

**The
Secure Data
Solution**[®]

Protected by U.S. Patent 7,293,179;
European Patent 1669872;
and others pending

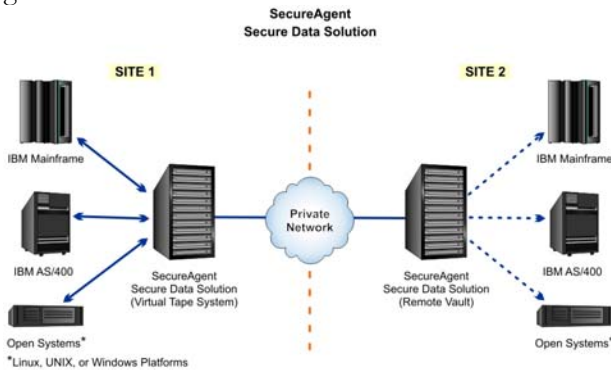
Executive Summary

Secure Data Solution® Virtual Tape System & Remote Vault Executive Summary

Enhanced data protection via encryption and compression

The Secure Data Solution® (SDS) 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 SDS appears as tape units to attached computer systems; however, in actuality, the virtual tape images are compressed and encrypted files that permanently reside on the Secure Data Solution's disk arrays. As virtual tape images are being written to a local SDS, they can also be transmitted to other Secure Data Solutions installed at remote sites for disaster recovery purposes or to be shared by applications that can process these VTIs by computer systems that are connected to the SDS at these remote sites (Figure 1). The Secure Data Solution can save an organization the liability from the loss or theft of sensitive data by its inherent data encryption and by reducing off-site tape handling requirements.

Figure 1



Multiple platform support

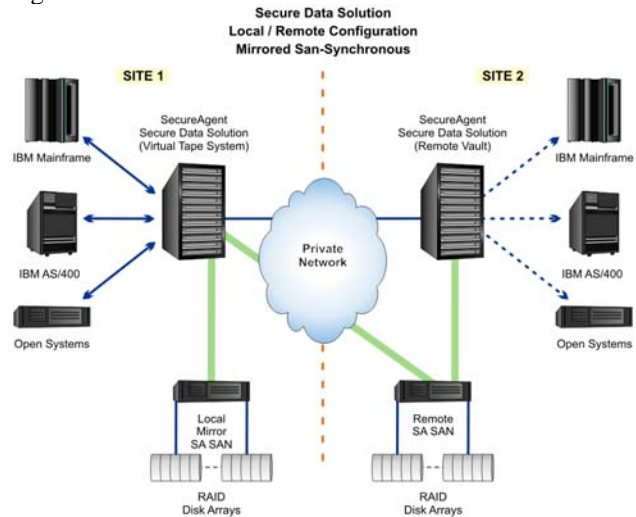
The Secure Data Solution emulates commonly installed tape drives that are connected by ESCON, FICON, or Fibre Channel SCSI. It can be connected to large-scale IBM mainframes that utilize the z/OS or z/VSE operating systems, IBM AS/400s, and any UNIX or Open Systems platforms that utilize IBM's Tivoli Storage Manager or HP's Data Protector.

A single Secure Data Solution can store tape images that have been created by any combination of these supported systems and drives.

Configurable to suit your needs

The Secure Data Solution is available in a number of configurations that can satisfy small, medium or large organizations' needs. The Secure Data Solution's SAN Server maintains the tape images on its Raid 5- or Raid 6-based disk arrays. The local SDS can be configured

Figure 2



with a mirrored array, or it can be configured with a local unmirrored array connected to a remote fibre-attached array within 100 kilometers—offering the best in data protection (Figure 2).

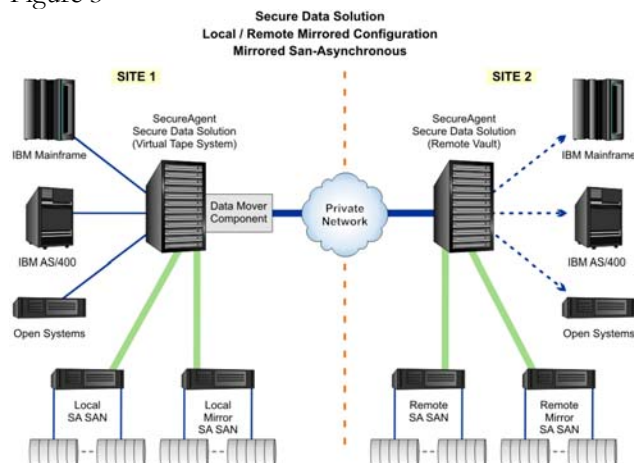
For organizations that don't have their own private network, the local SDS's Data Mover will transmit the virtual tape images from a local disk array to a remote Secure Data Solution's array over any private or public IP-based network (Figure 3 on the following page).

Automation of tape movement

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

(Continued)

Figure 3



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.

Multi and early read capabilities

Unlike traditional tape, the Secure Data 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 Secure Data Solution normally resides in a standard communications cabinet and requires few environmental resources. An organization can install a remote SDS at another office, a remote data center, a disaster recovery provider, or their vital records provider's facility. When the remote Secure Data 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 Secure Data Solution environment (all sites) can be managed by a single operator console.

Easily grows with your needs

The Secure Data Solution is infinitely scalable. As an organization's tape resource requirements increase, the Secure Data Solution grows with them—protecting any

prior investment made in the SDS. 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 Secure Data 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 Secure Data 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 Secure Data Solution's components.

Savings, security & reliability

The Secure Data Solution is a vastly scalable, cost-effective alternative to an organization's tape process that saves staff, environmental, 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 SDS 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 SDS 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 SDS from an existing environment is easily accomplished using a proven two-phase migration strategy. In phase one, the SDS 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 SDS; the previous environment can then be uninstalled.