



Patricia Seybold Group

Trusted Advisors to Customer-Centric Executives

The Future of Business Continuity

*Always Be Ready for Your Customers,
Partners, and Employees*

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Prepared for Neverfail Inc.

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The Future of Business Continuity

Always Be Ready for Your Customers, Partners, and Employees

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Netting It Out

Having your customers depend on your IT services in order to communicate, purchase, or manage orders is great for your business. It cements customer loyalty as customers willingly bind their processes to yours. But this all breaks apart when your applications or Web sites are suddenly unavailable. Customers become frustrated when you don't respond to their emails or can't provide order status. Worse, they may assume you've gotten their urgent email message and your relationship is critically wounded when you don't respond. And you don't even know there's a problem!

Gartner estimates U.S. business losses due to ecommerce disruptions reached \$50b in 2005. Studies by Infonetics peg the cost of disruption to be as much as 16 percent of a company's annual revenues. Unfortunately, most companies are not properly protected against IT disruptions, and the losses are largely invisible and unrecorded. Customer relationships suffer as orders are delayed or emails are unanswered; employees can't perform their jobs; partners can't book sales; and it silently hits your bottom line.

At one time, ensuring that your IT systems supported your business without a hiccup during tornados, hurricanes, bombings, widespread power grid failures, or just plain server downtime was a very expensive proposition. It required duplication of all equipment, highly-skilled staff that could develop and continually update highly-complex IT continuity plans, and frequent (expensive) testing of disaster recovery capability. The alternative for most companies was to back up critical business data on tape and resign themselves to days or weeks of recovery effort should disaster strike.

Affordable solutions are now offered by Neverfail that eliminate disruptions of any cause. Customers, employees, traveling professionals, partners, and branch offices need never know that IT is bailing 12 inches of water out of the server room. Neverfail can deliver most of the necessary expertise embedded in technology, rescuing companies from relying on less-than-expert staff to manage continuity procedures.

The benefits delivered by Neverfail's business continuity solutions include:

- Customer communications are never disrupted, so there is no damage to relationships
- Customer and partner access to online services is never disrupted, therefore no loss of business
- Employees are continuously able to do their jobs

Business Continuity and IT

Customers Count on Your IT

The constantly connected world of today has given savvy businesses great opportunities to bind customers into deep relationships. When you can make doing business with your company easier, faster, and more reliable, customers reward you with more and more of their business—and they are loathe to leave. They connect 24x7 via email and instant messaging, grab status information off your customer portal, automatically reorder via their supply chain systems, and quickly reschedule orders or check availability with your distribution partners. They love being able to choose the most convenient path—phone, email, Web application, or automated supply chain functions—to get their jobs done. They come to believe that your company and its employees and partners are always there for them.

But there are two sides to this coin: If deep connections enable the relationship, then broken connections can sever the relationship. If IT automates key functions of the relationship, then what happens when IT is disrupted? Can your relationships survive the broken promises as your business fails to respond and deliver as expected?

Trouble Always Looms on the Horizon

Natural disasters, network outages, email server attacks, and human errors cannot be averted, yet 77 percent of business owners admit that they aren't adequately prepared to recover from such events. Few companies have bothered to measure what these disruptions cost, but estimates range from 1 to 16 percent of revenues. Data center managers report their downtime costs at \$1,500 to \$800,000 *per hour*, according to AFCOM. Studies by Meta Group and the Fibre Channel Industry Association quantify downtime costs at \$6,450,000 per hour for a brokerage and a mere \$90,000 per hour for a catalog sales company.

Why are these disruptions so expensive? Your company runs on electronic interaction, via Web commerce, email, and e-procurement. Customers expect to have up-to-date information on your stock levels and delivery, they expect to be notified if a shipment will be delayed, they expect instantaneous acknowledgement of orders, and they expect that their email request for help will be rapidly answered. Your company can meet none of those expectations if systems are down. Your failure to answer customers' expectations, or to support partners and employees in meeting customers' expectations, can cause you to lose orders today or a customer relationship forever.

There is another and more tragic component of system disruptions. Studies by Gartner, the Association of Small Business Development Centers, and the Hurricane Insurance Information Center indicate that from 40 percent to 70 percent of companies that suffer a major IT interruption are out of business in one year. Are you trusting your business to luck?

Be Prepared to Recover and Rebuild Systems?

How does your company address these risks? You may be among the 26 percent of businesses that regularly review and test their continuity and recovery plans. Or yours may be among the majority of companies that assumes that with copies of key data files, IT staff will be able to put the business back together again.

In our experience, this is a false hope. Data backup, and even software backup, is the most basic form of protection. In 35 years of working with customers and data centers, we've never seen recovery from backup work perfectly. On more than one occasion, we've seen backups that were unusable and watched subsequent efforts to recapture critical data using last month's printed reports.

Why is recovery from backup so difficult? There are data, and then there are the systems, infrastructure software, programs, scripts, and configurations that use the data to perform business functions. The smallest inconsistency in these thousands of objects can impede business processing.

You don't need to experience a disaster to test the truth of our assertion. Just glance through your system operations reports, and you'll see evidence that even minor changes can disrupt processing. If carefully planned change can cause an outage, what do you imagine will happen when IT must, under immense pressure, install and configure hundreds of software elements? It can easily take days to get critical business applications running, and weeks, months, or never to get all systems in order.

Or Opt for Zero Impact?

The best approach, the only foolproof approach, is never to have system disruptions that impact customers, partners, and employees. Email, instant messaging, customer Web portals, and e-procurement systems must always be available when needed. Uninterrupted business continuity has historically been very expensive, affordable only by larger companies. It requires staffing by highly-trained IT staff exceedingly expert in all aspects of the system environment in order to design, implement, and continuously evaluate and test disaster recovery. Today, there are solutions that are within the reach of almost any company.

Neverfail Business Continuity for all Stakeholders

Business continuity solutions are now offered that are affordable and do not require advanced expertise, yet ensure that your customers, partners, employees and other stakeholders can always reach the applications and data they need. These solutions, from Neverfail, make continuity a business solution rather than a technology and process management investment. The solutions are used by small, medium, and large companies, such as the New York Stock Exchange, Goldman Jones, Condè Nast Publications, Black Press, WH Smith, Mattress Discounters, Verizon, Jobscience.com, Acosta, Arup,

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National Association of Independent Schools, and Sheffield Hallam University to name just a few.

While continuity solutions have, in the past, required budget and top-notch skills to achieve high availability, complete data protection, or disaster recovery, Neverfail's business continuity solutions now automate much of the work. In essence, Neverfail technology provides the expertise and effort required to monitor and protect your most critical Windows-based application environment.

Neverfail's business solutions support a broad range of continuity needs, including:

- **High Availability.** High availability means that systems are never visibly disrupted.
- **Disaster Recovery.** Disaster recovery means that your environment can be recreated—nearly instantaneously—following a catastrophic event.
- **Complete Data Protection.** Complete data protection means that not only do you always have a very recent copy of your information, you also have an automated way to roll back, or revoke, any changes that corrupted your data.
- **Planned Server Downtime Continuity.** Coverage for planned server downtime enables IT to easily work on servers without affecting the smooth operation of business.

Neverfail has three key technologies that support all of these solutions:

- **Neverfail Heartbeat.** This is the core technology for creating a resilient environment, which all modules rely on. An alternative to clustering, it monitors the entire server environment to detect problems, protect all data, and provide instant switchover, failover, and switchback in the event of a failure. Neverfail Heartbeat replicates data in real time from an active to a passive server over either a LAN or a WAN environment.
- **Neverfail SCOPE.** Often, a high-availability solution such as replication or clustering software is purchased to act as a safety net for an unstable primary server. Because these high-availability solutions don't address the underlying causes for server slowdowns or failures, the server remains unreliable. Neverfail addresses this critical issue—reliability—with its Server Check Optimization and Performance Evaluation (SCOPE) tool. Neverfail SCOPE automatically provides detailed information about the current running state of the entire server environment and recommendations for establishing a sound system configuration and thus, long-term reliability.
- **Neverfail Data Rollback Module.** This module complements Neverfail's core technology by providing a simple and swift application restart from earlier points in time, restoring data and regaining data integrity in the event of data corruption. It uses the Microsoft Volume Shadow Copy Service (VSS) technology to provide an efficient application and data restoration and retrieval mechanism. Neverfail's

knowledge of the application environment, including which application files and registry settings require roll-back protection, ensures that only the impacted application data is restored from shadow copies, rather than an entire volume. Data Rollback Module is managed from Neverfail's console, providing a single interface for all high-availability management.

You can quantify costs of the IT resources necessary to maintain the server environment and perform the disaster recovery. However, losses in employee productivity, profitability, missed sales opportunities, and the damage to customer confidence are immeasurable.

How Companies Use Neverfail

Arup

Arup is a global design and business consulting firm with 7,000 staff working in 70 offices in more than 30 countries. At any one time, Arup has more than 10,000 projects running concurrently. Its professional consultants offer a wide range of technical expertise, and may be dispatched to any project in any country.

Problem

These professionals may be on site for months. The BlackBerry is their main office equipment—their connection to the rest of Arup. If the BlackBerry server is down or its files corrupted, Arup's professionals are crippled.

Solution

Arup implemented Neverfail for BlackBerry Enterprise Server with the help of Neverfail's partner, Acutec. In the event of a network or server problem, Neverfail automatically switches to an exact duplicate maintained on a different server. There is no impact on sending or receiving email.

Benefit

Shortly after Neverfail was installed, the BlackBerry email database in the New York location became corrupted. In less than an hour, a clean copy was sent from the Neverfail for BlackBerry Enterprise Server in London to the New York server. Without Neverfail, all of the Arup employees would have had to send their BlackBerries to New York for resynchronization, doing without their email access for the duration. "Removing the overhead costs of keeping a system available to our users means that the Neverfail installation has already paid for itself," said Nizam Ali, Arup's IT consultant.

Goodman Jones

Goodman Jones is a London firm of chartered accountants that serves mid-sized enterprises and subsidiaries of international companies across the U.K. It offers a broad range of personalized business services, including auditing, tax mitigation, payroll processing, and management reporting. It has built its reputation on its quality of service.

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Problem

Goodman Jones' clients absolutely rely on the firm to process more than \$1.8 million in payroll transactions on schedule. As Philip Woodgate, business systems partner at Goodman Jones, described it, "We required a system that could protect our internal processes against disaster, but more importantly we needed one that would make sure that information is available to clients and staff whenever they need it. A good example of this is our payroll services: we simply cannot afford to have any problems that would affect our ability to process these payments for clients."

Solution

Goodman Jones chose Neverfail to provide the business continuity it needs. The firm implemented Neverfail for SQL Server, Neverfail for File Server and Neverfail for Exchange to monitor activity, synchronize the company's data center with backup systems off-site, and automatically switch to the backup systems if needed. Goodman Jones also uses Neverfail's Low Bandwidth Module to optimize network traffic, and Neverfail's Data Rollback Module, which enables the firm to restore data to an earlier point in time should corruption by a virus or other technical problem occur. "The ability to return to the previous system setup was very important to us; this additional security for our information gives us an extra layer of trust," stated Woodgate.

Benefit

"Since the installation of Neverfail (in September 2005), we have had continuous access to information and applications," said Woodgate. "Aside from our planned quarterly test procedures, there have been two particular instances when the system has switched over to run on the (back-up) server. In both cases, there was no impact on user performance—in fact, the only reason I know that these switchovers have actually taken place was due to the email alerts I received."

Planning Continuity for Your Company

Do You Need Continuity?

You need business continuity if:

- Your customers expect your company to respond to their emails at any time.
- Your customers and employees rely on your Web sites to do their jobs.
- Your customers integrate your online services into their business processes, for example, their e-procurement systems.
- Your partners need your IT systems in order to support your customers.
- Your local and branch office employees, mobile professionals, and distribution channels need IT systems in order to conduct business.

- You have business processes or functions that absolutely must not be interrupted for more than the time period allowed in your disaster recovery plan (Companies typically aim at bringing business back online within 2 to 24 hours).
-

Justification

The statistical probability of a significant disruption to your business this year is high. Email systems alone have a 75 percent chance of failure in a 12-month period. If your business is in a flood-, hurricane-, tornado-, or earthquake-prone area, if the power grid that supplies your area is less than reliable, if your region is prone to drought and fires, your chance of a disruption increases further. How lucky do you feel?

Infonetics Research reports in its study entitled, “The Costs of Downtime: North American Medium Businesses 2006,” that companies of 101 to 1,000 employees end up losing an average of \$867,000 per year to downtime. Costs to your own company depend on the type of disruption and its duration. Losses in larger companies are in the millions of dollars, and are largely invisible. If sales were down last month, was it a typical fluctuation, or the fact that customer transactions and communications were impeded by system problems?

CUSTOMER RELATIONSHIPS. Probably the worst immediate outcome of a systems disruption is impact on customer relationships. Ask yourself how much you’d be willing to spend to avoid losing one of your top 10 accounts, because you couldn’t respond to their email during a critical juncture, or an application failure resulted in a lost order or other important transaction.

EMAIL COMMUNICATIONS. What’s it worth to keep email running smoothly? What’s the time lost by professionals when email isn’t working? What’s the personal impact to you of losing the contents of all your email folders?

APPLICATION DATA. In the long run, even with the best possible development and operational processes, application programming errors are a certainty whether made by your staff or by your vendors. Think of your most important data—perhaps your open orders or receivables—what would it cost you if you lost that data because the files were corrupted?

EMPLOYEE PRODUCTIVITY. When you have a major business process on the disabled list, can employees still be productive or would you have to send them home? Would you have to pay overtime if they have to spend the weekend catching up on work they couldn’t do, or rekeying work that was “lost” during recovery?

Use the following table for a back-of-the-envelope calculation of what continuity is worth to your business.

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Justification	
Outcome	Value to Your Company
Avoiding loss of a single major account	
Avoiding one day critical application outage	
Avoiding loss of personal email folders	
Avoiding corruption of open orders or accounts receivable data	
Avoiding two days of non-productivity and/or overtime due to critical application non-availability	
Total	

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Table A. Use this brief table for a rough estimate of the business value of continuity.

Steps to Success

Assess Your Company's Situation

Your first step is to assess your current situation. In particular, you want to identify the most critical risks to your business, quantify that risk, and address it first. Here are the questions you should consider:

- What are the most crucial applications, for example, customer support, sales, order processing, Web site, or email? You'll want to pick the one or two most important applications to focus on first.
 - What is the cost of losing access to the application for an hour, day, and week? You'll need this information in order to justify reducing the risk.
-

Establish Responsibilities

Part of your planning for continuity must be to explicitly identify who in the organization really owns the problems caused by disruption to your most critical applications. For example, which executive will be intervening to soothe angry customers, whose performance is impacted if employees are unable to perform their jobs, and whose budget is hit if service agreements to customers can't be met? Being specific about responsibilities helps everyone in the organization understand the costs of disruptions, rather than glossing over any type of outage as "IT's problem to solve."

Establish Budget

Now that it's clear whose ox is gored, you have an approach to allocating the funds for the continuity solution. Executives not affected by critical application disruption probably shouldn't be expected to fund continuity for those applications.

We've already gone through a justification exercise. The total in the last row of the table above tells you the most you should spend on continuity for your critical applications.

Establish Timeline and Goals

You should have a specific deadline for establishing continuity of your most critical application, and you should have a clear set of goals for that application's continuity. You should, by the way, test your solution to make sure it meets those goals. For example, if the goal is that the order processing system never fails, then you should test it with various hardware, power, network, and application errors.

The complete timeline for achieving your business continuity goals should encompass all of your critical applications, over whatever period of time is appropriate to your risk and budget situation.

But make sure your plan is a work in progress. The process of identifying and quantifying risk should be a standard business practice that is repeated on a regular basis as risk constantly changes. While the initial evaluation of application criticality and risk gives you your starting point, you'll want to periodically reevaluate your priorities, timeline and goals.

Procurement Process

Your next step is to kick off a procurement effort to resolve your continuity requirements for your top application. Make sure your procurement approach reflects the appropriate level of risk and urgency, both in terms of the solution budget and the purchase decision process.

Next Steps

We hope our back-of-the-envelope approach to justification gives you a feel for whether you should be looking more closely at continuity. Your IT organization also needs to perform a rigorous assessment of the IT environment in order to identify the scope of the technology requirements.

Resources: To learn more about Neverfail's products, read independent product reviews, or see a product demonstration, visit www.neverfailgroup.com.