

Asigra Televaulting

Remote Site Data Protection: It's All About the Recovery



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The Experts in
Agentless Multi-Site Backup/Recovery Software

www.asigra.com

White paper

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Remote Site Data Protection: It's All About the Recovery

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Remote Site Data Protection: It's All About the Recovery

Preface

Of course backing up remote site data is imperative. But when something actually goes wrong, IT managers know it's all about the recovery. This white paper describes the benefits of the Asigra Televaulting solution for ensuring recoverability of remote office data. The paper reviews the challenges of protecting remote office/branch office (ROBO) data and the risky shortcomings of tape-based systems geared more to data backup than recovery.

Asigra solutions eliminate the pain of tape-based recovery, helping companies define and attain business-protecting recovery goals. Leveraging D2D technology to ensure fast, reliable, secure, and cost-effective data recovery, Asigra Televaulting software helps IT managers achieve optimal recovery point and recovery time objectives (RPOs and RTOs) for every category of remote site data.

The Asigra Televaulting disk-to-disk (D2D) software solution offers a highly reliable, high-speed replacement for legacy tape-based remote site backup/recovery systems. Designed with a focus on fast data recovery at ROBOs, the Asigra Televaulting solution offers a unique agentless design, plus hard-coded security and WAN optimization techniques that differentiate it from competitive D2D backup consolidation software products. Simple to set up and manage, the Asigra solution offers bottom-line benefits that range from lower administrative costs to pay-as-you-grow scalability. Emphasizing data recoverability, the Asigra Televaulting solution helps organizations with geographically distributed sites reduce business risk by ensuring dependable and ready access to critical office and laptop data.

Background

Setting and achieving remote site recovery objectives can mean boomerang challenges for IT managers. First of all, users expect "utopia"—but they generally have no concept of how much "utopia" costs to deliver. Ask them to hire a dedicated systems administrator to do tape backups, or to be prepared to pay \$500 per backup tape for four-hour retrieval from an off-site repository, and they'll quickly offer up the "isn't this a data center problem?" defense.

But back at the data center, the harsh reality is that protecting remote office data is not the top priority. With always-limited budgets, IT managers often have to concentrate resources on protecting critical enterprise data. It's simply not worth siphoning off precious IT assets to implement the highest level of protection for remote office and laptop data perceived to be less important. Unfortunately, it's only when something actually happens to that data—important mail files are deleted, backup tapes are stolen or a major disaster shuts down the office—that people gain proper respect for ROBO data. And, as the recovery-scramble ensues, more often than not it's the central IT department that takes the heat for any lost or compromised data and business or application downtime at the remote site.

So, it seems, the challenges of data recovery always land squarely back in the hands of the IT department. But how can a resource-constrained IT organization adequately and cost-effectively protect remote site data? The first step is to recognize that tape recovery is not the solution to achieving aggressive RPOs/RTOs. In fact, tape is more than likely the limiting technology and the true source of the IT manager's pain.



Remote Site Data Protection: It's All About the Recovery

Tape-Based Recovery: The Origin of the Pain

Why doesn't tape-based recovery work? For starters, it's too slow. Every step of the recovery process takes time—and there are a lot of steps. Most systems require users to contact a system administrator to initiate data recovery. The administrator then has to identify the right tape source and its location, retrieve the tape—which in many cases means contacting a trucking company to return the tape from an off-site location—and then locate the requested data on the tape(s), making sure to restore in the correct order.

Ironically, techniques such as interleaving that were designed to speed up the original networked backup to tape actually drag out the recovery process. Moreover, every type of data, whether it's an insignificant Word file or a business-critical sales database, gets the same slow treatment for backup and recovery—tape drives have just one speed. While it is possible to deploy multiple tape drives, most remote offices don't have the available hardware budget to invest.

Tape-based recovery makes it impractical to implement aggressive or multiple RPOs and RTOs for different classes of data. To minimize data loss and to achieve the most rapid recovery of a critical database, for example, would require paying a premium to have a data protection service such as Iron Mountain come on-site more frequently and/or deploying multiple drives to enable multiple backup/recovery streams. Even then, tape is still not appropriate for near-continuous backup. Prohibitively expensive to attain, aggressive RPOs/RTOs in a tape-based environment are simply not a viable goal for most user groups. For the majority of remote sites, that means everyone settles for the acceptable average—usually a once-per-day backup.

Tape-Based Remote Site Data Recovery

- Slow
- No data differentiation
- Requires local expertise at each remote or back office
- Expensive
- Minimal data security

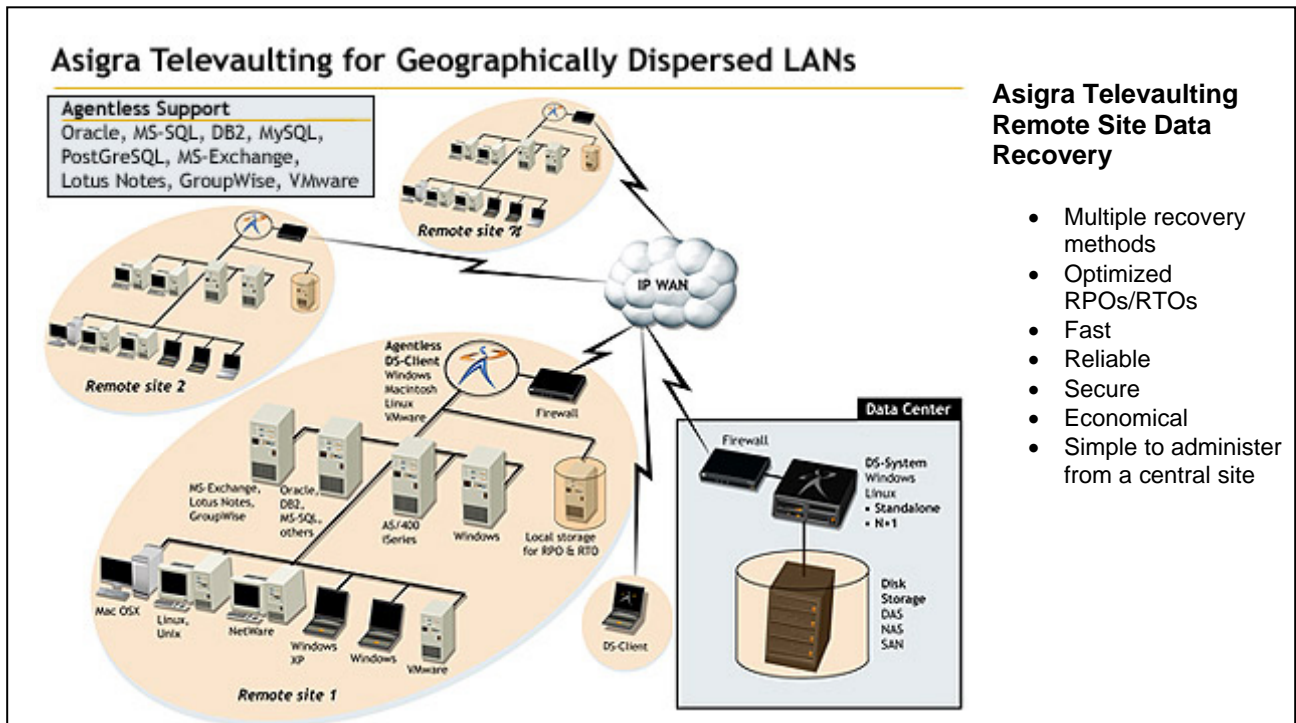
Also a factor with tape: nothing about the information network at the remote site gets simpler. Most organizations using tape-based systems will ultimately need an experienced administrator to help remote site users recover needed data from a confusing mix of full and incremental backups, expanding tape stores, and varied formats. One could argue that it probably never made sense for a hotel desk clerk to manage daily tape backups—waiting on a customer at the front desk always trumps babysitting backups. But certainly given the size and complexity of today's remote site data stores, putting a hotel clerk with other primary duties in charge of tape backup and recovery would be an extreme example of disrespecting remote site data.

Of all the problems with tape-based recovery, however, probably the issue most top-of-mind is security. Tape systems typically store data unencrypted and provide no mechanism for "in-flight" data security. No IT manager wants to deal with the costly aftermath of data theft. Any effective recovery solution in today's business climate must offer inherent security for all data, stored and in-process.

Remote Site Data Protection: It's All About the Recovery

Asigra Televaulting Software: Fast, Cost-Effective, and Application-Appropriate Recovery

With agentless technology designed to maximize data recoverability, Asigra Televaulting software eliminates remote site backup and recovery pain points. Using this technology, IT departments can cost-effectively manage and improve RPOs and RTOs for remote sites.



Televaulting software offers:

- **Multiple recovery methods.** Televaulting software allows multiple recovery methods so that IT managers can satisfy the varying RPO/RTO requirements of different classifications of data, business needs or industry requirements. For example, the software enables local storage and recovery of designated file sets (maintained in a compressed format to conserve LAN storage capacity) so that critical data does not have to be retrieved across the wide area network (WAN). Instead, data such as latest-generation copies can be restored at LAN speed for the fastest RTO. (Industry experts project that 90% of the time, the latest-generation copy will be what users need for data recovery.)

For older data or data that is important but not critical for day-to-day operations, Televaulting software enables recovery via the WAN. While many backup/recovery solutions require implementation of expensive, high-speed pipes between the central data center and remote offices, Asigra Televaulting leverages techniques such as common file elimination across sites and delta block technology (for transmission of only new or changed blocks) to enable the effective use of existing links such as DSL.

In the event of a major data loss at the remote site, Asigra Televaulting enables recovery from a portable disk device or multiple heterogeneous devices (such as an Apple FireWire or other USB disk device) that can be shipped to the designated recovery site.



Remote Site Data Protection: It's All About the Recovery

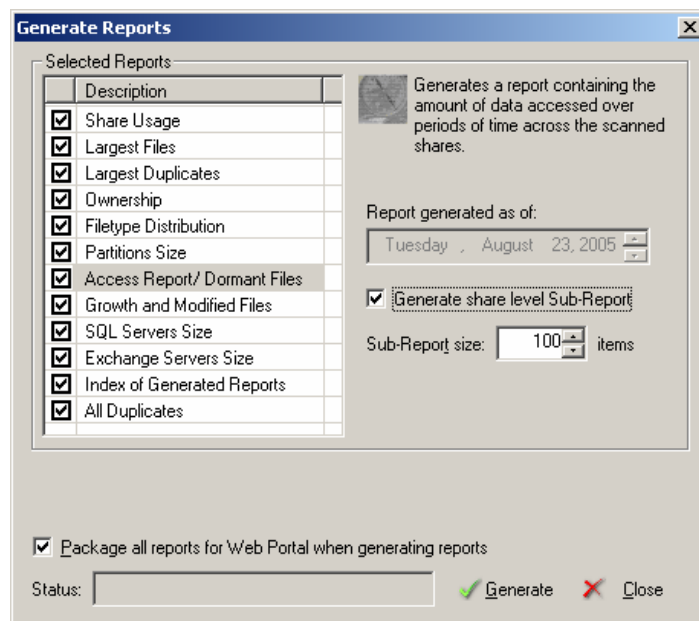
Asigra Televaulting software makes it possible to treat different data differently, matching recovery methods with varying RPO/RTD requirements.

- **Speed, efficiency and security advantages.** In every recovery scenario, Televaulting software offers major advantages over tape-based recovery. IT managers can centrally manage data backup/recovery for a wide variety of remote site operating environments and devices, including the industry's most popular servers, desktops, and laptops. The simplicity and policy-customization functionality of the Televaulting system facilitates unattended and automatic processes to ensure consistent fulfillment of internal SLAs and other RPO/RTD targets.

Asigra leverages the inherent advantages of disk-to-disk (D2D) technology for faster recovery of more data—unlike serial tape systems, the Televaulting D2D software offers simultaneous recovery of multiple files, databases, etc. And, because Televaulting software utilizes multiple data reduction and minimization techniques, there is less data to move, and time-to-recovery is faster.

While many tape systems offer no encryption functionality at all, the Asigra Televaulting software serves as an invisible shield across all remote site data. Asigra utilizes up to 256 bits for encryption keys to guarantee extremely safe data transfer and storage. In contrast to many competitive D2D systems that require the setup of a virtual private network (VPN) or some other encryption technique for secure transmission between the central site and remote offices, and/or third-party products, Asigra Televaulting software provides both in-flight and at-rest data protection.

- **Powerful tools to determine optimal RPOs/RTDs.** IT managers need the ability to differentiate between five-day-old and five-year-old data and to implement correspondingly appropriate backup/recovery policies. Unfortunately, tape systems force equal treatment of all data. In contrast, Asigra enables fine granularity in defining policies for various types of data.



*Report screen from
LAN Discovery Tool*



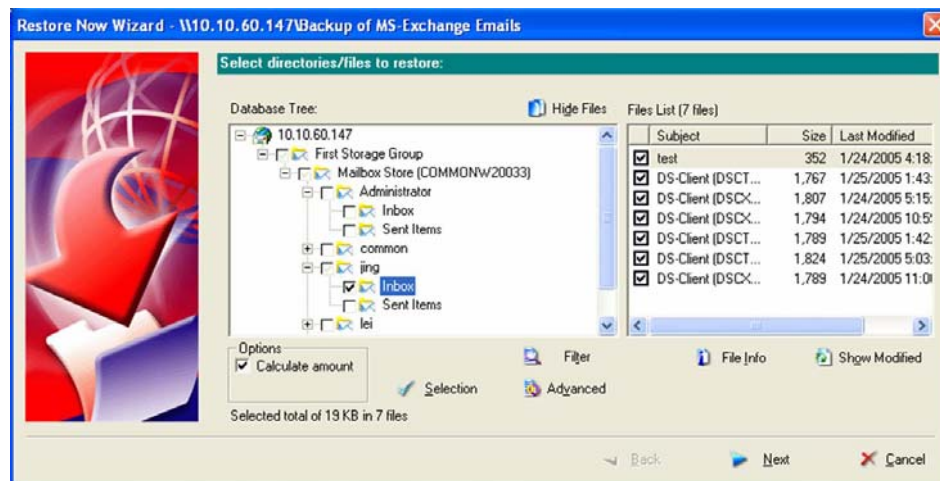
Remote Site Data Protection: It's All About the Recovery

Asigra solutions integrate multiple tools to help IT managers establish and manage recovery objectives across all types of data, users, and applications. The LAN Discovery Tool, for example, analyzes and characterizes all remote site LAN data, enabling collection of file types, access data and other information.

While tape-based solutions do offer administrative tools, those utilities are generally agent-based and often expensive. In contrast, Asigra storage resource management (SRM) tools for remote sites are built-in, agentless, easy-to-use and economical.

- **Technologies for fast, reliable recovery.** In addition to SRM tools, Asigra provides multiple technologies that further accelerate recovery. Asigra Bare Metal Restore technology, the industry's first agentless solution, allows administrators to quickly recover lost, damaged or corrupted data to any bare metal system, without having to manually reinstall operating systems or configure hardware. Local data, user profiles, registry/system state, service pack files and encrypted files—the complete system can be rapidly restored on new hardware.

The Asigra Message Level Restore Tool lets administrators set pre-determined levels of email backups and restores. This capability ensures that users can rapidly recover needed messages, including a single email, without waiting for the restoration of an entire Exchange network.



*Restore Wizard
for MS Exchange*

Another Asigra utility, the Autonomic Healing Tool, guarantees data integrity with zero corruption for successful restores. The Autonomic Healing Tool runs seamlessly in the background, constantly scanning for corrupted or problematic files. This can include files with data corruption or logical inconsistencies caused by third-party technologies (such as faulty RAID controllers, file systems, operating systems, disk subsystems, network packet loss, etc.). As Autonomic Healing checks backup files, it automatically corrects file and directory ID duplications, without the need for human intervention. When Autonomic Healing finds a problematic file that it cannot fix at the central-site location, it automatically triggers the software at the remote site to re-synchronize and resend any corrupted files during the next scheduled backup—again, without human intervention.

Asigra Televaulting technology helps IT managers define, manage, and improve ROBO RPOs and RTOs to effectively mitigate the risk of data loss and business interruption. Tape-based systems simply cannot offer equivalent recovery speed and reliability, data security and overall economy.



Remote Site Data Protection: It's All About the Recovery

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"The wizard-driven file recovery process is easy enough for authorized end users to recover their own files, which can free up IT resources. ESG Lab also observed that restores to an alternate location, and even a bare metal restore to a machine of a different hardware type, are supported. This demonstrated that Asigra software has the flexibility to deliver recovery as a centrally managed service or one that can be driven by authorized administrators at remote sites. "

-ESG Lab Report excerpt

(Complete lab report available for download at www.asigra.com)

"Asigra's focus on delivering high levels of data recoverability to remote end-users is another key source of differentiation. Asigra gives administrators multiple-tiers of recovery options from the latest backup on the DS-Client, to the generational file backups on the DS-System. Because all data is stored on disk, administrators are able to meet aggressive RTO and RPO objectives."

-Taneja Group Product Profile excerpt

(Complete profile available for download at www.asigra.com)

"Asigra Televaulting performed flawlessly and delivered phenomenal results. We restored the complete set of office files and data in minutes to bare metal."

-Milo Farineau, Director of Information Technology, PRO-TAX

"With Asigra's superior Televaulting software behind our oncore IT OLB and Disaster Recovery services, we were able to provide Fisher Meredith with a complete business continuity strategy that meets their requirements to guarantee that their customers' data will be protected and can be restored under any circumstances."

-Roland Mann, Managing Director, oncore IT

Asigra

Founded in 1986, Asigra is the award-winning specialist in distributed data backup and recovery solutions for network computing. With Asigra's Televaulting software, service providers and enterprises can reliably protect mission-critical information across all their geographically dispersed customers and/or "data islands," whether they reside on servers, desktops or laptops.

Contact Asigra to find out more about how you can deliver backup/restore services to your customers or end-users by deploying the capacity-based licensing model.



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