

## Digital Realty Decreases Data Center Cooling Energy Usage By 66%

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SAN FRANCISCO, Dec. 12, 2012 /PRNewswire/ -- Digital Realty Trust, Inc. (NYSE: DLR), Vigilent® Corporation, and Lawrence Berkeley National Laboratory today announced the results of a joint study focused on improving the energy efficiency of a data center designed, owned and operated by Digital Realty.

The facility used for this initiative was Digital Realty's 135,000 square foot data center located in El Segundo, California. Lawrence Berkeley National Laboratory monitored the overall effort, creating the baseline and result metrics, and acted as project manager for the energy efficiency grant awarded by the California Energy Commission's PIER Program. The results of this project were presented at the Silicon Valley Leadership's Data Center Summit hosted by AMD on October 24, 2012.

The project focused on replacing constant speed scroll fans with electronically commutated motor (ECM) variable speed fans of a more efficient design and deploying the Vigilent Intelligent Energy Management™ system to control fan speeds and computer room air handler (CRAH) output. The full report – "Demonstration of Intelligent Control and Fan Improvements in Computer Room Air Handlers" - is available on Lawrence Berkeley National Laboratory's website (<http://hightech.lbl.gov/datacenter-wireless-control/>).

"The goal of the study was to assess whether the fan speed control system was a viable solution for commercial data centers," said Jim Smith, Chief Technology Officer at Digital Realty. "We found that upgrading fans and adding fan speed controls in our data centers allow us to cool them more effectively and efficiently. In addition, the facility's electrical energy usage was reduced, as was the average and peak electric power demand, resulting in a more energy efficient and sustainable data center environment."

### Key Findings

Deployment of Vigilent's sophisticated software system combined with changes to the data center operations resulted in a 66% drop in cooling energy usage at Digital Realty's El Segundo facility, freeing stranded capacity while simultaneously expanding reserve cooling capacity. In addition, the software provided visibility into data center thermal conditions, which led to additional energy savings as well as a significantly improved temperature distribution. Furthermore, the El Segundo facility's PUE (power usage effectiveness) was improved by 8% to 1.46; 2.9 million kilowatt hours will be saved annually; and greenhouse gas emissions of carbon dioxide will be reduced by 1.9 million pounds per year as a result of the software and data center improvements.

"Gaining capacity from existing equipment is a competitive advantage for data center owners and operators," said Christopher Kryzan, Vice President of Marketing at Vigilent. "The ability, at any moment, to see exactly how much capacity you have in reserve along with the ability to instantly deploy it, allows for a flexible, resilient data center and optimizes the use of valuable resources."

### Repeatable, Scalable Model

"Operational efficiency and thermal performance benefits are immediately available with existing technologies," said Bill Tschudi, a program manager at Lawrence Berkeley National Laboratory. "We believe the energy savings achieved through infrastructure improvements combined with a powerful monitoring and control system is a repeatable, scalable model for data centers everywhere, and the kind of improvement we are encouraging the industry to attain."

### About Digital Realty

Digital Realty Trust, Inc. focuses on delivering customer driven data center solutions by providing secure, reliable and cost effective facilities that meet each customer's unique data center needs. Digital Realty's customers include domestic and international companies across multiple industry verticals ranging from information technology and Internet enterprises, to manufacturing and financial services. Digital Realty's 110 properties, excluding three properties held as investments in unconsolidated joint ventures, comprise approximately 21.2 million square feet as of October 26, 2012, including 2.2 million square feet of space held for redevelopment. Digital Realty's portfolio is located in 32 markets throughout Europe, North America, Asia and Australia. Additional information about Digital Realty is included in the Company Overview, which is available on the Investors page of Digital Realty's website at <http://www.digitalrealty.com>.

### About Vigilent® Corporation

Vigilent® Corporation ([vigilent.com](http://vigilent.com)) is the leader in intelligent energy management systems, an essential solution for data center infrastructure management (DCIM). The company applies advanced Intelligent Analytics™ technology to address the real-time energy demands of data centers, colocation providers, telecommunications facilities, and large buildings. Vigilent protects uptime through dynamic management of cooling resources, while delivering significant, immediate reductions in cooling energy costs and

carbon emissions through automated 24/7 monitoring and control of mission-critical facilities. A privately-held firm located in San Francisco's East Bay, Vigilent is committed to green energy solutions that reduce and inform energy use, making for a more sustainable planet.

### **About Lawrence Berkeley National Laboratory**

Lawrence Berkeley National Laboratory (Berkeley Lab) is a member of the national laboratory system supported by the U.S. Department of Energy through its Office of Science. It is managed by the University of California (UC) and is charged with conducting unclassified research across a wide range of scientific disciplines. Located on a 200-acre site in the hills above the UC Berkeley campus that offers spectacular views of the San Francisco Bay, Berkeley Lab employs approximately 4,200 scientists, engineers, support staff and students.

Berkeley Lab's extensive research and demonstrations related to data center energy efficiency is supported by numerous public interest programs including DOE, the California Energy Commission, NYSERDA, and others. Berkeley Lab supports the Silicon Valley Leadership Group's annual data center summit where the project described herein was presented.

### **Safe Harbor Statement**

This press release contains forward-looking statements which are based on Digital Realty Trust, Inc.'s current expectations, forecasts and assumptions that involve risks and uncertainties that could cause actual outcomes and results to differ materially, including statements related to the joint study on improving energy efficiency, expectations based on the results of the study, and estimated improvements in PUE and estimated savings in kilowatt hours and greenhouse gas emissions at Digital Realty's El Segundo facility. These risks and uncertainties include, among others, the following: the impact of the recent deterioration in global economic, credit and market conditions, including the downgrade of the U.S. government's credit rating; current local economic conditions in its geographic markets; decreases in information technology spending, including as a result of economic slowdowns or recession; adverse economic or real estate developments in its industry or the industry sectors that it sells to (including risks relating to decreasing real estate valuations and impairment charges); its 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; its failure to obtain necessary debt and equity financing; increased interest rates and operating costs; risks associated with using debt to fund its business activities, including re-financing and interest rate risks, its failure to repay debt when due, adverse changes in its credit ratings or its breach of covenants or other terms contained in its loan facilities and agreements; financial market fluctuations; changes in foreign currency exchange rates; its inability to manage its growth effectively; difficulty acquiring or operating properties in foreign jurisdictions; its failure to successfully integrate and operate acquired or redeveloped properties or businesses; risks related to joint venture investments, including as a result of its lack of control of such investments; delays or unexpected costs in development or redevelopment of properties; decreased rental rates or increased vacancy rates; increased competition or available supply of data center space; its inability to successfully develop and lease new properties and space held for redevelopment; difficulties in identifying properties to acquire and completing acquisitions; its inability to acquire off-market properties; its inability to comply with the rules and regulations applicable to reporting companies; its failure to maintain its status as a REIT; possible adverse changes to tax laws; restrictions on its ability to engage in certain business activities; environmental uncertainties and risks related to natural disasters; losses in excess of its 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 list and description of such risks and uncertainties, see the reports and other filings by Digital Realty Trust, Inc. with the U.S. Securities and Exchange Commission, including Digital Realty Trust, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011 and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012, June 30, 2012 and September 30, 2012. Digital Realty Trust, Inc. disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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