



Business continuity and resiliency services from IBM

Helping business stay in business





Contents

- 3** Determining your risk factors
 - Business-driven risks
 - Data-driven risks
 - Event-driven risks
- 6** Building resilience into your business operations
- 8** Developing an effective business continuity and resiliency strategy
- 10** Facilitating continuity of operations by protecting data, applications and systems
- 14** Enabling more efficient recovery to protect your business and your brand
- 16** Why IBM?

Executive summary

How do you know if your organization is proactively prepared for—and able to flexibly respond to—unplanned outages? Does your business possess the resilience it needs to rapidly react to potentially costly man-made or natural disruptive events? If the unthinkable should occur, discover how IBM can help protect your brand and potential revenue by helping you to:

- Assess your risks
- Develop a tailored business resilience strategy
- Safeguard your business-critical information while maintaining continuous operations
- Enable a virtually complete recovery should disaster occur

With greater supply chain interdependencies, increasing regulatory requirements and a rapidly changing, geographically dispersed business environment that can include everything from traditional storefronts to online operations, organizations are facing intense pressures to improve performance, maintain continuous availability and ensure data integrity. Meeting these demands in a global economy means today's enterprise must be highly resilient and able to anticipate multiple risks. At the same time, organizations should be prepared to withstand—and flexibly adapt to—unexpected disruptions of all types while remaining poised to take advantage of new opportunities. Most disruptions are caused by infrastructure outages or human error, but they can also be the result of a wide range of causes, including random power outages, natural disasters or international events. Clearly, any of these events can be costly and undermine the ability to maintain your IT operations. These unplanned outages can also create far-reaching consequences that

Today's enterprise must be highly resilient and able to anticipate multiple risks.

impact your long-term revenue stream, your brand, and ultimately, your organization's survival. Forward-thinking leaders are experiencing a wake-up call, recognizing that the probability and types of risks to business continuity are higher than commonly believed, and are taking steps to improve their resiliency capabilities. In other words, to help ensure a viable future, adopting a smarter, proactive and comprehensive business resiliency strategy is nothing less than imperative. A more interconnected and intelligent approach helps your business address the increased risk, complexity and cost of downtime. Business continuity and resiliency services from IBM can help your organization to:

- Manage risk through an enterprise-wide resiliency strategy
- Reduce cost through proactive incident response and reduced downtime
- Ensure resilient service delivery in a 24-hour, 7-day-a-week world
- Respond with speed and agility while minimizing risk exposure

You cannot afford to leave anything to chance when it comes to ensuring the delivery of excellent service and reliability to your partners—and to customers.

Determining your risk factors

Business resilience is becoming a top priority for both executives and stakeholders, and with good reason. An increasingly interconnected marketplace means at any time, every enterprise is vulnerable to risks of all sizes and shapes that could potentially jeopardize your business. As an organizational leader, you cannot succumb to a false sense of security. You have worked too hard to build your business—and its reputation. You cannot afford to leave anything to chance when it comes to ensuring the delivery of excellent service and reliability to your partners and to customers, as well as maximum value to investors.

To meet the uncompromising expectations of today's consumers, your business—including your infrastructure, data and people—must be reliable, agile, resilient and secure. At the same time, you need the ability to seamlessly adapt to changing compliance requirements for your local geography and for those around the world—or face the risk of penalties. On top of all this, it's critical that you are able to quickly and efficiently recover from a vast array of multidimensional types of risks should they occur. And as the number and types of risks continue to grow, developing a robust business resiliency strategy becomes even more essential to help ensure your company's future success.

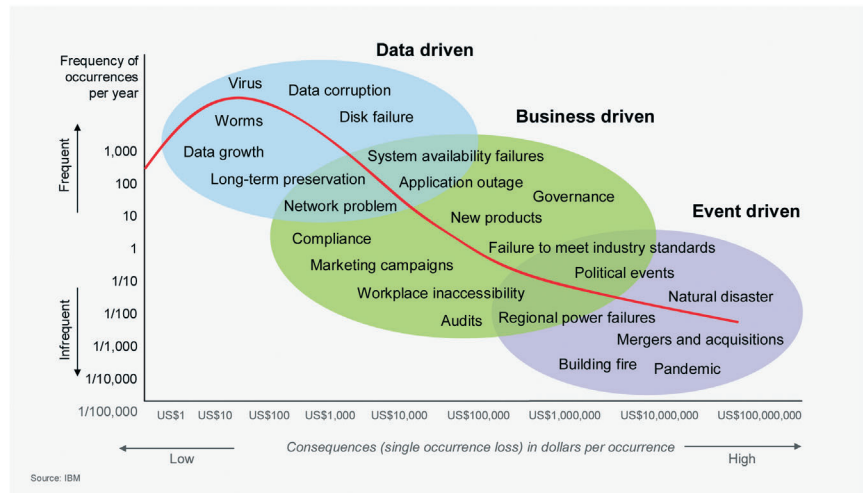
How can you address this complex business challenge and develop a resiliency plan that flexibly meets your organization's changing needs? You need an interdisciplinary, enterprise-wide business resilience strategy that proactively anticipates and effectively responds to all types of risks, including:

Business-driven risks. Affecting business continuity and strategic business operations, business-driven risks—including application outages or overload from marketing demand-generation campaigns—can create enterprise-wide ramifications that can result in breaches in compliance, governance, availability, security and performance, as well as unwanted intrusions into critical business services. Left unaddressed without a business continuity plan, they cause intense concern for executive board members and other stakeholders. A robust resiliency solution can help to protect your organization from this type of risk, going beyond simply restoring your IT infrastructure to also help keep your business continuously operating and compliant with industry and government regulations—helping to ensure virtually anytime, anywhere accessibility to approved users.

Did you know?

- Financial institutions can often measure the cost of IT system downtime or data loss in the millions of dollars per hour.¹
- More than a quarter of companies have declared a disaster in the past 5 years.²
- 76 percent of companies have declared a disaster or experienced a major business disruption.²
- 42 percent of survey respondents (out of 295 global business continuity decision makers) report that government and industry regulatory auditors have demanded proof of the company's business continuity readiness.³

Types of risks



Your business must be resilient and able to recover from all types of disruptive events.

Data-driven risks. Overlapping with business-driven risks, data-driven risks apply to all your data and are caused by a wide range of factors, including disk failure, corruption, viruses or even extreme data growth. Such factors negatively impact continuity as well as the infrastructure, processes, people and systems that keep your organization's data and information accessible for business operations, compliance audits and legal requests. To protect against data-driven risks, you need a solution that delivers efficient backup and quick retrieval of critical data and information, whenever and wherever it is needed. You also need to ensure your data is continuously available and safe from viruses, theft and other types of loss.

Event-driven risks. Disrupting an organization's workforce, processes, applications or infrastructure, event-driven risks are caused by power outages, natural disasters, pandemics, fires, thefts and other IT disruptions such as those created by mergers and acquisitions. To mitigate these risks, your organization must be able to distribute operations beyond the area of immediate impact as well as implement an effective disaster recovery and crisis management plan. This strategy helps ensure that your critical people, networks, IT services and facilities are safe and available to meet the recovery objectives of your business.

Building resilience into your business operations

Business continuity and resiliency services from IBM can help you proactively identify, understand and manage operational risks so you are able to maintain continuous business operations, protect your brand image and remain a trusted provider to your customers and partners. Your business stays up, and you stay competitive—whether you're responding to a risk or maneuvering to adapt to changes in the marketplace. IBM services range from helping you to get started with business continuity planning to creating tailored availability, data protection, and disaster recovery solutions that are aligned with your unique business requirements. IBM can provide the breadth of solutions you need to develop an end-to-end resiliency strategy. By delivering business resiliency solutions that are designed with your particular business model, locations and specific requirements in mind, IBM can help design an effective business continuity plan and solution

that's right for you. Plus, with local, regional and global resources in place, IBM can help you to understand and take full advantage of the benefits with an effective business continuity plan. We can help:

- Analyze the impact of a business disruption and the cost of downtime, then assess and address any gaps.
- Determine the constantly changing governmental and industry regulations associated with business continuity that apply to you and help develop a plan for compliance.
- Assess how you can reinforce your business processes so that when unexpected disruptive events occur, your customers and your partners remain in contact and your brand stays strong.
- Ensure your data is effectively backed up and easily recovered.
- Enable your workforce to continue working in times of disruption.
- Protect your brand through IBM's industry-leading disaster response and recovery experience.

Many service providers claim marketplace leadership or even global reach. But when it comes to integrating a solution that spans technologies and vendors as well as the globe—one that takes both reactive and proactive strategies into account—no other provider has the combination of capabilities that IBM offers. We can provide access to hundreds of global business resilience centers and more dedicated business continuity professionals worldwide as well as the ability to put your critical personnel into as many fully equipped work seats as necessary to keep your business running. IBM delivers credibility that comes from decades of experience maintaining continuous operations for our company and for businesses in every industry—in every part of the world. That's a message you can transfer to your customers, regulatory officials and supply chain partners who want to be confident that you're well prepared for contingencies.

IBM's business continuity and resiliency services include:

IBM Resiliency Consulting Services. Leverages our business process expertise and 40 years of experience in business continuity to help you identify and address gaps in your current continuity strategy as well as develop and manage an integrated program aligned to your evolving business needs and risk-tolerance levels

IBM Managed Resiliency Services. Helps you avoid the costs of downtime and accelerate recovery by helping your IT infrastructure support your ongoing service availability, performance and compliance objectives

- **IBM Managed Resiliency Services – continuous availability.** Helps provide continuous availability for your critical processes, functions and infrastructure that support business decisions, performance measurements, regulatory compliance mandates and governance
- **IBM Information Protection Services.** Helps protect your critical data for regulatory requirements and business needs while helping to implement a plan based on your priorities for backup, retention and retrieval—so you have virtually anywhere, anytime access to information

IBM Infrastructure Recovery Services. Leverages more than 40 years of experience in disaster recovery worldwide to help you respond to and recover from disruptive events faster and more effectively, with reduced costs

Developing an effective business continuity and resiliency strategy

You have to ask yourself, and your team: *How well do we understand the risks to our organization? Have we fully identified them?* You also need to consider the actual cost of downtime to your business. How prepared is your business to continue to meet service level commitments in the face of adverse events? Do you

You need an enterprise-wide business resiliency strategy that proactively anticipates and effectively responds to all types of risks.

have the experienced IT skills, technology and expertise to develop a plan to handle myriad risks potentially coming your way? Can your business effectively comply with ever-changing customer contractual requirements, industry standards or government regulations? Is your business truly resilient?

Start with strategy—not technology



You need to develop a resiliency strategy aligned with your unique business needs.

IBM Resiliency Consulting Services

As part of our comprehensive approach, IBM Resiliency Consulting Services offers flexible approaches to help you architect a resiliency solution tailored to your unique business needs—from solution assessment and planning to design, test and implementation. We collaborate with you to provide a holistic assessment of risks at every layer of your business, starting with your strategy and vision, organization and human resources to business processes, technologies, applications and data, as well as your physical IT infrastructure and facilities. By helping to assess and

Most companies lack the expertise to adequately assess, backup, store and protect critical data that is widely distributed across the enterprise.

diagnose risks and their root causes, along with specific prescriptive recommendations to address those risks, you can begin to build a strong foundation for business resilience. Our experts enable you to realize value and benefits independent of technology, design or vendor by leveraging industry best practices and IBM's Resilient Enterprise Blueprint, an architectural framework that helps you to meet specified business service level and risk tolerance objectives so you can accurately identify gaps for a more comprehensive, effective resiliency strategy and design. IBM's end-to-end approach helps you assess and plan for greater business resilience to create, deliver and implement a highly effective business resilience strategy and design for your organization. And with our ongoing services, we can continue to assist with managing your resilience solution—helping to continually ensure that your IT infrastructure and business stay aligned, agile and secure.

Facilitating continuity of operations by protecting data, applications and systems

What makes your business stand out in a competitive marketplace? Does your resiliency plan support your ability to maintain the availability levels required by your business? Can your business deftly handle a variety of potential threats to availability, including IT infrastructure stressors or human error? To thrive, your company must be able to offer extraordinary performance and deliver continuous availability around the world or face disgruntled customers, partners and employees. You also risk losing your hard-won customer base and potential revenue, and could end up with a dramatically diminished brand image. In addition to damaging your relationships with your customers, a failure to maintain service levels can cost you by impeding employee productivity and hindering your ability to smoothly meet changing compliance requirements.



Managing extreme data growth

Data is growing at explosive rates—growing from 281 exabytes* in 2007 to 1800 exabytes in 2012.⁴

* An exabyte is a unit of information or computer storage equal to one quintillion bytes.

IBM Managed Resiliency Services are designed to help reduce the frequency and duration of infrastructure outages and allow your organization, customers and partners to access information, communicate and run key business applications—helping you to maintain your changing service level objectives and continue critical operations to achieve ongoing business availability. Through IBM's consistent management—either fully or partially—of your critical business processes, IT systems, operating environments and networks, you can experience reduced data loss and application and system downtime while decreasing infrastructure complexity with better balancing of workloads. As a result, you gain an IT infrastructure that is equipped to better manage surges in demand, address regulatory compliance mandates and support governance—all factors that can significantly minimize financial impact from business disruptions. Coupled with an IT staff that is free to focus on core, revenue-generating business projects and innovation, you are able to optimize your existing IT resources while enhancing your ability to meet and exceed IT availability and service level requirements, creating more value for your business. And by helping you avoid or reduce capital expense while monitoring and managing operational expenses and service levels, your company is empowered with enhanced agility to meet changing regulatory requirements and evolving business needs to move beyond merely defensively reacting to marketplace flux and instead, be positioned to proactively respond to change. IBM offers the flexibility to select the services that are the most cost-effective and provide the highest availability for your most critical business data and processes, as well as many options for less critical data and processes. As a trusted, financially sound IT leader in the marketplace, we can provide a wide range of robust, proactive and event-driven managed services and products that enable your enterprise to avoid downtime, reduce recovery time for all kinds of outages and build a more resilient infrastructure to stand strong in any kind of economic environment.

IBM Infrastructure Recovery Services helps to empower you to efficiently prepare for, respond to and recover from disruptive events—regardless of their size or scope.

IBM Managed Resiliency Services – continuous availability

Continuous availability services from IBM is a set of managed services designed to protect your data, applications and systems, prevent data loss, and proactively reduce the negative impact of disruptions while speeding recovery time if an outage does occur. By providing comprehensive management of the availability process tailored to your specific needs, these services create greater redundancy and help facilitate nearly seamless continuity of operations during outages. IBM's security-rich, managed data center space is designed and built to your company's computer and telecommunications equipment, and by enabling greater efficiency and predictability, it can help reduce both operational and capital expenses for a lower total cost of ownership. This set of services also offers a rapid recovery capability that electronically replicates all or a portion of your data and servers, helping to reduce provisioning time, increase responsiveness and lower your recovery-time objectives to fewer than 24 hours (often taking only minutes). Using portals and dashboards, continuous availability can enable more accurate monitoring and reporting so you can have better control over spending, service level attainment and support for general and industry-specific regulatory compliance. With continuous availability services, you can more easily manage your IT infrastructure complexity while also gaining enhanced flexibility, scalability and adaptability that help support changing business requirements.

IBM Information Protection Services

IBM Information Protection Services (part of the IBM Managed Resiliency Services portfolio) is a set of managed services that can help you manage your critical data, wherever it's housed, and enable you to quickly back up, restore, archive and maintain access to critical data on demand and with integrity. Implementing an effective, cost-efficient resiliency plan based on your priorities for backup, retention

and retrieval, IBM uses leading-edge automation technology to help you gain virtually anywhere, anytime access to information within your extended enterprise while providing continuous monitoring and support. IBM offers robust onsite and remote data protection for your data center servers, applications and databases as well as data protection for email, desktop and laptops to help automatically safeguard your data across many different scenarios while helping to reduce your overall operational costs. Depending on your requirements, we offer a range of remote, onsite and hybrid data protection services that can help to improve efficiency and the success rate for data backup and restoration. And with the experience in managing more than 3,400 information protection clients around the world with more than 42 petabytes of data, you can be confident knowing that IBM has the expertise and resources to safeguard your information.

Expanding disaster recovery to include data protection

A national grocery store chain needed to ensure that current production levels of key business platform operation systems would always be available in times of disruption or a disaster.

Business continuity and resiliency services from IBM helped improve recovery time to meet objectives by supplementing an already existing disaster recovery solution with remote data protection services. This solution allows the company to store system images in a vault in IBM's business resilience center in New York, utilizing and expanding on their existing services agreement with IBM for disaster recovery.

Benefits:

- Improved recovery time objectives and reduced cost associated with tape backup
- Enhanced resiliency by incorporating data protection into the company's overall business continuity plan

Enabling more efficient recovery to protect your business and your brand

Is your enterprise reinforced to withstand—and recover from—the unthinkable or even the most common disruptions like power outages? In recent years, heightened exposure to disruptive events coupled with increasing government and commercial interdependencies are making disaster recovery and crisis management a critical business imperative. As growing numbers of organizations face such situations, they are realizing the costly and far-reaching repercussions of not having key capabilities readily deployable when disaster situations occur—repercussions that negatively impact the infrastructure, employees, customers, operations and day-to-day lives.

IBM Infrastructure Recovery Services can empower you to efficiently prepare for, respond to and recover from disruptive events—regardless of their size or scope, helping you to handle emergency situations and mitigate negative effects. IBM delivers vast experience and expertise to deliver a design and validate an effective plan that can help you meet your specific recovery objectives. Even if you've never experienced a particular disaster in your part of the world, it has probably occurred to one of IBM's clients in another locale. IBM supports more than 12,000 clients worldwide, so we've learned which procedures are most effective and are able to smoothly link them with your business processes, including those that connect you to your supply chain. We can help you track, assess and respond to local, regional and global disruptions that could affect your recovery plan. With more than 150 business resilience centers located around the world offering 5 million square feet of floor space and more than 40,000 work area recovery seats, we are poised to help you get your business back up and running quickly. If your facilities become damaged, IBM can provide the space, multivendor environment, and the equipment for your critical personnel. With sound planning and a

IBM's unparalleled experience is based on more than 40 years of business resilience and disaster recovery experience and more than 12,000 disaster recovery clients.

prioritized response, you can keep your losses to a minimum and bounce back, ready for business as usual. By enabling effective recovery, including temporary work environments for critical employees that allow faster employee access to crucial applications and data, IBM enables you to respond faster. With IBM by your side, you can quickly and efficiently recover from disruptive events that could otherwise permanently damage your operations and brand reputation.

Meeting defined criteria for disaster recovery compliance

A large financial institution in South America needed to gain access to a third data center for disaster recovery purposes while also meeting the compliance requirements set by the Central Bank of Argentina regarding the location and distance of a disaster recovery site.

Business continuity and resiliency services from IBM delivered a solution based on an in-depth analysis to measure the bank's existing disaster plan against the standards of the Central Bank of Argentina. IBM implemented a disaster recovery solution supported by IBM's business resilience center in that region to fill the gaps in the bank's existing plans. The IBM team then implemented a work area recovery plan to enable key personnel to continue to work in times of disruption.

Benefits:

- Improved recovery time objectives of less than 72 hours and recovery point objectives of up to 24 hours
- Gained expertise from the business continuity consulting engagement
- Complied with Central Bank of Argentina regulations





Why IBM?

IBM is an experienced and innovative leader with specialized expertise in data protection, resiliency, high-availability replication, IT recovery, crisis management, business continuity and industry-specific solutions for your business. In tandem with our strategic partners, we offer a comprehensive portfolio of broad, deep offerings, facilities and resources in services, software and hardware based on consistent, standard, world-class methodologies and processes. Our extensive investments in infrastructure combined with more than 1,600 dedicated business continuity professionals and over 150 business resilience centers located around the world, respected industry analysts have recognized IBM as a leader in business continuity and resilience. Our unparalleled experience is based on more than 40 years of business resilience and disaster recovery experience and more than 12,000 disaster recovery clients. Using our vast business process and technology expertise experience, we help you design and implement a business resilience solution that meets your organization's needs. Our solutions are flexible, tailored to your business and financial goals as well as the regulatory and geographic requirements of any location while maintaining standardized timelines and methodologies to assure high levels of quality. By providing a comprehensive approach specifically designed to maintain your availability, protect your information and preserve your brand, we are able to address multiple types of operational risk. And by helping to ensure improved resiliency across all the layers of your business—including strategy and vision, organization and human resources, business processes, applications and data, and technologies and facilities—you can more effectively avoid, prepare for, and recover from, virtually any disruptive event.

For more information

To learn more about gaining a world-class business continuity and resiliency solution for every layer of your business, contact your IBM sales representative, or visit the following Web site: ibm.com/services/continuity

© Copyright IBM Corporation 2009

IBM Global Services
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
June 2009
All Rights Reserved

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at ibm.com/legal/copytrade.shtml.

Other product, company or service names may be trademarks or service marks of others.

Use of the information herein is at the recipient's own risk. Information herein may be changed or updated without notice. IBM may also make improvements and/or changes in the products and/or the programs described herein at any time without notice.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

¹ "What Your Business Can Learn about Disaster Recovery from Financial Institutions," Forrester Research, June 2008

² "Building the Business Case for Disaster Recovery Spending," Forrester Research, April 2008

³ "The State of Business Continuity Preparedness" survey, Disaster Recover Journal and Forrester Research, 2009 www.drj.com/index.php?option=com_content&task=view&id=2206&Itemid=676

⁴ "The Diverse and Exploding Digital Universe," IDC white paper sponsored by EMC, March 2008



Recyclable, please recycle