



DIGITAL REALTY

Data Center Solutions

Program Overview

This document defines Digital Realty's overall framework for managing emergency response activities impacted by any emergency event, in the form of a governance structure known as an Emergency Response Framework. This document provides a structure as well as supporting protocols and processes to enable effective management of any emergency event that disrupts Digital Realty's normal business operations. The framework and supporting plans are designed with an all hazards approach. They will be used to facilitate the management of response regardless of the cause that initiates the emergency.

Emergency Response Plan Framework

The Digital Realty's Emergency Response Framework includes roles, responsibilities and accountabilities across the organization for the effective management of emergency events. The framework describes the structure and processes to be followed by the corporate and local entities in the management of the emergency event. The details in this document and individual plans will enable the coordination and control structure to manage unexpected business interruptions, during an emergency event.

The Emergency Response Framework consists of three types of plans:

1. **Corporate Emergency Response Plan** - The Corporate Emergency Response Plan provides a structure for the management of any emergency response that impacts Digital Realty's business processes, locations, assets, or people. The plan will enable quick and effective response by documenting an emergency event coordination and control structure that will identify all relevant emergency management participants and their respective teams. The plan should document all organization-wide communication protocols, roles and responsibilities, and decision-making authority.
2. **Local Emergency Response Plan/Business Continuity** - The Local Emergency Response/Business Continuity Plan provides a structure for the local coordination of an emergency event that impacts the business processes, physical building, assets, or people at that location. The plan will enable quick and effective response by documenting an emergency response coordination and control structure that will identify all relevant emergency management participants and their respective teams. The plan should document local communication protocols, roles and responsibilities, and decision-making authority. If the event should escalate to an enterprise level, the Corporate Emergency Response team would manage the event with the assistance from the local level team.
3. **Disaster Recovery Plan** - Disaster Recovery plans are established and managed within the Enterprise Technology Services (ETS) organization and ETS is responsible for executing the planned recovery strategies and actions for the company's supporting technology.

Triggers for Activation

The trigger for activation of anyone, or all, of the above mentioned plans can be external from a local building, or a local segment of the company. It may also come from an internal source (Human Resources, Information Technology, Finance, or an individual line of business). Some examples that may trigger activation would be:

- **Natural Disaster** (acts of God) – An emergency event that could affect site, systems and/or human factor such as: hurricane, fire, tornado, snowstorm, flood, or infectious disease (pandemic- **SEE APPENDIX A**).
- **Manmade Disaster** – An emergency event that could affect site, systems and/or human factor such as: bomb threats, terrorist attacks, power outage, political events, labor disputes, etc.
- **Technology Disruption/Failure** – Any emergency event affecting internal or vendor supported servers, networks, storage, messaging services, phones, etc.
- **Reputational Emergency Responses** – Litigation, product or production issues, detrimental social media or press that may impact the operation of business.

Emergency Response Framework

Local Event Examples

Local building evacuations, personnel issues (life safety), weather events, site-level client impacting events

Local Emergency Response

- Oversees activities at the local level
- Escalates to Corporate Emergency Response Team, if applicable
- Provides information specific to the location
- Ensures personnel life safety of site personnel
- Management of building evacuations/shelter in place
- Accountability for personnel during an event
- Assess local damage impact
- Reports finding to Corporate Emergency Response team

Corporate Events Examples

Technology/data center event, technology/communications, data security breach, supply chain, global sourcing, executive issues, pandemic, workplace violence events, and reputational events

Corporate Emergency Response

- Manages event activities at the Corporate level
- Supports Local Emergency Response activities
- Manages communications
- Gives direction on activation of Business Continuity or Disaster Recovery plans
- Ensures life safety of personnel
- Accountability for personnel during an event
- Assess damage impact at the corporate level

Roles and Responsibilities

Below is a general overview of the responsibilities of the teams that comprise the Emergency Response structure.

Corporate Emergency Response Team

The Corporate Emergency Response Team consists of senior/executive management of major business functions and has responsibility for managing the response to any emergency event that could potentially cause a widespread disruption in the continuity of operations for Digital Realty. The team provides the overall coordination and control for all enterprise level events, provides support and guidance for local emergency response efforts, and determines when Business Continuity Plans and/or Disaster Recovery Plans are to be activated. **Note:** Every role should have a primary and an alternate representative defined.

Roles	Responsibilities
Corporate Emergency Response Team	<ul style="list-style-type: none"> ▪ Responsible for determining the activation of plans ▪ Provides overall leadership ▪ Liaises with Executives (CEO, Board, etc.) ▪ Allocates resources ▪ Sets priorities ▪ Resolves conflicts ▪ Keeps Command Center functioning (if applicable)
Corporate Communications	<ul style="list-style-type: none"> ▪ Manages and approves information communications delivered to internal and external stakeholders and media
Human Resources	<ul style="list-style-type: none"> ▪ Oversees employee assistance (medical assistance, counseling, insurance claims, payroll, etc.) ▪ Provides support for additional Human Resource needs of the business
Legal	<ul style="list-style-type: none"> ▪ Provides legal advice, if applicable
Finance	<ul style="list-style-type: none"> ▪ Provides financial support, if applicable
Procurement	<ul style="list-style-type: none"> ▪ Coordinates purchasing efforts, if applicable ▪ Assists with vendor relations
IT	<ul style="list-style-type: none"> ▪ Coordinates execution of IT recovery plans ▪ Resolve systems, networks and applications issues ▪ Provides status updates to Corporate Emergency Response Team
Portfolio Operations	<ul style="list-style-type: none"> ▪ Coordinates site-level financial support required
Portfolio Security	<ul style="list-style-type: none"> ▪ Coordinates execution of Security recovery plans ▪ Responsible for contract guard force staffing and security technology issues ▪ Provides status updates to Corporate Emergency Response Team
Customer Service	<ul style="list-style-type: none"> ▪ Coordinates Execution of client communications
Asset Management	<ul style="list-style-type: none"> ▪ Provides local support including financial support and resources
Technical Operations	<ul style="list-style-type: none"> ▪ Coordinates execution of critical infrastructure recovery plans ▪ Resolves building system technical and application issues ▪ Resolves contract issues for vendors and contractor related services ▪ Provides status updates to Corporate Emergency Response Team
Risk Management	<ul style="list-style-type: none"> ▪ Coordinates the execution of any insurance related claims ▪ Provides status updates to the Corporate Emergency Response Team

Local Emergency Response Team

The Local Emergency Response Team, led by a designated Team Lead (Data Center Manager or Designate), has responsibility for managing the local response and recovery efforts resulting from any actual or anticipated emergency event that could disrupt continuity of operations for the location. Key operational support functions for the location should be represented on the team and may vary based on local needs and the emergency. In addition to leading the local team, the Team Lead will become an ad hoc member of the Corporate Emergency Response Team, if escalation is required, and will report the local status of the event. The Corporate Emergency Response Team will continue to oversee the event and make decisions for next steps. **Note:** Every role should have a primary and an alternate representative defined.

Roles	Responsibilities
Data Center Manager	<ul style="list-style-type: none"> ▪ Provides overall leadership at the site level ▪ Liaises with Corporate Emergency Response Team and provides status update on behalf of local site team ▪ Liaises with local authorities ▪ Allocates resources ▪ Sets priorities ▪ Coordinate execution of Local Emergency Response/Business Continuity plans
Manager – Facilities Engineering	<ul style="list-style-type: none"> ▪ Back up for Data Center Manager ▪ Provide support for the Data Center Manager, as required ▪ Coordinates damage assessment, salvage, and repair, and reconstruction at the local level ▪ Assess situation ▪ Contact team members ▪ Assign areas to be inspected ▪ Discuss potential risks with team members, Local Emergency Response Team
Manager – Remote Hands Engineer	<ul style="list-style-type: none"> ▪ Provide support for Data Center Manager and Facilities Engineering ▪ Backup Manager – Facilities Engineering ▪ Provide support for Data Center Manager and Facilities Engineering
Remote Hands	<ul style="list-style-type: none"> ▪ Provide support for Data Center Manager and Facilities Engineering
Real Estate Manager / Property Assistant	<ul style="list-style-type: none"> ▪ Provide support for the Data Center Manager
Contract Security	<ul style="list-style-type: none"> ▪ Coordinates and oversees the security of assets and personnel at the local level ▪ Directs local emergency services
Information Technology	<ul style="list-style-type: none"> ▪ Responsible for procuring additional or new equipment, if needed ▪ May dispatch team to assist in damage assessment and recovery at site

Access and Availability

Plans and all supporting artifacts that could be required to facilitate emergency response/business continuity activities should be stored so they are accessible by those responsible for the response to the event. While individuals may choose to maintain paper copies, information should be stored so that digital versions are available on a continuous basis (24/7), are able to be accessed from various device types, as well as from any location regardless of the condition of the organization's technology and communication infrastructure.

Plan Validation

Digital Realty requires all plans be reviewed, updated and tested on an annual basis. It is recommended plans are reviewed and updated as needed, to ensure accuracy of information at the time of an event.

Awareness and Training

To ensure the Emergency Response Framework continues to support the emergency response and continuity of business for the organization, it must be understood by all members of the organization. The primary objective of training is to ensure the importance of the program is understood by all personnel and they are aware of their specific role(s) and responsibilities during response to an emergency event.

APPENDIX A:

Pandemic Infectious Diseases Response Framework

This document defines the Digital Realty Pandemic Infectious Disease Response Team responsibilities which is supported by Digital Realty's Business Continuity & Emergency Response framework. It outlines the strategic positioning of business continuity efforts in preparation for a pandemic event which may potentially impact business operations. It is the policy of Digital Realty to proactively provide a safe and healthy environment for its customers, employees and guests. To this end, this framework has been created to ensure all efforts are made and maintained which support both site level and global operations.

Pandemic Infection Expectations

Researchers have gained considerable experience from the Swine influenza (H1N1), the avian flu (H5N1), as well as other strains of viruses, such as the H7N9 that emerged in 2013 in China and continues to cause periodic outbreaks. New and evolving strains that present the most potential for a pandemic outbreak are being closely monitored by various world health organizations.

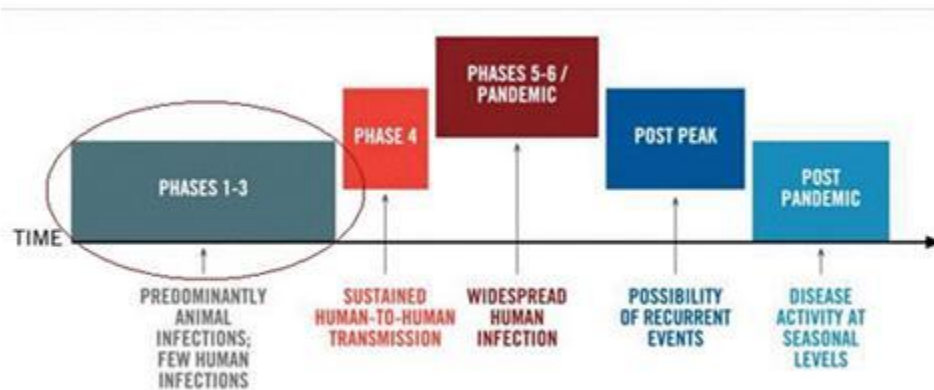
Pandemics are unpredictable. While history offers useful benchmarks, there is no way to know the characteristics of a pandemic pathogen before it emerges. Nevertheless, Digital Realty has made extensive strategic planning efforts to prepare for a worst-case scenario based on the following assumptions which are outlined by the World Health Organization (WHO).

1. Susceptibility to the pandemic virus will be universal.
2. Efficient and sustained person-to-person transmission signals an imminent pandemic.
3. The clinical disease attack rate will be 30 percent in the overall population during the pandemic. Illness rates will be highest among school-aged children (about 40 percent) and decline with age. Among working adults, an average of 20 percent will become ill during a community outbreak.
4. Some persons will become infected but not develop clinically significant symptoms. Asymptomatic or minimally symptomatic individuals can transmit infection and develop immunity to subsequent infection.
5. While the number of patients seeking medical care cannot be predicted with certainty, in previous pandemics about half of those who became ill sought care. With the availability of effective antiviral medications for treatment, this proportion may be higher in the next pandemic.

6. Rates of serious illness, hospitalization, and deaths will depend on the virulence of the pandemic virus and differ by an order of magnitude between more and less severe scenarios. Risk groups for severe and fatal infection cannot be predicted with certainty but are likely to include infants, the elderly, pregnant women, and persons with chronic or immunosuppressive medical conditions.
7. Rates of absenteeism will depend on the severity of the pandemic. In a severe pandemic, absenteeism attributable to illness, the need to care for ill family members and fear of infection may reach 40 percent during the peak weeks of a community outbreak, with lower rates of absenteeism during the weeks before and after the peak. Certain public health measures (closing schools, quarantining household contacts of infected individuals, “snow days”) are likely to increase rates of absenteeism.
8. The typical incubation period (interval between infection and onset of symptoms) for influenza is approximately 2 days.
9. Persons who become ill may shed virus and can transmit infection for one-half to one day before the onset of illness. Viral shedding and the risk of transmission will be greatest during the first 2 days of illness. Children will play a major role in transmission of infection as their illness rates are likely to be higher, they shed more virus over a longer period, and they control their secretions less well. On average, infected persons will transmit infection to approximately two other people. *(Note on the Novel Coronavirus: The incubation period for the novel coronavirus has been determined to be up to 14 days. During this incubation period, infected persons who remain asymptomatic may be able to transmit the disease to non-infected persons.)*
10. On average, infected persons will transmit infection to approximately two other people.
11. Epidemics will last 6 to 8 weeks in affected communities.
12. Multiple waves (periods during which community outbreaks occur across the country) of illness are likely to occur with each wave lasting 2 to 3 months. Historically, the largest waves have occurred in the fall and winter, but the seasonality of a pandemic cannot be predicted.

Pandemic Stages of Evolution

The WHO has published the following stages of a typical pandemic event which Digital Realty has adopted as a response model for preparation in our business continuity activities.



Phases 1 through 3- Represent normal conditions and primarily require vigilance and monitoring. Following good hygiene protocols is of greatest importance.

Phase 4 and above- It is expected that government at all levels will begin to put protocols in place designed to slow and contain the spread of the virus. These may include:

- Curtailing or eliminating certain elements of the public transportation system.
- Isolating individuals who are symptomatic.
- Quarantining groups of individuals believed to have been exposed to the virus.
- Closing schools, churches, theaters and other public gathering places.
- Closing non-essential businesses and services.
- Restricting movement of persons and goods.
- Implementation of immunization programs.
- Awareness and Training

Pandemic Infection Team / Roles and Responsibility

Digital Realty's Pandemic Response Team consists of senior/executive management of major business functions and subject matter experts within the organization. The team is responsible for implementing strategic guidance to maintain the safety, security and operational capability during an event that could potentially cause a widespread disruption in the continuity of operations.

The team provides the overall coordination and control for all enterprise level events, provides support and guidance for local Business Continuity & Emergency Response efforts, and determines if and when Business Continuity Plans and/or Disaster Recovery Plans are to be activated.

Monitoring

Digital Realty's Portfolio Security Intelligence function, in cooperation with the Global Command Center (GCC), monitors public health alerts and advisories in the run-up to the onset of actual pandemic conditions. This includes information and advisories from the World Health Organization (WHO) and the US Centers for Disease Control and Prevention (CDC), which are responsible for providing assessments of world health conditions for use by governments, health care systems, the private sector and the public at large.

Continuity of Operations

In a full-blown pandemic event, the combination of assumptive factors and governmental containment strategies will likely have a significant impact to the ability of an enterprise to maintain continuity of operations without an effective Business Continuity plan. With this in mind, Digital Realty has built its framework around these potential impacts:

Potential Impacts

1. Reduction in workforce due to illness or having to care for ill relatives resulting in the loss of critical skills.
2. Supply chain delays or disruptions due to suppliers coping with their own business disruption. This can impact the ability of the enterprise to meet product or service delivery commitments.
3. Increased potential for riots and demonstrations resulting in heightened security concerns.
4. Increased potential for disruption of services in the Critical Infrastructure sector (power, water, transportation) causing widespread business and public impact.
5. Disruption of banking and financial services.
6. Delayed first response in an emergency.

Mitigation

In order to mitigate these factors, Digital Realty ensures that the following local strategies are in place:

1. Cross-train staff to provide redundant skill sets for critical operational imperatives.
2. Engage critical suppliers to understand their Pandemic Response Plans, ensure that Digital is viewed as a preferred customer and review their capacity to provide service during a long-term event.
3. Maintain a list of secondary suppliers for critical services which can be engaged quickly via the purchase order process.
4. Maintains a close working relationship with local emergency responders and maintain liaison with local field command chains to assist in expediting services when necessary.
5. Identified staff who must be on-site and be prepared to have them shelter in place by designating staff critical to on-site operations.
6. Identified staff who can perform their job functions remotely and ensure they have the necessary technology and tools to do so effectively.
7. A protocol has been developed to guide senior management in coordinating resources to achieve “Mutual Aid” objectives from site to site.
8. Establishment of transportation pools in the event of public transportation service disruptions.

Designations of Emergency Closing

It is expected that the above measures will mitigate the need to close any of Digital Realty’s facilities during a pandemic event and it is Digital’s intent to maintain service levels as prescribed in our agreements with customers. In a worst-case scenario in which a site would be forced to close, only the Digital Senior Leadership Team or their designees are authorized to make such a decision. In all cases, customers will be kept fully apprised of conditions and any decisions pertaining thereto and Digital Realty will work closely with customers, suppliers and alternate providers to minimize any impact to customer operations. Any sites thus affected will be given priority status to restore operational capacity as quickly as possible.

As stated in the opening to this framework document, Digital Realty will remain open in all but the most extreme circumstances. Digital Realty remains committed to ensuring that the operational needs of our customers are fully met, enabling them to focus on their business.