The
Hitachi-SecureAgent VTL
Solution®

Executive Summary

secure Agent®
Secure Enterprise Solutions

Hitachi-SecureAgent VTL Solution Virtual Tape System & Remote Vault
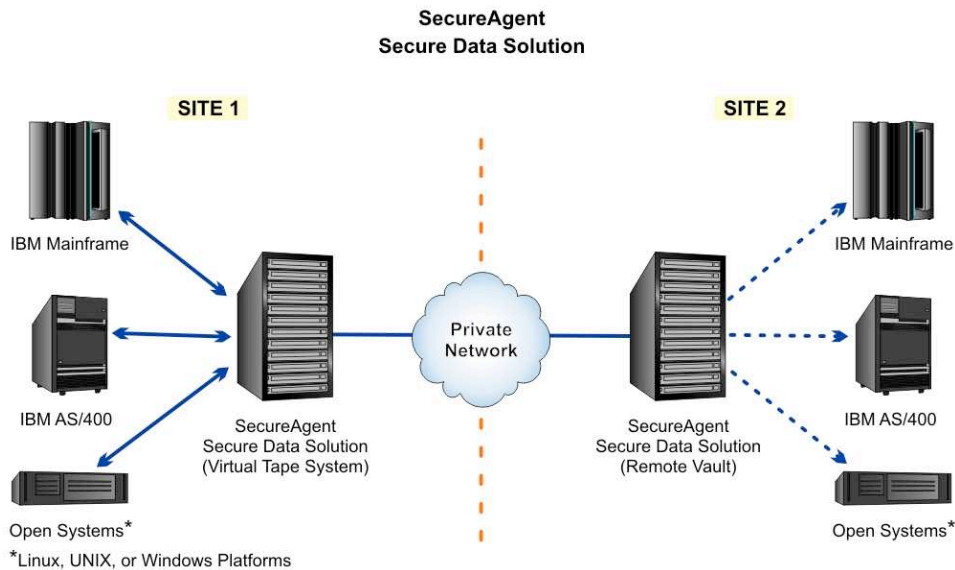
Executive Summary

Enhanced data protection via encryption and compression

The Hitachi-SecureAgent VTL Solution (VTL) is a patented and patent-pending virtual tape system and remote vault that allows an organization to efficiently store and retrieve compressed and encrypted virtual tape images (VTIs). The VTL is configured as tape devices to attached computer systems; however, in actuality, the virtual tape images are compressed and encrypted files that permanently reside on the VTLs Hitachi disk arrays. As virtual tape images are being

Multiple platform support

The Hitachi-SecureAgent VTL Solution emulates commonly installed tape drives that are connected by ESCON, FICON, or Fibre Channel SCSI. It can be connected to large-scale IBM mainframes that utilize the z/OS, z/TPF, and z/VSE operating systems, IBM iSeries, and any UNIX or Open Systems platforms that utilize IBM's Tivoli Storage Manager or HP's Data Protector. A single Hitachi-SecureAgent VTL Solution can store tape images that have been created by any combination of these supported systems and drives.

Figure 1

SecureAgent
Secure Data Solution

SITE 1 — IBM Mainframe — IBM AS/400 — Open Systems* — SecureAgent Secure Data Solution (Virtual Tape System) — Private Network — SecureAgent Secure Data Solution (Remote Vault) — SITE 2 — IBM Mainframe — IBM AS/400 — Open Systems*

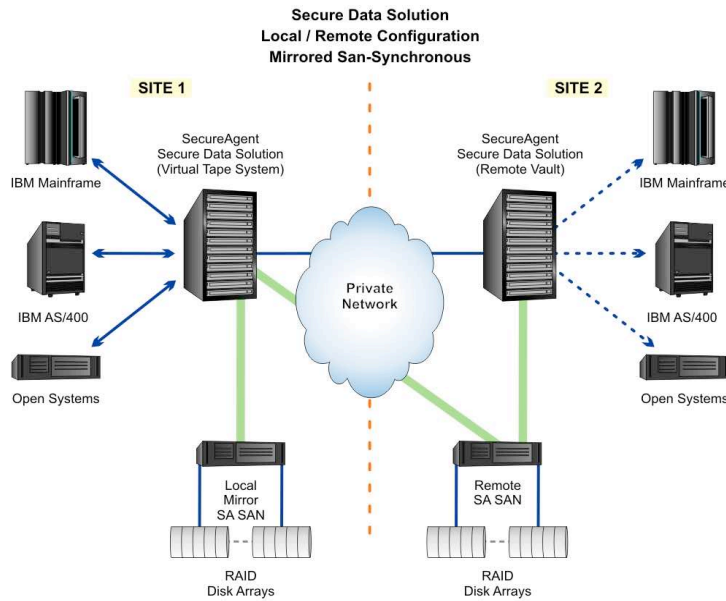*Linux, UNIX, or Windows Platforms

written to a local VTL, they can also be transmitted to other Hitachi-SecureAgent VTL Solutions installed at remote sites for disaster recovery purposes or to be shared by applications that can process these virtual tape images by computer systems that are connected to the VTL at these remote sites (Figure 1). The Hitachi-SecureAgent VTL Solution can protect an organization from potential liability brought about by the loss or theft of sensitive data by its inherent data encryption and by reducing off-site tape handling requirements.

Configurable to suit your needs

The Hitachi-SecureAgent VTL Solution is available in a number of configurations that can satisfy small, medium or large organizations' needs. The Hitachi-SecureAgent VTL Solution's SAN Server maintains the tape images on Hitachi Raid 6-based disk storage subsystems. The local VTL can be configured with a mirrored array, or it can be configured with a local unmirrored array connected to a remote fibre-attached array offering the best in data protection (Figure 2 on the next page).

Figure 2

Secure Data Solution
Local / Remote Configuration
Mirrored San-Synchronous

For organizations that don't have their own private network, the local VTL's Data Mover will transmit the virtual tape images from a local disk array to a remote Hitachi-SecureAgent VTL Solution's array over any private or public IP-based network (Figure 3 below).
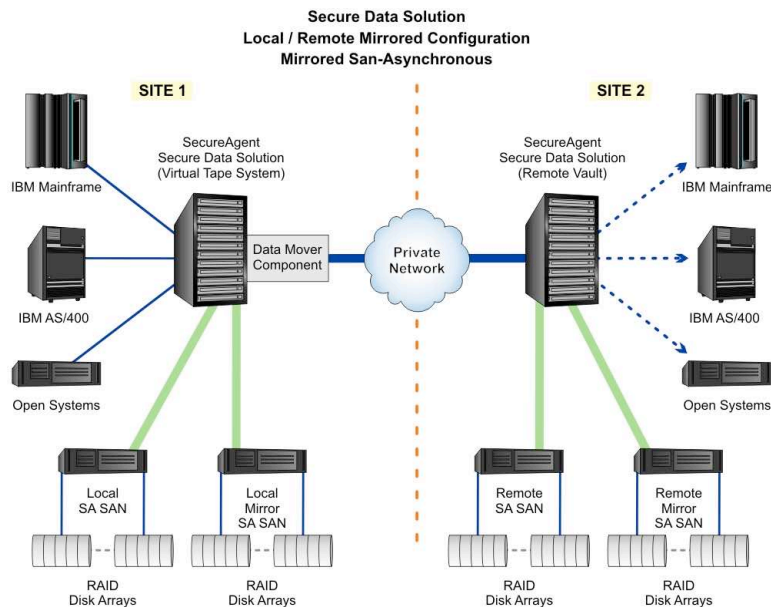
Automation of tape movement

The SA Host Interface Component examines all mount messages and passes the critical information to the VTL regarding the tape being created. It also provides VTL alarms to the OS consoles that can be trapped and addressed by automation.

If physical tapes are needed

The IDG 9487 Secure Tape Controller™ provides connectivity to an automated tape library or tape drives when physical tape creation is required, with attached tape drives at either the local or remote site. Furthermore, if the virtual tape images are required at more than one remote site, any number of secondary remote sites can be established for further replication of the same virtual tape images.

Figure 3

Secure Data Solution
Local / Remote Mirrored Configuration
Mirrored San-Asynchronous

Multi and early read capabilities

Unlike traditional tape, the Hitachi-SecureAgent VTL Solution allows a virtual tape image to be read concurrently by multiple processes (if the operating system allows the same volume serial to be read concurrently). Another system can also begin reading a volume as soon as a few blocks have been written, without having to wait for the tape write to complete.

Environmentally friendly

The Hitachi-SecureAgent VTL Solution normally resides in a standard communications cabinet and requires few environmental resources. An organization can install a remote VTL at another office, a remote data center, a disaster recovery provider, or their vital records provider's facility. When the remote Hitachi-SecureAgent VTL Solution is connected to computer systems at the remote site, the virtual tape images are accessible by the remote computer systems to which it is attached. The entire Hitachi-SecureAgent VTL Solution environment (all sites) can be managed by a single operator console.

Easily grows with your needs

The Hitachi-SecureAgent VTL Solution is infinitely scalable. As an organization's tape resource requirements increase, the Hitachi-SecureAgent VTL Solution grows with them—protecting any prior investment made in the VTL. If greater capacity for tape images is required, then additional storage can easily be added. If more or different tape devices are required, or more or different computer systems require connectivity to the Hitachi-SecureAgent VTL Solution, additional Secure Tape Units™ can easily be added to accommodate the growth. If, in the future, additional remote locations are required, remote units can easily be installed. The Hitachi-SecureAgent VTL Solution is field upgradable, with no planned obsolescence, and growth can be sustained without the need to retire components.

Remote control

The SecureAgent Administrator provides a single access point across an enterprise that allows an operator to issue commands to all of the Hitachi-SecureAgent VTL Solution's components.

Savings, security & reliability

The Hitachi-SecureAgent VTL Solution is a vastly scalable, cost-effective alternative to an organization's tape process that saves staff, environmentals, off-site tape logistics, and the liability from the loss or theft of sensitive data. It also provides more reliable access to data than do traditional tapes, improved mount times and tape performance, reduced personnel costs, a solution for disaster recovery, and rapid access to tape images across multiple locations.

The VTL administrator easily defines security groups; each can represent a functional unit of the organization. When a group is created, a random key is automatically generated that encrypts all data created on virtual drives assigned to that group. Managers can easily direct particular data types to the drives assigned to the appropriate security groups and have complete control of who has access to the various types of data. The VTL uses a patented and patent-pending key management methodology that has been used for over a decade in some of the world's largest companies. Data and keys are never stored in the same location, and keys are never exposed for possible examination.

Easy migration

Moving to the VTL from an existing environment is easily accomplished using a proven two-phase migration strategy. In phase one, the VTL resides between the host system and tape drives or automated tape libraries and intercepts tape commands; in phase two, any remaining volumes are migrated to the VTL; the previous environment can then be uninstalled.