



**DIGITAL REALTY TRUST, INC. / DIGITAL REALTY TRUST, L.P.**

**INDEPENDENT SERVICE AUDITOR'S SOC 3 REPORT**

**FOR THE**

**DATA CENTER SERVICES SYSTEM**

**FOR THE PERIOD OF JANUARY 1, 2023, TO DECEMBER 31, 2023**

**Attestation and Compliance Services**



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## INDEPENDENT SERVICE AUDITOR'S REPORT

To Digital Realty Trust, Inc. and Digital Realty Trust, L.P. (together with their respective subsidiaries, "Digital Realty" or the "service organization"):

### *Scope*

We have examined Digital Realty's accompanying assertion titled "Assertion of Digital Realty Trust, L.P. Service Organization Management" ("assertion") that the controls within Digital Realty's Data Center Services system ("system") were effective throughout the period January 1, 2023, to December 31, 2023, to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved based on the trust services criteria relevant to security and availability set forth in TSP section 100, 2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy (AICPA, Trust Services Criteria).

### *Service Organization's Responsibilities*

Digital Realty is responsible for its service commitments and system requirements and for designing, implementing, and operating effective controls within the system to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved. Digital Realty has also provided the accompanying assertion about the effectiveness of controls within the system. When preparing its assertion, Digital Realty is responsible for selecting, and identifying in its assertion, the applicable trust services criteria and for having a reasonable basis for its assertion by performing an assessment of the effectiveness of the controls within the system.

### *Service Auditor's Responsibilities*

Our responsibility is to express an opinion, based on our examination, on whether management's assertion that controls within the system were effective throughout the period to provide reasonable assurance that the service organization's service commitments and systems requirements were achieved based on the applicable trust services criteria. Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform our examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination included:

- Obtaining an understanding of the system and the service organization's service commitments and system requirements;
- Assessing the risks that controls were not effective to achieve Digital Realty's service commitments and system requirements based on the applicable trust services criteria; and
- Performing procedures to obtain evidence about whether controls within the system were effective to achieve Digital Realty's service commitments and system requirements based on the applicable trust services criteria.

Our examination also included performing such other procedures as we considered necessary in the circumstances.

### *Inherent Limitations*

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls.

Because of their nature, controls may not always operate effectively to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved based on the applicable trust services criteria. Also, the projection to the future of any conclusions about the effectiveness of controls is subject to the risk

that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

*Opinion*

In our opinion, management's assertion that the controls within Digital Realty's Data Center Services system were effective throughout the period January 1, 2023, to December 31, 2023, to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved based on the applicable trust services criteria is fairly stated, in all material respects.

SCHILLMAN & COMPANY, LLC

Tampa, Florida  
April 9, 2024

## ASSERTION OF DIGITAL REALTY SERVICE ORGANIZATION MANAGEMENT

We are responsible for designing, implementing, operating, and maintaining effective controls within Digital Realty's Data Center Services system ("system") throughout the period January 1, 2023, to December 31, 2023, to provide reasonable assurance that Digital Realty's service commitments and system requirements relevant to security and availability were achieved. Our description of the boundaries of the system is presented below and identifies the aspects of the system covered by our assertion.

We have performed an evaluation of the effectiveness of the controls within the system throughout the period January 1, 2023, to December 31, 2023, to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved based on the trust services criteria relevant to security and availability (applicable trust services criteria) set forth in TSP section 100, 2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy (AICPA, Trust Services Criteria). Digital Realty's objectives for the system in applying the applicable trust services criteria are embodied in its service commitments and systems requirements relevant to the applicable trust services criteria. The principal service commitments and system requirements related to the applicable trust services criteria are presented below.

There are inherent limitations in any system of internal control, including the possibility of human error and the circumvention of controls. Because of these inherent limitations, a service organization may achieve reasonable, but not absolute, assurance that its service commitments and system requirements are achieved.

We assert that the controls within the system were effective throughout the period January 1, 2023, to December 31, 2023, to provide reasonable assurance that Digital Realty's service commitments and systems requirements were achieved based on the applicable trust services criteria.

# DESCRIPTION OF THE BOUNDARIES OF THE DATA CENTER SERVICES SYSTEM

## Company Background

Digital Realty provides data center, colocation, and interconnection solutions for customers across a variety of industry verticals through a portfolio of data centers located throughout North America, Europe, South America, Asia, Australia, and Africa. If a customer is not served through the local data center, the portions of this description that cover the local data center will not be relevant to that customer. In addition, as discussed below, certain services provided by Digital Realty are not within the scope of this report. For that reason, it is recommended that customers confirm the data center(s) through which they are served by contacting their Digital Realty account executive.

## Types of Services Provided

While Digital Realty provides a variety of services to its customers, this report covers only the specific services set forth below (the “Data Center Services”) and excludes all other services. Although the Data Center Services are provided on a widespread basis across Digital Realty data centers, these Data Center Services may differ to some extent across data centers, solutions, and customers. If a customer receives different Data Center Services, the portions of this description that cover the Data Center Services will not be relevant to that customer. For that reason, it is recommended that customers confirm the Data Center Services they receive by contacting their Digital Realty account executive.

The term “Data Center Services” is limited to the following services provided by Digital Realty:

- Suites or cabinets
- Physical security
- Heating, ventilation, and air conditioning (HVAC)
- Fire detection and fire suppression
- Power

While Digital Realty may provide customers the following services, they are not considered “Data Center Services” for the purpose of this Report and are, accordingly, outside the scope of this Report:

- Cross-Connect (Cross-Connect, Pack, Riser Fiber, Intra-customer Connectivity, and Metro Cross-Connect)
- Digital Realty Internet Exchange (DRIX)
- Dedicated Internet Access (DIA)
- Service Exchange
- Service Fabric

These services (and any other service provided by Digital Realty outside of the five services listed in the definition of “Data Center Services”) are “Out of Scope Services.” This report and description exclude services provided by (i) subsidiaries of Digital Realty; (ii) joint ventures of which Digital Realty is directly or indirectly an equity owner, unless the report states otherwise; and (iii) Out of Scope Services.

## System Boundaries

A system is designed, implemented, and operated to achieve specific business objectives in accordance with management-specified requirements. The purpose of the system description is to delineate the boundaries of the system, which includes the services outlined above and the five components described below: infrastructure, software, people, procedures, and data.

The scope of this report includes the Data Center Services system provided to Digital Realty's customers at the Digital Realty data center facilities noted in the table below.

Digital Realty Data Center Facilities	
Site Code	Address
ACC4	44480 Hastings Dr, Ashburn, Virginia
ACC5	44521 Hastings Drive, Ashburn, Virginia
ACC6	44461 Chilum Pl, Ashburn, Virginia
ACC10	21744 Sir Timothy Dr, Ashburn, Virginia
AMS10	Pudongweg 25, 1437 EM, Rozenburg, Netherlands
AMS15	Jan Wijsmullerdreef 10, Hoofddorp, Netherlands
AMS17	Science Park 120, 1098 XG, Amsterdam, Netherlands
AMS18	Amstel Business Park, H.J.E. Wenckebachweg 127, 1096 Amsterdam, Netherlands
AMS3	Cessnalaan 1-33, 1119 NJ, Schiphol-Rijk, Netherlands
AMS5	Tupolevlaan 101, 1119 PA, Schiphol-Rijk, Netherlands
AMS7	Cessnalaan 50, 1119 NL, Schiphol-Rijk, Netherlands
AMS8	Pudongweg 37, 1437 EM, Rozenburg, Netherlands
AMS9	Science Park 121, 1098 XG, Amsterdam, Netherlands
ATL13	56 Marietta St, Atlanta, Georgia
ATL14	250 Williams Street, Atlanta, Georgia
AUS11	7500 Metro Center, Austin, Texas
BOS13	55 Middlesex Turnpike, Bedford, Massachusetts
BOS14	128 First Ave, Needham, Massachusetts
BOS16	105 Cabot St, Needham, Massachusetts
BRU1*	Wezenbeekstraat 2, B-1930, Zaventem, Belgium
CH1	2200 Busse Rd, Elk Grove Village, Illinois
CH3	1400 Devon Ave, Elk Grove Village, Illinois
CLT10	113 N Myers St, Charlotte, North Carolina
CPH1	Industriparken 20A, Ballerup, Denmark
CPH2	Industriparken 20A, Ballerup, Denmark
CPH3*	Industriparken 24, Ballerup, Denmark
CPHRS	Carl Jacobsens Vej 20, Valby, Denmark
DFW10	2323 Bryan St, Dallas, Texas
DFW11	4025 Midway Rd, Carrollton, Texas
DFW12	2440 Marsh Lane, Carrollton, Texas
DFW14	4849 Alpha Rd, Dallas, Texas
DFW16	1232 Alma Rd, Richardson, Texas
DFW17	900 Quality Way, Richardson, Texas

## Digital Realty Data Center Facilities

Site Code	Address
DFW18	1210 Integrity Drive, Dallas, Texas
DFW20	908 Quality Way, Richardson, Texas
DFW28	850 E. Collins Blvd, Richardson, Texas
DFW29	950 E. Collins Blvd, Richardson, Texas
DFW35	907 Security Row, Richardson, Texas
DUB1	Unit 35 Lavery Avenue, Parkwest Business Park, Dublin, Ireland
DUB2	Unit 24 Hume Avenue, Parkwest Business Park, Dublin, Ireland
DUB3	Grange Castle Business Park, Old Nangor Road, Dublin, Ireland
DUB10	Unit 9 Blanchardstown Corporate Center, Dublin, Ireland
DUB12	Clonshaugh Industrial Estate (Eircom), Dublin, Ireland
DUB13	Profile Park (Bldg 1), Grange Castle, Nangor Road, Dublin, Ireland
DUB14	Profile Park (Bldg 2), Grange Castle, Nangor Road, Dublin, Ireland
DUS1	In der Steele 25-45, Dusseldorf, Germany
DUS2	In der Steele 39-45, Dusseldorf, Germany
EWR10	300 JFK Boulevard East, Weehawken, New Jersey
EWR11	3 Corporate Pl, Piscataway, New Jersey
EWR12	365 S Randolphville Rd, Piscataway, New Jersey
EWR20	100 Delawanna Avenue, Clifton, New Jersey
EWR21	2 Peekay Drive, Clifton, New Jersey
FRA1	Hanauer Landstrasse 302, Frankfurt am Main, Germany
FRA2	Hanauer Landstrasse 304-304a, Frankfurt am Main, Germany
FRA3	Weismuellerstrasse 21-23, Frankfurt am Main, Germany
FRA4	Weismuellerstrasse 19, Frankfurt am Main, Germany
FRA5	Hanauer Landstrasse 308-310, Frankfurt am Main, Germany
FRA6	Hanauer Landstrasse 300-300a, Frankfurt am Main, Germany
FRA7	Hanauer Landstrasse 296a-298, Frankfurt am Main, Germany
FRA8	Weismuellerstrasse 36, Frankfurt am Main, Germany
FRA9	Weismuellerstrasse 25-27, Frankfurt am Main, Germany
FRA10	Weismuellerstrasse 38, Frankfurt am Main, Germany
FRA11	Weismuellerstrasse 40, Frankfurt am Main, Germany
FRA12	Weissmullerstrasse 29-31, Frankfurt am Main, Germany
FRA13	Weismuellerstrasse 42, Frankfurt am Main, Germany
FRA14	Weismuellerstrasse 34, Frankfurt am Main, Germany
FRA15	Weismuellerstrasse 1, Frankfurt am Main, Germany
FRA16	Weismuellerstrasse 37-39, Frankfurt am Main, Germany

## Digital Realty Data Center Facilities

Site Code	Address
FRA28	Lyoner Strasse 28, Frankfurt am Main, Germany
FRA29	Wilhelm-Fay Strasse 15 (Bldg 4), Frankfurt am Main, Germany
FRA30	Wilhelm-Fay-Strasse 24 (Bldg 1), Frankfurt am Main, Germany
FRA31	Wilhelm-Fay-Strasse 24a (Bldg 2), Frankfurt am Main, Germany
FRA32	Wilhelm-Fay-Strasse 24b (Bldg 3), Frankfurt am Main, Germany
HKG10	33 Chun Choi Street, Tseung Kwan O, Hong Kong, Hong Kong
HKG11	11 Kin Chuen Street, Kwai Chung, Hong Kong, Hong Kong
HVN10	60-80 Merritt Blvd, Trumbull, Connecticut
IAD12	43881 Devin Shafron Dr (Bldg B), Ashburn, Virginia
IAD14	43791 Devin Shafron Dr (Bldg D), Ashburn, Virginia
IAD15	43915 Devin Shafron Dr (Bldg A), Ashburn, Virginia
IAD24	43830 Devin Shafron Dr (Bldg F), Ashburn, Virginia
IAD35	43940 Digital Loudoun Plaza (Bldg G), Ashburn, Virginia
IAD36	43780 Digital Loudoun Plaza (Bldg H), Ashburn, Virginia
IAD37	44060 Digital Loudoun Plaza (Bldg K), Ashburn, Virginia
IAD38	44100 Digital Loudoun Plaza (Bldg J), Ashburn, Virginia
IAD39	44274 Round Table Plaza (Bldg L), Ashburn, Virginia
IAD40	44462 Round Table Plaza (Bldg M), Ashburn, Virginia
IAD41	44751 Round Table Plaza (Bldg P), Ashburn, Virginia
IAD42	22125 Broderick Drive (Bldg R), Ashburn, Virginia
IAD73	44820 Prentice Building (Bldg M2), Ashburn, Virginia
IAH11	12031 N. Freeway, Houston, Texas
IAH13	12231 N. Freeway, Houston, Texas
IAH14	12235 N. Freeway, Houston, Texas
ICN10	12 Worldcup Buk-Ro 60-Gil, Mapo-Gu, Seoul, South Korea
JFK10	111 8th Ave, New York, New York
JFK12	60 Hudson St, New York, New York
JFK13	32 Avenue of the Americas, New York, New York
KIX10	5-8-1 Yamabuki, Saito, Ibaraki City, Japan
KIX11	6-1 Aokita, Saito, Minoh-shi, Osaka, Japan
KIX12	6-2-1 Aokita, Saito, Minoh-shi, Osaka, Japan
LAX10	600 W Seventh St, Los Angeles, California
LAX12	2260 E El Segundo Blvd, El Segundo, California
LGW10	Foxboro Business Park - Unit 3, 3 St Anne's Boulevard, Redhill, UK
LGW14	Unit 21, Goldsworth Park Trading Estate, Woking, UK



## Digital Realty Data Center Facilities

Site Code	Address
LGW15	Unit 1, Power Avenue, Manor Royal, Crawley, UK
LGW16	Unit 2, Connect Way, Manor Royal, Crawley, UK
LHR13	Fountain Court, Cox Lane, Surrey, Chessington, UK
LHR17	Unit 1 Airport Gate, Bath Road (West Drayton), Middlesex, UK
LHR18	1 Oliver's Yard, 55-71 City Road (Oliver's Yard), London, UK
LHR19	Cloud House & Cloud House West, 47 Millharbour, London, UK
LHR20	227 Marsh Wall (Sovereign House), London, UK
LHR21	215 Marsh Wall (Meridian Gate/Memaco), London, UK
LON1	11 Hanbury Street, London, UK
LON2	Dray Walk, Building 1, 91-95 Brick Lane, London, UK
LON3	1 Spicer Street, Off Dray Walk, London, UK
MAD1	Calle Albasanz 71, Madrid, Spain
MAD2	Calle Albasanz 73, Madrid, Spain
MAD3	Calle Emilio Muñoz 49, Madrid, Spain
MAD4	Calle Alfonso Gómez 4, Madrid, Spain
MEL10	98 Radnor Drive, Deer Park, Australia
MEL11	72 Radnor Dr, Deer Park, Australia
MIA10	36 NE Second St, Miami, Florida
MRS1	40 Avenue Roger Salengro, Marseille, France
MRS2	Enceinte Portuaire, Porte 4, Marseille, France
MRS3	Enceinte Portuaire, Porte 4, Marseille, France
MRS4	Enceinte Portuaire, Porte 4, Marseille, France
NRT10	2-9-3 Otsuka, Inzai-shi, Chiba, Japan
OAK10	720 Second St, Oakland, California
ORD10	350 E Cermak Rd, Chicago, Illinois
ORD11	600-700 S. Federal Street, Chicago, Illinois
ORD12	9333 Grand Avenue, Franklin Park, Illinois
ORD13	9355 Grand Avenue, Franklin Park, Illinois
ORD14	9377 Grand Avenue, Franklin Park, Illinois
ORD23	505 N Railroad Avenue, Northlake, Illinois
PAR2	20-22 Rue du Port, Parc de l'Île - Alee Bleue, Natterre, France
PAR5	11-13 Avenue des Arts et Metiers, Saint-Denis, France
PAR7	1-3 Rue Rateau, La Courneuve, France
PAR8	2 Avenue Marcel Cachin, La Courneuve, France
PAR12	16 Avenue Joseph Froelicher, Ferrieres En Brie, France

## Digital Realty Data Center Facilities

Site Code	Address
PDX10	3825 Northwest Aloclek Place, Hillsboro, Oregon
PDX11	6675 NE 62nd Avenue, Hillsboro, Oregon
PDX12*	5870 NE Schaaf Street, Hillsboro, Oregon
PHX10	120 E Van Buren St, Phoenix, Arizona
PHX15	2121 S Price Rd, Chandler, Arizona
SC1	2220 De La Cruz Blvd, Santa Clara, California
SEA10	2001 Sixth Avenue (Westin Building), Seattle, Washington
SFO10	200 Paul Ave 1-4, San Francisco, California
SFO12	365 Main St, San Francisco, California
SIN10	29A International Business Park, Jurong, Singapore, Singapore
SIN11	3 Loyang Way, Singapore, Singapore
SIN12	11 Loyang Close, Singapore, Singapore
SJC10	1100 Space Park Dr, Santa Clara, California
SJC11	3011 Lafayette St, Santa Clara, California
SJC15	1201 Comstock Street, Santa Clara, California
SJC16	1525 Comstock Street, Santa Clara, California
SJC29	1725 Comstock Street, Santa Clara, California
SJC30	3105 Alfred St, Santa Clara, California
SJC31	2805 Lafayette, Santa Clara, California
SJC34	2820 Northwestern Pkwy, Santa Clara, California
SJC35	3205 Alfred Street, Santa Clara, California
STO1	Esbogatan 11, 164 74 Kista, Stockholm, Sweden
STO2	Esbogatan 11, 164 74 Kista, Stockholm, Sweden
STO3	Esbogatan 11, 164 74 Kista, Stockholm, Sweden
STO4	Esbogatan 11, 164 74 Kista, Stockholm, Sweden
STO5	Esbogatan 11, 164 74 Kista, Stockholm, Sweden
STO6	Vandagatan 3, 164 74 Kista, Stockholm, Sweden
SYD10	1-11 Templar Road, Erskine Park, Australia
SYD11	13-23 Templar Road, Erskine Park, Australia
TOR1	1 Century Place, Ontario, Canada
VA3	1780 Business Center Dr, Reston, Virginia
VIE1	Louis-Haefliger-Gasse 10, Vienna, Austria
VIE2	Louis-Haefliger-Gasse 10, Vienna, Austria
YYZ10	371 Gough Road, Markham, Ontario, Canada
YYZ12	151 Front St, Toronto, Canada

Digital Realty Data Center Facilities	
Site Code	Address
ZUR1	Sagereistrasse 35, Glattburgg, Switzerland
ZUR2	Bäulerwisenstrasse 4, Glattburgg, Switzerland

\* Coverage period for data center facilities PDX12, BRU1, and CPH3 was July 1, 2023, to December 31, 2023.

## Principal Service Commitments and System Requirements

Digital Realty implements procedures and controls to meet its objectives for Data Center Services. Those objectives are based on the service commitments that Digital Realty makes to user entities, the laws and regulations that govern the provision of Data Center Services, and the financial, operational, and compliance requirements that Digital Realty has established for the services.

### *Principal Service Commitments*

Security and availability commitments to user entities are documented and communicated in customer agreements as well as in the description of the Data Center Services provided online. Digital Realty makes the following security and availability commitments to their customers:

- Make available the services to customers for the service term
- Establish, implement, and maintain commercially reasonable industry standards for physical security and protection
- Establish, implement, and maintain commercially reasonable industry standards to make the services available
- Make available the data center space 24 hours per day, 7 days a week
- Provide services in a manner that meets applicable laws and regulations

### *System Requirements*

Digital Realty establishes operational requirements that support the achievement of the principal service commitments, relevant laws and regulations, and other system requirements. These requirements include the following capabilities:

- **Availability Monitoring:** Dedicated personnel are responsible for the 24x7 monitoring and remediation of system events affecting availability. Software and other technologies are deployed to manage system availability and capacity levels against predefined thresholds.
- **Infrastructure Redundancy:** Redundant infrastructure is available and configured to process transactions when primary systems are unavailable.
- **Physical Security Perimeter:** Security perimeters are used to protect areas that contain information and information processing facilities – using walls, controlled entry doors/gates, manned reception desks, and other measures.
- **Physical Entry Controls:** Policies and procedures are implemented to limit physical access to its electronic information systems and the facility or facilities in which they are housed, while ensuring that properly authorized access is allowed.
- **Temperature and Humidity Monitoring:** Temperature and humidity are monitored to maintain the environment temperature and humidity in accordance with standard guidelines for datacom equipment.
- **Preventative Maintenance Program:** Environmental protections receive maintenance on at least an annual basis, however for assets which are subject to condition-based maintenance other maintenance frequencies may apply in accordance with the regional maintenance policy, manufacturer’s specifications, or supplier requirements as well as local regulations or electrical requirements.

- Employee Training: Employees are required to complete training upon hire and at regular intervals to understand their obligations and responsibilities to comply with the corporate and business unit commitments and the associated system requirements.

In accordance with Digital Realty’s assertion, and the description criteria, the aforementioned service commitments and requirements are those principal service commitments and requirements common to the broad base of users of the system and may therefore not fully address the specific service commitments and requirements made to all system users, in each individual case.

**Infrastructure and Software**

The infrastructure supporting the Data Center Services includes the data center building, the suites within, security cameras, physical access control devices, interconnection routers, and switches and the servers supporting the applications noted below. The building is also equipped with uninterruptible power supply (UPS), fire detection, and suppression systems, back-up generators, and HVAC systems to protect against threats to environmental security.

The primary in-scope systems utilized for delivery of the Data Center Services are the physical access control system applications and the logical access to interconnection routers and switches. These commercial badge access applications are based on the Windows operating systems, and are used to provision, de-provision, and manage user access to the building and suites contained within. Network device login and access is governed by an access control system tied to directory services. These devices serve as interconnection devices that provide data forwarding between internal networks and Ethernet exchanges. The routers and switches include Cisco, Juniper, and Dell equipment.

Secondary applications utilized to support delivery of the Data Center Services include:

- Digital Realty DMZ application – utilized for provisioning individual IDs for third party team members to access InSite/ServiceNow.
- Building Management System (BMS) – utilized by the site engineering team to monitor and control environmental systems.
- Network Monitoring Application – utilized to detect and log changes made to network device configurations.
- Salesforce – utilized to track network changes, cross-connects, and complex installations through completion.
- ServiceNow / Insite – the third-party cloud-based Integrated Work Order Management System is utilized for Maintenance Management, Security Access & Authorization, Incident Reporting, & Customer Request modules.

The Data Center Services system is limited to the data center services and related infrastructure maintained by Digital Realty and does not include customer entity systems, or the Internet connectivity utilized for accessing their environments.

The in-scope infrastructure consists of multiple applications, operating system platforms and databases, as shown in the table below:

Production Systems			
Production System	Business Function Description	Operating System Platform	Physical Location
Web, Application, and Database Servers	Application and database servers that support physical access systems.	Windows	Digital Realty property-level locations
Database	Physical access system data storage.		

Production Systems			
Production System	Business Function Description	Operating System Platform	Physical Location
Directory Services	Provides access control and directory services for users and systems.	Windows	Digital Realty property-level locations
Commercial Badge Access Applications	Security management system supporting badge access.		
Firewall and Router Systems	Front-end firewalls protect the network perimeter based on rule-based access control lists.	Juniper Cisco	
Access Control System	Manages authentication for virtual private network (VPN), firewalls, and network devices.	Linux	

## People

The Chief Commercial Operations Officer leads Global Operations by implementing a global model centered around key service areas to enhance service-delivery consistency globally. The Global Operations team drives and reinforces a customer-centric, consistent approach to how Digital Realty builds and operates globally. This includes partnering with and empowering local leaders and colleagues with simplified work planning and allocation, a standard set of KPIs, and enhanced role clarity. Digital Realty’s Senior Vice President (SVP) of Global Operations defines the Global Operations structure driving the global operations strategy, aligning best practice standards, and supporting regional teams to ensure global consistency for customers.

Each local entity has a dedicated local management team, responsible for data center operations in their respective region, reporting to their respective managing directors. The local Operations managers / directors have a functional reporting line to the regional Operations leadership. The local regional Operations manager / director oversees the electrical and mechanical engineering specialists who maintain and monitor platforms of the data center facilities. More specifically, the local regional Operations manager / director ensures that the specialists are properly trained, and that systems and processes are in place to ensure continual facilities uptime, system-wide security consciousness, and consistent service execution.

Digital Realty employs regional vice presidents, directors, and managers of technical operations who are responsible for process, quality, and compliance with aspects of technical operations and engineering functions. These individuals have significant experience with the operation and maintenance of diverse mission critical electrical and mechanical equipment. Core groups supporting day-to-day operations include the following:

- Facility Management / Site Engineering – responsible for operation and maintenance of diverse mission critical electrical and mechanical equipment.
- Security – responsible for 24x7 monitoring of the building, administration of physical access systems, and responding to alerts/events.
- Site Management – responsible for day to day operations of the site: operations, maintenance, physical security, billing, lease and financial reporting functions.
- Command Centers - in addition to being the single point of contact for customers, the Command Centers provide remote monitoring on critical alarms linked to assets, as configured in the local BMS. The Command Centers act as a gatekeeper for the local entities providing Incident Management coordination, corporate escalation, and emergency response communications.
- Global Customer Care – responsible for carrying out customer remote hands requests and customer services teams can manage or help support customer onboarding process and facilitate hand-off from Sales to Internal / External Construction teams as well as Operating teams who are responsible for supporting customers locally.

- Provisioning / Service Planning – documents customer orders for new cross-connects and maintains the cross-connects inventory.

## **Procedures**

Procedures supporting the Data Center Services include:

### *Physical Security*

Digital Realty's physical security policies are set forth in the GRC document management system which is distributed to the site management and Security teams at the local data center facilities. Physical security of the building is controlled through limited access points, and physical security of each suite is controlled through a badge and/or biometric reader. Access to master keys is restricted to emergency use only and to personnel from the Security, Engineering, and Site Management teams. New security personnel are required to undergo orientation training and existing security personnel are required to complete annual refresher training course(s).

### *Visitor Procedures*

Visitors are required to check-in with the Security team and must provide valid government-issued photo ID to verify their identity. Visitors must sign in and provide the name of the Digital Realty / customer individual they will be meeting with. Temporary visitor access will be pre-authorized by the designated Digital Realty or customer host. Escort only visitors will be provided escorted access by an authorized customer or Digital Realty representative. Authorized employees and customer personnel are issued a permanent badge. Digital Realty personnel other than authorized employees and strategic partners are granted a temporary badge.

### *Monitoring*

Security personnel monitor both the interior and exterior of the building through closed-circuit TV (CCTV). The data center is under 24-hour recorded CCTV camera surveillance. Cameras are also deployed within the suites and surrounding areas to monitor the security of exits and entrances. The recordings are retained for a minimum of 90 days and may be used for investigative purposes, or as otherwise legally permitted.

Security personnel also monitor card activity for access points to the building and the suites. In the event of any suspicious activity (e.g., a card reader bypass by a master key, a door being held open for an extended time, etc.), the security system initiates an alert and displays the logged event. Security personnel investigate the alert and once the issue is resolved, they record the outcome in the physical security access system.

### *Security Incident Response*

Security personnel respond to security incidents and involve the appropriate resources (e.g., Digital Realty management, fire department, police, etc.) to achieve resolution. The security incidents are documented, and significant security events are reported and escalated to the Digital Realty regional Security management and are also communicated to impacted employees or customers.

### *Disaster Recovery*

Digital Realty has in place disaster recovery plans for the Data Center Services that address the following:

- Risk identification, evaluation, and scoring
- Personnel assignments and team organization
- Incident response plans
- Contact information for customers, vendors, employees, emergency responders, and recovery partners
- Recovery team's tasks and procedures

Each of the above elements is tested regularly through live exercises of systems and personnel in the course of normal operations. This testing takes the following forms:

- Load testing of UPS and generator systems

- Activation of incident response communications systems to communicate with customers, vendors, employees, emergency responders, and response teams
- Activation of response teams to evaluate and respond to potentially threatening conditions
- Redundant physical access systems and environmental systems infrastructure exercises, including power and cooling systems

In each case noted above, management plans, communications, staff responses and system redundancies are validated to confirm that all perform properly to prevent or mitigate the impact on the data center operations.

Because situations in which Digital Realty has access to customer data are very limited generally and even more so with the defined Services system, back-up procedures for customer data are considered outside the boundaries of this system and are the user entities' responsibilities.

#### *Customer Contact List*

For every customer, Digital Realty maintains a list of customer personnel (the "customer contact list") that can approve user account requests. Customer access is self-managed by the customer via the Customer Portal for real time updates for the site management and security teams.

#### *User Access Requests and Provisioning*

Security personnel will issue badges or grant access (i) to a customer's employees or contractors based on documented approvals obtained from an authorized approver identified in the corresponding customer contact list and (ii) to Digital Realty's employees or contractors based on approvals obtained from Digital Realty's Site Management or Site Engineering team.

#### *User Access Revocation*

An individual's access to the building is disabled through the physical security access system upon request by the authorized customer or Digital Realty personnel. Upon the termination of any Digital Realty employee or contractor, HR sends a notification via the ticketing system that is routed to the physical security access system administrators to disable the employee/contractor access. A confirmation e-mail is sent upon removal and tracked in the ticketing system.

#### *Internal Security Assessment Program*

The Portfolio Security Team performs an internal security assessment program annually as part of the "Digital Realty Center of Operational Excellence Program." As part of this quality assurance program, internal auditors evaluate the current security operating procedures and address any areas which are inconsistent with standard operating procedures.

#### *Environmental Controls*

Environmental controls are maintained by the Facility Management/Site Engineering team. The Site Engineering team for each data center consists of a property Facility Manager/Chief Engineer and building engineers. The team reports to the Data Center Manager. The Site Engineering team uses an online BMS to monitor and control the environmental systems that support the building and the suites. The Facility Management/Site Engineering team tracks alerts through to resolution.

#### *Uninterruptible Power Supply (UPS / Batteries)*

UPS systems are in place to ensure uninterrupted power supply in case of a power outage. The current operational state of the UPS systems is monitored by site personnel. Preventative maintenance is performed at least annually.

#### *HVAC Systems*

The HVAC systems control and monitor temperature and humidity levels within the building and the suites. The chilling loop system has a cooling capacity greater than the required cooling capacity. The units are monitored and any change in temperature or humidity levels outside of a pre-set threshold triggers an alert that is sent to the Site Engineering team for resolution. Preventative maintenance is performed at least annually.

### *Fire Suppression; Fire and Smoke Detection*

Fire and smoke detectors and fire extinguishers are present throughout the building and the suites. The fire suppression systems are either automatic gas-based fire suppression systems or double interlock pre-action systems. The double interlock pre-action systems require two triggers – a fusible link melting and a signal from the pre-action detection system. Unless both of these triggers are initiated, water does not enter the water mist fire suppression or sprinkler piping system. Preventative maintenance is performed at least annually.

### *Generators*

Generators are in place to support the base building and the suites in an event of a prolonged power failure. The current operational state of each of the generators is monitored by site personnel. Preventative maintenance is performed at least annually.

### **Data**

The data relevant to the in-scope systems include user account information, access lists, and physical and environmental event logs and reports. User account information is submitted through the online customer service system and the request (provisioning/de-provisioning) is executed in the physical security access system. Access to this data is limited to authorized personnel through logical access controls for the in-scope systems and considered as classified information by Digital Realty personnel.

Because situations in which Digital Realty has access to customer data are very limited generally and even more so with the defined Services system, customer data, including data maintained on back-up media or servers, is not included in the scope of this assessment.

The following table describes the data used and supported by the system.

<b>Data Used and Supported by the System</b>		
<b>Data Description</b>	<b>Data Reporting</b>	<b>Classification</b>
Physical security data that include access logs and video surveillance images.	This data is not reported to customers unless required for investigative purposes.	Classified
Environmental security monitoring log data regarding the status of the environmental monitoring systems.		
Environmental security data that include inspection reports for fire detection, fire suppression, water intrusion, cooling systems, power equipment (UPS, generator, etc.), humidity, etc.		Restricted

### **Subservice Organizations**

No subservice organizations were relevant to the scope of this assessment whose controls were necessary, in combination with controls at Digital Realty, to provide reasonable assurance that Digital Realty's service commitments and system requirements were achieved.

### **Complementary Controls at User Entities**

Digital Realty's controls are designed to provide reasonable assurance that the principal service commitments and system requirements can be achieved without the implementation of complementary controls at user entities. As a



result, complementary user entity controls are not required, or significant, to achieve the principal service commitments and system requirements based on the applicable trust services criteria.

**Trust Services Criteria Not Applicable to the In-Scope System**

The Trust Services criteria presented below, are not applicable to the Data Center Services system within the scope of this examination. As a result, an associated control is not required to be in place at the service organization for the omitted applicable trust services criteria.

The following table presents the trust services criteria that are not applicable for the Data Center Services system at Digital Realty. The not applicable trust services criteria are also described within Section 4.

Criteria #	Reason for Omitted Criteria
CC6.6	The Digital Realty in-scope systems do not transmit, move, or remove data outside the boundaries of the system and Digital Realty does not administer logical access to systems for user entities.
CC6.7	