

Designed for non-stop computing by protecting the current software image and essential data files on each system.



Education

Xpoint Technologies pioneered Managed Recovery solutions for Windows® desktop, mobile and server computer systems. Designed to perform in environments limited to no onsite IT staff such as K-12, colleges and universities. Xpoint's Managed Recovery provides a non-stop computing environment for students, faculty and staff.

Most computer support issues are caused by un-predictable software glitches that may result in software image corruption. When this occurs, resolution to these problems can take 30 minutes, several hours and even days. This results in loss of productivity, the temporary inability to complete coursework and loss of data.

Today, almost every learning and research institution is considering ways to share and quickly disseminate knowledge between faculty, students and staff. Learning institutions are working together to collaborate on projects that introduce them to new ideas, people and ways of thinking. At the same time home, school and community are brought closer together through these initiatives.

Characteristics

The following characteristics are common in learning environments.

- Mobile computers are integrated into all aspects of the students curriculum
- All incoming students will be carrying laptops
- The existing IT staff must support 100's and 1000's of additional computer users
- There is an extremely high support ration of users to support staff
- Data files are frequently shared among users
- The potential for software image corruption can be high when students and faculty install applications and customize their laptops

The Campus Environment is Difficult to Manage

The campus environment is a pervasive computing environment that exposes computers used by students, faculty and staff to problems at an ever-increasing rate. Most learning institutions maintain a limited IT staff, while most computer users are in-experienced, unaware of the problems that they can cause when customizing the laptops and are unable to troubleshoot IT problems. This combination makes managing and troubleshooting support incidents a daunting task.

As the learning institution develops mobile computing programs, a tremendous burden is placed on the IT staff to support the mobile computers and the application set necessary to support the lesson plans.

In the campus environment, IT generally implements one of the following management strategies.

- High Degree of Control. IT enforces a high degree of control by locking down and preventing customization of mobile systems. By restricting usage, IT can protect the software image, essential for class work, while reducing support incidents.

- Low Degree of Control. The mobile computer user has the ultimate accountability and usability is not restricted. Consequently, the risk of software corruption and loss of coursework (data) can be high. Students and faculty use their laptops at their own risk.
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IT Problems for the Mobile Computer User

Common Problems

The IT staff and mobile computer user may experience the following problems.

- The user is often stranded in the event of a corrupted or crashed computer
- Users induce Operating System and application corruptions
- Untrained users must manage data backup and recovery operations
- Backup and recovery chores are typically a hassle and are not performed
- Novice and inexperienced computer users accidentally delete critical files
- Laptops are highly susceptible to theft or damage
- Virus activity can corrupt data and the computer

Difficult Problems to Manage

Software Image Corruption

Unfortunately, it is not possible to foresee and plan for all problems that arise in the field. As described above, the mobile computing environment can expose the user to numerous problems. This unique environment requires a different management strategy compared to corporate IT – a controlled environment with a high degree of planning and fault tolerant systems.

This is especially true in the case when users induce Windows® Operating System and software applications errors. This frequently occurs when users install un-tested applications, accidentally delete critical files, frequently share data and come into contact with the latest virus.

Problems may also occur when deploying fix packs, patches, service packs, updates and upgrades. Even with a thorough amount of vendor, beta and customer testing, there is always the risk of corrupting the software image when an update or upgrade is deployed into the field environment. Especially, if the image has already been degraded or damaged by the unsuspecting user.

Virus Activity

In a campus environment, viruses spread quickly and can substantially increase the load on IT support staff. In some cases, a virus can infect a system before the inoculation is available. Recent examples include the I Love You Virus, Jennifer Lopez and W32Vote.

Current Problem Resolution

Re-Imaging Using Generic Recovery Images

In the learning environment, the first line of defense is to re-image the mobile system. When a problem occurs, the end user must walk the mobile system in. Due to the high number of support incidents per end user combined with the over-burdened IT staff, there is little or no time to troubleshoot the system. The only solution is to reset and reload the system using the generic deployment image. This results in recovery of the system, but a complete loss customizations and any data on the system.

Managed Recovery Solutions

Together, Rapid Restore solutions provide Managed Recovery that seamlessly integrates with any IT support policy. Effective recovery policies are easily extended down to each laptop—from IT Administrator to mobile computer user. All of the features and benefits (described below) translate into conservation of IT staff resources, as well as, reduced downtime for end users—resulting in far greater satisfaction.

Managed Recovery solutions can be remotely managed, maintain protection and recovery without any onsite IT intervention. The solutions will perform up-to a complete restore of a system – of both recovery image and personal data - within the hour.

Managed Recovery Benefits

For the campus environment, Managed Recovery solutions provide the following benefits.

- Provides a fast problem resolution tool for the student and IT Admin
- Both student and IT Administrator can manage the laptop
- The IT Admin can backup and restore the core software image
- The student can backup and recover the system – including personal data files
- Far greater satisfaction

Managed Recovery Solutions

The Managed Recovery solution family includes:

- Rapid Restore PC
- Rapid Restore Pro
- Rapid Restore Enterprise
- Server Edition

Rapid Restore PC

- Fast, diskette-less recovery from a hidden, service partition
- Easy to use, automatic backup and recovery solution for all users
- Up to 2 levels of recovery by the computer user and 3 levels by IT Administrator
- Restore a PC, even Windows won't run, within 15–20 minutes
- Selectively restore a single file
- Create custom Recovery CD RW's and Archive Data

Rapid Restore Pro

- Expand diskette-less recovery to a 2nd drive within your computer
- Provide full redundancy when your primary drive fails
- Backup and recover applications that run databases including Microsoft® Outlook®, Exchange®, Access®, SQL Server® and other similar database applications.

Rapid Restore Enterprise

- Eliminate risk associated with lost, stolen or damaged laptops
- Fast, diskette-less recovery over the network
- Completely restore a computer – even in the event of hard drive and hardware replacements
- Transparent daily, weekly, or monthly archives of your system and user data to the Rapid Restore Enterprise appliance.

Managed Recovery Scenarios

In the case of a user-induced error, crashed or in-operable system, the mobile computer can be restore the system within 15 to 20 minutes. The following are examples.

Corrupt Operating System

Problem: The Operating System has been corrupted due to an application installation. The system has 'blue screened' and Windows will not load.

Solution: The user performs an F11 System Recovery and recovers to the last backup.

1. The user performs and F11 System Recovery by restarting system (hard or soft boot).
2. During the initial boot sequence and before Windows loads, the user evokes the F11 key after the following message has been displayed: "Press F11 to start the IBM Rapid Restore PC program".
3. The user selects the F11 System Recovery option based upon labeled options. Example A, B, or C.
4. IBM Rapid Restore PC restores system to selected recovery option from IBM Service Partition.
5. After IBM Rapid Restore PC completes the restore, the Windows Logon screen is presented to user.
6. If the user desires to restore system to a different recovery option, steps 1-3 can be repeated.

Virus Intrusion

Problem: The software image (Operating System and certain applications) has been corrupted due to a virus intrusion.

Solution: The user performs a Restore from the Windows Interface and recovers to the last backup.

1. The user launches the IBM Rapid Restore PC program from the system tray icon on the Windows Start Menu.
2. After selecting Restore, the user may choose which backup to restore to by choosing from one of the labeled options. Example A, B, or C.
3. IBM Rapid Restore PC will Restore the system to the chosen option. A progress bar will be presented during this time.
4. After the restore is completed. IBM Rapid Restore PC will report this status by showing the last restore time on the Interface.
5. If the user desires to restore system to a different recovery option, steps 2 can be repeated.

Conclusion

Managed Recovery is Strategic

When the software image has become corrupted due to any number of reasons, today's solution of resetting and reloading the system using a canned recovery image is time consuming and negatively impacts the user. Due to the constant pressure to support more end users with the existing support staff, IT must provide better solutions to these problems. Through the use of Xpoint solutions, IT can effectively manage the recovery of the mobile system, while providing the mobile user with a reliable, automated backup and recovery solution including all personal data. Thus establishing an image management strategy for systems deployed to the field. Based on policy, the IT Administrator or end user can recover the system – using the correct and specific software image for each system – without any manual effort or data loss. This results in far greater end user satisfaction, while providing IT will a solution to effectively manage the myriad of problems that can occur in such a demanding environment.

For More Information

For more information about Xpoint's Managed Recovery Solutions, please refer to the contact information below.

For information via the World Wide Web	www.xpointdirect.com
For additional purchasing information	www.xpointdirect.com/Sitelet/Sitelet.asp
For product information by telephone	(561) 241-8447

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