridge Commitment Letter*) from Citigroup Global Markets Inc. (*CGMI*) on behalf of *CGMI*, Citibank, N.A., Citicorp USA, Inc., Citicorp North America, Inc. and/or any of

S-6

Table of Contents

their affiliates as Citi may determine, and Bank of America, N.A. (Bank of America) on behalf of Bank of America, Merrill Lynch, Pierce, Fenner & Smith Incorporated (MLPFS) and/or any of their affiliates as MLPFS and Bank of America may determine. Borrowings, if any, under the Bridge Loan Facility will bear interest at a rate based on the highest of the agent's base rate, the federal funds rate plus $\frac{1}{2}$ of 1%, or one-month LIBOR plus 1%, in each case, plus an applicable margin based on our credit rating. The interest rates will increase (i) by 0.25% from and after the date that is three months after the date the Bridge Loan Facility closes, (ii) by an additional 0.25% from and after the date that is six months after the date the Bridge Loan Facility closes (for an aggregate increase of 0.50%); and (iii) by an additional 0.25% from and after the date that is nine months after the date the Bridge Loan Facility closes (for an aggregate increase of 0.75%). The Bridge Loan Facility will mature 364 days after the closing date of the DFT Merger. The funding of the Bridge Loan Facility provided for in the Bridge Commitment Letter is contingent on the satisfaction of customary conditions, including but not limited to (i) the execution and delivery of definitive documentation with respect to the Bridge Loan Facility in accordance with the terms set forth in the Bridge Commitment Letter and (ii) the consummation of the DFT Merger in accordance with the DFT Merger Agreement. The actual documentation governing the Bridge Loan Facility has not been finalized, and accordingly, the actual terms may differ from the description of such terms in the Bridge Commitment Letter. We have also obtained a financing commitment to provide a secured mortgage loan facility of up to \$104.0 million (the Mortgage Loan Facility) to one or more wholly owned subsidiaries of our operating partnership pursuant to a commitment letter (the Mortgage Commitment Letter) from CGMI on behalf of CGMI and Citi and/or any of their affiliates as Citi may determine, and Bank of America on behalf of Bank of America and MLPFS and/or any of their affiliates as MLPFS and Bank of America may determine. Borrowings, if any, under the Mortgage Loan Facility will, at the lenders' option, bear interest at (i) a fixed interest rate equal to the greater of (a) the sum of (I) 2% plus (II) the five-year offer side swap rate and (b) 3.70% or (ii) a floating rate per annum equal to one-month LIBOR plus 275 basis points. The Mortgage Loan Facility will mature (i) if the lenders elect the fixed rate option, five years from the closing date of the DFT Merger or (ii) if the lenders elect the floating rate option, three years from the closing date of the DFT Merger, subject to two additional one-year extension options. The Mortgage Loan Facility provided for in the Mortgage Commitment Letter, if funded, will be secured by real property collateral of our company or one of our subsidiaries to be identified by the arrangers under the Mortgage Commitment Letter. The funding of the Mortgage Loan Facility provided for in the Mortgage Commitment Letter is contingent on the satisfaction of customary conditions, including but not limited to (i) the execution and delivery of definitive documentation with respect to the Mortgage Loan Facility in accordance with the terms set forth in the Mortgage Commitment Letter, (ii) the consummation of the DFT Merger in accordance with the DFT Merger Agreement and (iii) satisfaction of the real estate due diligence of the arrangers under the Mortgage Commitment Letter. The actual documentation governing the Mortgage Loan Facility has not been finalized, and accordingly, the actual terms may differ from the description of such terms in the Mortgage Commitment Letter.

The DFT Merger Agreement may be terminated under certain circumstances by DFT, including prior to approval by its stockholders, in the event that DFT receives a competing proposal that DFT concludes is a superior proposal (as defined in the DFT Merger Agreement), so long as the superior proposal was not preceded by a material breach by DFT of the non-solicitation provisions of the DFT Merger Agreement. In addition, we may terminate the DFT Merger Agreement under certain circumstances and subject to certain restrictions. Upon a termination of the DFT Merger Agreement, under certain circumstances, DFT will be required to pay to us a termination fee of \$150 million. We will be required to pay to DFT a termination fee of \$300 million if we fail to consummate the DFT Merger upon satisfaction or waiver of the conditions to the closing of the DFT Merger or if our board of directors changes or qualifies its recommendation or fails to include its recommendation in the joint proxy statement.

For additional information regarding the DFT Merger, including certain historical consolidated financial statements of DFT, the unaudited pro forma condensed combined financial statements of our company that give pro forma effect to the DFT Merger and certain other events, and certain other financial and operating

S-7

Table of Contents

information relating to DFT, see the Combined Current Reports on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on June 9, 2017, July 10, 2017, and August 2, 2017 which are incorporated by reference in this prospectus supplement and the accompanying prospectus.

Rationale for the DFT Merger

We believe that the DFT Merger will provide a number of strategic and financial benefits, including the following:

Enhances Ability to Serve Top U.S. Metropolitan Areas: DFT's portfolio is concentrated in top U.S. data center metropolitan areas across Northern Virginia, Chicago and Silicon Valley. We believe that the transaction will help grow our presence in strategic, high-demand metropolitan areas with strong growth prospects, while achieving significant diversification benefits for DFT from the combination with our existing footprint of 145 properties across 33 global metropolitan areas.

Expands Hyper-Scale Product Offering: DFT's 12 purpose-built, in-service data centers are expected to significantly expand our hyper-scale product offering and improve our ability to meet the rapidly growing needs of cloud and cloud-like customers, in addition to enterprise customers undertaking the shift to a hybrid cloud architecture. Conversely, the transaction is expected to enable DFT to address a broader set of customers' data center requirements, with the addition of our colocation and interconnection product offerings.

Table of Contents

Solidifies Blue-Chip Customer Base: DFT's roster of investment grade customers is expected to further enhance the credit quality of our existing customer base. Following the DFT Merger, on a combined basis, we expect that more than 50% of our total revenue will be derived from investment grade or equivalent customers or their subsidiaries or affiliates. The transaction also is expected to significantly reduce DFT's customer concentration. Following the DFT Merger, the combined company's top three customers as of March 31, 2017 would have accounted for approximately 18% of annualized base rent compared to 57% for DFT on a standalone basis. The following table sets forth information regarding the 20 largest tenants of the combined company by annualized base rent as of the periods indicated:

	Customer	Number of Locations	Percentage of Annualized Base Rent⁽¹⁾
1.	IBM	24	6.2%
2.	Fortune 50 Software Company	15	6.0%
3.	Facebook, Inc.	13	5.9%
4.	CenturyLink, Inc.	49	4.6%
5.	Rackspace	7	2.7%
6.	Equinix	20	2.7%
7.	Oracle America, Inc.	14	2.6%
8.	Fortune 25 Investment Grade-Rated Company	6	2.4%
9.	Fortune 500 SaaS Provider	6	2.2%
10.	LinkedIn Corporation	6	2.0%
11.	AT&T	46	2.0%
12.	Yahoo! ⁽²⁾	4	1.7%
13.	JPMorgan Chase & Co.	16	1.5%
14.	Verizon	53	1.2%
15.	Morgan Stanley	9	1.1%
16.	SunGard Availability Services LP	9	1.1%
17.	NTT Communications Company	14	1.1%
18.	Tata Communications	18	1.0%
19.	Dropbox	8	1.0%
20.	HP Enterprise Services	5	0.9%

Note: For our company, represents consolidated portfolio plus managed portfolio of unconsolidated joint ventures based on ownership percentage. Includes our tenants as of March 31, 2017 and DFT tenants as of April 1, 2017. Direct tenants may be entities named above or their subsidiaries or affiliates.

(1) Calculation based on annualized base rent (monthly contractual base rent before abatements under existing leases as of March 31, 2017 (in the case of our company) and April 1, 2017 (in the case of DFT), multiplied by 12).

(2) Yahoo! is comprised of a lease at DFT's ACC4 that has been fully subleased to another DFT customer.

Development Pipeline Provides External Growth Potential: DFT's six data center development projects currently under construction are 48% pre-leased and represent 78.6 megawatts, or MW, of critical load and a total expected investment of approximately \$750 million, which is roughly a 26% expansion of its standalone critical load capacity. These projects are located in Ashburn, Chicago, Santa Clara and Toronto, which are all metropolitan areas where we have an existing presence. These six projects are expected to be delivered over the next 12 months, representing a solid pipeline of future growth potential. In addition, DFT owns strategic land holdings in Ashburn and Oregon and future development capacity in Toronto, which will support the future delivery of up to 163 MW of incremental capacity, along with 56 acres of land recently acquired in Phoenix.

Table of Contents

Size and Scale Generate Incremental Benefits: We believe that the two companies' operating models are highly complementary, and the combined company following the DFT Merger is expected to provide the most comprehensive product offering in the data center sector. Given the enhanced size and scale, the combined company is also expected to have a highly-efficient cost structure and an attractive EBITDA margin relative to other U.S.-based publicly-traded data center REITs.

Creates Substantial Anticipated Cost Efficiencies and Financial Benefits: The combination of the two companies is expected to create an opportunity to realize significant annual overhead savings, resulting from both companies' complementary business operations. Upon closing, the transaction is expected to further improve balance sheet strength.

Joint Venture Secured Financing

On June 29, 2017, we closed a \$135 million 10-year mortgage on the Westin Building Exchange, in Seattle, Washington, which is owned in a 50/50 joint venture partnership with Clise Properties. The new \$135 million mortgage financing bears interest at a fixed rate of 3.29% per annum and matures in July 2027, replacing the existing \$101 million secured loan bearing interest at a fixed rate of 6.37% per annum and maturing in September 2017. The new, non-recourse mortgage loan will be interest-only during the 10-year term, with the entire principal amount due at maturity.

Pounds Sterling Notes Offering

On July 21, 2017, Digital Stout Holding, LLC, of which Digital Realty Trust, L.P. is the sole member, issued and sold £250 million aggregate principal amount of 2.750% Guaranteed Notes due 2024 (the 2024 Notes) and £350 million aggregate principal amount of 3.300% Guaranteed Notes due 2029 (the 2029 Notes and, together with the 2024 Notes, the GBP Notes). The GBP Notes are senior unsecured obligations of Digital Stout Holding, LLC and are fully and unconditionally guaranteed by Digital Realty Trust, Inc. and Digital Realty Trust, L.P. The GBP Notes were sold outside the United States in reliance on Regulation S under the Securities Act of 1933, as amended (the Securities Act). Net proceeds from the offering were approximately £593.8 million after deducting managers' discounts and estimated offering expenses. We intend to use the net proceeds from the offering of the 2024 Notes to fund a portion of the repayment, redemption and/or discharge of DFT debt and the payment of certain transaction fees and expenses incurred in connection with the DFT Merger. If the net proceeds from the offering of the 2024 Notes (and other financing sources) exceed the amount needed to fund the contemplated repayment of DFT debt and the payment of transaction fees and expenses incurred in connection with the DFT Merger, we intend to use such excess net proceeds to repay borrowings under our operating partnership's global revolving credit facility, acquire additional properties or businesses, fund development opportunities and to provide for working capital and other general corporate purposes, including potentially for the repurchase, redemption or retirement of other outstanding debt or equity securities. If the DFT Merger is not consummated on or prior to December 15, 2017, or the DFT Merger Agreement is terminated at any time prior to such date, we will be required to redeem the 2024 Notes on a special mandatory redemption date at a redemption price equal to 101% of the principal amount of the 2024 Notes, plus accrued and unpaid interest, if any, up to, but not including, the redemption date. We intend to use the net proceeds from the offering of the 2029 Notes to temporarily repay borrowings outstanding under our operating partnership's global revolving credit facility, to acquire additional properties or businesses, fund development opportunities and to provide for working capital and other general corporate purposes, including potentially for the repurchase, redemption or retirement of outstanding debt or equity securities.

S-10

Table of Contents

Concurrent Senior Notes Offering

Concurrently with this offering, pursuant to a separate prospectus supplement, our operating partnership is offering two series of its senior unsecured notes (the USD Notes). The notes will be guaranteed by Digital Realty Trust, Inc. Completion of this offering is not contingent on the completion of the USD Notes offering and the USD Notes offering is not contingent on the completion of this offering. There can be no assurance that the USD Notes offering will be completed. The aggregate principal amount, interest rate, maturity and other terms of the USD notes are not currently available and will not be known until such offering is priced.

S-11

Table of Contents

THE OFFERING

The offering terms are summarized below solely for your convenience. For a more complete description of the terms of the series J preferred stock, see Description of the Series J Preferred Stock in this prospectus supplement and Description of Preferred Stock in the accompanying prospectus.

Issuer	Digital Realty Trust, Inc., a Maryland corporation.
Securities Offered	shares of our % series J cumulative redeemable preferred stock (plus up to an additional shares if the underwriters option to purchase additional shares is exercised in full). We reserve the right to reopen this series and issue additional shares of series J preferred stock either through public or private sales at any time and from time to time.
Ranking	<p>The series J preferred stock will rank, with respect to dividend rights and rights upon our liquidation, dissolution or winding up:</p> <p>senior to all classes or series of our common stock, and to any other class or series of our capital stock expressly designated as ranking junior to the series J preferred stock;</p> <p>on parity with any class or series of our capital stock expressly designated as ranking on parity with the series J preferred stock, including our 5.875% series G cumulative redeemable preferred stock, or series G preferred stock, our 7.375% series H cumulative redeemable preferred stock, or series H preferred stock, and our 6.350% series I cumulative redeemable preferred stock, or series I preferred stock; and</p> <p>junior to any other class or series of our capital stock expressly designated as ranking senior to the series J preferred stock, none of which exists on the date hereof.</p> <p>The term capital stock does not include convertible or exchangeable debt securities, which, prior to conversion or exchange, rank senior in right of payment to the series J preferred stock. The series J preferred stock will also rank junior in right of payment to our other existing and future debt obligations.</p>

Dividends

Holders of shares of the series J preferred stock will be entitled to receive cumulative cash dividends on the series J preferred stock from, and including, the date of original issue, payable quarterly in arrears on or about the last day of March, June, September and December of each year, beginning on December 29, 2017, at the rate of % per annum of the \$25.00 liquidation preference per share (equivalent to an annual rate of \$ per share). The first dividend payable on the series J preferred stock on December 29, 2017 will be a pro rata dividend from, and including, the original issue date to and including December 31, 2017 in the amount of \$ per share.

S-12

Table of Contents

Dividends on the series J preferred stock will accrue whether or not (i) we have earnings, (ii) there are funds legally available for the payment of such dividends and (iii) such dividends are authorized or declared.

Liquidation Preference

If we liquidate, dissolve or wind up, holders of shares of the series J preferred stock will have the right to receive \$25.00 per share of the series J preferred stock, plus accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the date of payment, before any distribution or payment is made to holders of our common stock and any other class or series of capital stock ranking junior to the series J preferred stock with respect to the payment of dividends and the distribution of assets in the event of our liquidation, dissolution or winding up. We may only issue equity securities ranking senior to the series J preferred stock with respect to the payment of dividends and distribution of assets upon our liquidation, dissolution and winding up if we obtain the affirmative vote of the holders of at least two-thirds of the outstanding series J preferred stock together with each other class or series of preferred stock ranking on parity with the series J preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up. The rights of holders of shares of the series J preferred stock to receive their liquidation preference will be subject to the proportionate rights of any other class or series of our capital stock ranking on parity with the series J preferred stock as to liquidation, including the series G preferred stock, series H preferred stock and series I preferred stock, and junior to the rights of any class or series of our capital stock expressly designated as ranking senior to the series J preferred stock.

Optional Redemption

We may not redeem the series J preferred stock prior to _____, 2022, except in limited circumstances to preserve our status as a REIT, as described in Description of the Series J Preferred Stock Optional Redemption in this prospectus supplement and pursuant to the special optional redemption provision described below. On and after _____, 2022 the series J preferred stock will be redeemable at our option, in whole or in part, at any time or from time to time, for cash at a redemption price of \$25.00 per share, plus accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the redemption date. Any partial redemption will be on a pro rata basis.

Special Optional Redemption

Upon the occurrence of a Change of Control (as defined below), we may, at our option, redeem the series J preferred stock, in whole or in part within 120 days after the first date on which such Change of Control occurred, by paying \$25.00 per share, plus any accrued and unpaid dividends to, but not including, the date of redemption. If, prior to the Change of Control Conversion Date, we exercise any of our redemption

rights relating to the series J preferred stock (whether our optional redemption right or our special optional redemption

S-13

Table of Contents

right), the holders of series J preferred stock will not have the conversion right described below with respect to the shares called for redemption.

A Change of Control is when, after the original issuance of the series J preferred stock, the following have occurred and are continuing:

the acquisition by any person, including any syndicate or group deemed to be a person under Section 13(d)(3) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, of beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of purchases, mergers or other acquisition transactions of stock of our company entitling that person to exercise more than 50% of the total voting power of all stock of our company entitled to vote generally in the election of our directors (except that such person will be deemed to have beneficial ownership of all securities that such person has the right to acquire, whether such right is currently exercisable or is exercisable only upon the occurrence of a subsequent condition); and

following the closing of any transaction referred to in the bullet point above, neither we nor the acquiring or surviving entity has a class of common securities (or ADRs representing such securities) listed on the NYSE, the NYSE MKT or NASDAQ or listed or quoted on an exchange or quotation system that is a successor to the NYSE, the NYSE MKT or NASDAQ.

Conversion Rights

Upon the occurrence of a Change of Control, each holder of series J preferred stock will have the right (unless, prior to the Change of Control Conversion Date, we have provided or provide notice of our election to redeem the series J preferred stock) to convert some or all of the series J preferred stock held by such holder on the Change of Control Conversion Date into a number of shares of our common stock per share of series J preferred stock to be converted equal to the lesser of:

the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference plus the amount of any accrued and unpaid dividends to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a series J preferred stock dividend payment and prior to the corresponding series J preferred stock dividend payment date, in which case no additional amount for such accrued and unpaid dividends will be included in this sum) by (ii) the Common Stock

Price; and

(i.e., the Share Cap), subject to certain adjustments;

S-14

Table of Contents

subject, in each case, to provisions for the receipt of alternative consideration as described in this prospectus supplement.

If, prior to the Change of Control Conversion Date, we have provided or provide a redemption notice, whether pursuant to our special optional redemption right in connection with a Change of Control or our optional redemption right, holders of series J preferred stock will not have any right to convert the shares of series J preferred stock selected for redemption in connection with the Change of Control Conversion Right and any shares of series J preferred stock selected for redemption that have been tendered for conversion will be redeemed on the related date of redemption instead of converted on the Change of Control Conversion Date.

For definitions of Change of Control Conversion Right, Change of Control Conversion Date and Common Stock Price and for a description of the adjustments and provisions for the receipt of alternative consideration that may be applicable to the Change of Control Conversion Right, see Description of the Series J Preferred Stock Conversion Rights.

Except as provided above in connection with a Change of Control, the series J preferred stock is not convertible into or exchangeable for any other securities or property.

No Maturity, Sinking Fund or Mandatory Redemption

The series J preferred stock has no stated maturity date and is not subject to mandatory redemption or any sinking fund. We are not required to set aside funds to redeem the series J preferred stock. Accordingly, the series J preferred stock will remain outstanding indefinitely unless we decide to redeem the shares at our option or, under limited circumstances where the holders of the series J preferred stock have a conversion right, such holders decide to convert the series J preferred stock into our common stock.

Limited Voting Rights

Holders of shares of the series J preferred stock will generally have no voting rights. However, if we are in arrears on dividends on the series J preferred stock for six or more quarterly periods, whether or not consecutive, holders of shares of the series J preferred stock (voting separately as a class together with the holders of all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable, including the series G preferred stock, the series H preferred stock and the series I preferred stock) will be entitled to vote at a special meeting called upon the written request of the holders

of at least 10% of such stock or at our next annual meeting and each subsequent annual meeting of stockholders for the election of two additional directors to serve on our board of directors until all unpaid dividends with respect to the series J preferred stock and any other class or series of parity preferred stock have been paid or declared and a sum sufficient for the payment

S-15

Table of Contents

thereof set aside for payment. In addition, the affirmative vote of the holders of at least two-thirds of the outstanding shares of the series J preferred stock, together with the holders of all other shares of any class or series of preferred stock ranking on parity with the series J preferred stock with respect to the payment of dividends and distribution of assets upon our liquidation, dissolution or winding up (voting together as a single class), is required for us to authorize or issue any class or series of stock ranking senior to the series J preferred stock or to amend any provision of our charter so as to materially and adversely affect the terms of the series J preferred stock. If the proposed charter amendments would materially and adversely affect the rights, preferences, privileges or voting powers of the series J preferred stock disproportionately relative to other classes or series of preferred stock ranking on parity with the series J preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up, the affirmative vote of the holders of at least two-thirds of the outstanding shares of the series J preferred stock, voting separately as a class, is also required.

Listing

We intend to file an application to list the series J preferred stock on the NYSE under the symbol "DLR Pr J". We will use commercially reasonable efforts to have the listing application for the series J preferred stock approved. If the application is approved, trading of the series J preferred stock on the NYSE is expected to commence within 30 days after the date of initial delivery of the series J preferred stock. The underwriters have advised us that they intend to make a market in the series J preferred stock prior to commencement of any trading on the NYSE. However, the underwriters will have no obligation to do so, and we cannot assure you that a market for the series J preferred stock will develop or be maintained prior or subsequent to commencement of trading on the NYSE.

Restrictions on Ownership and Transfer

For us to qualify as a REIT under the Internal Revenue Code of 1986, as amended, or the Code, the transfer of our capital stock, which includes the series J preferred stock, is restricted and not more than 50% in value of our outstanding capital stock may be owned, directly or indirectly, by five or fewer individuals, as defined in the Code, during the last half of any taxable year. In order to assist us in meeting these requirements, no person or entity may own, or be deemed to own by virtue of the constructive ownership rules of the Code, subject to limited exceptions, more than 9.8% by value or number of shares, whichever is more restrictive, of the outstanding shares of the series J preferred stock or more than 9.8% in value of our outstanding capital stock.

Use of Proceeds

Table of Contents

We expect that the net proceeds from the series J preferred stock offering will be approximately \$ million (or approximately \$ million if the underwriters' option to purchase additional shares is exercised in full) after deducting the underwriting discount

S-16

Table of Contents

and our estimated expenses. We intend to use the net proceeds from this offering, together with the net proceeds from the concurrent USD Notes offering, to fund a portion of the repayment, redemption and/or discharge of DFT debt and the payment of certain fees and expenses incurred in connection with the DFT Merger. If the net proceeds from this offering (and other financing sources, including the concurrent USD Notes offering) exceed the amount needed to fund the contemplated repayment of DFT debt and the payment of transaction fees and expenses incurred in connection with the DFT Merger, we intend to use any such excess net proceeds to repay borrowings under our global revolving credit facility, acquire additional properties or businesses, fund development opportunities and to provide for working capital and other general corporate purposes, including potentially for the repurchase, redemption or retirement of outstanding debt or equity securities. See Use of Proceeds.

Conflicts of Interest

As described in Use of Proceeds, we may use a portion of the net proceeds from this offering to reduce amounts outstanding under our global revolving credit facility. Affiliates of certain of the underwriters are lenders under our global revolving credit facility and will receive a pro rata portion of the net proceeds from this offering to the extent that we use any such proceeds to reduce the outstanding balance under such facility. See Underwriting (Conflicts of Interest).

Transfer Agent

The transfer agent and registrar for our preferred stock is American Stock Transfer & Trust Company, LLC.

Settlement Date

Delivery of the shares of series J preferred stock will be made against payment therefor on or about _____, 2017.

Risk Factors

An investment in the series J preferred stock involves various risks, and before making a decision to invest in the series J preferred stock, prospective investors should carefully consider the matters discussed under the caption entitled Risk Factors beginning on page S-21 of this prospectus supplement, page 2 of the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus.

Table of Contents

SUMMARY HISTORICAL FINANCIAL DATA

The following tables set forth summary historical consolidated financial and other data for Digital Realty Trust, Inc. and subsidiaries, including Digital Realty Trust, L.P. As of March 31, 2017, Digital Realty Trust, Inc. had a 98.4% common general partnership interest, and a 100% preferred unit partnership interest in Digital Realty Trust, L.P. Digital Realty Trust, Inc. has no significant operations other than as Digital Realty Trust, L.P.'s sole general partner, and no material assets, other than its investment in Digital Realty Trust, L.P.

The consolidated balance sheet data as of December 31, 2016, 2015 and 2014 and the consolidated income statement data for each of the years in the three-year period ended December 31, 2016 have been derived from the historical consolidated financial statements of Digital Realty Trust, Inc. and subsidiaries, which are incorporated by reference in this prospectus supplement and the accompanying prospectus and which have been audited by KPMG LLP, an independent registered public accounting firm, whose report with respect thereto is incorporated by reference in this prospectus supplement and the accompanying prospectus. The consolidated balance sheet data as of March 31, 2017 and the consolidated income statement data for the three months ended March 31, 2017 and 2016 have been derived from the unaudited consolidated financial statements of Digital Realty Trust, Inc. and subsidiaries, which are incorporated by reference in this prospectus supplement and the accompanying prospectus. These unaudited consolidated financial statements have been prepared on a basis consistent with Digital Realty Trust, Inc.'s audited consolidated financial statements. In the opinion of our management, the unaudited historical financial data reflect all adjustments, consisting only of normal and recurring adjustments, necessary for a fair statement of the results for those periods. The results of operation for interim periods are not necessarily indicative of the results to be expected for the full year or any future period.

The pro forma financial data as of March 31, 2017 and for the three months ended March 31, 2017 and the year ended December 31, 2016 has been derived from the unaudited pro forma condensed combined financial information of Digital Realty Trust, Inc. included in the Combined Current Report on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on July 10, 2017, which are incorporated by reference in this prospectus supplement and the accompanying prospectus. The unaudited pro forma financial data gives effect to the consummation of the DFT Merger but does not give effect to the GBP Notes offering, the concurrent USD Notes offering or this offering and the use of proceeds therefrom. The unaudited pro forma financial data has been prepared as if the DFT Merger had occurred on March 31, 2017 for the unaudited pro forma condensed combined balance sheet data and as if the DFT Merger had occurred on January 1, 2016 for the unaudited pro forma condensed combined income statements and other financial data. The unaudited pro forma financial data is presented for illustrative purposes only and does not purport to reflect the operating results we may achieve in future periods or the historical financial position that would have existed or the operating results that would have been obtained had the DFT Merger occurred on the dates described above and in accordance with the assumptions described in the unaudited pro forma condensed combined financial information. The actual results reported may differ significantly from those reflected in the unaudited pro forma condensed combined financial information for a number of reasons, including inaccuracy of the assumptions used to prepare the unaudited pro forma condensed combined financial information. See "Risk Factors" and "Forward-Looking Statements," as well as the other information and data set forth in this prospectus supplement and the accompanying prospectus and the documents incorporated or deemed to be incorporated by reference herein and therein, for a discussion of matters that could cause our actual results to differ materially from those contained in the unaudited pro forma condensed combined financial information.

You should read the following summary historical financial data in conjunction with the information set forth under the heading "Unaudited Pro Forma Condensed Combined Financial Information" included in the Combined Current Report on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on July 10, 2017 and Digital Realty Trust, Inc.'s and subsidiaries' consolidated historical financial statements and notes thereto and

Management's Discussion and Analysis of Financial Condition and Results of

S-18

Table of Contents

Operations, included in our Combined Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 and Combined Annual Report on Form 10-K for the year ended December 31, 2016, each of which is incorporated by reference in this prospectus supplement and the accompanying prospectus.

Digital Realty Trust, Inc.

(dollars in thousands, except per share data)

	Three Months Ended March 31,			Year Ended December 31,			
	Pro Forma 2017	2017	2016	Pro Forma 2016	2016	2015	2014
	(unaudited)			(unaudited)			
Income Statement Data:							
Operating Revenues:							
Rental	\$ 493,320	\$ 404,126	\$ 371,128	\$ 1,880,483	\$ 1,542,511	\$ 1,354,986	\$ 1,256,086
Tenant reimbursements	132,583	87,288	84,218	525,571	355,903	359,875	350,234
Interconnection and other	57,225	57,225	46,963	204,317	204,317	40,759	
Fee income	1,895	1,895	1,799	6,285	6,285	6,638	7,268
Other	2,325	35	91	44,718	33,197	1,078	2,850
Total operating revenues	687,348	550,569	504,199	2,661,374	2,142,213	1,763,336	1,616,438
Operating Expenses:							
Rental property operating and maintenance	209,579	169,339	154,168	814,383	660,177	549,885	503,140
Property taxes	31,415	26,919	27,331	120,599	102,497	92,588	91,538
Insurance	3,106	2,592	2,412	11,570	9,492	8,809	8,643
Change in fair value of contingent consideration						(44,276)	(8,093)
Depreciation and amortization	261,884	176,466	169,016	1,067,384	699,324	570,527	538,513
General and administrative	41,459	34,647	31,256	175,776	152,733	105,549	93,188
Transactions	3,835	3,323	1,900	22,023	20,491	17,400	1,303
Impairment of investments in real estate							126,470
Other	2,144			10,287	213	60,943	3,070

Edgar Filing: Digital Realty Trust, Inc. - Form 424B5

Total operating expenses	553,422	413,286	386,083	2,222,022	1,644,927	1,361,425	1,357,772
Operating income	133,926	137,283	118,116	439,352	497,286	401,911	258,666
Other Income (Expenses):							
Equity in earnings of unconsolidated joint ventures	5,324	5,324	4,078	17,104	17,104	15,491	13,289
Gain (loss) on sale of properties	(522)	(522)	1,097	192,735	169,902	94,604	15,945
Gain on contribution of properties to unconsolidated joint ventures							95,404
Gain on sale of equity investment							14,551
Interest and other income (expense)	151	151	(624)	(4,597)	(4,564)	(2,381)	2,663
Interest expense	(64,936)	(55,450)	(57,261)	(283,522)	(236,480)	(201,435)	(191,085)
Tax expense	(2,223)	(2,223)	(2,109)	(10,385)	(10,385)	(6,451)	(5,238)
Loss from early extinguishment of debt			(964)	(2,243)	(1,011)	(148)	(780)
Net income	71,720	84,563	62,333	348,444	431,852	301,591	203,415
Net income attributable to noncontrolling interests	(2,309)	(1,025)	(784)	(9,859)	(5,665)	(4,902)	(3,232)
Net income attributable to Digital Realty Trust, Inc.	69,411	83,538	61,549	338,585	426,187	296,689	200,183
Preferred stock dividends	(20,726)	(17,393)	(22,424)	(104,510)	(83,771)	(79,423)	(67,465)
Issuance costs associated with redeemed preferred stock				(22,823)	(10,328)		
Net income available to common stockholders	\$ 48,685	\$ 66,145	\$ 39,125	\$ 211,252	\$ 332,088	\$ 217,266	\$ 132,718

Table of Contents

	Three Months Ended March 31,			Year Ended December 31,			
	Pro Forma 2017 (unaudited)	2017 (unaudited)	2016 (unaudited)	Pro Forma 2016 (unaudited)	2016	2015	2014
Per Share Data:							
Basic income per share available to common stockholders	\$ 0.24	\$ 0.42	\$ 0.27	\$ 1.10	\$ 2.21	\$ 1.57	\$ 1.00
Diluted income per share available to common stockholders	\$ 0.24	\$ 0.41	\$ 0.27	\$ 1.09	\$ 2.20	\$ 1.56	\$ 0.99
Weighted average shares of common stock outstanding:							
Basic	202,132,429	159,297,027	146,565,564	192,789,064	149,953,662	138,247,606	133,369,047
Diluted	203,257,057	160,421,655	147,433,194	193,515,090	150,679,688	138,865,421	133,637,235

	As of March 31,		As of December 31,		
	Pro Forma 2017 (unaudited)	2017 (unaudited)	2016	2015	2014
Balance Sheet Data:					
Net investments in real estate	\$ 13,224,355	\$ 9,188,951	\$ 8,996,362	\$ 8,770,212	\$ 8,203,287
Total assets	19,935,743	12,329,548	12,192,585	11,416,063	9,526,784
Global revolving credit facility	626,862	564,467	199,209	960,271	525,951
Unsecured term loan	1,505,667	1,505,667	1,482,361	923,267	976,600
Unsecured senior notes, net of discount	4,128,110	4,128,110	4,153,797	3,712,569	2,791,758
Mortgage loans, including premiums, net	107,085	3,085	3,240	302,930	378,818
Total liabilities	9,239,030	7,259,103	7,060,288	6,879,561	5,612,546
Redeemable noncontrolling interests	61,576				
Total stockholders' equity	9,897,931	5,031,463	5,096,015	4,500,132	3,878,256
Noncontrolling interest in operating partnership	730,633	32,409	29,684	29,612	29,191

Noncontrolling interests in consolidated joint ventures	6,573	6,573	6,598	6,758	6,791
Total liabilities and equity	\$ 19,935,743	\$ 12,329,548	\$ 12,192,585	\$ 11,416,063	\$ 9,526,784

	Three Months Ended March 31,			Year Ended December 31,			
	Pro Forma 2017 (unaudited)	2017 (unaudited)	2016 (unaudited)	Pro Forma 2016 (unaudited)	2016	2015	2014
Other Data:							
EBITDA ⁽¹⁾	\$ 377,728	\$ 300,284	\$ 268,475	\$ 1,574,786	\$ 1,279,288	\$ 995,827	\$ 868,334
Adjusted EBITDA ⁽¹⁾	\$ 405,989	\$ 323,416	\$ 293,933	\$ 1,521,564	\$ 1,209,939	\$ 1,024,724	\$ 948,193
Ratio of earnings to fixed charges and preferred stock dividends ⁽²⁾	1.87x	2.19x	1.86x	2.01x	2.48x	2.30x	1.84x

(1) We believe that earnings before interest, loss from early extinguishment of debt, income taxes and depreciation and amortization, or EBITDA, and Adjusted EBITDA (as defined below), are useful supplemental performance measures because they allow investors to view our performance without the impact of non-cash depreciation and amortization or the cost of debt and, with respect to Adjusted EBITDA, severance-related expense, equity acceleration, and legal expenses, transaction and integration expenses, (gain) loss on real estate transactions, non-cash (gain) on lease termination, loss on currency forwards, other non-core expense adjustments, noncontrolling interests, preferred stock dividends and issuance costs associated with redeemed preferred stock. Adjusted EBITDA is EBITDA excluding severance-related expense, equity acceleration, and legal expenses, transaction and integration expenses, (gain) loss on real estate transactions, non-cash (gain) on lease termination, loss on currency forwards, other non-core expense adjustments, noncontrolling interests, preferred stock dividends and issuance costs associated with redeemed preferred stock. In addition, we believe EBITDA and Adjusted EBITDA are frequently used by securities analysts, investors and

Table of Contents

other interested parties in the evaluation of REITs. Because EBITDA and Adjusted EBITDA are calculated before recurring cash charges including interest expense and income taxes, exclude capitalized costs, such as leasing commissions, and are not adjusted for capital expenditures or other recurring cash requirements of our business, their utility as a measure of our performance is limited. Other REITs may calculate EBITDA and Adjusted EBITDA differently than we do; accordingly, our EBITDA and Adjusted EBITDA may not be comparable to such other REITs EBITDA and Adjusted EBITDA. Accordingly, EBITDA and Adjusted EBITDA should be considered only as supplements to net income computed in accordance with GAAP as a measure of our financial performance.

The following table reconciles our net income available to common stockholders to our EBITDA and Adjusted EBITDA for the periods indicated:

	Three Months Ended March 31,			Year Ended December 31,			
	Pro Forma 2017 (unaudited)	2017 (unaudited)	2016 (unaudited)	Pro Forma 2016 (unaudited)	2016	2015	2014
Reconciliation of net income to EBITDA and Adjusted EBITDA:							
Net income available to common stockholders	\$ 48,685	\$ 66,145	\$ 39,125	\$ 211,252	\$ 332,088	\$ 217,266	\$ 132,718
Interest expense	64,936	55,450	57,261	283,522	236,480	201,435	191,085
Loss from early extinguishment of debt			964	2,243	1,011	148	780
Tax expense	2,223	2,223	2,109	10,385	10,385	6,451	5,238
Depreciation and amortization expense	261,884	176,466	169,016	1,067,384	699,324	570,527	538,513
EBITDA	\$ 377,728	\$ 300,284	\$ 268,475	\$ 1,574,786	\$ 1,279,288	\$ 995,827	\$ 868,334
Change in fair value of contingent consideration						(44,276)	(8,093)
Transactions	3,835	3,323	1,900	22,023	20,491	17,400	1,303
Severance related accrual, equity acceleration and legal expenses	869	869	1,448	6,208	6,208	5,146	12,690
Impairment of investments in real estate							126,470
Gain on sale of equity investment							(14,551)
Loss (gain) on sale of properties	522	522	(1,097)	(192,735)	(169,902)	(94,604)	(15,945)
							(95,404)

Gain on contribution of properties to unconsolidated joint ventures							
Loss on currency forwards				3,082	3,082		
Non-cash gain on lease termination				(29,205)	(29,205)		
(Gain) on settlement of pre-existing relationship with Telx						(14,355)	
Other non-core expense adjustments			(1)	213	213	75,261	2,692
Noncontrolling interests	2,309	1,025	784	9,859	5,665	4,902	3,232
Preferred stock dividends	20,726	17,393	22,424	104,510	83,771	79,423	67,465
Issuance costs associated with redeemed preferred stock				22,823	10,328		
Adjusted EBITDA	\$ 405,989	\$ 323,416	\$ 293,933	\$ 1,521,564	\$ 1,209,939	\$ 1,024,724	\$ 948,193

(2) Our ratios of earnings to fixed charges and preferred dividends are computed by dividing earnings by the sum of fixed charges and preferred dividends. For this purpose, earnings consist of income from continuing operations before noncontrolling interests and fixed charges. Fixed charges consist of interest expense, capitalized interest and amortization of deferred financing fees, whether expensed or capitalized, and interest within rental expense.

Preferred stock dividends consist of the amount of pre-tax earnings required to pay dividends on our series G preferred stock, series H preferred stock and series I preferred stock.

Table of Contents

RISK FACTORS

*In addition to other information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus we authorize to be delivered to you, you should carefully consider the risks described below and incorporated herein by reference to our Combined Annual Report on Form 10-K for the year ended December 31, 2016, and other subsequent filings of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. under the Securities Exchange Act of 1934, as amended, or the Exchange Act, including our Combined Current Report on Form 8-K filed on July 10, 2017, in evaluating our company, our properties and our business before making a decision to invest in the series J preferred stock. These risks are not the only ones faced by us. Additional risks not presently known to us or that we currently deem immaterial could also materially and adversely affect our financial condition, results of operations, business and prospects. The trading price of the series J preferred stock could decline due to any of these risks, and you may lose all or part of your investment. This prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein 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 faced by us described below and elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference. Please refer to the section below entitled *Forward-Looking Statements*.*

Risks Related to this Offering

The series J preferred stock is a new issuance, with no stated maturity date, and does not have an established trading market, which may negatively affect its market value and your ability to transfer or sell your shares.

The shares of series J preferred stock are a new issue of securities with no established trading market. In addition, because the series J preferred stock has no stated maturity date, investors seeking liquidity will be limited to selling their shares in the secondary market. We intend to file an application to list the series J preferred stock on the NYSE under the symbol `DLR Pr J` but there can be no assurance that the NYSE will approve the series J preferred stock for listing. Even if the NYSE approves our application, however, an active trading market on the NYSE for the shares may not develop or, even if it develops, may not last, in which case the trading price of the shares could be adversely affected and your ability to transfer your shares of series J preferred stock will be limited.

We have been advised by the underwriters that they intend to make a market in the shares of the series J preferred stock prior to the commencement of trading on the NYSE, but they are not obligated to do so and may discontinue market-making at any time without notice.

The series J preferred stock will be rated below investment grade by two of the three rating agencies that currently cover our securities.

The series J preferred stock will not be rated investment grade by two of the three rating agencies that currently cover our securities and will be subject to a higher risk of price volatility than similar, higher-rated securities. Furthermore, increases in leverage of or deteriorating outlooks for an issuer, or volatile markets, could lead to significant deterioration in market prices of below-investment grade rated securities.

Ratings only reflect the views of the issuing rating agency or agencies and such ratings could at any time be revised downward or withdrawn entirely at the discretion of the issuing rating agency. Further, a rating is not a recommendation to purchase, sell or hold any particular security, including the series J preferred stock. In addition, ratings do not reflect market prices or suitability of a security for a particular investor and any rating of the series J

preferred stock may not reflect all risks related to our company and our business, or the structure or market value of the series J preferred stock.

S-22

Table of Contents

We have significant outstanding indebtedness that involves significant debt service obligations, limits our operational and financial flexibility, exposes us to interest rate fluctuations and exposes us to the risk of default under our debt obligations.

As of March 31, 2017, after giving pro forma effect to the DFT Merger (as adjusted for the GBP Notes offering but without giving effect to the concurrent USD Notes offering and this offering and the use of proceeds therefrom), we would have had a total combined indebtedness, including capital lease obligations, of approximately \$7.9 billion. There are no limits on the amount of indebtedness we may incur other than limits contained in our existing debt financing agreements or future agreements that we may enter into or as may be set forth in any policy limiting the amount of indebtedness we may incur adopted by our board of directors. A substantial level of indebtedness could have adverse consequences for our business, financial condition and results of operations because it could, among other things:

require us to dedicate a substantial portion of our cash flow from operations to make principal and interest payments on our indebtedness, thereby reducing our cash flow available to fund working capital, capital expenditures and other general corporate purposes, including to make distributions on our common stock as currently contemplated or as necessary to maintain our qualification as a REIT or to make distributions on our preferred stock, including the series J preferred stock;

require us to maintain certain debt, coverage and other financial metrics at specified levels, thereby reducing our financial flexibility;

make it more difficult for us to satisfy our financial obligations, including borrowings under our global revolving credit facility;

increase our vulnerability to general adverse economic and industry conditions;

expose us to increases in interest rates for our variable rate debt;

limit our ability to borrow additional funds on favorable terms or at all;

limit our ability to refinance all or a portion of our indebtedness on or before maturity on the same or more favorable terms or at all;

limit our flexibility in planning for, or reacting to, changes in our business and our industry;

place us at a competitive disadvantage relative to competitors that have less indebtedness;

increase our risk of property losses as the result of foreclosure actions initiated by lenders in the event we should incur mortgage or other secured debt obligations; and

require us to dispose of one or more of our properties at disadvantageous prices in order to service our indebtedness or to raise funds to pay such indebtedness at maturity.

Market interest rates and other factors may affect the value of the series J preferred stock and our common stock.

One of the factors that will influence the prices of the series J preferred stock and our common stock will be the dividend yield on the series J preferred stock and our common stock relative to market interest rates. An increase in market interest rates could cause the market prices of the series J preferred stock and our common

Table of Contents

stock to go down. The trading prices of the shares of the series J preferred stock and our common stock will also depend on many other factors, which may change from time to time, including:

the market for similar securities;

the attractiveness of REIT securities in comparison to the securities of other companies, taking into account, among other things, the higher tax rates imposed on dividends paid by REITs;

government action or regulation;

general economic conditions or conditions in the financial or real estate markets; and

our financial condition, performance and prospects.

In addition, over the last several years, prices of equity securities in the U.S. trading markets have been experiencing extreme price fluctuations, and the market prices of our common stock and preferred stock have also fluctuated significantly during this period. As a result of these and other factors, investors who purchase the series J preferred stock in this offering may experience a decrease, which could be substantial and rapid, in the market price of the series J preferred stock, including decreases unrelated to our operating performance or prospects. Likewise, in the event that the series J preferred stock becomes convertible upon a Change of Control and is converted into our common stock, holders of our common stock issued on conversion may experience a similar decrease, which also could be substantial and rapid, in the market price of our common stock.

Our global revolving credit facility and term loan facility may limit our ability to pay distributions to holders of the series J preferred stock.

Our operating partnership's global revolving credit facility and term loan facility prohibit us from making distributions to our stockholders, or redeeming or otherwise repurchasing shares of our capital stock, including the series J preferred stock, after the occurrence and during the continuance of an event of default, except in limited circumstances including as necessary to enable us to maintain our qualification as a REIT and to avoid the payment of income or excise tax. Consequently, after the occurrence and during the continuance of an event of default under our global revolving credit facility or term loan facility, we may not be able to pay all or a portion of the dividends payable to the holders or make redemptions or repurchases of the series J preferred stock.

In addition, in the event of a default under our global revolving credit facility or term loan facility, we would be unable to borrow under such facilities and any amounts we have borrowed thereunder could become immediately due and payable. The agreements governing our future debt instruments may also include restrictions on our ability to pay dividends to holders or make redemptions or repurchases of the series J preferred stock.

Shares of the series J preferred stock are subordinated to existing and future debt and your interests could be diluted by the issuance of additional preferred stock, including additional shares of the series J preferred stock, and by other transactions.

Payment of accrued dividends on the series J preferred stock will be subordinated to all of our existing and future debt and will be structurally subordinated to the obligations of our subsidiaries. In addition, we may issue additional shares of series J preferred stock or shares of another class or series of preferred stock ranking on parity with (or, upon the affirmative vote or consent of the holders of at least two-thirds of the outstanding shares of series J preferred stock together with each other class or series of preferred stock ranking on parity with the series J preferred stock with respect to the payment of dividends and the distribution of assets upon liquidation, dissolution or winding up and upon which like voting rights have been conferred and are exercisable, senior to)

S-24

Table of Contents

the series J preferred stock with respect to the payment of dividends and the distribution of assets upon liquidation, dissolution or winding up. Other than the conversion right afforded to holders of series J preferred stock upon the occurrence of a Change of Control as described under [Description of the Series J Preferred Stock Conversion Rights](#) and other than the limited voting rights as described under [Description of the Series J Preferred Stock Limited Voting Rights](#) below, none of the provisions relating to the series J preferred stock relate to or limit our indebtedness or afford the holders of the series J preferred stock protection in the event of a highly leveraged or other transaction, including a merger or the sale, lease or conveyance of all or substantially all our assets or business, that might adversely affect the holders of the series J preferred stock. These factors may affect the trading price of the series J preferred stock.

As a holder of series J preferred stock you have extremely limited voting rights.

Your voting rights as a holder of series J preferred stock will be limited. Shares of our common stock are currently the only class of our securities carrying full voting rights. Voting rights for holders of series J preferred stock exist primarily with respect to voting on amendments to our charter, including our articles supplementary (in some cases, voting together with the holders of other series of preferred stock upon which like voting rights have been conferred and are exercisable, including the series G preferred stock, the series H preferred stock and the series I preferred stock), that materially and adversely affect the rights of the series J preferred stock or create additional classes or series of preferred stock that are senior to the series J preferred stock and the ability to elect (voting separately as a class together with the holders of all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable, including the series G preferred stock, the series H preferred stock and the series I preferred stock) two additional directors to our board of directors in the event that six quarterly dividends (whether or not consecutive) payable on the series J preferred stock are in arrears. See [Description of the Series J Preferred Stock Limited Voting Rights](#).

The Change of Control conversion feature may not adequately compensate you and may make it more difficult for a party to take over our company or discourage a party from taking over our company.

Upon the occurrence of a Change of Control, holders of the series J preferred stock will have the right (unless, prior to the Change of Control Conversion Date, we have provided or provide notice of our election to redeem the series J preferred stock) to convert some or all of their series J preferred stock into shares of our common stock (or equivalent value of alternative consideration). See [Description of the Series J Preferred Stock Conversion Rights](#). Upon such a conversion, the holders will be limited to a maximum number of shares of our common stock equal to the Share Cap multiplied by the number of shares of series J preferred stock converted. If the Common Stock Price is less than \$ (which is approximately 50% of the per-share closing sale price of our common stock reported on the NYSE on , 2017), subject to adjustment, the holders will receive a maximum of shares of our common stock per share of series J preferred stock, which may result in a holder receiving a value that is less than the liquidation preference of the series J preferred stock. In addition, the Change of Control conversion feature of the series J preferred stock may have the effect of discouraging a third party from making an acquisition proposal for our company or of delaying, deferring or preventing certain change of control transactions of our company under circumstances that otherwise could provide the holders of our common stock and series J preferred stock with the opportunity to realize a premium over the then-current market price or that stockholders may otherwise believe is in their best interests.

The articles supplementary establishing the terms of the series J preferred stock will contain restrictions upon ownership and transfer of the series J preferred stock.

The articles supplementary establishing the terms of the series J preferred stock will contain restrictions on ownership and transfer of the series J preferred stock intended to assist us in maintaining our status as a REIT for United States

federal income tax purposes. For example, the terms of the series J preferred stock will restrict any person from acquiring actual or constructive ownership of more than 9.8% (by value or number of shares, whichever is more restrictive) of the outstanding shares of our series J preferred stock and 9.8% (by value) of our

S-25

Table of Contents

outstanding capital stock. See Description of the Series J Preferred Stock Restrictions on Ownership and Transfer in this prospectus supplement. You should consider these ownership limitations prior to your purchase of the series J preferred stock. In addition, the articles supplementary will provide that, notwithstanding any other provision of the series J preferred stock, no holder of series J preferred stock will be entitled to convert such stock into our common stock to the extent that receipt of our common stock would cause the holder to exceed the ownership limitations contained in our charter, which may limit your ability to convert the series J preferred stock into our common stock upon a Change of Control. These ownership restrictions could also have anti-takeover effects and could reduce the possibility that a third party will attempt to acquire control of the company, which could adversely affect the market price of the series J preferred stock.

If our common stock is delisted, your ability to transfer or sell your shares of the series J preferred stock may be limited and the market value of the series J preferred stock will be materially adversely affected.

Other than in connection with certain change of control transactions, the series J preferred stock does not contain provisions that protect you if our common stock is delisted. Since the series J preferred stock has no stated maturity date, you may be forced to hold your shares of the series J preferred stock and receive stated dividends on the stock when, as and if authorized by our board of directors and declared by us with no assurance as to ever receiving the liquidation preference. In addition, if our common stock is delisted, it is likely that the series J preferred stock will be delisted as well. Accordingly, if our common stock is delisted, your ability to transfer or sell your shares of the series J preferred stock may be limited and the market value of the series J preferred stock will be materially adversely affected.

Our ability to pay dividends is limited by the requirements of Maryland law.

Our ability to pay dividends on the series J preferred stock is limited by the laws of Maryland. Under applicable Maryland law, a Maryland corporation generally may not make a distribution if, after giving effect to the distribution, the corporation would not be able to pay its debts as the debts become due in the usual course of business, or the corporation's total assets would be less than the sum of its total liabilities plus, unless the corporation's charter provides otherwise, the amount that would be needed, if the corporation were dissolved at the time of the distribution, to satisfy the preferential rights upon dissolution of stockholders whose preferential rights are superior to those receiving the distribution. Accordingly, we generally may not make a distribution on the series J preferred stock if, after giving effect to the distribution, we would not be able to pay our debts as they become due in the usual course of business or our total assets would be less than the sum of our total liabilities plus, unless the terms of such class or series provide otherwise, the amount that would be needed to satisfy the preferential rights upon dissolution of the holders of shares of any class or series of preferred stock then outstanding, if any, with preferences senior to those of the series J preferred stock.

Dividends on the series J preferred stock do not qualify for the reduced tax rates available for some dividends.

Income from qualified dividends payable to U.S. stockholders that are individuals, trusts and estates are generally subject to tax at preferential rates. Dividends payable by REITs, including the dividends on our series J preferred stock, however, generally are not eligible for the preferential tax rates applicable to qualified dividend income. Although these rules do not adversely affect our taxation or the dividends payable by us, to the extent that the preferential rates continue to apply to regular corporate qualified dividends, investors who are individuals, trusts and estates may perceive an investment in us to be relatively less attractive than an investment in the stock of a non-REIT corporation that pays dividends, which could materially and adversely affect the value of the shares of, and per share trading price of, our capital stock, including the series J preferred stock.

Table of Contents

FORWARD-LOOKING STATEMENTS

We make statements in this prospectus supplement, the accompanying prospectus and the documents incorporated herein and therein by reference that are forward-looking statements within the meaning of the federal securities laws. In particular, statements pertaining to the DFT Merger, our capital resources, expected use of net proceeds from this offering and the concurrent USD Notes offering, expected use of borrowings under our credit facility, portfolio performance, leverage policy, acquisition and capital expenditure plans, capital recycling program, returns on invested capital, supply and demand for data center space, capitalization rates, rents to be received in future periods and expected rental rates on new or renewed data center space contain forward-looking statements. Likewise, all of our statements regarding anticipated market conditions, demographics and results of operations are forward-looking statements. You can identify forward-looking statements by the use of forward-looking terminology such as believes, expects, may, will, should, seeks, approximately, intends, plans, pro forma, estimates or anticipates, and these words and phrases or similar words or phrases which are predictions of or indicate future events or trends and discussions which do not relate solely to historical matters. You can also identify forward-looking statements by discussions of strategy, plans or intentions.

Forward-looking statements involve numerous risks and uncertainties and you should not rely on them as predictions of future events. Forward-looking statements depend on assumptions, data or methods that may be incorrect or imprecise and that we may not be able to realize. We do not guarantee that the transactions and events described will happen as described or that they will happen at all. The following factors, among others, could cause actual results and future events to differ materially from those set forth or contemplated in the forward-looking statements:

the impact of current global economic, credit and market conditions;

current local economic conditions in our geographic markets;

decreases in information technology spending, including as a result of economic slowdowns or recession;

adverse economic or real estate developments in our industry or the industry sectors that we sell to (including risks relating to decreasing real estate valuations and impairment charges);

our dependence upon significant tenants;

bankruptcy or insolvency of a major tenant or a significant number of smaller tenants;

defaults on or non-renewal of leases by tenants;

our failure to obtain necessary debt and equity financing;

risks associated with using debt to fund our business activities, including re-financing and interest rate risks, our failure to repay debt when due, adverse changes in our credit ratings or our breach of covenants or other terms contained in our loan facilities and agreements;

financial market fluctuations;

changes in foreign currency exchange rates;

our inability to manage our growth effectively;

difficulty acquiring or operating properties in foreign jurisdictions;

S-27

Table of Contents

the suitability of our properties and data center infrastructure, delays or disruptions in connectivity, failure of our physical infrastructure or services or availability of power;

our failure to successfully integrate and operate acquired or developed properties or businesses;

risks related to joint venture investments, including as a result of our lack of control of such investments;

delays or unexpected costs in development of properties;

decreased rental rates, increased operating costs or increased vacancy rates;

increased competition or available supply of data center space;

our inability to successfully develop and lease new properties and development space;

difficulties in identifying properties to acquire and completing acquisitions;

our inability to acquire off-market properties;

our inability to comply with the rules and regulations applicable to reporting companies;

Digital Realty Trust, Inc.'s failure to maintain its status as a REIT for federal income tax purposes;

possible adverse changes to tax laws;

restrictions on our ability to engage in certain business activities;

environmental uncertainties and risks related to natural disasters;

losses in excess of our insurance coverage;

changes in foreign laws and regulations, including those related to taxation and real estate ownership and operation;

changes in local, state and federal regulatory requirements, including changes in real estate and zoning laws and increases in real property tax rates;

each of our and DFT's success, or the success of the combined company, in implementing its business strategy and its ability to identify, underwrite, finance, consummate and integrate acquisitions or investments;

changes in financial markets and interest rates, or to the business or financial condition of us, DFT or the combined company or their respective businesses;

the nature and extent of future competition;

each of our and DFT's ability, or the ability of the combined company, to pay down, refinance, restructure and/or extend its indebtedness as it becomes due;

our ability and willingness, and the ability and willingness of DFT and the combined company, to maintain its qualification as a REIT due to economic, market, legal, tax or other considerations;

Table of Contents

availability to us, DFT and the combined company of financing and capital;

each of our and DFT's ability, or the ability of the combined company, to deliver high quality properties and services, to attract and retain qualified personnel and to attract and retain tenants;

the impact of any financial, accounting, legal or regulatory issues or litigation that may affect us, DFT or the combined company;

risks associated with achieving expected revenue synergies or cost savings as a result of the DFT Merger;

risks associated with the companies' ability to consummate the DFT Merger, the timing of the closing of the DFT Merger and unexpected costs or unexpected liabilities that may arise from the DFT Merger, whether or not consummated; and

those additional risks and factors discussed in reports filed with the SEC by us from time to time, including those discussed under the heading "Risk Factors" in our most recently filed reports on Forms 10-K and 10-Q.

While forward-looking statements reflect our good faith beliefs, they are not guarantees of future performance. We disclaim any obligation to publicly update or revise any forward-looking statement to reflect changes in underlying assumptions or factors, new information, data or methods, future events or other changes. The risks included here are not exhaustive, and additional factors could adversely affect our business and financial performance, including factors and risks included in other sections of this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein. Those risks continue to be relevant to our performance and financial condition. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for management to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. For a further discussion of these and other factors that could impact our future results, performance or transactions, see the section entitled "Risk Factors" in this prospectus supplement, in the accompanying prospectus and in our Combined Annual Report on Form 10-K for the year ended December 31, 2016 and our Combined Current Report on Form 8-K filed on July 10, 2017, as may be updated by subsequent filings with the SEC that are incorporated by reference herein and therein.

Table of Contents

USE OF PROCEEDS

We expect that the net proceeds from this offering will be approximately \$ million (or approximately \$ million if the underwriters' option to purchase additional shares is exercised in full) after deducting the underwriting discounts and commissions and our estimated expenses of approximately \$ million.

We intend to use the net proceeds from this offering, together with the net proceeds from the concurrent USD Notes offering, to fund a portion of the repayment, redemption and/or discharge of DFT debt and the payment of certain transaction fees and expenses incurred in connection with the DFT Merger. If the net proceeds from this offering (and other financing sources, including the concurrent USD Notes offering) exceed the amount needed to fund the contemplated repayment of DFT debt and the payment of transaction fees and expenses incurred in connection with the DFT Merger, we intend to use any such excess net proceeds to repay borrowings under our operating partnership's global revolving credit facility, acquire additional properties or businesses, fund development opportunities and to provide for working capital and other general corporate purposes, including potentially for the repurchase, redemption or retirement of other outstanding debt or equity securities.

Our operating partnership's global revolving credit facility provides for borrowings in Australian dollars, British pounds sterling, Canadian dollars, Euros, Hong Kong dollars, Japanese yen, Singapore dollars, and U.S. dollars, and includes the ability to add additional currencies in the future, subject to the receipt of lender commitments in such currencies and the satisfaction of other conditions. As of March 31, 2017, our operating partnership's global revolving credit facility had a total outstanding balance of \$574.4 million, excluding committed letters of credit of \$19.1 million, leaving approximately \$1.4 billion available for use. As of March 31, 2017, borrowings under operating partnership's global revolving credit facility bore interest at an overall blended rate of 1.32% comprised of 1.91% (U.S. dollar), 1.27% (British pound sterling), 0.63% (Euro), 1.45% (Hong Kong dollars), 0.96% (Japanese yen), 1.66% (Singapore dollar) and 1.94% (Canadian dollars). The interest rates are based on 1-month LIBOR, 1-month GBP LIBOR, 1-month EURIBOR, 1-month HIBOR, 1-month JPY LIBOR, 1-month SOR and 1-month CDOR, respectively, plus a margin of 1.00%. We have used and intend to use borrowings under our operating partnership's global revolving credit facility to acquire additional properties or businesses, fund development opportunities and to provide for working capital and other corporate purposes, including potentially for the repurchase, redemption or retirement of outstanding debt or equity securities.

Affiliates of Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities, LLC are lenders, an affiliate of Citigroup Global Markets Inc. is the administrative agent, an affiliate of Merrill Lynch, Pierce, Fenner & Smith Incorporated is a syndication agent, Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are joint lead arrangers and joint book running managers, affiliates of Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are issuing banks and affiliates of Citigroup Global Markets Inc. are swing line banks under our operating partnership's global revolving credit facility. Therefore, such underwriters and/or affiliates of such underwriters may receive more than 5% of the net proceeds from this offering through the repayment of the borrowings under the global revolving credit facility.

Table of Contents**CAPITALIZATION**

The following table sets forth Digital Realty Trust, Inc.'s capitalization as of March 31, 2017:

on an actual basis;

on a pro forma basis after giving effect to the pro forma adjustments set forth in our unaudited pro forma condensed combined financial information incorporated by reference in this prospectus supplement and the accompanying prospectus, including the DFT Merger; and

on a pro forma as adjusted basis after giving effect to the GBP Notes offering, the concurrent USD Notes offering, this offering and the use of proceeds therefrom.

This information should be read in conjunction with, and is qualified in its entirety by, Digital Realty Trust, Inc.'s unaudited pro forma condensed combined financial information included in the Combined Current Report on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on July 10, 2017, Digital Realty Trust, Inc.'s consolidated financial statements and schedule and the notes to its financial statements included in our Combined Quarterly Report on Form 10-Q for the three months ended March 31, 2017 and our Combined Annual Report on Form 10-K for the year ended December 31, 2016, each of which is incorporated by reference in this prospectus supplement and the accompanying prospectus.

	As of March 31, 2017		
	Actual	Pro Forma	Pro Forma As Adjusted
	(In thousands, except share and per share amounts)		
Cash and cash equivalents	\$ 14,950	\$ 59,930	
Debt:			
Global revolving credit facility ⁽¹⁾	\$ 564,467	\$ 626,862	
Unsecured term loan facility	1,505,667	1,505,667	
Bridge loan facility		1,400,000	
Unsecured senior notes, net of discount	4,128,110	4,128,110	
Mortgage loans, net of premiums	3,085	107,085	
Capital leases and other financing obligations	165,264	165,264	
Redeemable noncontrolling interests operating partnership		61,576	
Equity:			
Stockholders' equity:			
Preferred stock: \$0.01 par value per share, 110,000,000 shares authorized:		201,250	201,250

Series C Cumulative Redeemable Perpetual Preferred Stock, 6.625%, \$201,250 liquidation preference (\$25.00 per share) 0, 8,050,000 and 8,050,000 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively			
Series F Cumulative Redeemable Preferred Stock, 6.625%, \$182,500 liquidation preference (\$25.00 per share), 7,300,000 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively	176,191	176,191	176,191
Series G Cumulative Redeemable Preferred Stock, 5.875%, \$250,000 liquidation preference (\$25.00 per share), 10,000,000 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively	241,468	241,468	241,468

S-31

Table of Contents

	As of March 31, 2017		
	Actual	Pro Forma	Pro Forma As Adjusted
	(In thousands, except share and per share amounts)		
Series H Cumulative Redeemable Preferred Stock, 7.375%, \$365,000 liquidation preference (\$25.00 per share), 14,600,000 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively	353,290	353,290	353,290
Series I Cumulative Redeemable Preferred Stock, 6.350%, \$250,000 liquidation preference (\$25.00 per share), 10,000,000 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively	242,012	242,012	242,012
Series J Cumulative Redeemable Preferred Stock, %, \$ liquidation preference (\$25.00 per share), 0, 0 and (2) shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively			
Common Stock: \$0.01 par value, 265,000,000 shares authorized, 159,539,892, 202,375,294 and 202,375,294 shares issued and outstanding on an actual, pro forma and pro forma as adjusted basis, respectively	1,584	2,012	2,012
Additional paid-in capital	5,769,091	10,606,921	
Accumulated dividends in excess of earnings	(1,629,633)	(1,801,633)	
Accumulated other comprehensive (loss), net	(122,540)	(123,580)	(123,580)
Total stockholders' equity	5,031,463	9,897,931	
Noncontrolling interests:			
Noncontrolling interests in operating partnership	32,409	730,633	
Noncontrolling interests in consolidated joint ventures	6,573	6,573	
Total noncontrolling interests	38,982	737,206	
Total Capitalization	\$ 11,437,038	\$ 18,629,701	

- (1) If the net proceeds from this offering (and other financing sources, including the concurrent series J offering) exceed the amount needed to fund the contemplated repayment, redemption and discharge of DFT Debt and the payment of certain transaction costs incurred in connection with the DFT Merger, we intend to use any such excess net proceeds to repay borrowings under our operating partnership's global revolving credit facility. See Use of Proceeds. As of July 31, 2017, our operating partnership's global revolving credit facility had a balance of approximately \$137.1 million, excluding committed letters of credit of \$20.9 million. As of March 31, 2017 and July 31, 2017, DFT's revolving credit facility had balances of approximately \$198 million and \$424 million, respectively.

- (2) Assumes no exercise of the underwriters' option to purchase up to an additional _____ shares of the series J preferred stock.

S-32

Table of Contents

DESCRIPTION OF THE SERIES J PREFERRED STOCK

The following summary of the material terms and provisions of the series J preferred stock of Digital Realty Trust, Inc. does not purport to be complete and is qualified in its entirety by reference to our charter, including the articles supplementary setting forth the terms of the series J preferred stock and our bylaws, as amended, each of which is available from us and is or will be filed with the SEC. This description of the particular terms of the series J preferred stock supplements, and to the extent inconsistent therewith replaces, the description of the general terms and provisions of our preferred stock set forth in the accompanying prospectus.

General

Our board of directors and a duly authorized committee of our board of directors classified _____ shares of the company's authorized but unissued preferred stock as, and approved articles supplementary setting forth the terms of, a series of the company's preferred stock, designated as the _____% series J cumulative redeemable preferred stock. When issued in accordance with this prospectus supplement and the accompanying prospectus, the series J preferred stock will be validly issued, fully paid and nonassessable. Our board of directors may authorize the issuance and sale of additional shares of series J preferred stock from time to time.

In connection with this offering, we, in accordance with the terms of the partnership agreement of our operating partnership, will contribute or otherwise transfer the net proceeds of the sale of the series J preferred stock to our operating partnership, and our operating partnership will issue to us _____% series J cumulative redeemable preferred units, or series J preferred units. Our operating partnership will be required to make all required distributions on the series J preferred units after any distribution of cash or assets to the holders of preferred units ranking senior to the series J preferred units as to distributions and liquidations that we may issue and prior to any distribution of cash or assets to the holders of common partnership units or to the holders of any other equity interest of our operating partnership, except for any other series of preferred units ranking on a parity with the series J preferred units as to distributions and liquidation, including our operating partnership's series G cumulative redeemable preferred units, series H cumulative redeemable preferred units and series I cumulative redeemable preferred units; provided however, that our operating partnership may make such distributions as are necessary to enable us to maintain our qualification as a REIT.

We intend to file an application to list the series J preferred stock on the NYSE under the symbol `DLR Pr J`. We will use commercially reasonable efforts to have the listing application for the series J preferred stock approved. If the application is approved, trading of the series J preferred stock on the NYSE is expected to commence within 30 days after the date of initial delivery of the series J preferred stock. See **Underwriting (Conflicts of Interest)** in this prospectus supplement.

Ranking

The series J preferred stock will rank, with respect to dividend rights and rights upon voluntary or involuntary liquidation, dissolution or winding up of our affairs:

senior to all classes or series of our common stock and to any other class or series of our capital stock expressly designated as ranking junior to the series J preferred stock;

on parity with the series G preferred stock, the series H preferred stock, the series I preferred stock and any other class or series of our capital stock expressly designated as ranking on parity with the series J preferred stock; and

junior to any other class or series of our capital stock expressly designated as ranking senior to the series J preferred stock, none of which exists on the date hereof.

S-33

Table of Contents

The term **capital stock** does not include convertible or exchangeable debt securities, which, prior to conversion or exchange, rank senior in right of payment to the series J preferred stock. The series J preferred stock will also rank junior in right of payment to our other existing and future debt obligations.

Dividends

Subject to the preferential rights of the holders of any class or series of our capital stock ranking senior to the series J preferred stock with respect to dividend rights, holders of shares of the series J preferred stock are entitled to receive, when, as and if authorized by our board of directors and declared by us out of funds legally available for the payment of dividends, cumulative cash dividends at the rate of % per annum of the \$25.00 liquidation preference per share of the series J preferred stock (equivalent to the fixed annual amount of \$ per share of the series J preferred stock).

Dividends on the series J preferred stock will accrue and be cumulative from and including the date of original issue and will be payable to holders quarterly in arrears on or about the last day of March, June, September and December of each year or, if such day is not a business day, on either the immediately preceding business day or next succeeding business day at our option, except that, if such business day is in the next succeeding year, such payment shall be made on the immediately preceding business day, in each case with the same force and effect as if made on such date. The term **business day** means each day, other than a Saturday or a Sunday, which is not a day on which banks in New York are required to close.

The amount of any dividend payable on the series J preferred stock for any partial dividend period will be prorated and computed on the basis of a 360-day year consisting of twelve 30-day months. A dividend period is the respective period commencing on and including the first day of January, April, July and October of each year and ending on and including the day preceding the first day of the next succeeding dividend period (other than the initial dividend period and the dividend period during which any shares of series J preferred stock shall be redeemed). Dividends will be payable to holders of record as they appear in our stock records at the close of business on the applicable record date, which shall be the date designated by our board of directors as the record date for the payment of dividends that is not more than 35 and not fewer than 10 days prior to the scheduled dividend payment date.

The first dividend on the series J preferred stock is scheduled to be paid on December 29, 2017 and will be a pro rata dividend from and including the original issue date to and including December 31, 2017 in the amount of \$ per share.

Dividends on the series J preferred stock will accrue whether or not:

we have earnings;

there are funds legally available for the payment of those dividends; or

those dividends are authorized or declared.

Except as described in the next two paragraphs, unless full cumulative dividends on the series J preferred stock for all past dividend periods shall have been or contemporaneously are declared and paid in cash or declared and a sum sufficient for the payment thereof in cash is set apart for payment, we will not:

declare and pay or declare and set aside for payment of dividends, and we will not declare and make any distribution of cash or other property, directly or indirectly, on or with respect to any shares of our common stock or shares of any other class or series of our capital stock ranking, as to dividends, on parity with or junior to the series J preferred stock, for any period; or

S-34

Table of Contents

redeem, purchase or otherwise acquire for any consideration, or make any other distribution of cash or other property, directly or indirectly, on or with respect to, or pay or make available any monies for a sinking fund for the redemption of, any common stock or shares of any other class or series of our capital stock ranking, as to dividends and upon liquidation, on parity with or junior to the series J preferred stock.

The foregoing sentence, however, will not prohibit:

dividends payable solely in capital stock ranking junior to the series J preferred stock;

the conversion into or exchange for other shares of any class or series of capital stock ranking junior to the series J preferred stock; and

our purchase of shares of series J preferred stock, preferred stock ranking on parity with the series J preferred stock as to payment of dividends and upon liquidation, dissolution or winding up or capital stock or equity securities ranking junior to the series J preferred stock pursuant to our charter to the extent necessary to preserve our status as a REIT as discussed under Restrictions on Ownership and Transfer.

When we do not pay dividends in full (and do not set apart a sum sufficient to pay them in full) on the series J preferred stock and the shares of any other class or series of capital stock ranking, as to dividends, on parity with the series J preferred stock, we will declare any dividends upon the series J preferred stock and each such other class or series of capital stock ranking, as to dividends, on parity with the series J preferred stock pro rata, so that the amount of dividends declared per share of series J preferred stock and such other class or series of capital stock will in all cases bear to each other the same ratio that accrued dividends per share on the series J preferred stock and such other class or series of capital stock (which will not include any accrual in respect of unpaid dividends on such other class or series of capital stock for prior dividend periods if such other class or series of capital stock does not have a cumulative dividend) bear to each other. No interest, or sum of money in lieu of interest, will be payable in respect of any dividend payment or payments on the series J preferred stock which may be in arrears.

Holders of shares of series J preferred stock are not entitled to any dividend, whether payable in cash, property or shares of capital stock, in excess of full cumulative dividends on the series J preferred stock as described above. Any dividend payment made on the series J preferred stock will first be credited against the earliest accrued but unpaid dividends due with respect to those shares which remain payable. Accrued but unpaid dividends on the series J preferred stock will accumulate as of the dividend payment date on which they first become payable.

We do not intend to declare dividends on the series J preferred stock, or pay or set apart for payment dividends on the series J preferred stock, if the terms of any of our agreements, including any agreements relating to our indebtedness, prohibit such a declaration, payment or setting apart for payment or provide that such declaration, payment or setting apart for payment would constitute a breach of or default under such an agreement. Likewise, no dividends will be authorized by our board of directors and declared by us or paid or set apart for payment if such authorization, declaration or payment is restricted or prohibited by law.

Our global revolving credit facility and term loan facility prohibit us from making distributions to our stockholders, or redeeming or otherwise repurchasing shares of our capital stock, including the series J preferred stock, after the occurrence and during the continuance of an event of default, except in limited circumstances including as necessary

to enable us to maintain our qualification as a REIT and to avoid the payment of income or excise tax. Consequently, after the occurrence and during the continuance of an event of default under our global revolving credit facility or term loan facility, we may not be able to pay all or a portion of the dividends payable to the holders of the series J preferred stock or redeem all or a portion of the series J preferred stock. In

S-35

Table of Contents

addition, in the event of a default under our global revolving credit facility or term loan facility, we would be unable to borrow under such facilities and any amounts we have borrowed thereunder could become immediately due and payable. The agreements governing our future debt instruments may also include restrictions on our ability to pay dividends to holders or make redemptions of the series J preferred stock.

Liquidation Preference

Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, before any distribution or payment shall be made to holders of shares of our common stock or any other class or series of capital stock ranking, as to rights upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, junior to the series J preferred stock, holders of shares of series J preferred stock will be entitled to be paid out of our assets legally available for distribution to our stockholders, after payment of or provision for our debts and other liabilities, a liquidation preference of \$25.00 per share of series J preferred stock, plus an amount equal to any accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the date of payment. If, upon our voluntary or involuntary liquidation, dissolution or winding up, our available assets are insufficient to pay the full amount of the liquidating distributions on all outstanding shares of series J preferred stock and the corresponding amounts payable on all shares of each other class or series of capital stock ranking, as to rights upon liquidation, dissolution or winding up, on parity with the series J preferred stock in the distribution of assets, then holders of shares of series J preferred stock and each such other class or series of capital stock ranking, as to rights upon any voluntary or involuntary liquidation, dissolution or winding up, on parity with the series J preferred stock will share ratably in any distribution of assets in proportion to the full liquidating distributions to which they would otherwise be respectively entitled.

Holders of shares of series J preferred stock will be entitled to written notice of any distribution in connection with any voluntary or involuntary liquidation, dissolution or winding up of our affairs not less than 30 days and not more than 60 days prior to the distribution payment date. After payment of the full amount of the liquidating distributions to which they are entitled, holders of shares of series J preferred stock will have no right or claim to any of our remaining assets. Our consolidation or merger with or into any other corporation, trust or other entity, or the voluntary sale, lease, transfer or conveyance of all or substantially all of our property or business, will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

In determining whether a distribution (other than upon voluntary or involuntary liquidation), by dividend, redemption or other acquisition of shares of our capital stock or otherwise, is permitted under Maryland law, amounts that would be needed, if we were to be dissolved at the time of the distribution, to satisfy the preferential rights upon dissolution of holders of shares of series J preferred stock will not be added to our total liabilities.

Optional Redemption

Except with respect to the special optional redemption described below and in certain limited circumstances relating to our maintenance of our ability to qualify as a REIT as described in Restrictions on Ownership and Transfer, we cannot redeem the series J preferred stock prior to _____, 2022. On and after _____, 2022, we may, at our option, upon not fewer than 30 and not more than 60 days' written notice, redeem the series J preferred stock, in whole or in part, at any time or from time to time, for cash at a redemption price of \$25.00 per share, plus all accrued and unpaid dividends (whether or not authorized or declared) up to but excluding the date fixed for redemption, without interest, to the extent we have funds legally available for that purpose.

If fewer than all of the outstanding shares of the series J preferred stock are to be redeemed, we will select the shares of series J preferred stock to be redeemed pro rata (as nearly as may be practicable without creating fractional shares) or by lot as we determine. If such redemption is to be by lot and, as a result of such redemption, any holder of shares

of series J preferred stock, other than a holder of series J preferred stock that

S-36

Table of Contents

has received an exemption from the ownership limit, would have actual or constructive ownership of more than 9.8% of the issued and outstanding shares of series J preferred stock by value or number of shares, whichever is more restrictive, or more than 9.8% in value of the aggregate outstanding shares of capital stock because such holder's shares of series J preferred stock were not redeemed, or were only redeemed in part, then, except as otherwise provided in the charter, we will redeem the requisite number of shares of series J preferred stock of such holder such that no holder will own in excess of the 9.8% series J preferred stock ownership limit or the 9.8% capital stock ownership limit subsequent to such redemption. See Restrictions on Ownership and Transfer. In order for their shares of series J preferred stock to be redeemed, holders must surrender their shares at the place, or in accordance with the book-entry procedures, designated in the notice of redemption. Holders will then be entitled to the redemption price and any accrued and unpaid dividends payable upon redemption following surrender of the shares as detailed below. If a notice of redemption has been given (in the case of a redemption of the series J preferred stock other than to preserve our status as a REIT), if the funds necessary for the redemption have been set aside by us in trust for the benefit of the holders of any shares of series J preferred stock called for redemption and if irrevocable instructions have been given to pay the redemption price and all accrued and unpaid dividends, then from and after the redemption date, dividends will cease to accrue on such shares of series J preferred stock and such shares of series J preferred stock will no longer be deemed outstanding. At such time, all rights of the holders of such shares will terminate, except the right to receive the redemption price plus any accrued and unpaid dividends payable upon redemption, without interest. So long as no dividends are in arrears and subject to the provisions of applicable law, we may from time to time repurchase all or any part of the series J preferred stock, including the repurchase of shares of series J preferred stock in open-market transactions and individual purchases at such prices as we negotiate, in each case as duly authorized by our board of directors.

Unless full cumulative dividends on all shares of series J preferred stock have been or contemporaneously are authorized, declared and paid or declared and a sum sufficient for the payment thereof set apart for payment for all past dividend periods, no shares of series J preferred stock will be redeemed unless all outstanding shares of series J preferred stock are simultaneously redeemed and we will not purchase or otherwise acquire directly or indirectly any shares of series J preferred stock or any class or series of our capital stock ranking, as to dividends or upon liquidation, dissolution or winding up, on parity with or junior to the series J preferred stock (except by exchange for our capital stock ranking junior to the series J preferred stock as to dividends and upon liquidation); provided, however, that whether or not the requirements set forth above have been met, we may purchase shares of series J preferred stock, preferred stock ranking on parity with the series J preferred stock as to payment of dividends and upon liquidation, dissolution or winding up or capital stock or equity securities ranking junior to the series J preferred stock pursuant to our charter to the extent necessary to ensure that we continue to meet the requirements for qualification as a REIT for federal income tax purposes, and may purchase or acquire shares of series J preferred stock pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding shares of series J preferred stock. See

Restrictions on Ownership and Transfer below.

We will mail notice of redemption, postage prepaid, not less than 30 nor more than 60 days prior to the redemption date, addressed to the respective holders of record of the series J preferred stock to be redeemed at their respective addresses as they appear on our stock transfer records as maintained by the transfer agent named in Transfer Agent and Registrar. No failure to give such notice or any defect therein or in the mailing thereof will affect the validity of the proceedings for the redemption of any shares of series J preferred stock except as to the holder to whom notice was defective or not given. In addition to any information required by law or by the applicable rules of any exchange upon which the series J preferred stock may be listed or admitted to trading, each notice will state:

the redemption date;

the redemption price;

the number of shares of series J preferred stock to be redeemed;

S-37

Table of Contents

the place or places where the certificates, if any, representing shares of series J preferred stock are to be surrendered for payment of the redemption price;

procedures for surrendering noncertificated shares of series J preferred stock for payment of the redemption price;

that dividends on the shares of series J preferred stock to be redeemed will cease to accumulate on such redemption date; and

that payment of the redemption price and any accumulated and unpaid dividends will be made upon presentation and surrender of such series J preferred stock.

If fewer than all of the shares of series J preferred stock held by any holder are to be redeemed, the notice mailed to such holder will also specify the number of shares of series J preferred stock held by such holder to be redeemed.

We are not required to provide such notice in the event we redeem series J preferred stock in order to maintain our status as a REIT.

If a redemption date falls after a dividend record date and on or prior to the corresponding dividend payment date, each holder of shares of the series J preferred stock at the close of business of such dividend record date will be entitled to the dividend payable on such shares on the corresponding dividend payment date notwithstanding the redemption of such shares on or prior to such dividend payment date and each holder of shares of series J preferred stock that surrenders such shares on such redemption date will be entitled to the dividends accruing after the end of the applicable dividend period, up to but excluding the redemption date. Except as described above, we will make no payment or allowance for unpaid dividends, whether or not in arrears, on series J preferred stock for which a notice of redemption has been given.

All shares of series J preferred stock that we redeem or repurchase will be retired and restored to the status of authorized but unissued shares of preferred stock, without designation as to series or class.

Our global revolving credit facility and term loan facility prohibit us from redeeming or otherwise repurchasing any shares of our capital stock, including the series J preferred stock, after the occurrence and during the continuance of an event of default, except in limited circumstances.

Special Optional Redemption

Upon the occurrence of a Change of Control (as defined below), we may, at our option, redeem the series J preferred stock, in whole or in part within 120 days after the first date on which such Change of Control occurred, by paying \$25.00 per share, plus any accrued and unpaid dividends to, but not including, the date of redemption. If, prior to the Change of Control Conversion Date, we have provided or provide notice of redemption with respect to the series J preferred stock (whether pursuant to our optional redemption right or our special optional redemption right), the holders of series J preferred stock will not have the conversion right described below under Conversion Rights.

We will mail to you, if you are a record holder of the series J preferred stock, a notice of redemption no fewer than 30 days nor more than 60 days before the redemption date. We will send the notice to your address shown on our share transfer books. A failure to give notice of redemption or any defect in the notice or in its mailing will not affect

the validity of the redemption of any series J preferred stock except as to the holder to whom notice was defective. Each notice will state the following:

the redemption date;

S-38

Table of Contents

the redemption price;

the number of shares of series J preferred stock to be redeemed;

the place or places where the certificates, if any, representing shares of series J preferred stock are to be surrendered for payment of the redemption price;

procedures for surrendering noncertificated shares of series J preferred stock for payment of the redemption price;

that dividends on the shares of series J preferred stock to be redeemed will cease to accumulate on such redemption date;

that payment of the redemption price and any accumulated and unpaid dividends will be made upon presentation and surrender of such series J preferred stock;

that the series J preferred stock is being redeemed pursuant to our special optional redemption right in connection with the occurrence of a Change of Control and a brief description of the transaction or transactions constituting such Change of Control; and

that the holders of the series J preferred stock to which the notice relates will not be able to tender such series J preferred stock for conversion in connection with the Change of Control and each share of series J preferred stock tendered for conversion that is selected, prior to the Change of Control Conversion Date, for redemption will be redeemed on the related date of redemption instead of converted on the Change of Control Conversion Date.

If we redeem fewer than all of the outstanding shares of series J preferred stock, the notice of redemption mailed to each stockholder will also specify the number of shares of series J preferred stock that we will redeem from each stockholder. In this case, we will determine the number of shares of series J preferred stock to be redeemed as described above in Optional Redemption.

If we have given a notice of redemption and have set aside sufficient funds for the redemption in trust for the benefit of the holders of the series J preferred stock called for redemption, then from and after the redemption date, those shares of series J preferred stock will be treated as no longer being outstanding, no further dividends will accrue and all other rights of the holders of those shares of series J preferred stock will terminate. The holders of those shares of series J preferred stock will retain their right to receive the redemption price for their shares and any accrued and unpaid dividends through, but not including, the redemption date, without interest.

The holders of series J preferred stock at the close of business on a dividend record date will be entitled to receive the dividend payable with respect to the series J preferred stock on the corresponding payment date notwithstanding the redemption of the series J preferred stock between such record date and the corresponding payment date or our default in the payment of the dividend due. Except as provided above, we will make no payment or allowance for unpaid

dividends, whether or not in arrears, on series J preferred stock to be redeemed.

A Change of Control is when, after the original issuance of the series J preferred stock, the following have occurred and are continuing:

the acquisition by any person, including any syndicate or group deemed to be a person under Section 13(d)(3) of the Exchange Act, of beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of purchases, mergers or other acquisition transactions of stock of our company entitling that person to exercise more than 50% of

S-39

Table of Contents

the total voting power of all stock of our company entitled to vote generally in the election of our directors (except that such person will be deemed to have beneficial ownership of all securities that such person has the right to acquire, whether such right is currently exercisable or is exercisable only upon the occurrence of a subsequent condition); and

following the closing of any transaction referred to in the bullet point above, neither we nor the acquiring or surviving entity has a class of common securities (or ADRs representing such securities) listed on the NYSE, the NYSE MKT or NASDAQ or listed or quoted on an exchange or quotation system that is a successor to the NYSE, the NYSE MKT or NASDAQ.

Conversion Rights

Upon the occurrence of a Change of Control, each holder of series J preferred stock will have the right, unless, prior to the Change of Control Conversion Date, we have provided or provide notice of our election to redeem the series J preferred stock as described under Optional Redemption or Special Optional Redemption, to convert some or all of the series J preferred stock held by such holder (the Change of Control Conversion Right) on the Change of Control Conversion Date into a number of shares of our common stock per share of series J preferred stock (the Common Stock Conversion Consideration), which is equal to the lesser of:

the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference plus the amount of any accrued and unpaid dividends to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a series J preferred stock dividend payment and prior to the corresponding series J preferred stock dividend payment date, in which case no additional amount for such accrued and unpaid dividend will be included in this sum) by (ii) the Common Stock Price (such quotient, the Conversion Rate); and

(i.e., the Share Cap).

The Share Cap is subject to pro rata adjustments for any share splits (including those effected pursuant to a distribution of our common stock), subdivisions or combinations (in each case, a Share Split) with respect to our common stock as follows: the adjusted Share Cap as the result of a Share Split will be the number of shares of our common stock that is equivalent to the product obtained by multiplying (i) the Share Cap in effect immediately prior to such Share Split by (ii) a fraction, the numerator of which is the number of shares of our common stock outstanding after giving effect to such Share Split and the denominator of which is the number of shares of our common stock outstanding immediately prior to such Share Split.

For the avoidance of doubt, subject to the immediately succeeding sentence, the aggregate number of shares of our common stock (or equivalent Alternative Conversion Consideration (as defined below), as applicable) issuable in connection with the exercise of the Change of Control Conversion Right will not exceed _____ shares of common stock (or equivalent Alternative Conversion Consideration, as applicable), subject to increase to the extent the underwriters' option to purchase additional shares of series J preferred stock is exercised, not to exceed _____ shares of common stock in total (or equivalent Alternative Conversion Consideration, as applicable) (the Exchange Cap). The Exchange Cap is subject to pro rata adjustments for any Share Splits on the same basis as the corresponding adjustments to the Share Cap and is subject to increase in the event that additional shares of series J preferred stock are issued in the future.

In the case of a Change of Control pursuant to which our common stock will be converted into cash, securities or other property or assets (including any combination thereof) (the Alternative Form Consideration), a holder of series J preferred stock will receive upon conversion of such series J preferred stock the kind and amount of Alternative Form Consideration which such holder would have owned or been entitled to receive upon the Change of Control had such holder held a number of shares of our common stock equal to the Common Stock

S-40

Table of Contents

Conversion Consideration immediately prior to the effective time of the Change of Control (the Alternative Conversion Consideration, and the Common Stock Conversion Consideration or the Alternative Conversion Consideration, as may be applicable to a Change of Control, is referred to as the Conversion Consideration).

If the holders of our common stock have the opportunity to elect the form of consideration to be received in the Change of Control, the Conversion Consideration will be deemed to be the kind and amount of consideration actually received by holders of a majority of our common stock that voted for such an election (if electing between two types of consideration) or holders of a plurality of our common stock that voted for such an election (if electing between more than two types of consideration), as the case may be, and will be subject to any limitations to which all holders of our common stock are subject, including, without limitation, pro rata reductions applicable to any portion of the consideration payable in the Change of Control.

We will not issue fractional shares of common stock upon the conversion of the series J preferred stock. Instead, we will pay the cash value of such fractional shares.

Within 15 days following the occurrence of a Change of Control, we will provide to holders of series J preferred stock a notice of occurrence of the Change of Control that describes the resulting Change of Control Conversion Right. This notice will state the following:

the events constituting the Change of Control;

the date of the Change of Control;

the last date on which the holders of series J preferred stock may exercise their Change of Control Conversion Right;

the method and period for calculating the Common Stock Price;

the Change of Control Conversion Date;

that if, prior to the Change of Control Conversion Date, we have provided or provide notice of our election to redeem all or any portion of the series J preferred stock, holders will not be able to convert shares of series J preferred stock designated for redemption and such shares will be redeemed on the related redemption date, even if such shares have already been tendered for conversion pursuant to the Change of Control Conversion Right;

if applicable, the type and amount of Alternative Conversion Consideration entitled to be received per share of series J preferred stock;

the name and address of the paying agent and the conversion agent; and

the procedures that the holders of series J preferred stock must follow to exercise the Change of Control Conversion Right.

We will issue a press release for publication on the Dow Jones & Company, Inc., Business Wire, PR Newswire or Bloomberg Business News (or, if these organizations are not in existence at the time of issuance of the press release, such other news or press organization as is reasonably calculated to broadly disseminate the relevant information to the public), or post a notice on our website, in any event prior to the opening of business on the first business day following any date on which we provide the notice described above to the holders of series J preferred stock.

To exercise the Change of Control Conversion Right, the holders of series J preferred stock will be required to deliver, on or before the close of business on the Change of Control Conversion Date, the certificates

Table of Contents

(if any) representing series J preferred stock to be converted, duly endorsed for transfer, together with a written conversion notice completed, to our transfer agent. The conversion notice must state:

the relevant Change of Control Conversion Date;

the number of shares of series J preferred stock to be converted; and

that the series J preferred stock is to be converted pursuant to the applicable provisions of the series J preferred stock.

The **Change of Control Conversion Date** is the date the series J preferred stock is to be converted, which will be a business day that is no fewer than 20 days nor more than 35 days after the date on which we provide the notice described above to the holders of series J preferred stock.

The **Common Stock Price** will be (i) if the consideration to be received in the Change of Control by the holders of our common stock is solely cash, the amount of cash consideration per share of our common stock or (ii) if the consideration to be received in the Change of Control by holders of our common stock is other than solely cash (x) the average of the closing sale prices per share of our common stock (or, if no closing sale price is reported, the average of the closing bid and ask prices or, if more than one in either case, the average of the average closing bid and the average closing ask prices) for the ten consecutive trading days immediately preceding, but not including, the effective date of the Change of Control as reported on the principal U.S. securities exchange on which our common stock is then traded, or (y) the average of the last quoted bid prices for our common stock in the over-the-counter market as reported by Pink Sheets LLC or similar organization for the ten consecutive trading days immediately preceding, but not including, the effective date of the Change of Control, if our common stock is not then listed for trading on a U.S. securities exchange.

Holders of series J preferred stock may withdraw any notice of exercise of a Change of Control Conversion Right (in whole or in part) by a written notice of withdrawal delivered to our transfer agent prior to the close of business on the business day prior to the Change of Control Conversion Date. The notice of withdrawal must state:

the number of withdrawn shares of series J preferred stock;

if certificated series J preferred stock has been issued, the certificate numbers of the withdrawn shares of series J preferred stock; and

the number of shares of series J preferred stock, if any, which remain subject to the conversion notice. Notwithstanding the foregoing, if the series J preferred stock is held in global form, the conversion notice and/or the notice of withdrawal, as applicable, must comply with applicable procedures of The Depository Trust Company, or DTC.

The series J preferred stock as to which the Change of Control Conversion Right has been properly exercised and for which the conversion notice has not been properly withdrawn will be converted into the applicable Conversion Consideration in accordance with the Change of Control Conversion Right on the Change of Control Conversion Date, unless prior to the Change of Control Conversion Date we have provided or provide notice of our election to redeem such series J preferred stock, whether pursuant to our optional redemption right or our special optional redemption right. If we elect to redeem series J preferred stock that would otherwise be converted into the applicable Conversion Consideration on a Change of Control Conversion Date, such series J preferred stock will not be so converted and the holders of such shares will be entitled to receive on the applicable redemption date \$25.00 per share, plus any accrued and unpaid dividends thereon to, but not including, the redemption date, in accordance with our optional redemption right or special optional redemption right. See Redemption and Special Optional Redemption above.

S-42

Table of Contents

We will deliver amounts owing upon conversion no later than the third business day following the Change of Control Conversion Date.

In connection with the exercise of any Change of Control Conversion Right, we will comply with all federal and state securities laws and stock exchange rules in connection with any conversion of series J preferred stock into shares of our common stock. Notwithstanding any other provision of the series J preferred stock, no holder of series J preferred stock will be entitled to convert such series J preferred stock into shares of our common stock to the extent that receipt of such common stock would cause such holder (or any other person) to exceed the share ownership limits contained in our charter, including the articles supplementary setting forth the terms of the series J preferred stock, unless we provide an exemption from this limitation for such holder. See [Restrictions on Ownership and Transfer](#) below.

The Change of Control conversion feature may make it more difficult for a party to take over our company or discourage a party from taking over our company. See [Risk Factors](#) [Risks Related to This Offering](#) [The Change of Control](#) conversion feature may not adequately compensate you and may make it more difficult for a party to take over our company or discourage a party from taking over our company.

Except as provided above in connection with a Change of Control, the series J preferred stock is not convertible into or exchangeable for any other securities or property.

No Maturity, Sinking Fund or Mandatory Redemption

The series J preferred stock has no maturity date and we are not required to redeem the series J preferred stock at any time. Accordingly, the series J preferred stock will remain outstanding indefinitely, unless we decide, at our option, to exercise our redemption right or, under circumstances where the holders of the series J preferred stock have a conversion right, such holders convert the series J preferred stock into our common stock. The series J preferred stock is not subject to any sinking fund.

Limited Voting Rights

Holders of shares of the series J preferred stock generally do not have any voting rights, except as set forth below.

If dividends on the series J preferred stock are in arrears for six or more quarterly periods, whether or not consecutive (which we refer to as a preferred dividend default), holders of shares of the series J preferred stock (voting separately as a class together with the holders of all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable) will be entitled to vote for the election of two additional directors to serve on our board of directors (which we refer to as preferred stock directors), until all unpaid dividends for past dividend periods with respect to the series J preferred stock and any other class or series of preferred stock upon which like voting rights have been conferred and are exercisable have been paid. In such a case, the number of directors serving on our board of directors will be increased by two. The preferred stock directors will be elected by a plurality of the votes cast in the election for a one-year term and each preferred stock director will serve until his successor is duly elected and qualifies or until the director's right to hold the office terminates, whichever occurs earlier. The election will take place at:

a special meeting called upon the written request of holders of at least 10% of the outstanding shares of series J preferred stock together with any other class or series of preferred stock upon which like voting rights have been conferred and are exercisable, if this request is received more than 90 days before the

date fixed for our next annual or special meeting of stockholders or, if we receive the request for a special meeting within 90 days before the date fixed for our next annual or special meeting of stockholders, at our annual or special meeting of stockholders; and

S-43

Table of Contents

each subsequent annual meeting (or special meeting held in its place) until all dividends accumulated on the series J preferred stock and on any other class or series of preferred stock upon which like voting rights have been conferred and are exercisable have been paid in full for all past dividend periods.

If and when all accumulated dividends on the series J preferred stock and all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable shall have been paid in full, holders of shares of series J preferred stock shall be divested of the voting rights set forth above (subject to re-vesting in the event of each and every preferred dividend default) and the term and office of such preferred stock directors so elected will terminate and the entire board of directors will be reduced accordingly.

Any preferred stock director elected by holders of shares of series J preferred stock and other holders of preferred stock upon which like voting rights have been conferred and are exercisable may be removed at any time with or without cause by the vote of, and may not be removed otherwise than by the vote of, the holders of record of a majority of the outstanding shares of series J preferred stock and other parity preferred stock entitled to vote thereon when they have the voting rights described above (voting as a single class). So long as a preferred dividend default continues, any vacancy in the office of a preferred stock director may be filled by written consent of the preferred stock director remaining in office, or if none remains in office, by a vote of the holders of record of a majority of the outstanding shares of series J preferred stock when they have the voting rights described above (voting as a single class with all other classes or series of preferred stock upon which like voting rights have been conferred and are exercisable). The preferred stock directors shall each be entitled to one vote on any matter.

In addition, so long as any shares of series J preferred stock remain outstanding, we will not, without the consent or the affirmative vote of the holders of at least two-thirds of the outstanding shares of series J preferred stock together with each other class or series of preferred stock ranking on parity with series J preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up and upon which like voting rights have been conferred and are exercisable (voting together as a single class):

authorize, create or issue, or increase the number of authorized or issued shares of, any class or series of stock ranking senior to such series J preferred stock with respect to payment of dividends, or the distribution of assets upon our liquidation, dissolution or winding up, or reclassify any of our authorized capital stock into any such shares, or create, authorize or issue any obligation or security convertible into or evidencing the right to purchase any such shares; or

amend, alter or repeal the provisions of our charter, including the terms of the series J preferred stock, whether by merger, consolidation, transfer or conveyance of substantially all of the company's assets or otherwise, so as to materially and adversely affect any right, preference, privilege or voting power of the series J preferred stock,

except that with respect to the occurrence of any of the events described in the second bullet point immediately above, so long as the series J preferred stock remains outstanding with the terms of the series J preferred stock materially unchanged, taking into account that, upon the occurrence of an event described in the second bullet point above, the company may not be the surviving entity, the occurrence of such event will not be deemed to materially and adversely affect the rights, preferences, privileges or voting power of the series J preferred stock, and in such case such holders shall not have any voting rights with respect to the events described in the second bullet point immediately above. Furthermore, if holders of shares of the series J preferred stock receive the greater of the full trading price of the series J preferred stock on the date of an event described in the second bullet point immediately above or the \$25.00 per share liquidation preference pursuant to the occurrence of any of the events described in the second bullet point

immediately above, then such holders shall not have any voting rights with respect to the events described in the second bullet point immediately above. If any event described in

S-44

Table of Contents

the second bullet point above would materially and adversely affect the rights, preferences, privileges or voting powers of the series J preferred stock disproportionately relative to other classes or series of preferred stock ranking on parity with the series J preferred stock with respect to the payment of dividends and the distribution of assets upon our liquidation, dissolution or winding up, the affirmative vote of the holders of at least two-thirds of the outstanding shares of the series J preferred stock, voting separately as a class, will also be required.

Holders of shares of series J preferred stock will not be entitled to vote with respect to any increase in the total number of authorized shares of our common stock or preferred stock, any increase in the number of authorized shares of series J preferred stock or the creation or issuance of any other class or series of capital stock, or any increase in the number of authorized shares of any other class or series of capital stock, in each case ranking on parity with or junior to the series J preferred stock with respect to the payment of dividends and the distribution of assets upon liquidation, dissolution or winding up.

Holders of shares of series J preferred stock will not have any voting rights with respect to, and the consent of the holders of shares of series J preferred stock is not required for, the taking of any corporate action, including any merger or consolidation involving us or a sale of all or substantially all of our assets, regardless of the effect that such merger, consolidation or sale may have upon the powers, preferences, voting power or other rights or privileges of the series J preferred stock, except as set forth above.

In addition, the voting provisions above will not apply if, at or prior to the time when the act with respect to which the vote would otherwise be required would occur, we have redeemed or called for redemption upon proper procedures all outstanding shares of series J preferred stock.

In any matter in which series J preferred stock may vote (as expressly provided in the articles supplementary setting forth the terms of the series J preferred stock), each share of series J preferred stock shall be entitled to one vote per \$25.00 of liquidation preference. As a result, each share of series J preferred stock will be entitled to one vote.

Restrictions on Ownership and Transfer

In order for us to qualify as a REIT under the Code, our stock must be beneficially owned by 100 or more persons during at least 335 days of a taxable year of 12 months (other than the first year for which an election to be a REIT has been made) or during a proportionate part of a shorter taxable year. Also, not more than 50% of the value of the outstanding shares of our stock may be owned, directly or indirectly, by five or fewer individuals (as defined in the Code to include certain entities such as private foundations) during the last half of a taxable year (other than the first year for which an election to be a REIT has been made).

Our charter contains restrictions on the ownership and transfer of shares of our capital stock which are intended to assist us in complying with these requirements and continuing to qualify as a REIT. Our charter provides that, subject to certain exceptions, no person or entity may beneficially own, or be deemed to own by virtue of the applicable constructive ownership provisions of the Code, subject to limited exceptions, more than 9.8% (by value or by number of shares, whichever is more restrictive) of the outstanding shares of our series J preferred stock or more than 9.8% (by value) of our outstanding capital stock. For a further description of restrictions on ownership and transfer of all series and classes of shares of our capital stock, see **Restrictions on Ownership and Transfer** in the accompanying prospectus.

Transfer Agent

The transfer agent and registrar for the series J preferred stock is American Stock Transfer & Trust Company, LLC.

S-45

Table of Contents

Book-Entry Procedures

The series J preferred stock will only be issued in the form of global securities held in book-entry form. DTC or its nominee will be the sole registered holder of the series J preferred stock. Owners of beneficial interests in the series J preferred stock represented by the global securities will hold their interests pursuant to the procedures and practices of DTC. As a result, beneficial interests in any such securities will be shown on, and transfers will be effected only through, records maintained by DTC and its direct and indirect participants and any such interest may not be exchanged for certificated securities, except in limited circumstances. Owners of beneficial interests must exercise any rights in respect of other interests, including any right to convert or require repurchase of their interests in the series J preferred stock, in accordance with the procedures and practices of DTC. Beneficial owners will not be holders and will not be entitled to any rights provided to the holders of the series J preferred stock under the global securities or the articles supplementary. We and any of our agents may treat DTC as the sole holder and registered owner of the global securities.

DTC has advised us as follows: DTC is a limited-purpose trust company organized under the New York Banking Law, a banking organization within the meaning of the New York Uniformed Commercial Code, and a clearing agency registered pursuant to the provisions of Section 17A of the Exchange Act. DTC facilitates the settlement of transactions amongst participants through electronic computerized book-entry changes in participants' accounts, eliminating the need for physical movement of securities certificates. DTC's participants include securities brokers and dealers, including the underwriters, banks, trust companies, clearing corporations and other organizations, some of whom and/or their representatives own DTC. Access to DTC's book-entry system is also available to others, such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly.

The series J preferred stock, represented by one or more global securities, will be exchangeable for certificated securities with the same terms only if:

DTC is unwilling or unable to continue as depositary or if DTC ceases to be a clearing agency registered under the Exchange Act and a successor depositary is not appointed by us within 90 days; or

we decide to discontinue use of the system of book-entry transfer through DTC (or any successor depositary).

Table of Contents

SUPPLEMENTAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

This discussion is a supplement to, and is intended to be read together with, the discussions under the heading "United States Federal Income Tax Considerations" in the accompanying prospectus. This summary is for general information only and is not tax advice.

The following discussion should follow the discussion under the heading "United States Federal Income Tax Considerations - Federal Income Tax Considerations for Holders of Our Capital Stock and the Operating Partnership's Debt Securities - Taxation of Taxable U.S. Holders of our Capital Stock - Redemption or Repurchase by Us" in the accompanying prospectus.

Conversion of Series J Preferred Stock into Common Stock. Upon the occurrence of a Change of Control, each holder of series J preferred stock will have the right (unless, prior to the Change of Control Conversion Date, we have provided or provide notice of our election to redeem the series J preferred stock) to convert some or all of such holder's series J preferred stock into shares of our common stock or the Alternative Conversion Consideration *i.e.*, an amount of cash, securities or other property or assets that such holder would have received upon the Change of Control had such holder converted the holder's series J preferred stock into shares of our common stock immediately prior to the effective time of the Change of Control (see "Description of the Series J Preferred Stock - Conversion Rights" in this prospectus supplement). Except as provided below, a U.S. holder generally will not recognize gain or loss upon the conversion of series J preferred stock into shares of our common stock. A U.S. holder's tax basis and holding period in the shares of common stock received upon conversion generally will be the same as those of the converted series J preferred stock (but the tax basis will be reduced by the portion of the adjusted tax basis allocated to any fractional share of common stock exchanged for cash). Whether or not a non-U.S. holder will recognize gain upon the conversion of series J preferred stock into shares of our common stock will depend on whether the shares of series J preferred stock, and the common stock into which they are converted, constitute USRPIs in the hands of the non-U.S. holder.

Cash received upon conversion in lieu of a fractional share of common stock generally will be treated as a payment in a taxable exchange for such fractional share of common stock, and gain or loss will be recognized on the receipt of cash in an amount equal to the difference between the amount of cash received and the adjusted tax basis allocable to the fractional common share deemed exchanged. This gain or loss will be long-term capital gain or loss if the holder has held the series J preferred stock for more than one year. Any common stock received in exchange for accrued and unpaid dividends generally will be treated as a distribution by us, and subject to tax treatment as described in "Federal Income Tax Considerations for Holders of Our Capital Stock and the Operating Partnership's Debt Securities - Taxation of Taxable U.S. Holders of our Capital Stock - Distributions Generally" or "Federal Income Tax Considerations for Holders of Our Capital Stock and the Operating Partnership's Debt Securities - Taxation of Non-U.S. Holders of our Capital Stock - Distributions Generally" in the accompanying prospectus.

In addition, if a holder receives the Alternative Conversion Consideration (in lieu of shares of our common stock) in connection with the conversion of the stockholder's shares of series J preferred stock, the tax treatment of the receipt of any such other consideration will depend on the nature of the consideration and the structure of the transaction that gives rise to the Change of Control, and it may be a taxable exchange. Both U.S. holders and non-U.S. holders converting their shares of series J preferred stock should consult their tax advisors regarding the U.S. federal income tax consequences of any such conversion and of the ownership and disposition of the consideration received upon any such conversion.

Table of Contents**UNDERWRITING (CONFLICTS OF INTEREST)**

Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities, LLC are acting as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement, dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares of series J preferred stock set forth opposite the underwriter's name.

<u>Underwriters</u>	Number of Shares
Citigroup Global Markets Inc.	
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Wells Fargo Securities, LLC	
Total	

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in the series J preferred stock offering are subject to approval of legal matters by counsel and to other specified conditions, which include: the representations and warranties made by us to the underwriters are true; there is no material adverse effect on our prospects, earnings, business or properties; and we deliver customary documents to the underwriters. The underwriters are obligated to purchase all of the shares, other than those covered by the option to purchase additional shares described below, if they purchase any of the shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or this offering may be terminated.

The underwriters propose to offer some of the shares of the series J preferred stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement and some of the shares of the series J preferred stock to dealers at the public offering price less a concession not to exceed \$ _____ per share. The underwriters may allow, and dealers may re-allow, a concession not to exceed \$ _____ per share on sales to other dealers. If all of the shares are not sold at the initial offering price, the representatives may change the public offering price and the other selling terms.

We have granted to the underwriters an option to purchase up to _____ additional shares of the series J preferred stock within 30 days from the date of this prospectus supplement at the public offering price less the underwriting discount. To the extent the option is exercised, each underwriter must purchase a number of additional shares of the series J preferred stock approximately proportionate to that underwriter's initial purchase commitment.

Prior to the series J preferred stock offering, there has been no public market for the series J preferred stock. We intend to submit an application to list the series J preferred stock on the NYSE under the symbol DLR Pr J. We will use our commercially reasonable efforts to have the listing application for the series J preferred stock approved. If the application is approved, trading of the series J preferred stock is expected to commence within 30 days after the initial delivery of the series J preferred stock. The underwriters have advised us that they intend to make a market in the series J preferred stock prior to commencement of any trading on the NYSE, but they are not obligated to do so and may discontinue market making activities, if commenced, at any time without notice. No assurance can be given as to the liquidity of the trading market for the series J preferred stock.

Table of Contents

The following table shows the underwriting discounts and commissions that we will pay to the underwriters in connection with the series J preferred stock offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of series J preferred stock.

Per share	Paid by us	
	No Exercise	Full Exercise
Total		

In connection with the offering, the underwriters may purchase and sell shares of series J preferred stock in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the option to purchase additional shares, and transactions that have the effect of stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.

Covered short sales are sales of shares in an amount up to the number of shares represented by the underwriters' option to purchase additional shares.

Naked short sales are sales of shares in an amount in excess of the number of shares represented by the underwriters' option to purchase additional shares.

Covering transactions involve purchases of shares of series J preferred stock either pursuant to the option to purchase additional shares or in the open market after the distribution has been completed in order to cover short positions.

To close a naked short position, the underwriters must purchase shares in the open market after the distribution has been completed. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered position, the underwriters must purchase shares in the open market after the distribution has been completed or must exercise the option to purchase additional shares. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and transactions that have the effect of stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market prices of the shares of series J preferred stock. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on the NYSE, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

For a period beginning on the date of this prospectus and through 30 days after the date of this prospectus, we and our operating partnership have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of (or enter into any transaction which is designed to, or would be reasonably be expected to,

Table of Contents

result in the disposition of (whether by actual disposition or effective economic disposition due to cash settlement or otherwise)), directly or indirectly, including the filing (or participation in the filing) of a registration statement under the Securities Act of 1933, as amended, or the Securities Act, with the SEC in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act, with respect to, any of our preferred securities, or any securities convertible into, or exercisable, or exchangeable for, our preferred securities (in each case, other than shares of series J preferred stock), or publicly announce an intention to effect any such transaction, without the prior written consent of Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities, LLC.

We estimate that our expenses related to this offering will be approximately \$750,000, excluding the underwriting discount. The underwriters have agreed to reimburse us for certain expenses in connection with this offering.

We and our operating partnership have agreed to indemnify the underwriters against liabilities under the Securities Act or contribute to payments that the underwriters may be required to make in that respect.

We expect that delivery of the notes will be made to investors on or about August 1, 2017. Pursuant to Rule 15c6-1 under the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in three business days unless the parties to any such trade expressly agree otherwise.

In the ordinary course of their business, the underwriters or their respective affiliates have also in the past performed, and may continue to perform, investment banking, broker dealer, financial advisory or other services for us, for which they have received, or may receive, customary fees and commissions. In addition, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investment and securities activities may involve securities and/or instruments of ours or our affiliates. Certain of the underwriters or their affiliates that have a lending relationship with us routinely hedge their credit exposure to us consistent with their customary risk management policies. Of the underwriters (or their affiliates) that have lending relationships with us, certain of them routinely hedge and others may hedge their credit exposure to us consistent with their customary risk management policies. Typically, these underwriters and/or their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the series J preferred stock offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the series J preferred stock offered hereby. 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.

An affiliate of Citigroup Global Markets Inc. is the administrative agent, Wells Fargo Securities LLC is the co-documentation agent, an affiliate of Merrill Lynch, Pierce, Fenner & Smith Incorporated is a syndication agent, Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are joint lead arrangers and joint book running managers, and affiliates of Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities, LLC are lenders under our term loan facility.

Affiliates of Wells Fargo Securities, LLC are trustees under our 3.400% notes due 2020, our 3.625% notes due 2022, our 3.950% notes due 2022 and our 4.750% notes due 2025. Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are also sales agents under our equity distribution agreements, pursuant to which we can issue and sell shares of our common stock having an aggregate offering price of up to \$400.0 million from time to time through them. In addition, certain of underwriters and their affiliates have in the past leased, currently lease and may in the future lease space from us.

S-50

Table of Contents

Conflicts of Interest

Affiliates of Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities, LLC are lenders, Wells Fargo Securities LLC is the co-documentation agent, an affiliate of Citigroup Global Markets Inc. is the administrative agent, an affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated is a syndication agent, Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are joint lead arrangers and joint book running managers, affiliates of Citigroup Global Markets Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are issuing banks and affiliates of Citigroup Global Markets Inc. are swing line banks under our operating partnership's global revolving credit facility. As described under "Use of Proceeds" in this prospectus supplement, we may use a portion of the net proceeds of this offering to repay borrowings outstanding under our global revolving credit facility, and such affiliates of the underwriters therefore may receive more than 5% of the net proceeds from this offering through the repayment of those borrowings.

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means such as email.

Notice to Prospective Investors in the United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. 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.

Table of Contents

LEGAL MATTERS

Certain legal matters relating to this offering will be passed upon for us by Latham & Watkins LLP, Los Angeles, California, and for the underwriters by Goodwin Procter LLP, Boston, Massachusetts. Venable LLP, Baltimore, Maryland, will issue an opinion to us regarding certain matters of Maryland law, including the validity of the series J preferred stock.

S-52

Table of Contents

EXPERTS

The consolidated financial statements and financial statement schedule III of Digital Realty Trust, Inc. and subsidiaries as of December 31, 2016 and 2015 and for each of the years in the three-year period ended December 31, 2016 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2016 have all been incorporated by reference in this prospectus supplement in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The consolidated financial statements and financial statement schedule III of Digital Realty Trust, L.P. and subsidiaries as of December 31, 2016 and 2015 and for each of the years in the three-year period ended December 31, 2016 have all been incorporated by reference in this prospectus supplement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The audited historical financial statements of DuPont Fabros Technology, Inc. and DuPont Fabros Technology, L.P. included in Digital Realty Trust, Inc.'s and Digital Realty Trust, L.P.'s Current Report on Form 8-K filed on July 10, 2017, have been so incorporated in reliance on the report of Ernst & Young LLP, independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference rooms at 100 F Street, N.E. Room 1580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. The SEC also maintains a web site that contains reports, proxy and information statements, and other information regarding registrants that file electronically with the SEC at www.sec.gov. You can inspect reports and other information we file at the offices of the NYSE, 20 Broad Street, New York, New York 10005. In addition, we maintain a web site that contains information about us at www.digitalrealty.com. The information found on, or otherwise accessible through, our website is not incorporated into, and does not form a part of, this prospectus supplement, the accompanying prospectus or any other report or document we file with or furnish to the SEC.

We have filed with the SEC a registration statement on Form S-3 (File Nos. 333-219562 and 333-219562-01), of which this prospectus supplement and the accompanying prospectus are a part, including exhibits, schedules and amendments filed with, or incorporated by reference in, such registration statement, under the Securities Act. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and exhibits and schedules to the registration statement. For further information with respect to our company, reference is made to the registration statement, including the exhibits to the registration statement. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or other document referred to, or incorporated by reference, in this prospectus supplement and the accompanying prospectus are not necessarily complete and, where that contract or document is an exhibit to the registration statement, each statement is qualified in all respects by the exhibit to which the reference relates. Copies of the registration statement, including the exhibits and schedules to the registration statement, may be examined at the SEC's public reference rooms at 100 F Street, N.E. Room 1580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Copies of all or a portion of the registration statement can be obtained from the public reference rooms of the SEC upon payment of prescribed fees. The registration statement is also available to you on the SEC's web site, www.sec.gov.

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference certain information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference into this prospectus supplement and the accompanying prospectus the following documents (except for any document or portion thereof deemed to be furnished and not filed in accordance with SEC rules and regulations):

the Combined Annual Report on Form 10-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. for the year ended December 31, 2016;

the Combined Quarterly Report on Form 10-Q of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. for the quarter ended March 31, 2017;

our Definitive Proxy Statement on Schedule 14A filed with the SEC on March 29, 2017 (solely to the extent specifically incorporated by reference into the Combined Annual Report on Form 10-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. for the year ended December 31, 2016);

the Combined Current Reports on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on May 23, 2017, June 9, 2017, June 9, 2017, July 10, 2017, July 12, 2017, July 12, 2017, July 21, 2017 and August 2, 2017;

the Current Report on Form 8-K of Digital Realty Trust, Inc. filed with the SEC on May 11, 2017;

the description of the series G preferred stock, par value \$0.01 per share, contained in our Prospectus on Form 424(b)(2) filed on April 3, 2013 (file numbers 333-180886 and 333-180886-01), including any amendments or reports filed for the purpose of updating this description;

the description of the series H preferred stock, par value \$0.01 per share, contained in our Prospectus on Form 424(b)(2) filed on March 21, 2014 (file numbers 333-180886 and 333-180886-01), including any amendments or reports filed for the purpose of updating this description;

the description of the series I preferred stock, par value \$0.01 per share, contained in our Prospectus on Form 424(b)(2) filed on August 17, 2015 (file numbers 333-180886 and 333-180886-01), including any amendments or reports filed for the purpose of updating this description;

Edgar Filing: Digital Realty Trust, Inc. - Form 424B5

the description of Digital Realty Trust, Inc.'s common stock, par value \$0.01 per share, contained in our Registration Statement on Form 8-A filed on October 28, 2004 (file number 001-32336), including any amendments or reports filed for the purpose of updating this description; and

all documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and prior to the termination of this offering (excluding any portions of such documents that are deemed furnished to the SEC pursuant to applicable rules and regulations).

We will provide without charge to each person to whom a prospectus supplement is delivered, on written or oral request of that person, a copy of any or all of the documents we are incorporating by reference into this prospectus supplement, other than exhibits to those documents unless those exhibits are specifically incorporated by reference into those documents. A written request should be addressed to Investor Relations, Digital Realty Trust, Inc., Four Embarcadero Center, Suite 3200, San Francisco, California 94111.

S-55

Table of Contents

PROSPECTUS

Digital Realty Trust, Inc.

Common Stock, Preferred Stock, Depositary Shares, Warrants and Guarantees

Digital Realty Trust, L.P.

Debt Securities

We may from time to time offer, in one or more series or classes, separately or together, and in amounts, at prices and on terms to be set forth in one or more supplements to this prospectus, the following securities: (i) shares of Digital Realty Trust, Inc.'s common stock, par value \$0.01 per share, (ii) shares of Digital Realty Trust, Inc.'s preferred stock, par value \$0.01 per share, (iii) depositary shares representing entitlement to all rights and preferences of fractions of shares of Digital Realty Trust, Inc.'s preferred stock of a specified series and represented by depositary receipts, (iv) warrants to purchase shares of Digital Realty Trust, Inc.'s common stock or preferred stock or depositary shares and (v) debt securities of Digital Realty Trust, L.P. which may be fully and unconditionally guaranteed by Digital Realty Trust, Inc.

This prospectus also covers delayed delivery contracts that may be issued by Digital Realty Trust, Inc. or Digital Realty Trust, L.P. under which the counterparty may be required to purchase common stock, preferred stock, depositary shares or warrants to purchase common stock or preferred stock of Digital Realty Trust, Inc. or debt securities of Digital Realty Trust, L.P. (including guarantees of the debt securities by Digital Realty Trust, Inc.). Delayed delivery contracts may be issued together with the specific securities to which they relate. In addition, securities registered hereunder may be sold separately, together or as units with other securities registered hereunder.

We refer to the common stock, preferred stock, depositary shares, warrants and debt securities (together with any related guarantees) registered hereunder collectively as the securities in this prospectus. We will offer our securities in amounts, at prices and on terms determined at the time of the offering of any such security.

The specific terms of each series or class of the securities will be set forth in the applicable prospectus supplement and will include, as applicable: (i) in the case of common stock, any public offering price; (ii) in the case of preferred stock, the specific title and any dividend, liquidation, redemption, conversion, voting and other rights and any public offering price; (iii) in the case of depositary shares, the fractional share of preferred stock represented by each such depositary share; (iv) in the case of warrants, the duration, offering price, exercise price and detachability; and (v) in the case of debt securities and, as applicable, related guarantees, the specific terms of such debt securities and related guarantees. In addition, because Digital Realty Trust, Inc. is organized and conducts its operations so as to qualify as a real estate investment trust, or REIT, for U.S. federal income tax purposes, the specific terms of any securities may include limitations on actual or constructive ownership and restrictions on transfer of the securities, in each case as may be appropriate to preserve Digital Realty Trust, Inc.'s status as a REIT.

The securities may be offered directly by us, through agents designated from time to time by us or to or through underwriters or dealers. These securities also may be offered by securityholders, if so provided in a prospectus supplement hereto. We will provide specific information about any selling securityholders in one or more supplements

to this prospectus. If any agents, dealers or underwriters are involved in the sale of any of the securities, their names, and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections entitled Plan of Distribution and About this Prospectus for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such series of securities.

Digital Realty Trust, Inc.'s common stock, series G preferred stock, series H preferred stock and series I preferred stock currently trade on the New York Stock Exchange, or NYSE, under the symbols DLR , DLR Pr G , DLR Pr H and DLR Pr I , respectively.

See Risk Factors beginning on page 3 for certain risk factors relevant to an investment in the securities.

Neither the United States Securities and Exchange Commission 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 July 28, 2017.

Table of Contents

Unless otherwise indicated or unless the context requires otherwise, all references in this prospectus to we, us, our, company or the company refer to Digital Realty Trust, Inc., a Maryland corporation, together with its consolidated subsidiaries, including Digital Realty Trust, L.P., a Maryland limited partnership, of which Digital Realty Trust, Inc. is the sole general partner. Unless otherwise indicated or unless the context requires otherwise, all references in this prospectus to our operating partnership or the operating partnership refer to Digital Realty Trust, L.P. together with its consolidated subsidiaries.

You should rely only on the information contained in this prospectus, in an accompanying prospectus supplement or incorporated by reference herein or therein. We have not authorized anyone to provide you with information or make any representation that is different. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or a solicitation of an offer to buy any securities other than the registered securities to which they relate, and this prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction where, or to any person to whom, it is unlawful to make such an offer or solicitation. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement is correct on any date after the respective dates of the prospectus and such prospectus supplement or supplements, as applicable, even though this prospectus and such prospectus supplement or supplements are delivered or securities are sold pursuant to the prospectus and such prospectus supplement or supplements at a later date. Since the respective dates of the prospectus contained in this registration statement and any accompanying prospectus supplement, our business, financial condition, results of operations and prospects may have changed. We may only use this prospectus to sell the securities if it is accompanied by a prospectus supplement.

Table of Contents

TABLE OF CONTENTS

<u>About This Prospectus</u>	1
<u>Our Company</u>	2
<u>Risk Factors</u>	3
<u>Where You Can Find More Information</u>	4
<u>Incorporation of Certain Documents by Reference</u>	5
<u>Forward-Looking Statements</u>	6
<u>Use of Proceeds</u>	8
<u>Ratio of Earnings to Fixed Charges and Preferred Dividends</u>	9
<u>General Description of Securities</u>	10
<u>Description of Common Stock</u>	11
<u>Description of Preferred Stock</u>	13
<u>Description of Depositary Shares</u>	24
<u>Description of Warrants</u>	27
<u>Description of Debt Securities and Related Guarantees</u>	29
<u>Restrictions on Ownership and Transfer</u>	38
<u>Description of the Partnership Agreement of Digital Realty Trust, L.P.</u>	42
<u>Material Provisions of Maryland Law and of the Charter and Bylaws of Digital Realty Trust, Inc.</u>	49
<u>United States Federal Income Tax Considerations</u>	55
<u>Selling Securityholders</u>	80
<u>Plan of Distribution</u>	81
<u>Legal Matters</u>	83
<u>Experts</u>	84

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the United States Securities and Exchange Commission, or SEC, using a shelf registration process. Under this process, we may sell common stock, preferred stock, depositary shares, warrants and debt securities (and related guarantees, as applicable) 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 a prospectus supplement containing specific information about the terms of the applicable offering. Such prospectus supplement may add, update or change information contained in this prospectus. To the extent that this prospectus is used by any securityholder to resell any securities, information with respect to the securityholder and the terms of the securities being offered will be contained in a prospectus supplement. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading **Where You Can Find More Information**.

We or any selling securityholders may offer the securities directly, through agents, or to or through underwriters. The applicable prospectus supplement will describe the terms of the plan of distribution and set forth the names of any agents or underwriters involved in the sale of the securities. See **Plan of Distribution** for more information on this topic. No securities may be sold without delivery of a prospectus supplement describing the method and terms of the offering of those securities.

Table of Contents

OUR COMPANY

We own, acquire, develop and operate data centers. We are focused on providing data center, colocation and interconnection solutions for domestic and international tenants across a variety of industry verticals ranging from financial services, cloud and information technology services, to manufacturing, energy, health care, and consumer products. Digital Realty Trust, L.P., a Maryland limited partnership, is the entity through which Digital Realty Trust, Inc., a Maryland corporation, conducts its business and owns its assets. Digital Realty Trust, Inc. operates as a REIT for U.S. federal income tax purposes.

We are diversified in major metropolitan areas where data center and technology tenants are concentrated, including the Atlanta, Boston, Chicago, Dallas, Los Angeles, New York, Northern Virginia, Phoenix, San Francisco, Seattle and Silicon Valley metropolitan areas in the United States, the Amsterdam, Dublin, Frankfurt, London and Paris metropolitan areas in Europe and the Singapore, Sydney, Melbourne, Hong Kong and Osaka metropolitan areas in the Asia Pacific region. The types of properties within our portfolio include:

Data centers, which provide secure, continuously available environments for the exchange, processing and storage of critical electronic information. Data centers are used for digital communication, disaster recovery purposes, transaction processing and housing corporate IT operations;

Internet gateway datacenters, which serve as hubs for Internet and data communications within and between major metropolitan areas; and

Office and other non-data center space.

Unlike traditional office and flex/research and development space, the location of and improvements to our facilities, including network density, interconnection infrastructure and connectivity-centric customers in certain of our facilities, are generally essential to our tenants' businesses, which we believe results in high occupancy levels, longer average lease terms and customer relationships and lower turnover. In addition, many of our properties have tenant improvements that have been installed at our tenants' expense. The tenant improvements in our facilities are generally readily adaptable for use by similar tenants.

Digital Realty Trust, Inc. was incorporated in the state of Maryland on March 9, 2004. Digital Realty Trust, L.P. was organized in the state of Maryland on July 21, 2004. Our principal executive offices are located at Four Embarcadero Center, Suite 3200, San Francisco, California 94111. Our telephone number at that location is (415) 738-6500. Our website is located at www.digitalrealty.com. The information found on, or otherwise accessible through, our website is not incorporated into, and does not form a part of, this prospectus or any other report or document we file with or furnish to the SEC.

Table of Contents

RISK FACTORS

Investment in any securities offered pursuant to this prospectus involves risks. Before acquiring any offered securities pursuant to this prospectus, you should carefully consider the information contained or incorporated by reference in this prospectus or in any accompanying prospectus supplement, including, without limitation, the risk factors incorporated by reference to the company's and the operating partnership's most recent combined Annual Report on Form 10-K, and the other information contained or incorporated by reference in this prospectus, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or a part of your investment in the offered securities. Please also refer to the section below entitled "Forward-Looking Statements."

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E. Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains a web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC at www.sec.gov. You can inspect reports and other information that Digital Realty Trust, Inc. files at the offices of the NYSE, 20 Broad Street, New York, New York 10005. In addition, we maintain a website that contains information about us at www.digitalrealty.com. The information found on, or otherwise accessible through, this website is not incorporated into, and does not form a part of, this prospectus or any other report or document we file with or furnish to the SEC.

We have filed with the SEC a registration statement on Form S-3, of which this prospectus is a part, including exhibits, schedules and amendments filed with, or incorporated by reference in, this registration statement, under the Securities Act of 1933, as amended, or the Securities Act, with respect to the securities registered hereby. This prospectus and any accompanying prospectus supplement do not contain all of the information set forth in the registration statement and exhibits and schedules to the registration statement. For further information with respect to our company and the securities registered hereby, reference is made to the registration statement, including the exhibits to the registration statement. Statements contained in this prospectus and any accompanying prospectus supplement as to the contents of any contract or other document referred to, or incorporated by reference in, this prospectus and any accompanying prospectus supplement are not necessarily complete and, where that contract is an exhibit to the registration statement, each statement is qualified in all respects by the exhibit to which the reference relates. Copies of the registration statement, including the exhibits and schedules to the registration statement, may be examined at the SEC's public reference room. Copies of all or a portion of the registration statement can be obtained from the public reference room of the SEC upon payment of prescribed fees. This registration statement is also available to you on the SEC's website.

Table of Contents

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus the information we file with the SEC, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is an important part of this prospectus. The incorporated documents contain significant information about us, our business and our finances. Any statement contained in a document which is incorporated by reference in this prospectus is automatically updated and superseded if information contained in this prospectus, or information that we later file with the SEC, modifies or replaces this information. We incorporate by reference the following documents we filed with the SEC:

the combined Annual Report on Form 10-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. for the year ended December 31, 2016;

the Definitive Proxy Statement on Schedule 14A of Digital Realty Trust, Inc. filed with the SEC on March 29, 2017 (solely to the extent specifically incorporated by reference into the combined Annual Report on Form 10-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. for the year ended December 31, 2016);

the Current Report on Form 8-K of Digital Realty Trust, Inc. filed with the SEC on May 11, 2017;

the combined Current Reports on Form 8-K of Digital Realty Trust, Inc. and Digital Realty Trust, L.P. filed with the SEC on May 11, 2017, May 23, 2017, June 9, 2017, June 9, 2017 (other than with respect to Item 7.01 thereof), June 15, 2017, July 10, 2017, July 12, 2017, July 12, 2017 and July 21, 2017;

the description of Digital Realty Trust, Inc.'s common stock, par value \$0.01 per share, contained in Digital Realty Trust, Inc.'s Registration Statement on Form 8-A filed on October 28, 2004 (file number 001-32336), including any amendment or reports filed for the purpose of updating this description;

the description of Digital Realty Trust, Inc.'s Series G Cumulative Redeemable Preferred Stock, par value \$0.01 per share, contained in Digital Realty Trust, Inc.'s Registration Statement on Form 8-A filed on April 4, 2013 (file number 001-32336), including any amendments or reports filed for the purpose of updating this description;

the description of Digital Realty Trust, Inc.'s Series H Cumulative Redeemable Preferred Stock, par value \$0.01 per share, contained in Digital Realty Trust, Inc.'s Registration Statement on Form 8-A filed on March 21, 2014 (file number 001-32336), including any amendments or reports filed for the purpose of updating this description;

the description of Digital Realty Trust, Inc.'s Series I Cumulative Redeemable Preferred Stock, par value \$0.01 per share, contained in Digital Realty Trust, Inc.'s Registration Statement on Form 8-A filed on August 21, 2015 (file number 001-32336), including any amendments or reports filed for the purpose of updating this description; and

all documents filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the offering of the underlying securities (excluding any portions of such documents that are deemed furnished to the SEC pursuant to applicable rules and regulations).

We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, on written or oral request of that person, a copy of any or all of the documents we are incorporating by reference into this prospectus, other than exhibits to those documents unless those exhibits are specifically incorporated by reference into those documents. A written request should be addressed to Investor Relations, Digital Realty Trust, Inc., Four Embarcadero Center, Suite 3200, San Francisco, California 94111.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of the federal securities laws. Also, documents we subsequently file with the SEC and incorporate by reference will contain forward-looking statements. In particular, statements pertaining to our capital resources, portfolio performance and results of operations contain forward-looking statements. Likewise, all of our statements regarding anticipated market conditions, demographics and results of operations are forward-looking statements.

Forward-looking statements involve numerous risks and uncertainties and you should not rely on them as predictions of future events. Forward-looking statements depend on assumptions, data or methods which may be incorrect or imprecise and we may not be able to realize them. We do not guarantee that the transactions and events described will happen as described or that they will happen at all. You can identify forward-looking statements by the use of forward-looking terminology such as believes, expects, may, will, should, seeks, approximately, intends, forma, estimates or anticipates or the negative of these words and phrases or similar words or phrases which are predictions of or indicate future events or trends and discussions which do not relate solely to historical matters. You can also identify forward-looking statements by discussions of strategy, plans or intentions. The following factors, among others, could cause actual results and future events to differ materially from those set forth or contemplated in the forward-looking statements:

the impact of current global economic, credit and market conditions;

current local economic conditions in our geographic markets;

decreases in information technology spending, including as a result of economic slowdowns or recession;

adverse economic or real estate developments in our industry or the industry sectors that we sell to (including risks relating to decreasing real estate valuations and impairment charges);

our dependence upon significant tenants;

bankruptcy or insolvency of a major tenant or a significant number of smaller tenants;

defaults on or non-renewal of leases by tenants;

our failure to obtain necessary debt and equity financing;

risks associated with using debt to fund our business activities, including re-financing and interest rate risks, our failure to repay debt when due, adverse changes in our credit ratings or our breach of covenants or other

terms contained in our loan facilities and agreements;

financial market fluctuations;

changes in foreign currency exchange rates;

our inability to manage our growth effectively;

difficulty acquiring or operating properties in foreign jurisdictions;

our failure to successfully integrate and operate acquired or developed properties or businesses;

the suitability of our properties and data center infrastructure, delays or disruptions in connectivity, failure of our physical and information security infrastructure or services or availability of power;

risks related to joint venture investments, including as a result of our lack of control of such investments;

delays or unexpected costs in development of properties;

decreased rental rates, increased operating costs or increased vacancy rates;

Table of Contents

increased competition or available supply of data center space;

our inability to successfully develop and lease new properties and development space;

difficulties in identifying properties to acquire and completing acquisitions;

our inability to acquire off-market properties;

our inability to comply with the rules and regulations applicable to reporting companies;

Digital Realty Trust, Inc.'s failure to maintain its status as a REIT for U.S. federal income tax purposes;

possible adverse changes to tax laws;

restrictions on our ability to engage in certain business activities;

environmental uncertainties and risks related to natural disasters;

losses in excess of our insurance coverage;

changes in foreign laws and regulations, including those related to taxation and real estate ownership and operation; and

changes in local, state and federal regulatory requirements, including changes in real estate and zoning laws and increases in real property tax rates.

For a further discussion of these and other factors that could impact our future results, performance or transactions, see the section entitled "Risk Factors," including the risks incorporated therein, from Digital Realty Trust, Inc.'s and Digital Realty Trust, L.P.'s most recent combined Annual Report on Form 10-K, as updated by our subsequent filings, including filings we make after the date of this prospectus. While forward-looking statements reflect our good faith beliefs, they are not guaranties of future performance. We disclaim any obligation to publicly update or revise any forward-looking statement to reflect changes in underlying assumptions or factors, new information, data or methods, future events or other changes.

Table of Contents

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, Digital Realty Trust, Inc. intends to contribute the net proceeds from any sale of common stock, preferred stock, depositary shares or warrants pursuant to this prospectus to our operating partnership. Unless otherwise indicated in the applicable prospectus supplement, our operating partnership intends to use such net proceeds received from Digital Realty Trust, Inc. and any net proceeds from any sale of debt securities pursuant to this prospectus for general corporate purposes, including, the repayment of outstanding indebtedness, the repurchase, redemption or retirement of outstanding debt or equity securities, and the funding of development and acquisition opportunities.

Pending application of cash proceeds, our operating partnership may use the net proceeds to temporarily reduce borrowings under our global revolving credit facility or we may invest the net proceeds in interest-bearing accounts and short-term, interest-bearing securities which are consistent with Digital Realty Trust, Inc.'s intention to qualify as a REIT for U.S. federal income tax purposes.

We will not receive any of the proceeds from sales of securities by selling securityholders, if any, pursuant to this prospectus.

Further details regarding the use of the net proceeds of a specific series or class of the securities will be set forth in the applicable prospectus supplement.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES AND PREFERRED DIVIDENDS**

Our ratios of earnings to fixed charges and earnings to fixed charges and preferred dividends for the periods indicated are as follows:

Digital Realty Trust, Inc.

	Three Months Ended						
	March 31,		Year Ended December 31,				
	2017	2016	2016	2015	2014	2013	2012
Ratio of earnings to fixed charges	2.19	1.86	2.48	2.30	1.84	2.31	2.07
Ratio of earnings to fixed charges and preferred stock dividends	1.74	1.40	1.91	1.69	1.40	1.94	1.71

Digital Realty Trust, Inc.'s ratios of earnings to fixed charges are computed by dividing earnings by fixed charges. Digital Realty Trust, Inc.'s ratios of earnings to fixed charges and preferred dividends are computed by dividing earnings by the sum of fixed charges and preferred dividends. For this purpose, earnings consist of income from continuing operations before noncontrolling interests and fixed charges. Fixed charges consist of interest expense, capitalized interest and amortization of deferred financing fees, whether expensed or capitalized, and interest within rental expense. Preferred stock dividends consist of the amount of pre-tax earnings required to pay dividends on Digital Realty Trust, Inc.'s series C preferred stock (which was converted to common stock of Digital Realty Trust, Inc. on April 17, 2012), series D preferred stock (which was converted to common stock on February 26, 2013), series E preferred stock (which was redeemed on September 15, 2016), series F preferred stock (which was redeemed on April 5, 2017), series G preferred stock, series H preferred stock and series I preferred stock.

Digital Realty Trust, L.P.

	Three Months Ended						
	March 31,		Year Ended December 31,				
	2017	2016	2016	2015	2014	2013	2012
Ratio of earnings to fixed charges	2.19	1.86	2.48	2.28	1.84	2.31	2.07
Ratio of earnings to fixed charges and preferred unit distributions	1.74	1.40	1.91	1.68	1.40	1.94	1.71

Digital Realty Trust, L.P.'s ratios of earnings to fixed charges are computed by dividing earnings by fixed charges. Digital Realty Trust, L.P.'s ratios of earnings to fixed charges and preferred unit distributions are computed by dividing earnings by the sum of fixed charges and preferred unit distributions. For this purpose, earnings consist of income from continuing operations before noncontrolling interests and fixed charges. Fixed charges consist of interest expense, capitalized interest and amortization of deferred financing fees, whether expensed or capitalized, and interest within rental expense. Preferred unit distributions consist of the amount of pre-tax earnings required to pay distributions on Digital Realty Trust, L.P.'s series C preferred units (which were converted to common units of Digital Realty Trust, L.P. on April 17, 2012), series D preferred units (which were converted to common units on February 26, 2013), series E preferred units (which were redeemed on September 15, 2016), series F preferred units (which were redeemed on April 5, 2017), series G preferred units, series H preferred units and series I preferred units.

Table of Contents

GENERAL DESCRIPTION OF SECURITIES

We or any selling securityholders named in a prospectus supplement directly or through agents, dealers or underwriters designated from time to time, may from time to time offer, issue and sell, together or separately, under this prospectus one or more of the following categories of securities:

shares of common stock of Digital Realty Trust, Inc., par value \$0.01 per share;

shares of preferred stock of Digital Realty Trust, Inc., par value \$0.01 per share;

depository shares representing entitlement to all rights and preferences of fractions of shares of preferred stock of Digital Realty Trust, Inc. of a specified series and represented by depository receipts;

warrants to purchase shares of common stock, preferred stock or depository shares of Digital Realty Trust, Inc.; or

debt securities of Digital Realty Trust, L.P., which may be fully and unconditionally guaranteed by Digital Realty Trust, Inc.

We may issue Digital Realty Trust, L.P.'s debt securities, and related guarantees thereof by Digital Realty Trust, Inc., as exchangeable for and/or convertible into shares of Digital Realty Trust, Inc.'s common stock, preferred stock and/or other securities and related guarantees. Digital Realty Trust, Inc.'s preferred stock may also be exchangeable for and/or convertible into shares of its common stock, another series of its preferred stock, or its other securities. Digital Realty Trust, L.P.'s debt securities and related guarantees by Digital Realty Trust, Inc., and Digital Realty Trust, Inc.'s preferred stock, common stock, depository shares and warrants are collectively referred to in this prospectus as the securities. When a particular series of securities is offered, a supplement to this prospectus will be delivered with this prospectus, which will set forth the terms of the offering and sale of the offered securities.

For purposes of the sections below entitled Description of Common Stock, Description of Preferred Stock, Description of Depository Shares, Description of Warrants, and Description of Debt Securities and Related Guarantees references to the company, and our