RCN BUSINESS
VOICE | DATA | VIDEO

When Disaster Strikes

HAVING THE RIGHT IT PARTNER MATTERS

Power outage? Server crash? Natural disaster? Unplanned outages can cause disastrous outcomes. While some businesses never recover from an outage, others survive – but with varying levels of success. Data today is the lifeblood of most businesses, and when access to that business-critical data is blocked, companies want to know that their data will be there for them – either immediately from another location or fully restored once the network is functional. There is also a need for companies to maintain continued communications during such an event. When an outage occurs, businesses require a backup provider to ensure their communications systems stay up and running.

WHAT IS DISASTER RECOVERY?

Having a Disaster Recovery and Business Continuity Plan is integral to any business where data plays a key role. Disaster recovery is the ability to rebound from a disaster, whether natural or manmade, in the timeliest manner possible. It is further defined as the use of alternative network circuits to re-establish communications channels in the event that primary channels are disconnected, malfunctioning or inaccessible. It also refers to the methods and procedures for returning a data center to full operation after a catastrophic interruption, including the recovery of lost data. Business continuity is the final response of an organization when faced with any interruption of critical services.

Organizations always face the possibility of confronting some form of disaster or unplanned outage. A sound Business Continuity/Disaster Recovery (BC/DR) strategy is critical, even as enterprises balance the risks of these events with the costs of the BC/DR solutions. The safeguarding of employees, as well as the protection of facilities, technology and customer data, should be at the top of the list of organizational priorities. However, there are often issues and restraints facing an organization's BC/DR planning. Among these challenges are balancing risks and costs, executives' attention and limited budgets, along with inadequate applications, communications, data backup and redundancy.[1]

Disaster Recovery is often taken for granted in an organization. Sometimes, the Information Technology (IT) department, under leadership of the CIO, is given responsibility for disaster planning because they are keenly interested in keeping IT systems up and running during and immediately following disasters.[2] However, a survey of more than 250 IT managers revealed that just 31%of those managers agreed that their organizations were prepared to handle outages and disasters. In light of events such as Hurricane Sandy, organizations are showing more interest in BC/DR.[3]

THE COST OF DOWNTIME

Today, IT end-users and customers of an organization require access to their applications 24/7/365. And the time it takes an organization to recover from a system's downtime or data loss can cause financial peril, or can even lead to a company closing its doors. Recent studies have found that the average cost per hour of downtime is $163,000. Companies are encouraged to calculate their cost of downtime. Cost per hour of downtime is calculated by adding labor costs per hour to the revenue lost per hour.

---

[1] Frost and Sullivan. "Confronting the Unpredictable in the World of Customer Contact: Strategies for Business Continuity and Disaster Recovery." 2013. www.frost.com.

[2] Michael E. Whitman and Herbert J. Mattord. "Principles of Incident Response and Disaster Recovery." 2007.

[3] Frost and Sullivan. "Confronting the Unpredictable in the World of Customer Contact: Strategies for Business Continuity and Disaster Recovery." 2013. www.frost.com.

A major risk factor making a case for disaster recovery is the increased threat of cyber attacks. From attacks on federal agencies to corporate franchises to mobile malware, hackers are frequently developing new methods to gain unauthorized access to systems – or to take down entire systems.[4]

Labor Cost per Hour of Downtime

Company A has revenue of $1 billion and 2,500 employees. The average annual employee benefits are $85,000 per employee, and each employee works 40 hours per week. An outage affects 80% of the workforce, resulting in an $82,000 per hour cost for labor during an outage.

Revenue Lost per Hour of Downtime

Company A is a global company, deriving revenue five days per week. Assuming an outage affects 50% of revenue, revenue lost per hour equals $57,000.

When combining the two figures above it is determined that the total cost to Company A for one hour of downtime is about $139,000.[5]

BUSINESS CONTINUITY

Business Continuity (BC) planning is the final response of an organization when faced with any interruption of its critical operations. In general, BC is the rapid relocation of an organization's critical business functions to another location. BC is specifically designed to get the most critical services of an enterprise up and running as quickly as possible in order to enable the continued operation of the organization, thus ensuring its existence while minimalizing the financial losses from the disruption.

Things, however, do not always go as planned. "A new awareness of enterprise vulnerability – brought into sharper focus by 9/11, but driven by larger, more permanent forces – is driving an accelerated hype cycle in BCP," according to telecom analyst house Gartner Group. "[This] trend will resonate through every industry sector, causing a reassessment of many basic business needs. For this reason, it is also likely to draw unprecedented amounts of high-level attention from executives anxious to secure their top lines against customer and confidence erosion."[6]

DEFINING DISASTER RECOVERY

Disaster Recovery (DR) planning is the process of restoring an IT infrastructure. It especially comes into play when Business Continuity and other processes fail, or were never in place.

Business Continuity planning is focused on disaster prevention. It allows a company to survive and continue to operate during a natural or manmade crisis.[4]

---

[4] Aberdeen Group. "Business Continuity and Disaster Recovery: Don't Go it Alone." June, 2013.

[5] Aberdeen Group. "Business Continuity and Disaster Recovery: Don't Go it Alone." June, 2013.

[6] Michael E. Whitman and Herbert J. Mattord. "Principles of Incident Response and Disaster Recovery. 2007.

The Benefits of BC/DR Across Industries

Let's explore some of the trends driving the use of BC/DR within specific sectors: healthcare, hospitality, education and financial services.

EDUCATION

Education today is widely dependent on technology. Advanced communications networks are essential to the delivery of cutting-edge services and capabilities to colleges and school systems. Among the solutions that educational institutions require are high-speed and reliable connectivity, point-to-point Ethernet connection to various locations, dark fiber connection between facilities and point-to-point data connection between colleges or school systems and data centers to ensure BC/DR.

Institutions require redundant routes to provide geographic diversity and alleviate single points of failure. They also need a fiber-rich network that delivers mission-critical connections. All of these requirements and built-in safeguards are meant to ensure the safety of both the institution and its students. They are all part of the BC/DR plan that is imperative to the well-being and prosperity of an educational institution, be it a major metropolitan campus, or a rural school district.

HEALTHCARE

It is imperative that a robust BCP be put into place for a healthcare organization. However, this can be a daunting task. Healthcare IT managers are faced with many challenges. Keeping clinical operations open 24/7/365 and providing safe and secure facilities are not the only requirements. Healthcare facilities and organizations require a reliable, fiber-rich network that spans all networks and delivers a scalable solution. They also require compliance with the Health Insurance Portability and Accountability Act (HIPAA) and Electronic Health Record (EHR) through secure and dedicated activity and redundant routes, with entry points diverse from other providers. All of these requirements must be met at all times and, when disaster strikes, recovery of these functions is of the utmost importance. Healthcare organizations must have plans in place that address the mitigation, preparedness and response phases of the disaster management cycle.

> **In a 2014 survey conduct by Forrester, approximately 88 percent of respondents had executive-level sponsorship for BC preparedness, relatively unchanged since 2011 (87 percent) and 2008 (90 percent). The most common sponsor was the CIO (23 percent), followed by the CEO (16 percent) and the CRO (16 percent).**[7]

---

[7] Stephanie Balaouras. "The State of Business Continuity Preparedness." Disaster Recovery Journal. Winter 2015.

FINANCIAL SERVICES

In the financial industry, the security of data is of the utmost importance. "Among all market participants, there needs to be a sense of order and calm," according to the Securities Industry and Financial Markets Association (SIFMA). "An assurance of total coordination and transparency around closings and openings and business operation procedures during disruption; a decent expectation of a return to normal market functioning on a reasonable timeline; and most importantly the safety of those affected by the disaster." This provides a solid summary of the general need for BC/DR planning, and its specific requirement in the world of finance.

Financial firms, brokers and financial services providers are constantly working to make the most secure trades. There is a plethora of complex regulations related to security and BC/DR that must be adhered to at all times. Any organization that accepts, transmits or stores any cardholder data is subject to Payment Card Industry Data Security Standard (PCI DSS) and must ensure the physical security of their networks, as well as adhere to information security policies. Having a solid BC/DR plan in place, and ensuring redundancy and uptime with limited to no failure, is of the utmost importance.

HOSPITALITY

An array of natural or manmade disasters can affect the hospitality industry at a given time. When this happens, it is critical that a BC/DR plan is in place to keep services up and running. After all, it is consistent, dependable service on which nearly all hospitality organizations pride themselves. Hotels, restaurants and bars are increasingly expected to offer free Wi-Fi, for example, almost everywhere and at all times. Along with this, pertinent guest information, such as credit card numbers and billing specifics, are stored on hotel computers. Phone and power outages could be equally detrimental. If these systems suddenly become unavailable, a plan must be in place and/or redundancy must be on hand to ensure those systems are back up and running immediately.

E-commerce has also impacted how business gets done in the hospitality industry. People and technology are more inter-dependent than ever, and that inter-dependency is only going to continue to rise. Hotels, for example, rely heavily on revenue from extra services customers purchase simply by signing their name and room number on invoices, and there are in-room charges for mini-bar, telephone (voice and data) and pay-per-view television. If these technological capabilities fail, then so does the business.

Be it a small college campus, a hotel or a large financial institution, BC/DR is integral to any business at any size, with any specialty. Having the right plan and safeguards in place provides peace of mind for both the business and the customer. Secure Ethernet networks, fiber-rich services and backup connections to geographically diverse data centers are all important elements that ensure businesses are up and running 24/7/365.

While the BC/DR is familiar to most, if not all, IT personnel because of its requirement for businesses to function, and continue to function, at desirable levels, not all service providers are created equal. As you plan and build your network, it's important to partner with a carrier that has experts and leadership in meeting service performance requirements. In addition, look for a partner that can deliver the necessities that make a solid BC/DR plan tick. These include high-speed and reliable connectivity, point-to-point Ethernet connection to various locations, dark fiber connection between facilities and point-to-point data connection between businesses data centers to ensure BC/DR.

> **In 2008, Forrester found 77 percent of organizations had documented BC plans (BCPs). In 2014, percentage jumped to 93 percent. If you don't have documented BCPs, your BC management program is clearly in a dire condition.[8]**

---

[8] Stephanie Balaouras. "The State of Business Continuity Preparedness." Disaster Recovery Journal. Winter 2015.

The RCN Business Advantage

TECHNOLOGY

Technology and customer support are critical to any business. RCN Business provides both with its tailored communications services over its wholly owned state of the art fiber-rich network.

PARTNERSHIP

RCN Business partners to deliver solutions for today's Enterprise businesses. A dedicated RCN Business account representative will help identify a business's goals and challenges and work to deliver an intelligent customized solution that meets a business's specific needs.

CHOICE

RCN Business offers an array of Enterprise products, services and contract options to identify exactly what is needed to create a reliable, customized technology solution that contributes to a business's success and growth.

Wholly Owned and Locally Managed Fiber-Rich Network

RCN maintains and operates its own resilient, fiber-rich network, offering extensive fiber density with redundancy and enhanced performance. Because of its robust network, service disruptions that are more likely to occur with older generation copper and TDM networks are eliminated.

Dedicated Internet Access

RCN Business Dedicated Internet Access (DIA) provides a dedicated, fiber-based connection between a Local Area Network and Internet for a business. With available speeds up to 10 Gbps, RCN Business DIA is ideal for businesses requiring more bandwidth and a highly secure dedicated connection.

24/7/365 Dedicated Business Support

RCN Business' U.S.-based Network Operations Center (NOC) proactively monitors your network, while local technical teams and a dedicated account manager are available 24/7/365 to attend to your business' needs and handle any emergency that might occur.

Ethernet

The RCN Business fiber-based Ethernet solution is an affordable and superior alternative to outdated frame relay, private line and data T1 offerings. The solution delivers increased capacity and enhanced security, coupled with the scalability and flexibility that can help businesses save money. RCN Business offers three Ethernet-based technologies – E-LAN, E-Line and Dedicated Internet Access (DIA). RCN Business DIA provides a highly secure dedicated fiber-based connection between a company's Local Area Network (LAN) and the Internet. With connectivity speeds ranging from 3 Mbps to 10 Gbps, a business can get the exact bandwidth they need to help them operate more efficiently, and save money. For businesses with multiple branches or satellite offices requiring multipoint connectivity, RCN Business offers E-LAN service, providing companies with a transparent Layer 2 virtual LAN that can seamlessly connect multiple sites. RCN Business offers businesses in need of connecting two locations with E-Line service, providing companies with a secure Point-to-Point Ethernet connection between two user network interfaces.

Hosted Voice

Hosted voice needs to be at the heart of any well-planned communications recovery strategy. Companies that desire a higher return on investment (ROI) from their hosted voice implementation should use it to bolster their disaster recovery plans.[9] In the event of a disaster, it is necessary for a business to keep in touch with customers and partners. Hosted voice allows just that – as it sits in the cloud, allowing a business to access their functionality online and even plug their phones into a modem, creating a virtual office space. Hosted Voice is a fully managed cloud-based phone system with the intuitive features a business needs to run a faster, more productive and efficient operation. With no PBX equipment to purchase and maintain, unlimited nationwide calling, predictable monthly costs and easily customized call and administration tools, a business has more time to focus on growing and being successful, rather than dealing with a complicated and expensive on-site phone system.

There are several benefits of using a hosted voice service and one of the main positives is the product is located in a secure location offsite, so it is protected from any disaster affecting a site. If a disaster causes a power or access problem in your location, a hosted handset can be plugged in anywhere there is power and Internet access and be fully functional. Other features include – 1) little or no floor space required, as the provider's site houses servers and other network equipment; 2) minimal overhead is required for equipment, as all you need are Internet access and station equipment; 3) low startup cost to launch the service.[10]

Experience fast response times and a continuous reliable connection for superior uptime with a wholly owned, locally managed, fiber-rich network. 24/7 local support is available to answer any questions and ensures a business is maximizing all the innovative calling features. Hosted voice is a fully hosted and managed alternative to expensive onsite hardware-based PBX or Key Systems. It offers an efficient end-to-end solution with all feature functionality deployed in the network rather than on premise – which is key for maintaining phone service should a disaster occur.

RCN Business offers a full suite of communications technology solutions suited for BC/DR planning, including E-Line point-to-point and E-LAN multi-point Ethernet, high-speed Internet, voice, video and network solutions.

For more information and to learn how to leverage BC/DR planning and preparation end-to-end in your network architecture, please visit rcn.com/business or call 1-877-726-7000.

---

[9] http://www.computerweekly.com/feature/Disaster-recovery-and-business-continuity-fundamentals

[10] http://searchdisasterrecovery.techtarget.com/feature/Factoring-VoIP-into-your-disaster-recovery-plan#q5