



InMage for SharePoint

Scalable, Reliable Recovery Across SharePoint Server Farms

- Centrally managed, disk-based recovery which supports rapid, reliable SharePoint recovery either remotely (for disaster recovery) or locally
- Enables the restoration of SharePoint data to any previous point in time, and SharePoint application recovery that includes all associated SharePoint services, including automatic SharePoint user re-direct
- Single solution which eliminates backups while at the same time replacing backup, replication, and clustering agents and products
- Provides SharePoint-specific functionality leveraging the Windows VSS API to support simple, reliable, and synchronized recovery across SharePoint server farms

Microsoft SharePoint provides a comprehensive content management system that accommodates a variety of common data types, providing a secure way to easily share content across the enterprise using a single, centrally managed repository. Users store critical business information in SharePoint repositories, and expect that information to be adequately protected as well as highly available. SharePoint deployments tend to grow rapidly, a fact which can present difficult data protection challenges. Conventional approaches which leverage periodic backups and tape-based infrastructure inevitably begin to impose unacceptable business impacts as SharePoint grows, particularly around the topic of “backup windows” and lengthy recovery times. SharePoint’s multi-server architecture, while providing scalability advantages, can also complicate recoveries using conventional data protection technologies. Unless both SharePoint database and application servers are protected, and recoveries can be synchronized, recoveries can be time-consuming, manually intensive, and potentially require a complete re-build of the front-end infrastructure.

InMage: A Single Solution for DR, Backup, and SharePoint Failover

InMage provides a software-based solution that leverages the advantages of disk-based data protection to eliminate backups and provide comprehensive recovery capabilities for SharePoint server farms that can meet remote (DR) and/or local requirements. Using unique hybrid recovery technology, InMage for SharePoint captures changes to SharePoint data stores in real time as they occur and offers flexible recovery to any previous point in time, a feature which ensures fast, reliable recovery that can be synchronized across all SharePoint servers. Automated recovery of SharePoint services can be configured to meet either remote or local requirements, going above and beyond the protection offered by conventional backup, replication, and clustering products.

Scalable, Cost-Effective DR

InMage for SharePoint allows applications and websites to work seamlessly after the failover.

InMage for SharePoint enables the implementation of cost-effective DR configurations that leverage asynchronous, IP-based replication to support long distance solutions. Comprehensive recovery capabilities include the ability to fail over the entire SharePoint server farm to a remote site at the push of a button in such a way that SharePoint applications and web servers work seamlessly after the failover. This fully automated capability not only speeds the recovery of application services when

it is required, but can also be used to simplify DR testing by providing non-disruptive, one-button SharePoint service migration. Using InMage for SharePoint to automate DR testing and failover also improves the reliability of recovery processes by removing room for operator error and providing a baseline from which to incrementally improve failover processes over time.

Eliminate Backup Windows. Improve Recovery Granularity

InMage for SharePoint captures changes to SharePoint data stores continuously as they occur, completely moving away from the “periodic” nature of conventional backup.

InMage doesn't shorten the backup window, it completely eliminates it.

As InMage captures data from the servers in a SharePoint server farm, it tracks it so that administrators can retroactively select AppShots – application-consistent recovery points – from which to base recovery operations. Because InMage for SharePoint uses the Windows Volume Shadowcopy Services (VSS) API and an included VSS requester to mark AppShots, it supports rapid, reliable recovery. InMage for SharePoint ensures that these recovery points are synchronized across the database and application servers in a SharePoint instance. When a recovery is required, an administrator may view the entire continuum of available recovery points and select the most appropriate point to meet recovery requirements. Because they represent application-consistent points in time, AppShots will support the fastest recovery times, but all other points (each of which represents crash-consistent points in time that support reliable recovery) are available as well and may provide value to administrators performing root cause analysis against failures.

Application Awareness Supports Fast, Reliable, and Comprehensive Recoveries

InMage for SharePoint includes SharePoint-specific functionality that speeds deployment and enables recovery capabilities that are tailored for SharePoint environments but managed through the centralized InMage management paradigm. SharePoint-specific functionality includes installation templates, AppShot creation and usage, SharePoint farm configuration discovery, and automated SharePoint failover/failback processes.

Data taps on each SharePoint server farm server can stream changes to targets on a shared CX. InMage for SharePoint keeps abreast of changes in the database, application, and web servers, so that recoveries can be synchronized. Through this approach, InMage for SharePoint eliminates lengthy manual efforts associated with trying to recover SharePoint using conventional data protection technologies.

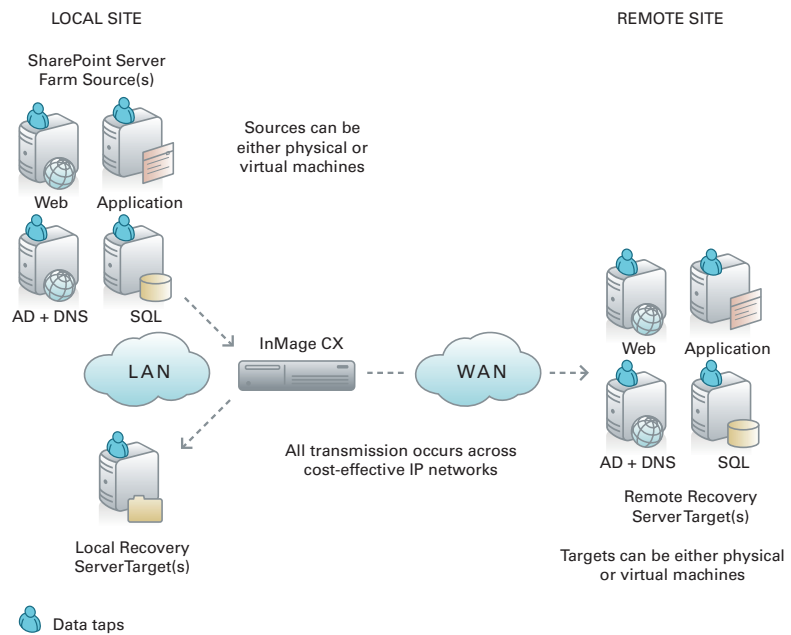


Figure 1. Data is granularly collected from servers in a SharePoint server farm and sent to a local CX, which can then store the data locally and/or remotely (using InMage's asynchronous replication). If bi-directional and/or one-button application failover is desired at the remote site, an optional second CX could be deployed there.

Over time, servers in a SharePoint server farm can change, and if changes in source servers are not reflected on target servers, recovery operations may not work as expected. InMage for SharePoint not only collects changes to the underlying SQL databases that store SharePoint content, but also tracks changes made to the SharePoint application and front-end web servers. As new SharePoint modules are added, configuration data on the web servers generally changes, and InMage for SharePoint captures these changes, reflecting them on the targets to ensure that existing recovery processes will continue to work reliably.

Recovery requires no effort on the part of SharePoint users – they are automatically routed to the recovery servers targets due to automatic changes in Active Directory and DNS entries. This solution does not just enable data recovery. InMage for SharePoint can provide for end-to-end recovery that restores the data from the most recent (or any selected) point, restarts SharePoint and its associated services, and transparently re-directs SharePoint users.

Unique Hybrid Recovery Technology

InMage for SharePoint is cost effective for low end and larger configurations

InMage's unique hybrid recovery technology lends itself to cost-effective, low end configurations as well as larger configurations

that can handle extremely large SharePoint deployments. As write volumes grow, the two key software engines on the CX – the control and process engines – can be separated out and hosted on separate Intel-based servers which are connected to the SharePoint server farm by IP networks. Control stays centralized to ensure that recovery points across SharePoint database, application, and web servers stay synchronized as higher write volumes are serviced by adding separate process engines.

InMage minimizes the amount of data that needs to be sent across networks to enable DR or backup through the use of capacity optimization techniques like sending only data changes, bandwidth-shaping, compression, and delta differencing on resync (during failover from a DR site back to the primary site).