

Dell Global Operations (GO) Supply Chain Resilience

GO Supply Chain Assurance

D¢LLTechnologies

Document Content

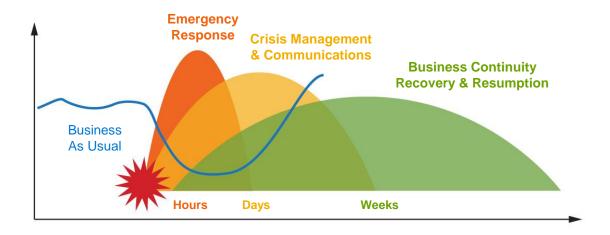
Dell's Global Resilience Program	3-5
Global Operations Business Continuity Program	6
Business Continuity Lifecycle	7
Business Continuity Alignment with Industry Standards	8
Business Continuity Program Approach	9
Business Continuity Program Governance	10
Ensuring Business Continuity Program Conformity	11
Minimizing Business Impact through Business Continuity Planning	12
Past Global Disruptions	13
Incorporating Resilience Capabilities with Digital Transformation	14
Global Operations Supply Chain Risk Management Framework	15
Supply Chain Visibility	16
Supply Chain Monitoring and Use Cases	17
Continuous Improvement of the Program	18

Dell Technologies' Global Enterprise Resilience Program

Dell's Enterprise Resilience Office is responsible for the design, implementation, exercising and governance of an overarching program that includes Crisis Management, Business Continuity and Disaster Recovery.

Dell recognizes the importance of having a consistent, scalable, flexible and coordinated approach to Resilience in an increasingly uncertain and challenging global environment in which Dell operates.

This approach provides Dell with a unified and robust response to incidents that severely impact Dell's ability to conduct business as usual. The program is risk based in design and is aligned with recognized international industry standards, including ISO 22301.



This approach provides Dell with 7 clear outcomes:

- 1. Protect Dell employees and their welfare
- 2. Protect key operational activities and delivery of services to customers
- 3. Enhance the ability to recover following a disruption to normal operations
- 4. Reduce the likelihood of a disruption
- 5. Minimize the impact of a disruption when it occurs
- 6. Prevent or minimize damage to Dell's reputation and brand
- 7. Meet business, legislative and regulatory requirements

Dell's Global Enterprise Resilience Program



Crisis Management

Dell's Crisis Management Program is a proactive operating capability coordinating Dell's response to and recovery from an event, series of events, or circumstances that threaten to negatively impact Dell by enabling teams of company leaders to manage and minimize any impacts to the company and its customers.

The Crisis Management Program addresses all significant risks to Dell that escalate to the level of an actual or potential crisis thanks to its cross-functional representation and scalable operations structure with defined communication and escalation flows to ensure effective and efficient coordination of planning and response activities.

Business Continuity

The Business Continuity Program delivers a scalable, consistent approach, aligned with ISO22301 (international standard for Business Continuity). It supports all business teams in Dell to build a capability that will allow critical operations to continue in the event of a disruptive event.

The Business Continuity Planning process is based on an all-hazards approach which focuses on the impact or potential impact of disruptive events on time-sensitive, critical operations. The program focuses on planning for the following key loss scenarios:

- 1. Loss of people
- 2. Loss of technology (IT services / hardware / software / data)
- 3. Loss of location (facilities / workplace)
- 4. Loss of third party (suppliers / vendors / partners / supply chain)

The program works through:

- 1. Understanding the business operations and the risk environments in which they operate
- 2. Identifying the criticality and recovery time objectives for key functions and processes, including their dependencies on people, technology, locations and third parties
- Partnering with all businesses across Dell to develop consistent Business Continuity Plans and viable Recovery Strategies
- 4. Exercising and testing these plans at regular intervals to confirm their effectiveness
- 5. Providing a structured mechanism to action lessons learnt from tests, exercises and live events to drive continuous improvement
- 6. Delivering training and awareness to key members of the business teams
- 7. Maintenance of a robust, industry standard aligned program that continues to grow and develop with the company

Dell's Global Enterprise Resilience Program

Disaster Recovery

The Disaster Recovery Plan provides for timely recoverability of business-critical applications, data, systems and architecture which support Dell's critical operations in an incident that severely impacts a business's ability to conduct business as usual.



The Disaster Recovery Program establishes standards, processes and controls for the timely recoverability of business-critical data, applications, systems and infrastructure used to manage and support Dell's business functions. These requirements ensure the continuity of resources that support Dell's critical business functions. All critical applications are subject to compliance with Dell's Disaster Recovery Policies and Standards. Annual testing and Disaster Recovery Plan updates are required at the minimum to meet the Disaster Recovery Policy and Standards. Any deviation outside of this standard must be acknowledged by a vice president during the attestation process.

Global Operations' (GO) Business Continuity Program

In recent years, crises have emerged from myriad sources, ranging from geopolitical conflict to energy disruptions to pandemics and natural disasters. Investing in business continuity Resilience helps insulate Dell and our customers from these unforeseen incidents.

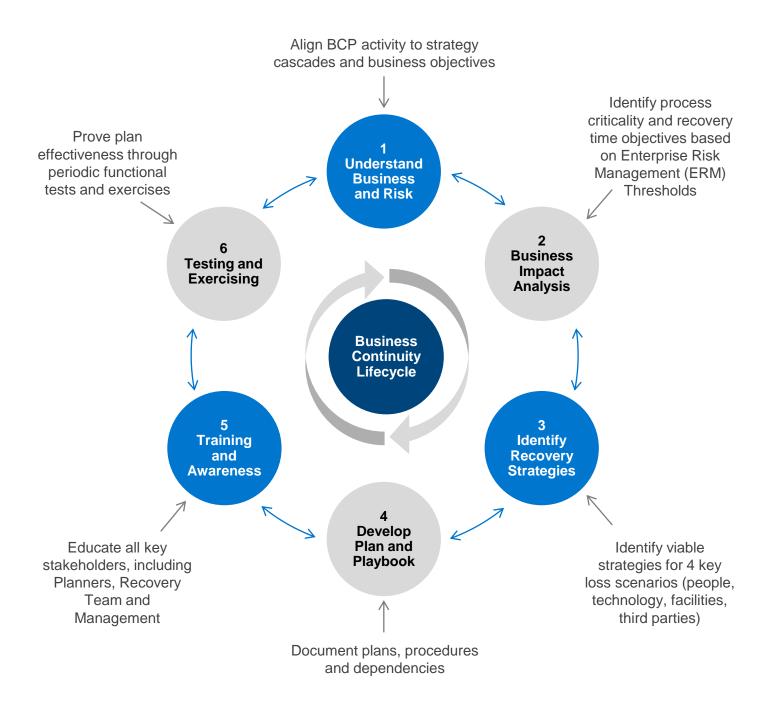


The Global Operations Business Continuity Program (BCP) and executive leadership are committed to:

- Adhering to Dell's Global Enterprise Resilience Program Standards and industry-recognized Business Continuity practices
- Continuously maturing business readiness to respond to and manage disruptions
- Limiting supply chain exposure through proactive planning and mitigation
- Executive-level alignment and oversight
- Delivering an immediate, accurate and measured response to each disruptive event
- Understanding and addressing customer needs and concerns
- Collaborating with suppliers to maintain a Business Continuity Plan in accordance with the supplier agreement.

Business Continuity Lifecycle

Dell's Business Continuity Standard and lifecycle is aligned to recognized international industry standards including ISO 22301.



Alignment with Industry Standards

Dell's Business Continuity Program (BCP) is designed to help our organizations protect, prepare against, respond to and recover from disruptions.



GO BCP aligns with the following standards:

- ISO 22301:2019, ISO 27001:2013, ISO 27002:2013 and NIST SP 800-53 R4
- GO BCP leaders are certified and aligned with industry organizations and guidelines: Business Continuity Institute (BCI), Disaster Recovery Institute International (DRII).



The GO BC Plans, in accordance with Dell's BC Standard requirements, do:

- Establish and maintain a continuity plan and associated continuity procedures
- Define and prioritize critical business functions
- Conduct Business Impact Analysis (BIA) annually to assess business impact and recommended recovery
- Test the BCP plan at least once annually
- Review and update the continuity plan at least once annually.



Dell's BC Plans are created, maintained and tracked in a centralized planning tool that helps ensure program compliance. The tool ensures BC Plan data integrity and is integrated with Dell's mass notification tool to manage real-time notifications.

Program Approach

Dell's Business Continuity approach builds redundant capabilities across four key loss scenarios to minimize potential impact of business operations threats.



The Business Continuity Program is paramount at Dell and is designed to enhance the business's ability to recover following a disruption to normal operating conditions.

Dell's Business Continuity Program:

Lays out the framework for determining critical next steps for developing and testing strategies and plans, providing training, and monitoring compliance for four key loss scenarios.

Embedding proactive risk assessments within our program ensures we are constantly looking around corners, identifying and anticipating potential risks and vulnerabilities, which allows us to be prepared to implement mitigation strategies in advance of an incident.

Our approach is to:

- Continuously review Business Continuity strategies to ensure our program stays current with the business environment
- Build agile response and recovery capabilities
- Design and operate a rigorous, proactive risk assessment and monitoring program
- Maintain and improve Dell's status as a supply chain leader that is committed to building Resilience to protect our people, suppliers and customers' best interests.

Program Governance

The GO BC Program is sponsored by the Chief Supply Chain Officer (CSCO) with executive oversight across critical business units.

The Enterprise Resilience Office (ERO) writes the policies and standards Dell-wide and provides guidance, training, and monitors and reports overall business unit (BU) functional compliance.

The GO Business Continuity
Program falls under the purview of
the Supply Chain Assurance (SCA)
team. The SCA team is responsible
for laying out the framework,
developing and testing strategies,
plans, implementing improvements,
providing training, and monitoring

compliance.

GO Business Continuity Executive Level Sponsorship is embedded across all key business units. Oversight of the BCP sponsorship is at the CSCO level.

The **GO BCP Working Group** is made up of Global Business Resilience Leads **(GBRL)** who have been assigned from their respective functions.

Enterprise Resilience Office (ERO)

SCA BC Program Office

Define scope. Drive development, standards and guidance. Monitor compliance. Review strategy. Identify and mitigate risk. Drive accountability.

Track expectation.

Global Operations
Business Continuity
Executive Level Sponsorship

Execute operations for Global Logistics Manufacturing Operations

Procurement

GO BCP Working Group GBRLs Ensure BCP compliance for

Global Logistics | Manufacturing Operations | Procurement

Adhere to the ERO Standard. Drive compliance and embed end to end business Resilience.

Program Conformity

GO's Business Continuity teams are held accountable by reporting quarterly program metrics and completing internal audits to ensure overall conformity.

The GO BCP management and governance structure drives compliance through the following key roles:

A business unit sponsor: Accountable for overseeing the implementation, awareness, escalation and championing of the BCP within their business.

Business Continuity Plan owners: Identify processes to be included in their Business Continuity Plan annual reviews, approvals, and activates plans for actual events.

Process Owner(s): Subject matter experts to support the creation and revision of the Business Impact Analysis for their process and associated strategies.

Global Business Resilience Leads (GBRL): Coordinate BCP within their business unit.

Business Continuity planners(s): Support plan owners and process owners to develop, maintain and test their assigned BC Plans in line with Standard requirements.

Recovery team(s): Subject matter experts and owners required to support the recovery of their operations.

GO has a BCP working group that maintains and improves BCP preparedness across GO functions through:

- Quarterly BCP target/goals
- BU's executive leadership reviews
- Monthly interlock and cross-collaboration among teams to drive the completion of actions.

The GO Internal Controls team identifies, ranks and monitors overall risk

 Performs yearly audits of BCP compliance to Dell BC Standard.

Dell's Global Assurance Team, with enterprise-wide responsibilities, performs regular audits on GO program compliance.

Aligned with Resilience industry practices, GO performs annual BCP testing and twice yearly testing on Crisis Management.



Business Continuity Planning

GO's Business Continuity Plans outline how business units will respond to unplanned disruptions and minimize the overall impact on business operations.



The objective of the Business Continuity Program is to establish a common risk-based approach

GO comprises of numerous business units across Logistics, Procurement, Manufacturing Operations and more. Business units are required to develop and maintain Business Continuity Plans.

BC Plans are developed for and in collaboration with the business units complying with Dell's BC Standard. BC Plans are maintained by the individual business units' BCP team members and updated in a centralized planning tool dedicated to Resilience activities.

GO BC plans include:

- Business processes
- Recovery strategies for key dependencies
- Redundant supply chain network
- Industry standard key components:
 BIA, resources supporting the processes,
 dependencies, recovery teams, testing and approval tracking.

Past Global Disruptions

GO BCP has successfully navigated numerous unprecedented global disruptions. This was achieved by having the right planning, processes, and people in place to proactively assess risk and respond effectively through agile Crisis Management structures.

Trade Issues



Cross Border Issues



Pandemic



Natural Disasters



Unintended Vulnerabilities



Counterfeit & Taint



Outages



Industry and global events in recent years have underscored the importance of Business Continuity best practices across GO to strive for return to operations as quickly as possible, reducing the impact to our customers

Resilience Capabilities

GO's Supply Chain Resilience strategy is focused on three key capabilities and underscored by our ongoing digital transformation efforts.



Maintain real-time understanding of our supply base with end-to-end data transparency



Continued flexibility in sourcing, manufacturing and logistics so that we can adapt to change more quickly



Balancing efficiency with options that enable us to meet goals even when we cannot accurately predict potential disruptions



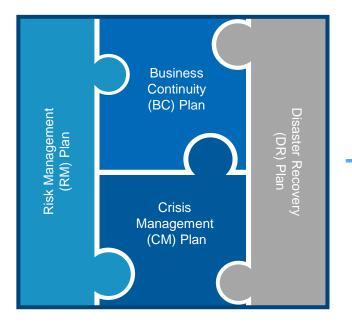
Resilience

Supply Chain Risk Management Framework

The GO Supply Chain Risk Management framework encompasses Dell's Business Continuity, Disaster Recovery and Crisis Management Programs.

Integrating Business Continuity, Disaster Recovery and Crisis Management provides

Dell with a unified and robust response to risks that could impact Dell's ability to conduct business
as usual.



GO Holistic Supply Chain Risk Management Framework

Use our global footprint, relationships and business continuity preparedness plans to help maneuver through events and meet our customers' needs

Leverage the scale and flexibility of our supply chain to fulfill orders as quickly as possible, exploring sourcing, production and logistics strategies

The Crisis Management framework increases communication and insight across Global Operations

Supply chain agility continues to **result** in great execution

Supply Chain Visibility

GO's Business Continuity Supply Chain visibility enables proactive risk management, monitoring and robust recovery capabilities.



GO's all-hazard supply chain risk approach ensures that regardless of the risk type, we strive to increase our supply chain redundancy through targeted actions, including alternative source qualifications, inventory strategies and continuous risk assessments.

Supply chain site visibility and **24/7 monitoring** and alerting capabilities enable robust event anticipation, response and recovery procedures.

GO Site Mapping

- Dell Owned Manufacturing Facilities
- ODM Manufacturing Facilities
- Procurement Supplier Sites
- Fulfilment & Logistics Sites

Supply Chain Monitoring

Leveraging a single data platform to digitally map our global supply chain footprint at the site level maximizes our visibility across the supply chain network of Procurement, Manufacturing Operations and Fulfillment & Logistics sites.

Quick activation of our Crisis Management team when 24/7 monitoring reveals a need for executivelevel management



Supply chain data, analytics and automation made possible by technological advancements has enabled:

Proactive risk assessments across a wide and varied threat landscape



Examples: Geopolitical, trade, natural disasters, health and disease, outages, etc.

Identification of **potential blind spots** and preemptive protection of critical supply nodes through targeted mitigation initiatives



Examples: Financial health, single sourced, single site, geographical concentration, etc.

Targeted Supplier site **BCP Self-Assessments** to assess supplier's capabilities and preparedness levels in response to disruption



Examples: Failover plans, timebound, ramp capacity, etc.

Continuous Improvement

The GO Business Continuity Program operates with a continuous improvement mindset and recognizes the importance of having a coordinated approach to ensure we deliver the best program possible for all stakeholders.



GO continues to improve the BCP in order to:

- Protect our brand and reputation
 Define our priorities, activities and responsibilities to protect our assets and company
- Ensure Dell meets customer commitments
 Planning, people and processes in place to conduct horizon scanning and monitoring of disruptions
- Support compliance with Legal, Regulatory,
 Environmental obligations
- Mitigate the costs of business disruptions
 Protecting critical processes through the development of business continuity plans that prepare our responses against disruption and aim to recover operations as soon as possible
- Stay competitive Constant innovation is required to respond to volatile, fast-moving and evolving risks.

D&LLTechnologies