"Hi, the main server is down."

Have you ever had one of your main servers fail? Was it down for 4 hours? A day? Two days? More? What was the impact on your company? No access to key documents? Could not send or receive email? Could not use your primary application? During the period it was down, did you mentally calculate a cost for the lack of employee productivity and lack of customer responsiveness?

Just like buying insurance, you can buy *r e d u n d a n c y* to help protect your business against many of the common causes of server and internet failure. And with the price of hardware continuing to fall, it may not cost as much as you think. This *NextWave* article presents a few common strategies that can be used to avoid extended periods of down-time.

To start with, we need to analyze the major points of failure. For a server, from the hardware side, that could be a disk drive, controller card, CPU, RAM, the power supply, the motherboard, or even a cable. Servers can also crash from software problems such as corrupted files or viruses. Another key point of failure is the network switch that has one cable plugged into it for each of your users. For internet connectivity, failure can occur because of a problem with a router, the broadband modem, a physical line problem, or a problem at your internet service provider (ISP).

To protect yourself from server hardware failure, Beachwood Systems always recommends use of mir-

rored (RAID) hard drives within a server so that if one drive fails, there is another to take over. Many of the newer servers are also designed to accept a redundant power supply and fan kit. Although this strategy protects you against the most common problems, it still does not protect you against many others. For that we recommend (when possible) use of identical servers with one being used in a capacity that is not critical. If a critical server has a hardware problem you simply move the hard drives over to the non-critical server and you're back in business.

To protect yourself from server software failure, there are two good strategies. One is to setup a real-time backup of important data files such as company Word and Excel documents so that if a server goes down, people will be able to access a document from the alternate server. It is, of course, imperative to have good tape backups each and every day. The other strategy is to implement the capability to restore directly from tape, even if the operating system will not load.

A more expensive approach to redundancy is to set up a server cluster. Under this approach two or more servers running

Look Inside…

Management Letter

Computers and software should work perfectly. We agree. But the reality is that they don't.

Why? It is really quite simple. The pc world is like none other in that there are thousands of hardware components, tens of thousands of software components, all based on an operating system with over ten million lines of code that unscrupulous people are trying to attack. I'm not a statistician but something tells me there is a large number of untested combinations and permutations.

So what can you do to minimize the problems and recover more quickly when ones arise? This issue of *The Next Wave* addresses some simple strategies to minimize downtime in the corporate environment and for individual users to be able to recover from a computer melt-down.

Beachwood Systems can provide Diagnostic Reviews, Technology Plans, and Disaster Recovery Plans for your business. Call us if you'd like to discuss any of these services in more detail.

Steve Rogers

Work Station Recovery

Have you had your workstation or home PC get so bad that the solution was to do a complete reload? Normally this is not a pleasant task. Reloads require formatting the drive, reloading Windows, reloading all your applications (if you can find the CD's and license codes!), configuring the pc, and finally restoring personal data.

There are products that can make an exact duplicate of everything on your hard drive. The images can be stored on CD's, DVD, USB/ FireWire device, or a network drive. The idea is to do it when your computer is setup the way you want it and it is working well. You would make subsequent images when the configuration changed substantially.

One such product is Norton Ghost. The current version is 9.0. According to PC Magazine *"Symantec's Norton Ghost maintains a well deserved reputation as a powerful and reliable disk-imaging application with multiple storage options."*

Norton Ghost supports the new Iomega REV Drives as well as other options. The REV Drive is a "removable drive" that you can use for the image and then store the media securely. Iomega even offers a bundle to purchase the software and the REV Drive as a package.

When disaster strikes, Norton Ghost can get you back in business in minutes. You can view the backed up files and select only those you wish to restore. In the case of a major problem, you can recover the entire contents of the failed hard drive from the backup image.

Remember, Ghost is not intended to replace your normal daily back ups. After you restore from Ghost you will need to update your personal data files to the most current level.

Windows2003 Server Advanced Edition are connected to a common external disk array. Users connect to the cluster and either server can handle the processing, providing instantaneous switchover if one of the servers fail. It's really quite remarkable.

Has your company become dependant on the internet for email, vendor web site access, etc.? We suspect the answer is yes. Broadband internet connectivity using T1, DSL, and cable is much better today than in the past. And yet, ISP's do still have problems. One strategy for redundancy is to get a second internet connection from a completely separate source. For example if your business can get both DSL and cable at its location, then get one of each. There are hardware devices on the market such as Xincom's XC-DPG602 Twin WAN Router that can accept two independent internet connections and allow you to use all of the band width both incoming (downstream) and outgoing (upstream).

Think redundancy and think up-time!

GoldMine

CRM is for the Whole Organization

Customer Relationship Management (CRM) began in the hands of salespeople as simple standalone contact management software packages. Then CRM progressed to permit centralizing prospect and customer information in a database. With further automation of the routine sales tasks, most businesses found they were able to keep their salespeople in front of their customers more and obtain even better visibility to management.

CRM is about both software and strategy. A CRM strategy defines the process of interacting with your customers or clients in efforts to maximize the relationship for profitability. A CRM system consists of a centralized database as a means to capture valuable prospect and customer information that can be shared across an organization so as to allow it to develop customer-based strategies and make agile decisions. Relationships are based on inter-action and activities. Interactions can range from phone calls and appointments to emails and paper correspondence. CRM systems allow you to track these interactions, permitting a more complete picture of your business relationship with the contact and organization.

CRM has expanded and now virtually every functional area in a customer-centric company can benefit from access and usage of a CRM system. Here are some examples of how various functional areas can utilize CRM.

Marketing

With the costs of marketing rising, most businesses scrutinize every dollar spent to generate business. Gone are the days of mass mailing or faxing to large lists of contacts. Targeted, specific marketing is essential to maximizing your Return On Investment (ROI). Marketing should have the ability to import a highly specific purchased mailing list, or import an electronic lead file from a trade show and follow-up with a direct mail piece in a few simple clicks or commands.

Sales

From simple tasks of easily writing letters, to sending emails, and delivering proposals, a good system maintains each customer contact and communication to provide a concise history, allowing fewer salespeople to service more prospects or customers. Correspondence generated by salespeople and others should be linked electronically to the contact or organization for retrieval upon request.

Customer Service

You've invested in marketing and earned customers or clients through your sales process – now the job is to keep them happy. All customer inquiries should be logged and handled efficiently. Key clients or customers should be flagged for preferential treatment and issues should be able to be escalated as appropriate.

Finance and Operations

Do you really want to send the nasty collection letter to a customer with a large sale pending and several long standing unresolved customer support issues? CRM provides this knowledge.

Management

Sales drive the revenue stream so managing the sales process effectively is usually a critical success factor for a company. Managers need to evaluate and calculate Lead Generation, Lead Nurturing and Close Ratios. They need visibility into your salespersons' schedules and opportunities to be able to "coach" their salespeople. They need to have awareness of the pipeline and the demands it may impose. They need to ensure that sales people are using the prescribed sales process to optimize productivity.

Very importantly, management often gets involved with problem accounts or prospects with large potential. A well designed CRM system stores the big picture so that a manager can quickly get up-to-speed before making a decision and taking action.

Exact Software's e-Synergy Announces Workplace Templates

E-synergy, from Exact Software, provides a Web-based Business Process Management solution that connects the people, processes and knowledge that matters most to your business. By creating a real-time, accurate view of the organization's personnel, financials, workflow, documents and asset information, business can obtain control over their operations, enhancing decision-making, analysis and scenario planning.

To enhance e-synergy and address issues that affect certain industries, e-synergy has announced two new workplace templates. These templates allow for a highly tailored and cost effective implementation. The templates integrate with the Exact Software Macola products to complete the billing and inventory cycle. The two initial templates are Exact Field Service and Exact Rental. More templates are in the development cycle.

Exact Field Service

The key factors driving the design for the Field Service template include:
- Improve service response time.
- Schedule technician workflow for better manpower utilization.
- Establish preventive maintenance schedules to minimize downtime.
- Automate work-order creation and maintenance schedules.
- Centralize information, documentation, communication and transactions.
- Access real-time information anytime, anywhere.
- Track time and materials by contract, product, location and customer.
- Link with Exact Rental and PDA hand held computers.

The Exact Field service solution provides your organization with a powerful set of business tools that enable employees and management to access relevant customer and service related information, all delivered over the internet.

Exact Rental

From submitting a quote, to making a reservation or filling an order, Exact Rental streamlines your rental business. Exact Rental unifies all aspects of your organization, providing a solution that lowers the overall cost of operating a rental organization.

With Exact Rental you can…
- Improve rental profitability.
- Enhance equipment utilization.
- Simplify rental configuration for attachments and add-ons.
- Streamline delivery and pickup with serialized transport.
- Automate workflow and productivity.
- Reduce administrative overhead.
- Elevate customer service, satisfaction and loyalty.
- Link with Field Service and PDA handheld computers.

Exact Rental provides organizations better control over the rental process including logistics, workflow, and document management.

For more information or to schedule a demonstration for these two new exciting products, call Gary Baum @ 216-823-1800.

Exact software