Strong data protection starts with proven encryption and reliable key lifecycle controls. Hitachi Data Systems storage solutions with the data-at-rest encryption feature and the keyAuthority hardware key manager protect sensitive information and key material. Together, they manage access while providing clear auditing for policy compliance.

Thales e-Security keyAuthority: High-Assurance Key Management for Hitachi Storage

Protect Sensitive Data and Centralize Management of Encryption Controls

As organizations continue to scale data storage and deploy more applications, the opportunity to expose sensitive information escalates the risk of a security breach. Hitachi Data Systems has a portfolio of storage solutions that employ the data-at-rest encryption feature, which is well-proven for protecting data. When applied systematically, the feature maintains access control policies for data availability and enforces regulatory compliance mandates.

Hitachi and Thales have joined to offer a solution for managing encryption on Hitachi Virtual Storage Platform, Hitachi Unified Storage VM and Hitachi Unified Storage 150 through best practices key management that protects data throughout its lifecycle. The keyAuthority appliance delivers a high-performance hardware key manager that scales along with storage needs. It reliably balances data security with data availability through advanced, automated controls.

Business Benefits

Scalable, High-Performance Solution to Apply and Manage Storage Encryption

- The turnkey key manager appliance accelerates deployment to quickly meet security compliance goals for robust data protection.
- A hardware approach reliably protects keys during long-term data retention periods using a tamper-resistant chassis that meets FIPS 140-2 Level 3 validation requirements.
- Centralized encryption and key management with remote Web-based administration provide a single point for auditing security controls to prove compliance with regulatory and data protection policies.
- Automated best-practice security reduces risk of manual errors and helps to ensure long-term access to data through separation of duties and clear management role assignments.
- Virtualized multitenancy for global environments under a single key management system helps segregate storage applications through hosting multiple domains and key groups.
- Lifecycle and interoperability standards allow keyAuthority to extend to more storage and IT systems for economies of scale when managing keys across mixed environments.

Capabilities

An Enterprise Key Management System for Storage and Beyond

keyAuthority appliances deliver encryption key management with high performance and scalability to complement Hitachi storage. Standards-based integration through Key Management Interoperability Protocol (KMIP) support enables key management to further extend over mixed storage and IT applications to achieve a unified approach for managing and auditing security controls.

Additionally, keyAuthority allows for centralized management across disk and tape encryption systems, SAN switches, virtual tape libraries and other applications based on KMIP interoperability. This allowance helps to ensure that an investment in key management hardware is preserved as data encryption strategies evolve. A multitenant domain and group hierarchy enables application owners to achieve virtual separation between key groups, application endpoints and users over a global environment. In this way, keyAuthority provides a single systematic approach to managing encryption keys.

Configurations

Automated Key Replication With Backup and Restore to Ensure High Availability

Key management appliances protect keys while helping to maintain data availability for business continuity. Appliances are deployed in pairs for real-time key replication between each server for failover. System backups are encrypted and can be restored on demand.
Data Protection Services

Hitachi Data Systems offers various data protection and replication services that simplify and accelerate local and remote data replication and disaster recovery solutions. These solutions enable normal business operations to resume in minutes, rather than hours or days, following a primary site outage. They help you meet your service levels quicker and with lower risk.

be selectively restored to additional standby appliances for critical storage environments. Appliance hardware is designed with redundancies that include hot-swappable fans and power supplies, along with RAID storage for key material. With support for millions of keys and thousands of encryption endpoints, keyAuthority scales to meet your growing storage applications.

For More Information

To learn more about how to effectively plan and deploy a converged solution for Thales e-Security keyAuthority key management in your environment, please contact your HDS representative or visit www.hds.com/security. HDS resells keyAuthority appliances and these products can also be purchased through Hitachi TrueNorth Partners.

About Hitachi Data Systems

Hitachi Data Systems provides information technologies, services and solutions that help companies improve IT costs and agility, and innovate with information to make a difference in the world. Our products, services and solutions are trusted by the world’s leading enterprises, including more than 70% of the Fortune 100 and more than 80% of the Fortune Global 100. Visit www.HDS.com.

SOLUTION SPECIFICATIONS

Dimensions and Weights

- 2U standard rack units: height 3.47 in. (8.81 cm), width 17.19 in. (43.66 cm), depth 30 in. (76.20 cm).
- 41 lbs. (18.6 kg) without the rack-mounting kit.

Environment

- 100 to 240 VAC (autosensing); input line frequency nominally 50 to 60 Hz; total power consumption 250W.
- Operating temperature 10 to 40º C (50 to 104º F); operating humidity 5 to 85% non-condensing at 40º C (104º F); operating altitude 0 to 6562 feet (2 km) above sea level.
- Nonoperating shock 20 G, 11 ms duration, square wave; nonoperating vibration 10 G, 5 Hz to 500 Hz to 5 Hz at 1 octave intervals.
- Operating shock 5 G, 11 ms duration, half sine; operating vibration 5 G, 5 Hz to 500 Hz to 1 octave intervals; nonoperating temperature –30º to 65º C (~22º to 149º F); nonoperating humidity 95% RH maximum; nonoperating altitude 0 feet to 40,000 feet (12 km) above sea level.
- Airflow volume 300 ft³ (8.5 m³) per minute; airflow direction intake from front, exhaust to rear.

Replaceable Components

- Redundant hot-swappable fans and power supply units.

Interfaces

- Serial RJ-45 console port for command line interface (setup only).
- 10/100BaseT Ethernet ports to the LAN.
- Smart card reader (ISO 7816 compliant) for system key and configuration backup.
- Web graphical user interface for role-based administration.

Certifications and Interoperability*

- Qualified with Hitachi Virtual Storage Platform, Hitachi Unified Storage 150 and Hitachi Unified Storage VM systems.
- KMIP 1.0 and 1.1 specification support to extend interoperability to 3rd-party devices.
- FIPS 140-2 Level 3 validation includes appliance chassis (Certificate #1777 for v3.03 firmware).

*Please refer to the Specifications page at http://www.thales-esecurity.com/keyAuthority for a current list of supported applications/systems, cryptographic algorithm, and specification updates.

About Thales e-Security

Thales e-Security is a leading global provider of data protection solutions with more than 40 years of experience securing the world’s most sensitive information.