

Business Continuity, Disaster Recovery and Data Restoration for Your Enterprise

A Computer Associates White Paper



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Corporations at Risk

Today's turbulent, networked world holds many risks to corporate information—risks that can prevent businesses from continuing normal operations. This can happen any day at any time. The potential causes are many and varied: power outages, hurricanes, floods, explosions, computer malfunctions, accidents, terrorism, computer virus attacks and other grievous acts...the list is endless.



From disrupted operations and production downtime to angry customers and lost revenue, businesses simply cannot afford to lose data. And these threats are real. A 2001 study by the Gartner Group revealed that two out of five enterprises that experience a disaster go out of business within five years. In addition, many businesses anticipate that continuity insurance is likely to become less available as insurance companies seek to contain costs.

What's more, even as server and storage hardware continues to improve, IT infrastructures are growing more complex, adding new potential points of failure.

Additionally, while business people tend to think of disasters as events that destroy systems or data, cutting off physical access to your systems can be equally disastrous. A snowstorm, flood, chemical spill or other situation that keeps employees and administrators away from your facility can be just as damaging to business continuity.

Benefits of a Business Disaster Recovery Plan

The only way to recover from a disaster is to plan for it before it happens. A relatively small investment of time and money now may prevent severe damage and disruption of life and business in the future.

Even though an area has never been damaged before, there is no guarantee that it will not happen tomorrow. Ask yourself: what if the worst happened? How would it affect my operations? Would we survive if the business were closed down for weeks, months, or perhaps an entire revenue season? What can I do to make sure we survive?

Disaster recovery planning involves more than off-site storage or backup processing. Computer Associates recommends that our customers develop a written, comprehensive disaster recovery plan that addresses all the critical operations and functions of the business, including communications plans. The benefits of such a plan include:

- Minimizing potential economic loss.
- Decreasing potential exposures.
- Reducing the probability of occurrence.
- Reducing disruptions to operations.
- Ensuring organizational stability.
- Providing an orderly recovery.
- Minimizing insurance premiums.
- Reducing reliance on certain key individuals.
- Protecting the assets of the organization.
- Ensuring the safety of personnel and customers.
- Minimizing decision-making during a disastrous event.
- Minimizing legal liability.

Understanding your systems is also essential to a solid business recovery plan. For example, getting answers about which systems are critical, and how the systems backed up and recovered is vital to an effective plan.

Protect Your Data: The Lifblood of Your Business

Data back-up is the cornerstone of a comprehensive disaster recovery strategy. Today's businesses depend on enterprise-wide applications used by everyone from employees and customers to suppliers and partners. Applications such as Customer Relationship Management (CRM), Enterprise Resource Planning (ERP) and the Web support key business processes such as e-commerce and business intelligence. At the same time, however, they create a mountain of information that must be successfully and securely stored and continually accessible.

Another challenge is that backup and recovery technology has become more feature rich and therefore more complex, with user and operator errors alone accounting for more than 32 percent of permanent data loss. Recovering lost files can be a complex, time consuming and extremely frustrating task. Organizations have more data than ever to protect, and the impact of data loss is more severe than ever. In addition, businesses continually strive to recover lost data faster.

Many organizations have a good backup strategy for at least a portion of their systems, but even if your organization has a rigorous system of backups, without a plan for recovery, you may face insurmountable challenges to recover the systems. Ask what you need to recover the systems, the data, and all of the user documents. Do you have to backup the databases, the documents, and the systems?

It can be more complex than it looks, and it's overwhelming in a crisis. A good starting point is to ask the following questions:

- Where is my data stored?
- Is all of it backed up regularly?
- How are backups documented?
- Where are the backup tapes stored?
- What are my plans for recovery / restoration?
- How long will recovery / restoration take?
- Can I recover if my hardware is damaged or the power is out?

Organizations that fail to protect their data, or do not have a comprehensive data protection and business recovery plan, are under threat from short- and long-term data loss, with all the revenue, customer loyalty, share value, brand equity and market share implications it represents.

Limitations of Data Backup in Business Recovery

Data protection and daily backup is critical for every organization. Retaining copies of your information off-site should be standard operating procedure for any enterprise. This typically ensures the safe recovery of critical files, transactions, and documents when an unexpected disaster or data corruption takes place.

However, as organizations become more reliant on the rapid, continual availability of information, the means of achieving data protection has become more complex—and the budget available to deliver it is shrinking. Incremental tape and disk backups are a realistic alternative, but they are not foolproof. Statistics show that at some point in time more than 40% of all internal tape back-ups fail. Additionally, add in the human intervention element of physically having to remember to take the backup tapes off-site every night and the logistics associated with storing the tapes in a separate location from the enterprise server. Also, manual backups do not always keep pace with the speed of backup required by many businesses.

What's more, back-up alone, despite its many benefits, does not provide instant access to data. For example, restoring data from tape (or disk) takes time, anywhere from a couple of hours to days or even weeks, depending on how much data there is to be recovered. Also, unless the data was backed up immediately prior to the disaster, it is unlikely that the backup includes the very latest, and most important, transaction data.

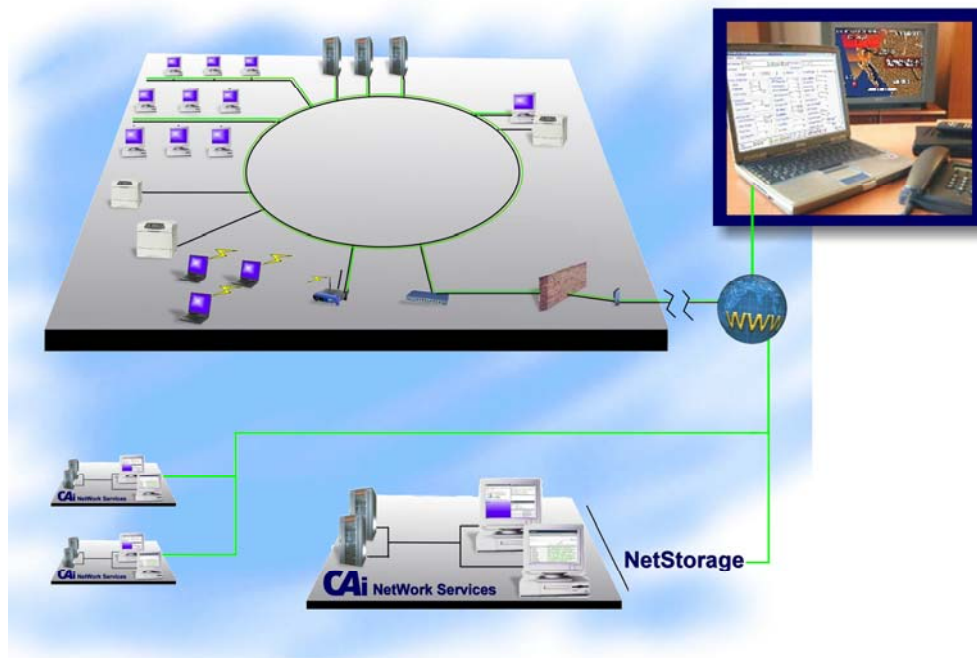
CAI Disaster Recovery and Restoration Services

Last month, CAI introduced NetStorage, an affordable, automated off-site DRS (Disaster Recovery Storage) service that utilizes proprietary backup technology, 256-bit AES encryption, and redundant, world-class data centers to ensure secure, reliable data transfers and the integrity of your records, without any human intervention.

Storing your data, however, is only part of a comprehensive disaster recovery plan. If your facility sustained damage from a fire, flood or some other event that prevented you from using your computers to access the data, you would not be able to process sales orders, check inventory, mail bills or perform even the most basic business functions.

What's more, even if all of your business data has been secured off-site, your mission-critical ERP software must be setup and configured to run as it did before—and available to your administrators and other key individuals—to ensure that the enterprise does not skip a beat. Without having access to these applications, having the data backup really won't be of much value in terms of short-term continuity. In your industry, you know that time is money.

Computer Associates' NetStorage + DRR (Disaster Recovery and Restoration Service) is designed to truly meet your business continuity needs. If your physical facilities or server has been compromised, NetStorage + DRR lets you continue to access and utilize your ERP software—from any location using a standard Internet browser. NetStorage + DRR's proprietary software application stores and protects electronic data and ensures the integrity and preservation of your software—even if your CAI ERP software has been modified for your unique business processes. Additionally, in the worst case scenario, CAI can equip you with workstations and printers, or host key individuals in our Smithfield, Rhode Island facility, to ensure business continuity.

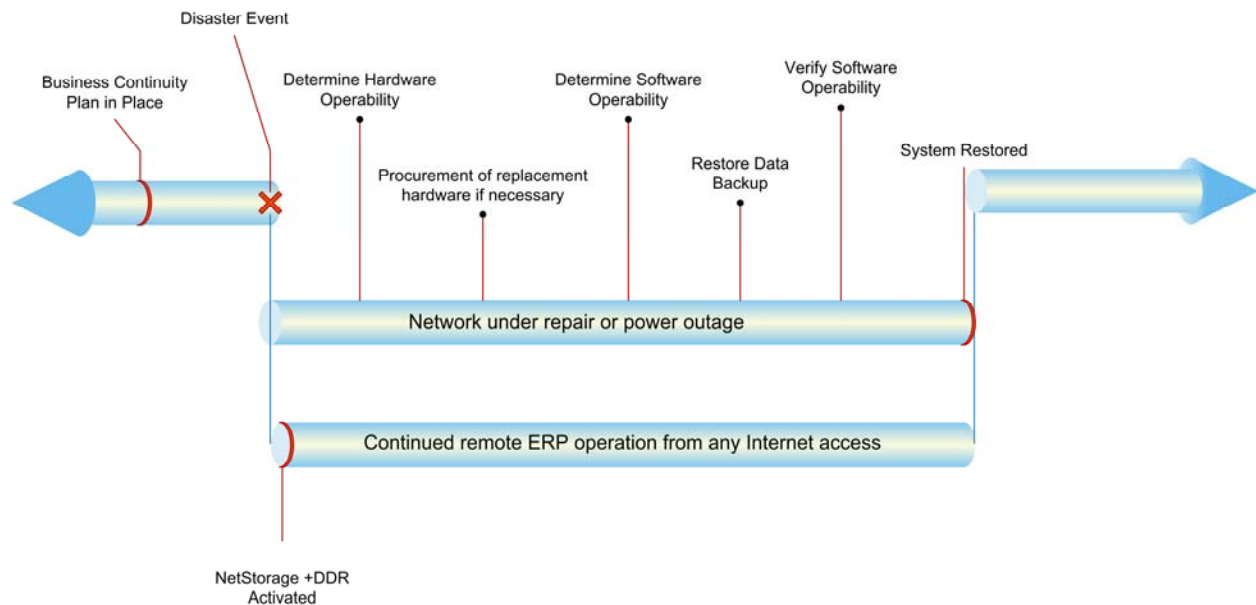


With NetStorage + DRR, your employees can log into the CAI PC-based ERP software on the remote CAI server, access their data and perform key business functions over any Internet connection.

NetStorage + DRR automates daily backup tasks without any employee intervention, and eliminates the uncertainty of tape and disk data backup and remote availability and usability in the event of a natural disaster or some other business disruption.

With NetStorage + DRR you simply select any or all of your data to back-up, set the schedule and you're done. The NetStorage + DRR software does the rest. Your business information, along with the current settings of your Ponderosa ERP software, is immediately backed-up to an off-site server. Additionally, NetStorage + DRR mirrors the data to a second location ensuring the safety of your data one step further.

Computer Associates' NetStorage + DRR provides business continuity, bridging the gap between disaster and recovery.



Business Continuity Consulting

CAI offers our ERP software clients comprehensive consulting services that help you to minimize business downtime in the event of a natural or man-made disaster.

Disaster recovery and business continuity are closely related, but significantly different concepts that fit into dealing with a disaster. Because the terms are so frequently used and not always clearly distinguished, it is worth keeping the difference in mind. Disaster recovery is the process of getting storage and other systems back up and running in the event of a disaster. It is a relatively undifferentiated term in that the aim of disaster recovery is to get everything back to where it was before the disaster struck.

Business continuity focuses on keeping the business operating. Where disaster recovery tends to deal with systems and data, business continuity is concerned with overall business operations. Typically business continuity involves prioritizing various business processes and recovering the most important ones first. Thus, disaster recovery is likely to be concerned with getting the entire storage network back up while business continuity is more likely to work on getting the parts dealing with critical processes like transaction processing back first.

CAI can show you how NetStorage + DRR addresses both of these areas with a state-of-the-art and very affordable technology solution.

Other CAI Enterprise Network Services

As a full service network partner, Computer Associates supports entire network infrastructures with the most advanced proactive services and products available.

- **NetCare** - NetCare is your very own network IT department complete with Help Desk. Our network professionals perform on-site and remote network management on an as-needed, annual contract, or prepaid hourly block basis designed to work within your IT budget.
- **NetWatch** - NetWatch provides you with a trusted business partner that continuously monitors all critical components of you network 24/7. NetWatch provides immediate alerts and scheduled condition reports that will keep your network functioning as it should and eliminate unexpected problems.
- **NetPatch** - Our patch management service retrieves, analyzes and evaluates all patch software, determines their priority and compatibility, and updates software applications throughout your network.

Computer Associates also provides:

- Full Network Design & Installations
- Existing Network Upgrades
- PC Servers, PC Terminals, Desktops, Workstations, and Laptops
- Handheld Barcode Readers and Data Collection Devices
- Web Hosting and Web Site Design
- Business E-Mail Service with Enhanced Filtering
- Web Filtering, Spam Filtering, and Virus Protection

About Computer Associates

Headquartered in Smithfield, Rhode Island, Computer Associates (CAI) is a software development and systems integration company with over 27 years of experience in providing a wide range of professional services and products across a broad spectrum of the commercial and industrial environments. CAI's Network Services Division provides customized network design, installation and on-going support for full-featured, highly secure Microsoft Windows computer networks. In addition, CAI installs and supports state-of-the-art security technologies to protect a business from crippling e-mail viruses that can delete or compromise valuable customer information and other business data. With over fifty hardware and software certified professionals on staff, Computer Associates maintains a broad library of Windows 2003-based software in support of its vertical business segments.



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