3.4 DISASTER RECOVERY (L.34.2.3.4; M.3.9; comp_req_id 10294)

Three key objectives that GSA has as part of the award of the Networx contract are to ensure service continuity, high-quality service, and operations support. Qwest has shown that we can provide this support, not only as part of our daily operations, but also in the event of regional or national emergencies. This preparedness involves effective preparation and mature, comprehensive recovery procedures that are in place, tested, and ready to be performed.

3.4.1 Understanding of the Requirement

Qwest recognizes that our ability to quickly respond and recover to ensure business continuity is vital to GSA and Agencies. Qwest is pleased to provide a Disaster Recovery (DR) approach and Plan that incorporates our Spirit of Service™ and addresses Networx contract requirements. Qwest’s Spirit of Service™ is not just a company motto; it is the heart of our Disaster Preparedness (DP) program. Our extensive experience in DR brings real value to Agencies.

Hurricane Katrina is a recent example. Qwest proactively mobilized Emergency Response Teams (ERTs), and began monitoring the storm’s progression, identifying potential risks, and readying sub-teams. Geographic Information Systems (GIS) maps were created overlaying Hurricane Katrina’s projected path over Qwest’s facilities, in order to pinpoint our “at-risk” sites. Management teams were convened to conduct site-by-site risk assessments and implement risk mitigation measures prior to the storm. To protect our services and minimize potential customer impacts, failover exercises were completed for all applicable SONET rings, in order to test and
verify automatic re-route capabilities. Where feasible, linear (non-ring switched) traffic was re-routed around the area.

As a result of Qwest’s network architecture and proactive mitigating efforts, and despite the fact that one of our sites was totally destroyed as a result of flooding, we successfully switched all SONET-protected traffic successfully switched and none of these customers lost service.

These components align with the accepted industry standards sanctioned by organizations such as the Disaster Recovery Institute International (DRII), the Association of Contingency Planners (ACP), and others.

- The policies, procedures, tools, and techniques we will use to communicate...
Our backup strategies for services affecting facilities, operational support systems and data, and key service components

Our overall strategy for service restoration, including prioritization and partial or full restoration

The manner in which we ensure that domestic and non-domestic suppliers or team members, upon whom our Networx service offering depends, have adequate and viable DR Plans and strategies in place.

How our network management system design ensures continuity of operations

How we ensure that the DR Plan is effective and that its operation is in a state of readiness to address potential disasters. This includes conducting annual preparedness drills for DR.

### 3.4.1.1 Responses to Narrative Requirements Table

Section 3.4.1.1, General Narrative Requirements, identify RFP requirements and associated proposal response locations.

### Responses to Disaster Recovery General Narrative Requirements

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3.4.2 Disaster Recovery Management (L.34.2.3.4, M.3.9 (b))

Qwest has been using sound and proven Business Continuity/Disaster Recovery (BC/DR) processes for a number of years, which serve to ensure that Agencies will experience minimal to no interruptions to their services. Qwest is committed to the success of Government emergency response efforts. We are structured to support Government voice, wireless, and data services communication needs before, during, and after a disaster-related event.

3.4.2.1 Organization

With years of experience and a solid background supporting disaster preparedness and business continuity planning, Qwest has and will continue to provide the Government with a superior level of service surrounding DR activities. Qwest’s Disaster Recovery Plan, Appendix 3, addresses the command structure for managing disasters and how Qwest communicates, interfaces, and coordinates internally, as well as with the Government, suppliers, and team members.

Qwest will assign an additional individual, the Networx DR Liaison Officer, as the Networx DR Liaison. will be part of the Qwest Contractors Program Office (CPO) and report to Qwest’s CPO Director.

3.4.2.2 Resources

3.4.2.2.1 Human Resources (comp_req_id 10302)

Qwest has DR professionals, all of whom are certified by the DRII, In partnership with Qwest’s Networx DR Liaison
Officer and the Qwest CPO, the DR team will work with the GSA Networx PMO and Agencies utilizing Networx services to maintain a DR Plan that ensures, in the event of a disaster, that the Agencies will receive quick response, communication, and restoration of Networx infrastructure.

The Qwest Risk Management Organization is comprised of several critical departments, and positions us to efficiently, effectively, and successfully respond to major events. Figure 3.4.2-2 shows key positions within Qwest’s DP Organization.
Supplemental resources of Qwest’s DP program in support of Agency needs include:

- Best-in-Class DR Management
3.4.2.2.2 Network Resources (comp_req_id 10300, 10301, 10306)

Qwest’s BC/DR process has a proven track record as a mature and sustainable program that is effective and meets the requirements of the Networx contract. As one of the world’s largest network providers, Qwest has the operational network resources to re-route Networx traffic, data, voice, and video services on demand. In the event of a network outage that may affect Networx products and services, Qwest has the operational network resources to allow affected Agencies to operate at full data capacity or, depending upon the severity of the damage, at reduced capacity until services are fully restored.
All critical facilities such as data centers, cyber centers, customer call centers, and network operation/management centers have redundancy built into their design. Specifically, our design provides features that will make real-time network monitoring resistant to failure, and avoid the possibility of a single point of failure impacting the entire network management function. On a local level, this includes redundancy for power, network, and functions, which are incorporated into BC/DR plans. All personnel involved are trained on the execution of failover procedures and processes in the event of a disruption.

All critical system data and files are pre-identified and backed up daily and weekly, according to content and risk, with copies sent to authorized offsite vendors or to secondary Qwest sites in a secured environment. All critical hard copy information and documentation is required to be duplicated and stored off-site as a matter of policy.

Should a disaster occur and any specific part of this network architecture be impacted, the following would occur:
Networx Enterprise Proposal
for Internet Protocol (IP)-Based Services

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The Team has responded to events in [redacted], mitigating the impact of disasters and emergencies to Agencies. All teams are staffed with trained team members, along with the resources ready to respond to any type of adverse event. Through Qwest’s ERT processes, these teams utilize the resources available to the Company through our procurement and critical vendor relationships. In addition, the built-in redundancy of the network design provides Qwest’s customers with a high level of resiliency. Qwest also uses our NROCs and NOCs to monitor the network 24x7x365. Qwest leverages both the network design and the emergency response processes to quickly identify issues and take proactive measures to either mitigate or resolve an adverse issue before it can escalate into a crisis.
The following examples are provided to illustrate how Qwest's organizational structure will fully cover any and all events regardless of size or location:

**Hurricane Katrina**
3.4.2.3 Strategies (comp_req_id 10299)

The Networx PMO will be supported by a team of DP professionals in the development and implementation of plans to address crisis situations that mitigate or reduce the potential adverse effects of an event, whether it is an anticipated event like a hurricane or a sudden adverse event like a terrorist or criminal act.

Qwest’s appointed DR Liaison Officer, working with the Qwest CPO, has the responsibility to maintain BC/DR plans and ensure that Agencies are
integrated into Qwest’s DP and DR process, which include the elements listed in Section 3.4.2.6. Qwest utilizes a modified Incident Command System (ICS) and strategy.

When a disaster occurs and the outage impacts numerous customers, Qwest mobilizes one or more of our [redacted]. These teams convene within minutes, and are prepared to do damage assessments to identify Qwest and customer impacts, invoke DR
and/or Business Continuity Plans along with other necessary resources, determine length of outage, and communicate status to internal clients and external customers until problems and/or outages have been resolved.

### 3.4.2.3.1 Disaster Recovery Communications

Qwest’s approach to communications during an emergency or disaster centers on the Corporate ERT. Information regarding a real or potential disaster, coming from an internal or external source, is communicated to a 24x7x365 DR Hotline. Management is notified and activates the Corporate ERT, and regional ERTs as appropriate, based on the nature of the event. An executive crisis team will be activated and will interact with the Corporate ERT to provide leadership as necessary. Corporate ERT will manage the event and communicate with regional ERTs, business units, and Agencies, using conference bridges and other tools as identified in Section 3.4.2.7, Operational Tools and Systems.
3.4.2.3.2 Government Emergency Management Agency Communications


3.4.2.3.3 Customer Communications

Communications with Agencies and other Networx stakeholders during an emergency situation occurs in several ways:
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for Internet Protocol (IP)-Based Services

Data contained on this page is subject to the restrictions on the title page of this proposal.
3.4.2.4 Practices (comp_req_id 10301, 10302, 10320, 10321)

Through required annual testing of our BC/DR plans by our ERTs, and through the successes that have been demonstrated during real events, Qwest has proven repeatedly that our DR best business practices are sound for safeguarding Qwest customers, Qwest assets, and Qwest Infrastructure (refer to Section 3.4.3.1 for examples of real events). From our position on the Network Reliability and Interoperability Council (NRIC), Qwest has also contributed to and implemented NRIC best practices, which have proven time and again that they provide a reliable, secure, and safe environment for Government and industry to perform eCommerce, voice, video, and electronic data transfer.

All Qwest business units identified as having critical functions are required to develop and test a Business Continuity and/or DR Plan every year. Information and lessons learned are tracked using [redacted] tool. Scorecards are kept of overall performance metrics. These scorecards are provided to the Qwest Executive Team, the business unit Vice Presidents, and ERT members so they know if and where improvements are needed and can track to ensure that improvements are made. The plans are updated as needed to reflect the changing requirements of Qwest and our customers. Qwest’s DR Plan details
the reports that are generated and how they are used to track each event and determine process improvement if warranted.

Qwest tests all BC/DR plans as part of our ongoing mandated company compliance program. Qwest’s DP program uses industry standards and best practices with all suppliers and team members, both domestic and non-domestic, and requires comprehensive business continuity and/or DR Plans for all of the supported critical functions and services they provide. These BC/DR requirements are enforced by including them in third-party and vendor contracts administered through the company’s procurement organization.

All critical vendors and team members are required to have a Business Continuity Plan to address events that could impact their ability to provide products or services to Qwest. Specifically, the Qwest DR Plan shows how we ensure that domestic and non-domestic suppliers or team members, upon whom Networx service offerings depend, have adequate and viable DR Plans and strategies in place. Critical vendors or team members are defined as those who provide Qwest information, services, hardware, software, or products, which are essential in recovering and/or maintaining Qwest’s critical functions that have been impacted by an adverse event.

Additionally, all of Qwest’s Business Continuity Plans are tested on an annual basis to meet corporate compliance requirements. This includes the verification of critical vendors and team members’ strategies, plans, and abilities to provide goods and/or services that are adequate and viable.
Qwest has current DR Plans that are tested annually and maintained throughout the year to meet corporate compliance standards. Business Continuity Managers from all Qwest business units interface on an ongoing basis with the Corporate DP organization in testing and updating of their plans. This ensures that plans meet standards and are reviewed whenever there is a change that could impact the plan (e.g., reorganizations, movement of key personnel, technology, or procedural changes). Additionally, testing progress is monitored and reported on the Qwest DP Scorecard, which is distributed to senior management on a regular basis. As discussed in this section, annual drills are conducted for each business unit through ERT exercises and scheduled BC/DR plan testing. As DR drills are developed, the level of maturity and comprehensiveness increases.
which will cover our response to events for Networx, must be tested and updated annually to meet corporate compliance requirements. Included in this test is a process whereby if any part of the plan fails to meet an objective, it is identified as an action item with a formal process for closure, which will include the need for executive leadership review. All plan compliance results will be provided to the GSA PMO for review on a regular basis, and they will be included in updates to the DR Plan.

Currently, a multitude of drills are conducted annually for each business unit (via ERT exercises and scheduled BC/DR plan testing). These tests (or exercises) formally define the

3.4.2.5 Policies

Qwest plans for the management of crisis situations to help avoid or reduce the potential adverse effects of a disaster or event.
framework for our DP program. As part of our integrated Risk Management approach,

3.4.2.6 Processes and Procedures

It is the responsibility of the DP Organization to work with each of our business units identified as supporting critical functions, including the Qwest CPO, to evaluate the emergency response processes and procedures, DR Plans and Business Continuity Plans and, to ensure the business units implement plans that include the following elements:

- A communication process component for Agencies, employees, and supervisors
- Procedures and processes for implementation and ongoing maintenance, commensurate with risk
- A process for interactions between business units and Agencies, as defined by specific product and service needs
- An educational/training process including initial coverage and required follow-up
- Identification of a crisis coordinator
• A process for the business unit to evaluate the effectiveness of its plan on a periodic basis
• Coordination with specific Qwest fire/life safety, evacuation, and security plans
• Appropriate recovery time-frames, and processes for the criticality of the process involved

3.4.2.7 Operational Tools and Systems

Qwest uses a variety of tools and systems to manage and plan for disasters.

3.4.2.7.1 Emergency Notification Tool

All Qwest ERT members, Corporate DP Organization and business unit Continuity Managers are required to have a paging communication device registered in Qwest’s employee contact management tool called “Mobile Village” for immediate notification and mobilization. Specific response guidelines are in place and are regularly tested.

3.4.2.7.2 Business Impact Analysis Tool

is well known throughout the Government and private sector for supporting business continuity methodologies. It is currently being used for building, managing, and tracking all Qwest BC/DR Plans. This tool is also being used to support company-mandated governance and compliance requirements - for example, in tracking annual testing and documenting BC/DR test results.

3.4.2.7.3 Business Impact Analysis Tool

Qwest uses to identify, quantify, and prioritize all critical business functions and processes. This includes both stand-alone processes within each company business unit and cross-functional processes across multiple business units.
3.4.2.7.4 Geographic Information System (GIS)

Geo-codes and maps are printed and made available to respective business units, detailing all facilities and places of network presence for quick visualization prior to potential risks of disaster impacts (such as hurricanes). Mapping capability is also provided for ERT exercises and BC/DR planning and testing.

3.4.2.7.5

All Qwest ERT members, Corporate DP staff, and business unit Business Continuity Managers are mandated to have at least one communication device for immediate notification and mobilization.

3.4.2.7.6

These phones are provided to business unit leaders and key response team individuals as an additional means of alternate communication for geographically dispersed Emergency Operations Centers (EOC), ERT leaders, and critical network supporting members.

3.4.2.8 Reports
Our reports are utilized by Qwest Senior Management and are incorporated into [redacted] by the Business Continuity Managers for the ERTs to evaluate the ongoing process, and to fill gaps that may be identified after an event and to ensure compliance [redacted].

**3.4.3 Disaster Recovery Capability (L34.2.3.4; M.3.9(a))**

**3.4.3.1 Continuity of Services (L.34.2.3.4(a), comp_req_id 10301, 10306)**

Qwest has strong focus and proven experience in planning for continuity, recovery of operations, and services. Contingency planning means monitoring for any day-to-day outages, as well as being prepared for long-term continuity or disaster scenarios. [redacted]

All critical system data and files are pre-identified and backed up [redacted] according to content and risk, with copies sent to authorized off-site vendors and/or secondary Qwest sites for retention in a secure environment. All critical hard [redacted] are also required to be duplicated and stored off-site in accordance with company policy.

The BC/DR planning element of Qwest's DP Program ensures all critical functions have plans in place to minimize the impact of a disaster. Critical functions include those that directly impact services, generate revenue, enable Qwest to meet legal/regulatory obligations or provide essential support functions. All personnel involved in Business Continuity planning are trained in the execution of these procedures and failover processes in the event of a disruption.
On average, Qwest DP successfully manages a range of events per year, and has BC/DR plans in place to mitigate Agency impacts and to support Agency Business Continuity requirements.
During the course of these and all adverse events, Qwest prioritized keeping our customers informed, and ensured timely communications was provided.

3.4.3.2 Minimizing Impact of Networx-Related Disasters (L.34.2.3.4(b))

To minimize the impact of service-related disasters on Networx, Qwest will use the following tiered approach to manage major events or disasters:

- Operations Centers for all network, data, cyber, and wireless services are responsible for implementing established tactical restoration plans and leading tactical response activities.
- Operations Centers that are geographically dispersed and prepared to respond quickly to any type of disaster or event that affects Qwest's customers, facilities and services.
is activated in the event of an OCONUS disaster impacting Qwest services or facilities, when a requires additional corporate support or in the event that a disaster is geographically widespread and requires strategic direction and resource allocation.

rapidly respond to Hazmat emergency events that impact network or other critical business services.

3.4.3.3 Viability of Disaster Recovery Plan (L.34.2.3.4(c))

Qwest recognizes the importance of keeping DR Plans current, to ensure that they will be effective when needed. Compliance standards require that all plans be updated and tested annually, at a minimum. In addition, all business units are required to meet with their assigned BC/DR Planner to identify any requirements based upon changes in the organization, risks, or new technologies.
These BC/DR plans are not static. They are “living documents,” updated to introduce new technologies and services. Depending upon the maturity of the plan, tests may be checklists, table tops, or simulations. Identified gaps are documented and tracked to resolution.

Qwest also uses [redacted], the current industry standard tool for DR. [redacted] is used in:

- Identifying critical business processes
- Assigning upstream supplier dependencies from a dynamic list of processes
- Assigning known downstream customer processes as dependencies
- Recording process owners’ Recovery Time Objectives (RTO)
- Reviewing the processes from the enterprise perspective and assigning an RTO
- Recommending the type of recovery plan each business unit requires to meet the RTO
- Highlighting risk areas
- Reporting to business unit executives what risks were found and alternatives for mitigating

3.4.3.4 Maintaining Current Standards and Practices (L.34.2.3.4(d))

3.4.3.4.1 Corporate Mandates

Qwest is adamant about our commitment to customers, and reinforces regularly the ongoing commitment to effective DR. This is reflected in our corporate mandates associated with planning and response standards.
3.4.3.4.3 Annual Drills (comp_req_id 10321)

As discussed in Section 3.4.2.4, annual drills are conducted for each business unit, including ERT exercises and scheduled BC/DR plan testing. As DR drills are developed, the level of maturity and comprehensiveness increases. For example, drills may start out focusing on a single function and eventually evolve to be an integrated multifunctional drill with many business units involved to ensure seamless interfaces between organizations.

All of Qwest’s ERTs are comprised of leadership and SMEs from all business units
that operate or support Qwest operations in each respective geographical area. ERTs are activated following events that have a major impact on Qwest services, employees, or assets, and for which a cross-functional, integrated response is required. Operations Centers that provide 24x7x365 monitoring for all network, data, cyber, and wireless services are responsible for implementing established tactical restoration plans and leading tactical response activities. These Centers monitor network functionality and initiate appropriate network controls in the event of an abnormal network condition.

Impacted business units are responsible for implementing established BC/DR Plans and activities, which are coordinated and prioritized through ERT leadership.

In addition to the detailed ERT agenda/checklist and the graphic showing Qwest’s ERT structure, Qwest also follows a structured and methodical approach in its ______________. All DR Plans are required to be tested annually, at a minimum. These tests ______________

[Redacted text]
3.4.4 Disaster Recovery Summary

We recognize that our ability to quickly respond and recover to ensure business continuity is vital to GSA and Agencies. Qwest is pleased to provide a DR approach and plan that incorporates our Spirit of Service™ and that addresses the Networx contract requirements as evident in Section 3.4 and Qwest’s DR Plan. Qwest’s extensive experience in DR brings real value to Agencies.