Using Cloud to improve Business Resilience

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Agenda

- Why resiliency matters
- A successful cloud-based approach to resiliency
- Moving forward: Considerations for building a cloud strategy
Who cares about resiliency?

71
Percent of CIOs are concerned about risk management and compliance

It takes 18 months for data generated to double in size

53%
of organizations would experience significant revenue loss or other adverse business impact after 1 hour of downtime

Technology users expect
100%
availability of their applications and their information

Source: Enterprise Strategy Group, April 2011

The continuous flow of information is inseparable from the operational performance of the business.

**The Facts**

- Information technology is often at the epicenter of how a firm interacts with its clients
- Information technology is always a lever to produce highly efficient supply chains, operations and workflows
- In combination, these two dynamics generate an explosive growth of managed data

**The Implications**

- Business resilience and information risk management are commonly on the agenda of the board of directors
- Firms must assess: Are we compliant? Are we reliable? Can we be trusted?
- Firms must decide how resilient they wish to be – contextualized in the availability, security and recoverability of their business operations
- Firms must evaluate the extent to which competitive advantage or disadvantage is influenced by their chosen resilience standing
The world is riskier than it used to be.

**Changing environment**
- Expanding risk exposures
- Increased global and regional interdependencies
- Supply chain disruption

**More complex regulations**
- Changing industry and regulatory standards
- Geographic dispersal requirements
- Varying regulations per country

**Heightened impact of business disruption**
- Greater financial implications of downtime
- Brand vulnerabilities
- Data integrity requirements

**Impact of coping with the financial turmoil**
- Loss of critical personnel
- Loss of key knowledge
- Reduction in attention to significance of risk
- Reduction in testing recovery plans

Disaster recovery and business continuity is one of the top IT spending priorities for many businesses.

So 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.
There are multiple business challenges driving a greater need both resilience and improved efficiencies

- Doing more with less
  - Reduce capital expenditures and operational expenses
- Reducing risk
  - Ensure the right levels of security and resiliency across all business data and processes
- Higher quality services
  - Improve quality of services and deliver new services that help the business grow and reduce costs
- Breakthrough agility
  - Increase ability to quickly deliver new services to capitalize on opportunities while containing costs and managing risk
Cloud Computing can help drive efficiencies across the enterprise

**Without cloud computing**
- Workload A
  - Software
  - Hardware
  - Storage
  - Networking
- Workload B
  - Service management

**With cloud computing**
- Workload A
  - Virtualized resources
  - Automated service management
  - Location independent
- Workload B
  - Standardized services
  - Rapid scalability
  - Self-service
- Workload C
  - Service management

Note: Elements of cloud computing taken from NIST, Gartner, Forrester and IDC cloud computing definitions

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But what is Cloud Computing?

**A user experience and a business model**
- Cloud computing is an emerging style of IT delivery in which applications, data, and IT resources are rapidly provisioned and provided as standardized offerings to users over the web in a flexible pricing model.

**An infrastructure management and services delivery methodology**
- Cloud computing is a way of managing large numbers of highly virtualized resources such that, from a management perspective, they resemble a single large resource.
- This can then be used to deliver services with elastic scaling.
Cloud computing allows companies to rethink IT and reinvent the way they do business

**Reinvent Business**
- Faster time to market for new services
- Focus on differentiated processes
- Meet changing customer expectations, real-time access to technology

**Rethink IT**
- Rapidly deliver services
- Integrate services across cloud environments
- Increase efficiency

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CIOs see Cloud Computing as a key driver of business innovation

**2010 CIO Magazine Survey:**
- 69% of respondents agreed that the cloud is very or somewhat important as an enabler of business innovation at their organizations
- The majority (54 percent) say cloud technology investments are actually shaping overall business strategy.
- 79% of respondents cited the enablement of business continuity as the top benefit driving investment in cloud computing.

Source: CIO Magazine, CIO Cloud Computing Survey, November 2010
Cloud computing and business resilience have paralleled each other over time:

- **Mainframe model**: centralized control, standardization, batch reporting
- **Focus**: data center, internal stresses, localized disruptions
- **Cloud Computing**
  - **Virtualized model**: extended supply chain, mobility, direct customer access
  - **Focus**: extended global I/S, internal/external stress, broad disruptions
- **Distributed Computing**
  - Hybrid model: connectivity, data sharing cross-bu, re-standardization
  - **Focus**: enterprise I/S, internal/external stress, regional disruptions
- **Business Continuity**
  - **IT**: reactive
  - **Business**: none
  - **Recovery Time**: days/weeks
  - **Mindset**: insurance
- **Disaster Recovery**
  - **IT**: proactive
  - **Business**: proactive
  - **Recovery Time**: seconds/always up
  - **Mindset**: growth
Business Continuity and Resiliency Services

Services to help address the business resilience workload have emerged that align with cloud computing.

Software as a service - Customers consume business outcomes by accessing business services via Web-centric interfaces on multi-tenant and shared infrastructures without the need to manage or control the underlying resources.
- Business Continuity planning & notification
- ERP/SCM/CRM application resilience

Infrastructures as a service - Customers use applications from multi-tenant to multi-tenant and shared infrastructures without the need to manage or control the underlying resources.
- Server backup and recovery
- Data/Storage backup and recovery
- Network backup and recovery

Business process as a service - Customers use processing, storage, networks, other computing resources with ability to rapidly and elastically provision and control resources to deploy and run software and services without the need to manage or control the underlying resources.
- File & eMail Archiving
- Risk Analytics
- Service Level Management

Platform as a service - Customers use programming languages, tools and platforms to develop and deploy applications on multi-tenant and shared infrastructures with ability to control deployed applications and environments without the need to manage or control the underlying resources.
- Desktop backup and recovery
- Database backup & recovery

Cloud services provide multiple ways to help drive business resilience.

Resulting in:

- Reduced costs
- Manage Risk
- Governance & Compliance

1. Increase resilience capabilities by providing additional resources when needed
2. Reduce costs associated with business resilience by contracting for only what you need
3. Improve the reliability of recovery by utilizing virtualized resources
4. Obtain greater flexibility by quickly transforming recovery profiles as production changes
5. Reduce the need for additional facility build-out and/or power consumption requirements
6. Shorten recovery time objective (RTO) and recovery point objective (RPO)
7. Avoid the need to travel to recovery site
8. Utilize resources for multiple purposes
9. Increase skills cost savings and valuable time saved during an outage
10. Enable improved geographic risk mediation
When deciding about cloud options, managing the transition and choosing a provider require a comprehensive approach

### Moving to the Cloud

- Standardization across these four elements addresses inhibitors to cloud adoption and enables a more seamless transition

  - Before moving to the cloud, consider standards and policies related to:
    - Workloads
    - Infrastructure
    - Security
    - Service Management

### Choosing a Provider

- Does the provider have the resources and expertise to work with you on all key elements?

  - Does the provider have the depth of services to address all my needs?
    - Server and PC Recovery
    - Onsite and Offsite Protection
    - Archiving
    - Virtualization
  - Do they have the geographic reach to ensure my company is really protected?
  - Does this provider have the history of service and track record of success that assures me they can perform as advertised?
  - Is mitigating risk core to their business or is it a side line business?
  - Is there a company that has the resources to really support me in the cloud?
The IBM SmartCloud delivers a robust set of services

IBM offers the full range of cloud delivery models to meet customer needs, including end-to-end, cloud-based business resilience.

In 2011 we launch IBM SmartCloud Resilience, focusing on three key cloud services

Our solutions protect your data, recover your servers and archive your files to help you efficiently manage risk, reduce costs and meet regulatory compliance mandates.
With our SmartCloud Resilience services we can help you to quickly and affordably recover critical business data during times of disruption.

We help you to keep your business on the move by:

- Offering a combination of server recovery and data protection and archive services
- Providing a “self-management system” that can considerably reduce the need to travel to recovery centers
- Providing round-the-clock availability of technical resources to facilitate on-time recovery
- Offering virtualized and non-virtualized servers to help streamline recovery processes and minimize the impact of an outage
- Identifying gaps in your current resilience solution and leveraging IBM tools, expertise and cloud capabilities to build an optimized resilience solution
- Supporting your IT recovery, availability and business continuity needs with a cost-effective, cloud-based resilience solution

Next Steps

- Establish roadmap for your cloud journey:
  - Assess where you are and where you want to be
  - Define roadmap of initiatives and projects
  - Establish business value metrics

- Select and scope a cloud project:
  - Determine your starting point
  - Plan for implementation
  - Implement, Test and Deploy

- Determine the value realized through your journey
In summary…

- **Cloud computing is a disruptive change to the way IT services are delivered, backed up and restored**

- **Without a strategy, Cloud computing can be seen as a threat to the IT team**
  - Business resilience services delivered over the Internet
  - Perceived cost gap between business resilience cloud services and traditional business continuity
  - “The next client/server”

- **With a strategy, Cloud computing is a huge opportunity for the CIO & IT team**
  - Lower cost of delivery for some workloads
  - More responsive IT
  - Ability to optimize delivery using traditional, private cloud, and public cloud
  - Greater visibility in billing / chargeback to LOBs
  - Greater range of available services, applications, and capabilities

Thank You!

For more information:
- IBM Business Continuity and Resiliency Services online at [www.ibm.com/services/continuity](http://www.ibm.com/services/continuity)

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