



The Secure Data Solution®

U.S. Patent 7,293,179; European Patent 1669872; and Others Pending

Mainframe Systems

SecureAgent Software

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Secure Data Solution® for Mainframe Systems

Overview & Benefits

As a data backup and recovery suite, the Secure Data Solution (SDS) works with

virtually every system in your data center. This overview is intended to describe how the

SDS is used in the backup, off-site archiving, and recovery of mainframe systems.

The traditional method of backing up and archiving mainframe data is to run

backup jobs to create 3480, 3490, and 3590 tape cartridges. Once created, these backup

cartridges are then shipped off-site and stored at a facility such as Iron Mountain or Vital

Records.

While a widely accepted practice, this approach has come under increased scru-

tiny in recent years for a number of reasons. From a security standpoint, the data on the

cartridges is rarely protected with encryption techniques, and is consequently vulnerable

to inspection by motivated insiders and data thieves. Misplacement or loss of tape car-

tridges has come to the attention of the news media and federal regulatory agencies and

brings with it the potential for fines, lost revenue, and loss of reputation.

From an efficiency standpoint, the cartridges and their method of creation are not

state-of-the-art data storage. From the point of view of transportation and eventual recov-

ery, the practice is slow, cumbersome, and of questionable practicality. This is especially

true in a regional disaster where multiple companies—all with differing priorities—com-

pete with one another for scarce resources.

The Secure Data Solution (SDS) for mainframes addresses these issues by

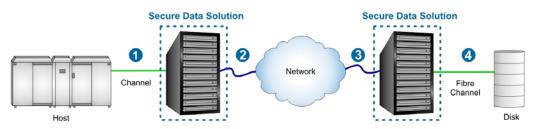
replacing old-style tape drives and physical tape libraries with state-of-the-art disk

storage, data encryption, data compression, and electronic transfer of backup data.

The SDS connects to the mainframe via either ESCON or FICON. When brought online, the SDS for mainframes emulates tape drive control units such as the A60 and J70 control units, as well as associated tape drives types that include 3480, 3490, 3590, 3592, etc.

When a particular mainframe job issues a tape mount request, the SDS satisfies the request and data sets are then written to the virtual tape. When the tape dismount occurs, the SDS compresses the data and then encrypts it using 128-bit AES encryption. Once the data sets or VOLSERs are compressed and encrypted, they can then be stored locally on fibre channel-attached disks, and/or be moved across a network to a remote location for storage and archiving. The data can also be restored at the remote location if ESCON or FICON connections are available.

The Secure Data Solution for Tapes—A high-volume, networked configuration



- 1 Tape image transmitted to Secure Data Solution.
- Tape image compressed, encrypted, and transmitted over network.
- Tape image stored and processed.
- Tape image written to disk.

In addition to replacing physical tape by storing data sets on disk, the SDS can also accommodate the creation of physical tape with encrypted data. This reduces the impact in the event the tapes are lost or stolen.

The Secure Data Solution approach to data backup and recovery offers the following immediate customer benefits:

- Increases probability of successful rapid recovery
- Reduces or eliminates the cost of physical tape cartridges

- Reduces backup window due to increased speed of disc storage
- Reduces tape handling and associated costs
- Provides a homogeneous method of managing backups
- Provides ultra-high availability, real-time data backup
- Decreases reliance on scarce DR resources
- Decreases the possibility of lost tapes
- Reduces or eliminates the cost of physical tape transport
- Utilizes low-cost TCP/IP for transporting data
- Utilizes high availability redundant disks

In addition to these measurable customer benefits, the Secure Data Solution also offers an array of unique system design benefits that provide the customer with a revolutionary tape management system that:

- Provides a comprehensive disaster recovery solution
- Covers all major platforms
- Utilizes a simple-to-use homogeneous approach for all data
- Provides patented role-based access control for different types of data
- Provides a non-intrusive, patented key management strategy
- Includes an integrated alert manager to ensure the integrity of each backup
- Provides self-healing data recovery that checks and repairs damaged data
- Offers total scalability dependant only on the number of host channels available
- Provides three levels of data protection: encryption, geographic dispersion, mirroring
- Provides common remote control through a redundant outboard catalog

The Secure Data Solution is protected by issued and pending US and European Patents.

About SecureAgent Software

SecureAgent Software has been helping customers manage sensitive data for

more than 20 years. Many of the largest companies across the United States and through-

out Europe use SecureAgent products in mission-critical areas of their daily operations.

They play an integral role in secure remote console access, data backup and recovery,

advanced automation, integrated tape management, and disaster recovery.

SecureAgent Software is playing a pioneering role in the implementation of role-

based access controls, and is used extensively by both commercial customers and the

governmental sector to comply with evolving regulatory guidance.

Among the companies using SecureAgent Software are three of the four largest

US banks, the two largest credit card processing companies, the nation's two largest

communications companies, the world's largest stock exchange, the largest US airline,

and the largest airline reservations companies in the US and Europe.

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