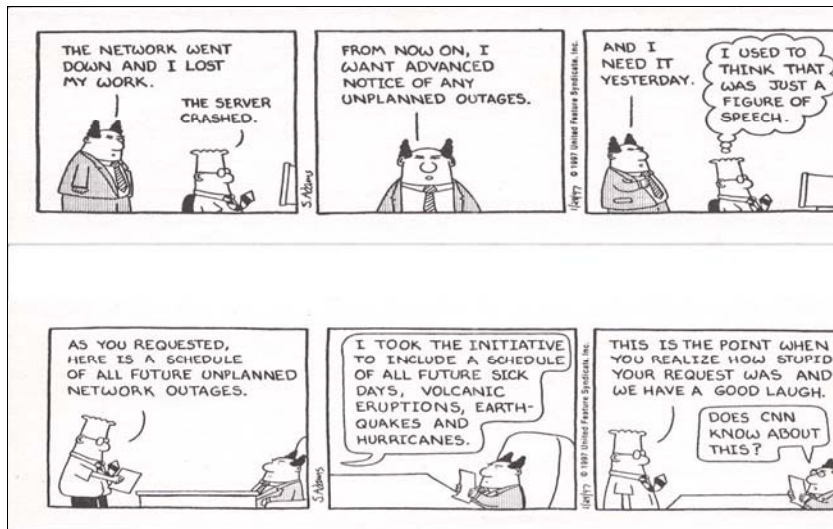


Strategies for a Successful Business Resilience Program

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Sometimes it seems as if the job of a business resiliency planner is almost impossible.



Most times things don't go as you planned even when you do have a plan.

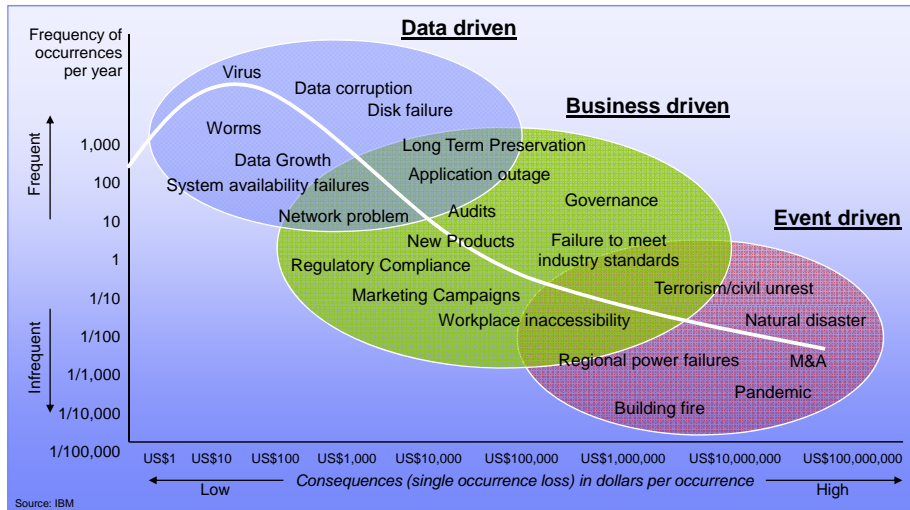
“We didn't have a specific disaster plan for what to do if New York City were attacked by terrorists using commercial passenger planes. But we did have plans that were flexible enough to be combined into a response.”

“Former NYC Mayor Rudy Guiliani speaking about leadership on September 11th ,
IBM Conference - March 12, 2003”

Rich Cocchiara's Top 10 laws of business resilience

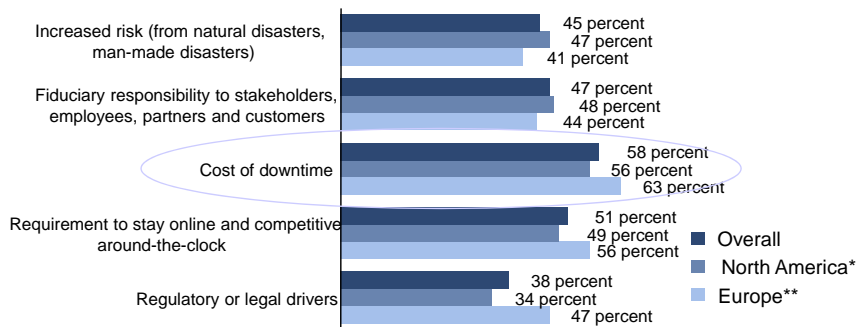
1. You will never have enough funding or resources to completely plan for and prevent a disruption BEFORE it happens but you will have all you need AFTERWARDS to be sure it never happens again
2. Most business executives see disaster recovery planning as an insurance policy with no return on investment unless there is a disaster
3. If you don't effectively communicate with your people, customers and the press during a disaster they will assume every rumor is true
4. Employees will put themselves and their families' needs ahead of the company
5. Systems will not fail in an orderly fashion unless you plan for it
6. Most disasters do not announce themselves, schedule themselves on your calendar when it is convenient or give you advance notice to prepare
7. Expect the unexpected and be flexible
8. You don't know what you don't know and never assume you know it
9. One persons minor disruption is another persons disaster
10. The disasters you face will most like not be the ones you planned for

Another way to look at disruptions are by grouping them as Data Driven, Business Driven and Event Driven.



Disasters now make up only one part of a companies overall resilience planning

“What is driving the need to improve your recovery capabilities?”



Base: 214 North America and Europe enterprise storage hardware and disaster recovery technologies decision-makers who have a recovery site, 155 North American enterprise storage hardware and disaster recovery technologies decision-makers who have a recovery site*, and 59 European enterprise storage hardware and disaster recovery technologies decision-makers who have a recovery site**

Source: Enterprise And SMB Hardware Survey, North America And Europe, Forrester Research, October, 2008

IBM has identified five entry points into a companies overall Business Resilience strategy that help address current and future challenges

Challenges:

- Evaluating, planning, and mitigating the business impact of various types of risks
- Responding to compliance pressures associated with business resilience
- Ensuring data is protected, available, and accessible as needed by the business
- Achieving availability objectives by reducing frequency and duration of infrastructure applications and data outages
- Recovering from and responding to disruptive events

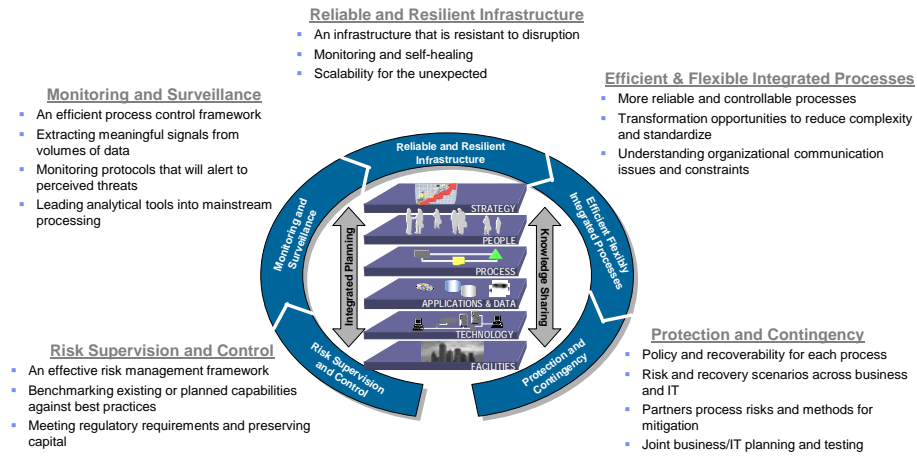


What is Business Resilience?

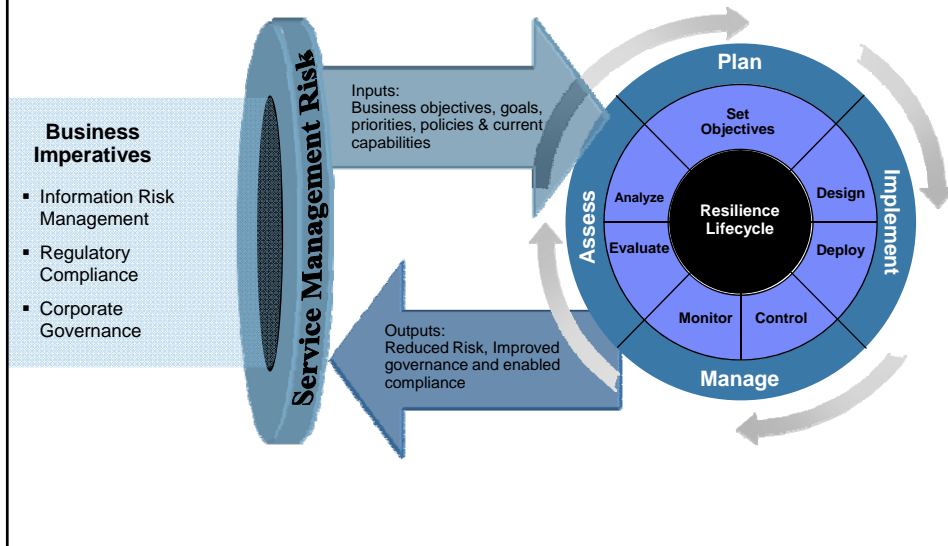
Business resilience is the ability to rapidly adapt and respond to risks, as well as opportunities, in order to maintain continuous business operations, be a more trusted partner, and enable growth.



To achieve Business Resilience, we link together the critical components into a framework that works across the company.



Companies need a continuous improvement methodology that focuses on a business resilience lifecycle helping to reduce risk, improve governance and enable compliance.



To begin, complete a thorough analysis of potential risks and the current ability of the company to mitigate them

Assess

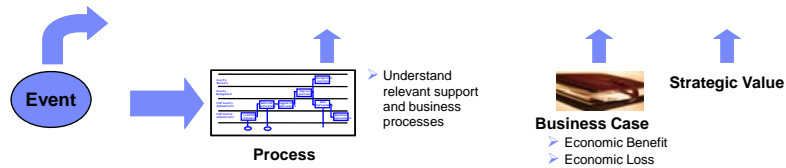
- Analyze current & potential risks
 - Establish a risk profile
 - By business location
 - By line of business function
 - By critical business process
 - Determine impact of a sample of events
 - Financial
 - Opportunity
 - Reputation
- Analyze capabilities for mitigation
 - Define customized risk framework
 - IBM Business Resilience Object Oriented Framework
 - Identify risk areas for further analysis
 - Assess maturity of mitigation capabilities
 - Basic
 - Managed
 - Predictive
 - Adaptive
 - Resilient



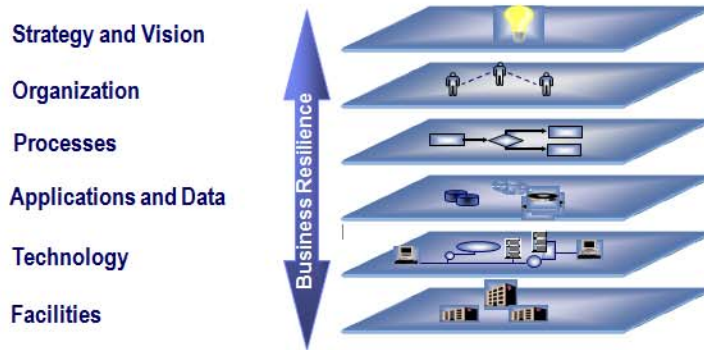
First measure the business impact of a sample of potential events to establish the value of resilience to the business

Business Impact

	Business Operation or Process	Impact	Metric	Disturbance Cost	Strategic Fit
	Definition of what Business capability could be affected by the event	Description of the impact to the business capability or supporting infrastructure	Definition of an appropriate and objective measurement of the impact	Calculated economic (monetary) benefit or loss resulting directly or indirectly from the capability	Other non-economic factors of how the impacted capability fits with strategy

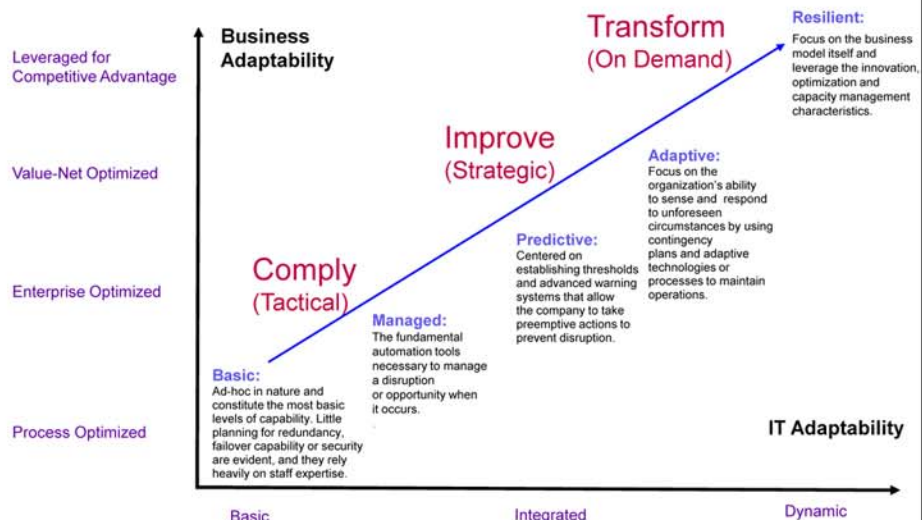


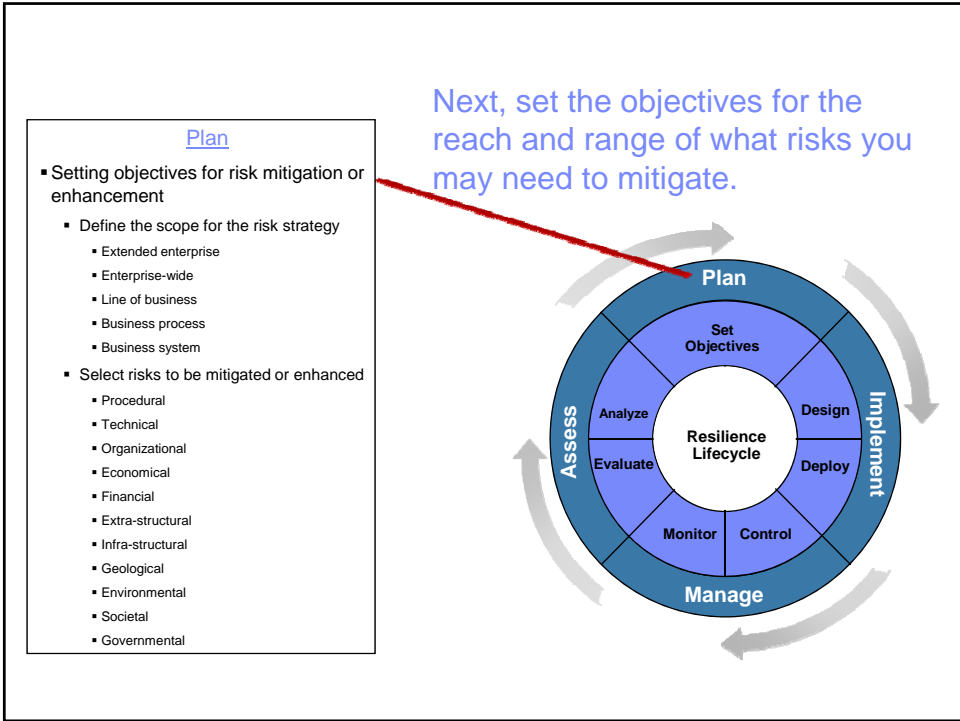
Next analyze current capabilities using a framework such as IBM's Resilience Maturity Assessment Framework (RMAF) to help identify areas of vulnerability



IBM approach to business continuity and resiliency:
 Address requirements at each Resilience Layer –
 critical to providing a comprehensive resilience strategy

Each component is measured against its Resilience Adaptability to provide insight into the company's maturity.

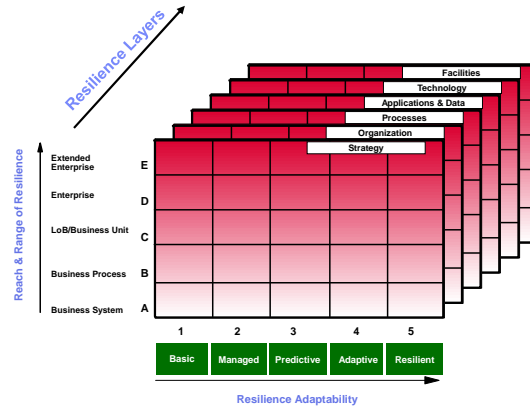




The *Reach and Range* helps to determine of the potential for how far the risk extends within and beyond the enterprise

Reach and range	Extended enterprise	Entities/services outside the enterprise whose functioning is required to run the business; includes supply chain, business partners, external service providers, etc.
	Enterprise-wide	All enterprisewide infrastructure, people and business support operations
	Line of business (LOB)/business unit	Most business processes within a discrete line of business within the enterprise
	Business process	Business processes, including the nontechnology aspects of those processes
	Business system	Single business systems/applications

Once understood, different resilience strategies can be developed to dynamically address risks




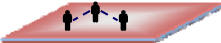
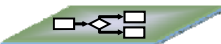



Implement a strategy & architecture that protects critical information and ensures Business Resilience.



Implement

- Designing Strategies for Business Resilience
 - **Business Driven** – Designed to mitigate risks to overall business continuity, operations, governance or compliance
 - Governance policies
 - Standards
 - **Data Driven** – Designed to mitigate Risks to knowledge, data and systems availability
 - Information Protection Strategy
 - Onsite protection
 - Remote protection
 - Systems & Network Availability Architecture & Strategy
 - **Event Driven** – Designed to mitigate risks to the ability to respond to a crisis or event
 - IT Disaster Recovery Strategy
 - Workplace Recovery Strategy
 - Human Resources Continuity Strategy
- Deployment of Business Resilience
 - Business Continuity Cloud
 - Virtualization

Design provides selection of specific, customized services and technology to create an architecture and strategy designed to achieved the required level of resilience

Strategy & Vision		<ul style="list-style-type: none"> Crisis management process Executive knowledge of resilience capabilities Change management process 	<ul style="list-style-type: none"> Articulated governance model Supplier awareness of requirements Resilience used as competitive advantage Clearly articulated security policy
Organization		<ul style="list-style-type: none"> Geographic diversity of staff Call trees and auto notification Backups of workstation data 	<ul style="list-style-type: none"> Articulated roles and responsibilities Identified command center Defined skills training and certification
Processes		<ul style="list-style-type: none"> Identification of most critical processes Integrated contingencies Split of phone support/call center 	<ul style="list-style-type: none"> Split of functions Key links with external companies ITIL and CobIT standards implemented Integration into help desk/monitoring
Applications & Data		<ul style="list-style-type: none"> Mirroring for critical data Remote backup for 2nd tier Regular audit of backup Service Oriented Architecture 	<ul style="list-style-type: none"> Information Life Cycle Management Database (DB2, Oracle) failover & standby Identity management E-mail filtering and recovery
Technology		<ul style="list-style-type: none"> Mirror login and authentication GDPS / GDOC High availability cluster-multiprocessing zSeries, iSeries, pSeries, xSeries 	<ul style="list-style-type: none"> Blade servers – dynamic configuration Availability extra components Grid computing for high-intensity apps 24x7 monitoring of IDS logs
Facilities		<ul style="list-style-type: none"> Diverse power sources Diverse network access points UPS with 2+ hour capacity Diesel generator 	<ul style="list-style-type: none"> Secondary location +50 miles Managed 24x7 physical security Biometrics Green datacenter technology

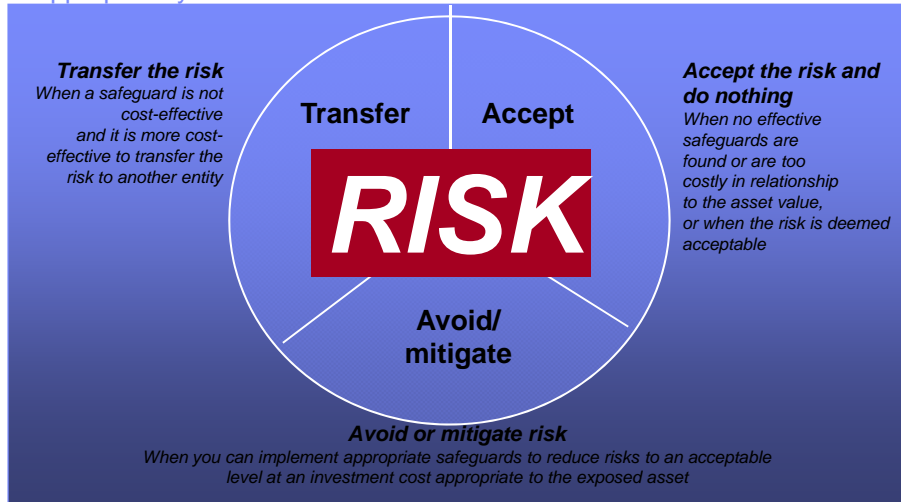
Ongoing management is required to ensure continued Business Resilience through control and monitoring



Manage

- Control negative risk while enhancing positive risk
 - Ongoing management of risks before, during and after an event
 - Regular testing to ensure preparedness
 - Enforcement of governance policies & procedures
 - Training to ensure all employees understand their roles and responsibilities
 - Proactive information & data protection
 - Accurate communications at all times
 - Access to critical information when needed
- Monitoring current conditions to detect and respond to risks
 - Proactive negative and positive risk response
 - Focus on continuous improvement of risk response strategies
 - Timely reporting of exceptions, measurements and metrics
 - Root cause analysis

This ongoing management allows a company to quickly assess business-driven, data-driven and event-driven risks and respond appropriately.

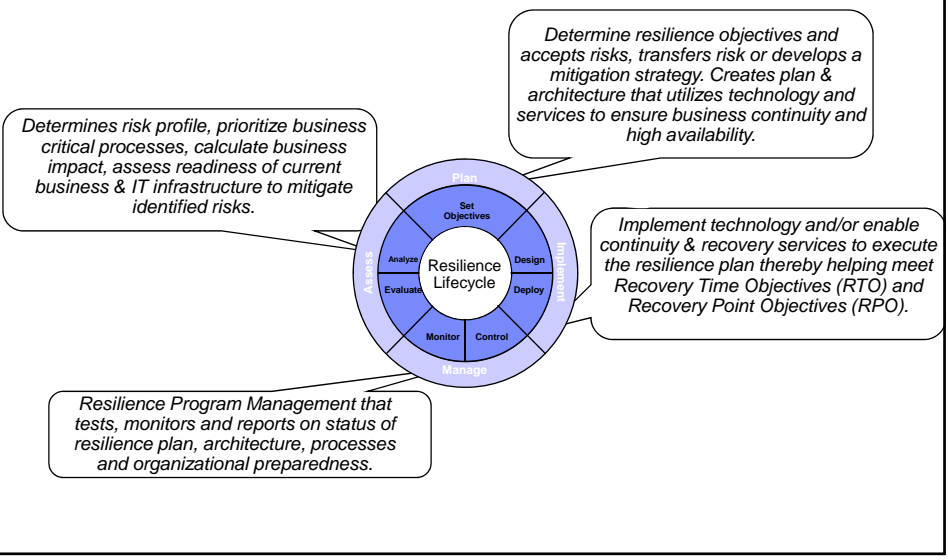


The resilience lifecycle provides for a continuous improvement process to ensure currency of the Business Resilience strategy and architecture.

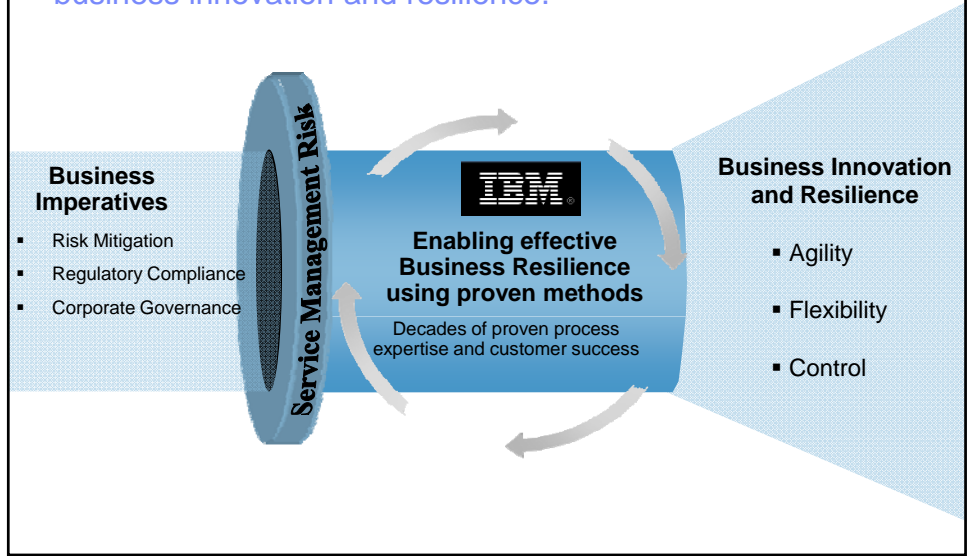
- Assess
- Evaluate performance
 - Utilize Resilient Project Office
 - Availability
 - Recovery
 - Security
 - Evaluate resilience performance
 - Review metrics and performance gaps
 - Review business and IT changes
 - Assess post incident data
 - Perform root cause analysis
 - Reporting on performance
 - Produce daily, weekly, monthly, quarterly, yearly reports for management
 - Produce appropriate reports for corporate, industry or government auditors
 - Resilience Dashboard



Taken together, this helps mitigate risks and improve IT governance to enable compliance.



By using an approach such as IBM's business resilience methodology, business imperatives are transformed into business innovation and resilience.



Thank You!

IBM Business Continuity & Resiliency Services

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