

Digital Realty Trust, Inc.
Form 424B7
April 19, 2011

Filed Pursuant to Rule 424(b)(7)
Registration No. 333-142396

PROSPECTUS SUPPLEMENT NO. 31

(To Prospectus dated April 26, 2007)

6,245,466 Shares

Common Stock

This prospectus supplement no. 31 supplements the prospectus dated April 26, 2007 and supersedes, in its entirety, prospectus supplement no. 30, dated April 1, 2011, relating to the resale by selling securityholders of shares of our common stock that may be issuable upon exchange of the 4.125% Exchangeable Senior Debentures due 2026 of our operating partnership, Digital Realty Trust, L.P.

You should read this prospectus supplement no. 31 in conjunction with the prospectus. This prospectus supplement no. 31 is not complete without, and may not be delivered or used except in conjunction with, the prospectus, including any amendments or supplements to it. This prospectus supplement no. 31 is qualified by reference to the prospectus, except to the extent that the information provided by this prospectus supplement no. 31 supersedes information contained in the prospectus.

You should consider carefully the risk factors beginning on page 2 of the prospectus as well as the risk factors relating to our business that are incorporated by reference in the prospectus before investing in the shares of common stock that may be issuable upon exchange of the debentures.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of the prospectus or this prospectus supplement no. 31. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement no. 31 is April 19, 2011.

The section entitled "Selling Securityholders" in the prospectus is superseded in its entirety with the following:

SELLING SECURITYHOLDERS

The 4.125% Exchangeable Senior Debentures due 2026 were originally issued by Digital Realty Trust, L.P., our operating partnership, and sold by the initial purchasers of the debentures in transactions exempt from the registration requirements of the Securities Act to persons reasonably believed by the initial purchasers to be qualified institutional buyers as defined by Rule 144A under the Securities Act. Under certain circumstances, we may issue shares of our common stock upon the exchange of the debentures. In such circumstances, the recipients of shares of our common stock, whom we refer to as the selling securityholders, may use this prospectus and any accompanying prospectus supplement to resell from time to time the shares of our common stock that we may issue to them upon the exchange of the debentures. Information about selling securityholders is set forth in this prospectus, and information about additional selling securityholders may be set forth in a prospectus supplement, in a post-effective amendment or in filings we make with the SEC under the Exchange Act that are incorporated by reference in this prospectus.

The following table sets forth information, as of April 19, 2011, with respect to the selling securityholders and the maximum number of shares of our common stock that could become beneficially owned by each selling securityholder should we issue shares of our common stock to such selling securityholder that may be offered pursuant to this prospectus upon the exchange of the debentures. The information is based on information provided by or on behalf of the selling securityholders. The selling securityholders may offer all, some or none of the shares of our common stock which we may issue upon the exchange of the debentures. The number of shares of our common stock issuable upon the exchange of the debentures shown in the table below assumes exchange of the full amount of debentures held by each selling securityholder at the maximum exchange rate of 36.2056 shares of our common stock per \$1,000 principal amount of debentures and a cash payment in lieu of any fractional share. The exchange rate of the debentures is currently 31.8250 shares of our common stock per \$1,000 principal amount of debentures. The exchange rate on the debentures is subject to adjustment in certain events. Accordingly, the number of shares of our common stock issuable upon the exchange of the debentures may increase or decrease from time to time. In addition, due to the exchange settlement provisions of the debentures, we may not be required to issue the maximum number of shares of our common stock upon any exchanges of debentures. The percent of shares of common stock beneficially owned following the exchange is based on 94,691,418 shares of common stock outstanding as of April 11, 2011.

Name (1)	Shares of Common Stock Beneficially Owned Prior to the Exchange	Maximum Number of Shares of Common Stock Issuable Upon Exchange of Outstanding Debentures (2)	Shares of Common Stock Beneficially Owned Following the Exchange (3)		Number of Shares of Common Stock Offered	Common Stock Beneficially Owned after Resale (4)	
			Shares	Percent		Shares	Percent
1976 Distribution Trust FBO A.R. Lauder (5)		181	181	*	181		
2000 Revocable Trust FBO A.R. Lauder (5)		144	144	*	144		
AHFP Context (6)		24,438	24,438	*	24,438		
Alcon Laboratories (5)(55)	8,543	16,690	25,233	*	16,690	8,543	*
Altma Fund Sicav plc in respect of the Grafton Sub Fund (6)		114,952	114,952	*	114,952		
Amaranth LLC (7)	15,600	117,668	133,268	*	117,668	15,600	*
AQR Absolute Return Master Fund, L.P. (14)		8,146	8,146	*	8,146		

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			Shares	Percent		Shares	Percent
AQR DELTA Master Account, L.P. (14)		217,233	217,233	*	217,233		
Argent Classic Convertible Arbitrage Fund II, L.P. (44)		2,534	2,534	*	2,534		
Argent Classic Convertible Arbitrage Fund L.P. (44)		9,413	9,413	*	9,413		
Argent Classic Convertible Arbitrage Fund Ltd. (44)		57,928	57,928	*	57,928		
Argentum Multi-Strategy Fund L.P. (44)		724	724	*	724		
Argentum Multi-Strategy Fund Ltd (44)		2,534	2,534	*	2,534		
Arkansas Teacher Retirement System (8)		133,598	133,598	*	133,598		
Arlington County Employees Retirement System (5)		23,931	23,931	*	23,931		
Baptist Health of South Florida (8)		41,274	41,274	*	41,274		
Bayerische Hypo und Vereinsbank AG (45)		452,570	452,570	*	452,570		
Black Diamond Convertible Offshore LDC (9)		72,411	72,411	*	72,411		
Black Diamond Offshore Ltd. (9)(50)	6,707	24,981	31,688	*	24,981	6,707	*
BMO Nesbitt Burns, Inc. (10)		128,529	128,529	*	128,529		
British Virgin Islands Social Security Board (5)(56)	3,742	5,539	9,281	*	5,539	3,742	*
Casam Context Offshore Advantage Fund Limited (6)		56,118	56,118	*	56,118		
CB Richard Ellis Investors, LLC (11)		24,852	24,852	*	24,852		

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Cincinnati Insurance Company (12)		5,430	5,430	*	5,430		
Citadel Equity Fund Ltd. (65)		271,542	271,542	*	271,542		
Citigroup Global Markets Inc. (13)		36,205	36,205	*	36,205		
City University of New York (5)		4,779	4,779	*	4,779		
CNH CA Master Account, L.P. (14)(51)	160,044	31,933	191,977	*	31,933	160,044	*
CNH CA Master Fund, L.P. (14)		44,605	44,605	*	44,605		
Compass Offshore SAV PCC Ltd. (66)		41,636	41,636	*	41,636		
Compass SAV L.L.C. (66)		41,636	41,636	*	41,636		
Context Advantage Master Fund, L.P. (6)		383,779	383,779	*	383,779		
Continental Assurance Company on Behalf of Its Separate Account (E)(16)		94,134	94,134	*	94,134		
Convertible Securities Fund (15)		724	724	*	724		
CQS Convertible and Quantitative Strategies Master Fund Ltd (17)		90,514	90,514	*	90,514		
D.E. Shaw Valence Portfolios, L.L.C. (19)		181,028	181,028	*	181,028		
Daimler Chrysler Corp. Emp. #1 Pension Plan dated 4/1/89 (18)		45,655	45,655	*	45,655		
DBAG London (46)		570,093	570,093	*	570,093		
Deutsche Bank Securities Inc. (68)		224,474	224,474	*	224,474		
DKR SoundShore Oasis Holding Fund Ltd. (47)	336,600	362,056	698,656	*	362,056	336,600	*
Double Black Diamond Offshore LDC (9)(52)	110,972	156,046	267,018	*	156,046	110,972	*
Elite Classic Convertible Arbitrage Ltd. (44)		5,792	5,792	*	5,792		
Ellington Overseas Partners, LTD (20)		72,411	72,411	*	72,411		
Engineers Joint Pension Fund (8)		15,387	15,387	*	15,387		
Finch Tactical Plus Class B (6)		17,197	17,197	*	17,197		
FPL Group Employee Pension Plan (18)		17,595	17,595	*	17,595		

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Franklin and Marshall College (18)		1,086	1,086	*	1,086		
Froley Revy Alternative Strategies (21)		18,102	18,102	*	18,102		
Grable Foundation (5)		2,461	2,461	*	2,461		
Grady Hospital (5)(57)	2,847	3,005	5,852	*	3,005	2,847	*
Guardian Pension Trust (22)		18,102	18,102	*	18,102		
Harry M. & Violet Turner Charitable Trust (23)		3,620	3,620	*	3,620		
HBK Master Fund L.P. (24)		1,267,196	1,267,196	1.32%	1,267,196		
HFR CA Global Select Master Trust Account (44)		5,068	5,068	*	5,068		
Highbridge International LLC (25)(49)	917,904	536,748	1,454,652	1.51%	536,748	917,904	*
Independence Blue Cross (5)(58)	15,863	16,401	32,264	*	16,401	15,863	*
Institutional Benchmarks Series (Master Feeder) Limited in Respect of Alcor Series (6)		17,197	17,197	*	17,197		
Institutional Benchmarks Series (Master Feeder) Limited in Respect of the Grafton Sub Fund (6)		8,146	8,146	*	8,146		
JMG Capital Partners, L.P. (26)		391,020	391,020	*	391,020		
KBC Convertibles MAC28 Limited (27)		28,964	28,964	*	28,964		
KBC Diversified Fund, a Segregated Portfolio of KBC Diversified Fund, SPC (27)		57,928	57,928	*	57,928		
LDG Limited (28)		12,092	12,092	*	12,092		
Lehman Brothers (42)		217,233	217,233	*	217,233		
Lyxor Quest Fund LTD (29)		108,616	108,616	*	108,616		
Lyxor/Context Fund LTD (6)		52,498	52,498	*	52,498		
McMahan Securities Co. L.P. (43)		18,102	18,102	*	18,102		
Merrill Lynch, Pierce, Fenner and Smith (30)		155,684	155,684	*	155,684		
Mohican VCA Master Fund, Ltd. (31)		99,565	99,565	*	99,565		

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Morgan Stanley Convertible Securities Trust (32)(63)	17,652	12,671	30,323	*	12,671	17,652	*
New Orleans Firefighters (5)		2,787	2,787	*	2,787		
Nicholas-Applegate U.S. Convertible Fund (8)		139,029	139,029	*	139,029		
NJF Dividend, Interest and Premium Strategy Fund (8)		253,439	253,439	*	253,439		
Occidental Petroleum Corporation (5)(59)	7,202	10,644	17,846	*	10,644	7,202	*
Opportunistic Convertible Arbitrage Fund Ltd. (14)		144,822	144,822	*	144,822		
Oregon Convertible Opportunities Bond Fund, L.P. (14)(48)	58,651	6,335	64,986	*	6,335	58,651	*
Police & Firefighters of the City of Detroit (5)		16,292	16,292	*	16,292		
Polygon Global Opportunities Master Fund (33)		99,565	99,565	*	99,565		
ProMutual (5)(60)	18,146	30,195	48,341	*	30,195	18,146	*
Quest Global Convertible Master Fund LTD (29)		36,205	36,205	*	36,205		
Rampart Enhanced Convertible Investors, LLC (34)		8,073	8,073	*	8,073		
RBC Capital Markets (35)		108,616	108,616	*	108,616		
Rhythm Fund, Ltd. (27)		57,928	57,928	*	57,928		
San Diego City Retirement (8)		53,765	53,765	*	53,765		
San Diego County Convertible (8)		60,644	60,644	*	60,644		
San Diego County Employee Retirement Association (8)		24,076	24,076	*	24,076		
San Francisco Public Employees Retirement System (5)		47,284	47,284				