Rapid Recovery System™

THE PROBLEM

IT Data Loss - <u>The</u> Corporate Threat
Information technology risk has become one of the most significant corporate threats according to many CEOs, CFOs, chief risk officers and other IT personnel responsible for managing risk. These managers indicate that almost sixty percent of companies incurred significant financial damage as a result of a computer systems failure in the past twelve months, while one-third suffered financial damage as a result of cyber-crime such as hacking over the same period. Many executives and managers now see IT risk as a high or very high risk to their business.

At a minimum, IT systems outages can cost huge amounts in lost revenue, lost productivity, and legal issues. At the extreme, a sustained outage can threaten the viability and reputation of an organisation.

Recovering a lost file -- or an entire application -- can be difficult and massively expensive.
Restoring a crashed hard drive or server can easily take days before the needed information is fully restored (*that is, if it's possible to fully restore at all*) and such attempt may cost many thousands of pounds, with no guarantee at all that the lost data can be recovered from the failed disk.

Some key issues:
- A recent International Data Corporation (USA) study found that fewer than half of all mid-sized organisations have a business continuity plan in place.
- Another study revealed that 58% of all respondents ranked the potential of data centre hardware or software failure as an "extreme" threat to their firms.

These same studies point to human error and equipment failure as the leading causes for hardware and/or software disasters:

- 45% of data is never backed up and less than 27% is backed up (a minimum of) once a week.
- Of the companies that do backup, 25% have experienced an error during restore.
- The average failure rate of tape drives is 100%. In other words, all drives eventually fail.

In most instances, business continuity has incorporated a myriad of solutions, including hot standby data centres, data backup and protection software, continuous data protection schemes and technologies, Bare Metal recovery schemes, and manual system re-installations as well as duplicate or hot standby data centres. Until now, traditional solutions either duplicated a data centre — roughly doubling an organisation's data centre costs and complexity — or relied upon tape and/or disk-to-disk backup schemes. For SMEs, neither of these options is desirable. Duplicating a data centre requires expensive failover systems, continuous monitoring, costly testing and maintenance.

The alternative is largely a manual process, starting with **Operating System** installation followed by reinstallation of software **Application**s, patches and updates, and system settings and passwords before **User Data** can be reloaded from tape or disk.

>>User Data

>>Application
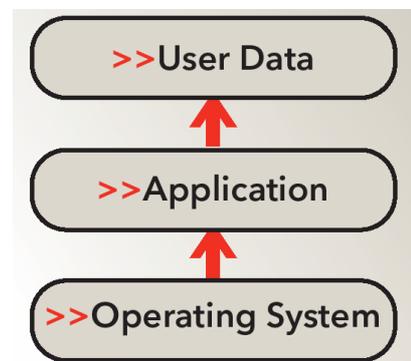
>>Operating System

Furthermore, when a data centre consists of multiple operating systems (e.g., Windows Server 2003 running alongside Red Hat Linux) or off-site electronic data storage (i.e., electronic vaulting) is utilised, multiple data protection systems and software are required, causing additional complexity. These options seldom, if ever, allow a business to get "back to business" in a predictable or acceptable time frame.

SAFE Serv
Rapid Recovery System™

The capability to recover from any loss in systems integrity is a necessity for all organisations, but a reality for very few.

Typically, only the largest, wealthiest organisations could purchase the essential equipment and implement the meticulous backup and restore procedures required to protect a corporate computer infrastructure in its entirety.

Predictably, this left smaller, growing firms to piece together disparate (although more economical) components in an attempt to ensure their increasing list of dissimilar hardware and software systems—servers, workstations, laptops and operating systems—were at least semi-recoverable.

Until now.

What's needed today is an all-in-one approach to rapid systems recovery integrating data protection, system recovery, and application recovery along with a singular user interface spanning multiple operating systems and backup locations (local and vaulted storage). Systems requirements also include point-in-time file, system and application recovery while working within the realities of a firm's short backup window.

What is rapid systems recovery? Rapid systems recovery is the capability to easily and quickly return any computer system (server, desktop or notebook), regardless of operating system, to its state prior to the loss of a file, registry, password, application or the entire hard drive. Rapid Systems Recovery requires a simple, yet powerful user interface for controlling the regime of data backups as well as live system and application snapshots (called *Bare Metals*).

THE SOLUTION

SafeServ - Rapid Recovery System™

SafeServ is a complete system for data protection, system recovery, and application recovery in a single user interface that spans multiple OS and office locations. It's an all-in-one systems approach to business continuity ... not a series of point solutions. The true value of SafeServ Rapid Recovery System is realised when an organisation implements an inclusive strategy protecting its operating systems, applications and supporting data at every point, at both on-site and off-site locations.

Under the SafeServ Rapid Recovery System, desktops are networked into on-site servers, which are networked into Data Protection Units™, or DPUs. Snapshots of these servers' operating systems, complete with passwords, permissions and settings, are routinely taken at user-defined intervals (without the need to first shut down the servers) and sent to the DPUs.

Multiple DPUs, located throughout a company or across multiple sites, can be linked to an off-site Data Protection Vault™, or DPV. The changed DPU data is transmitted automatically, via electronic data vaulting with triple encryption using Secure Data Sync™, to the DPV.
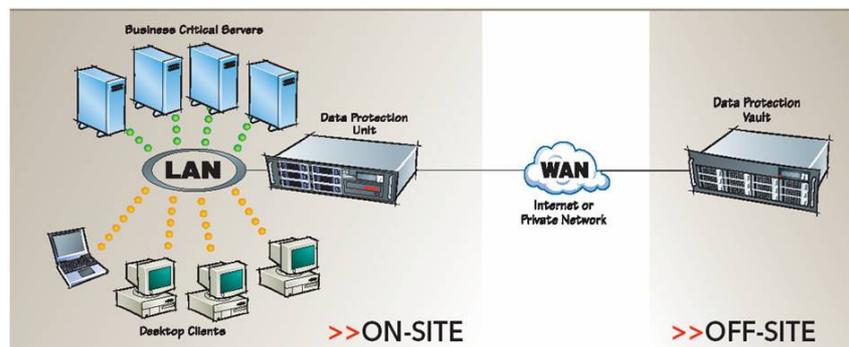
Rapid Recovery - the All in One Approach

Rapid Recovery is the manifestation of an approach referred to as Business Systems Continuity. Sentral are one of only a few in the industry with this all-in-one systems approach.

The Rapid Recovery System enables companies to get back in business at every level, from an individual email or spreadsheet to a complete server. The file or total server is easily recovered from the server protected by the on-site DPU.

Unitrends
SENTRAL

Rapid Recovery - the All in One Approach

While many companies offer this level of file recovery, no other supplier can also use this same system for recovering from a complete server crash due to a hard drive failure, corruption by worms or mal-ware, or recovering from an OS patch which renders a system unbootable. When the server crashes, it also can be quickly recovered from the DPU in as little as thirty minutes or less. Recovery includes the OS, the applications, and the data ... everything required to get "back to business" as quickly as possible, just as it was before the system failed. More importantly, should an organisation's entire site fail, whether from a natural or man-made disaster, the company can recover the operating systems, applications and data in order to quickly resume business functions, since the Rapid Recovery System has been continuously transmitting data to an off-site DPV.

While an organisation can benefit from the point purchase of a DPU or DPV, the true value comes from implementing the complete on-site/off-site Rapid Recovery System, delivering a level of business systems continuity to SMEs which was once only available to the largest, wealthiest organisations.

Quickly Back in Business

The SafeServ Rapid Recovery System enables companies to get back in business at every level: when a user loses or corrupts a spreadsheet, for example, the file is easily recovered from the server protected by the on-site DPU.

Sentral provides the single resource for focused organisations that seek to rapidly and securely backup and store not just highly-sensitive customer data, but all of the computer systems used to serve their trusting clients around the clock. There's no question that spending days or weeks without your critical business data and vital business systems is an extraordinary risk. That's why Sentral helps businesses of all sizes defend against the loss of their corporate-critical data and ensure the accessibility of the information, applications, and operating systems that keep them in business every day.

Sentral provides high-speed, cost-effective and easy-to-use business recovery solutions in the form of an integrated hardware and software appliance: The SafeServ Data Protection Unit. No other full-featured business systems recovery solution like it exists in the marketplace. Our solutions enable high-value data protection and business continuity at a price where even the smallest of businesses can benefit from this advanced technology.

Disaster Recovery

In the event of hardware failure, natural or man-made disasters or software failures caused by viruses, worms or mal-ware, Sentral's SafeServ hardware appliance complete with proprietary software technology allows virtually any system — regardless of OS — to be recovered rapidly, back to a desired point in time. SafeServ delivers a turnkey solution for Continuous Systems Protection, disk-to-disk high-speed data backup and recovery, off-site electronic vaulting, and automated systems recovery. In addition, the *Rapid Recovery System™* supports over 23 operating systems.

So what does Business Systems Recovery Solutions mean to you?

Aside from faster backups, faster restores, and greater storage capacity for your money ... it means you can rest easy knowing your most valuable business assets - your business data and business systems - are fully protected.

Sentral provide high speed, cost effective and easy-to-use business recovery solutions to small and medium sized businesses through their integrated hardware and software appliances. These solutions enable high-value data protection and business continuity at a price where smaller businesses (as well as departments in larger organisations) can benefit from the advanced technology.

If preferred, Sentral's network of System Integrators can also supply VPN connections and host DPVs so that clients only pay for the amount of data stored, so avoiding the purchase of a DPV. If required, a Sentral Integrator will also manage a customer's DPUs and DPVs.

Rapid Recovery System™

System Data

The Product Range:

Sentral offers a full range of SafeServ *Rapid Recovery System™* appliances to provide businesses with 'state of the art', on-site and off-site, disaster recovery protection.

The Product Range	data protection appliances — Multi-OS rapid backup and recovery for on-site protection.					data protection vaults — Multi-OS rapid backup and recovery for off-site protection.		data protection storage — Provides expansion for dpu and dpv.
Model	dpu>sff	dpu>1500	dpu>2000	dpu>3000	dpu>5000	dpv>3000	dpv>5000	dpSu
Drives	2 (7200RPM SATA)	6 (7200RPM SATA)	6 (7200RPM SATA)	12 (7200RPM SATA)	24 (7200RPM SATA)	12 (7200RPM SATA)	24 (7200RPM SATA)	16 (7200RPM SATA)
Native Capacity	fixed 250GB or 400GB	1.2TB	2TB	4.4TB	8.8TB	4.4TB	8.8TB	6TB
Expansion	N/A	45TB	45TB	92TB	92TB	92TB	92TB	
Configuration	Hot Swap	Hot Swap & RAID	Hot Swap & RAID	Hot Swap & RAID	RAID Only	RAID Only	RAID Only	
Processor	1 x 32Bit	1 x 32Bit	1 x 32Bit	1 x 64Bit	2 x 64Bit	1 x 64Bit	2 x 64Bit	
Memory	512MB	512MB	1GB	1GB ECC Registered	2GB ECC Registered	1GB ECC Registered	2GB ECC Registered	
Compression	Software Standard Hardware Option	Software Standard Hardware Option	Software Standard Hardware Option	Hardware	Hardware	N/A	N/A	
Network, Ports	1 x GB	1 x GB	1 x GB	2 x GB (expandable to 6GB)	2 x GB (expandable to 6GB)	2 x GB (expandable to 6GB)	2 x GB (expandable to 6GB)	
On-board LCD Secure Admin Panel	✔	✔	✔	✔	✔	✔	✔	✔
Physical/Electrical								
Power Supplies	200W	400W Redundant Option	400W Redundant Option	460W Redundant Option	(4) 920W redundant hot-swappable	460W Redundant Option	(4) 920W redundant hot-swappable	(3) 400W Redundant Option
AC Voltage	110-230V	110-230V	110-230V	110-230V	110-230V	110-230V	110-230V	110-230V
Frequency	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Power	3Amp	5Amp	5Amp	7Amp	12Amp	7Amp	12Amp	6Amp
Relative Humidity	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing	20%-80% non-condensing
Dimensions (Inches)								
Rackmount (for standard 19" cabinet)	15.35x14.17x5.12 (NOTE: Desktop Model)	2U	2U	3U	5U	3U	5U	3U

Operating Systems Supported (Rapid Backup, Recovery & Bare Metal)

Microsoft 2000/XP/2003 (including registry)
Microsoft Windows 95/98/ME/NT (including registry)
MAC OS
SUN Solaris
Intel X86 Solaris Support
Free BSD
BSD 2.x, 3.x
BSD 4.x
Red Hat 5.x, 6.x, 7.x, 9.0

Linux (Mandrake, SuSE, Stormix, other flavors)
Alpha Linux
United Linux
Linux Classic (versions prior to 5/1/99)
Fedora
SGI
SCO Open Server 5
SCO Unixware 7
Caldera Open Unix 8

Novell 4.2, 5.x, 6.x (including bindery)
Supports both LILO and GRUB boot strap loaders
DEC Alpha OSF/1
Unixware 2.x, 7.x, 8.x (System V, Release 4)
HP/UX 10 and above
IBM RS6000 AIX 4.x, 5.x

* Contact the company for current listing

The Most OS Support

In addition, the SafeServ *Rapid Recovery System™* partners and inter-operates with a growing list of technology leaders, operating systems, applications and technology partners including: