

# HPE 3PAR StoreServ Data-at-Rest Encryption

Secure your storage



Secure your storage with data-at-rest encryption when regulatory mandates or the need to protect intellectual property from security breaches dictate. HPE 3PAR StoreServ Data-at-Rest Encryption protects data from both internal and external security breaches. Since your applications and data center environment requires protection from unauthorized access of the data on a drive, do consider the HPE 3PAR StoreServ Data-at-Rest Encryption solution. With this solution, HPE 3PAR StoreServ is configured with self-encrypting drives (SEDs) and optional enterprise secure key management.

HPE 3PAR StoreServ Storage models securely encrypt all data as it is written to the drive. HPE 3PAR StoreServ Data-at-Rest Encryption solution supports Federal Information Processing Standard (FIPS) 140-2 Level 2 validated disk drive in compliance with the FIPS 140-2 standard. FIPS 140-2 specifies the security requirements that are satisfied by a cryptographic module utilized within a security system protecting sensitive but unclassified (SBU) information. The FIPS 140-2 standard for SED ensures that a product uses sound security practices, such as approved, strong encryption algorithms and methods.

Whenever encryption is used to protect data at rest, a strong key management system is essential for the control and preservation of the underlying cryptographic keys over the life of the data. If keys are compromised, data is compromised. If keys are lost, data is lost and business operations are impacted. Reduce the cost and complexity of managing encryption keys across a distributed infrastructure with consistent security controls, automated key services, and a single point of management. HPE 3PAR StoreServ Storage supports HPE Enterprise Secure Key Manager (HPE ESKM) 4.0, and the OASIS Key Management Interoperability Protocol (KMIP) Standard.

## Features and benefits

### Secure sensitive personal information according to regulatory mandates

- Encrypt electronic medical records for HIPAA compliance to provide patient confidentiality from unauthorized or inadvertent disclosure.
- Comply with payment card industry PCI-DSS regulations that define requirements for protection of cardholder data.
- Protect intellectual property or other sensitive business data by encrypting data.

### Encrypt data easily with no user intervention

- All data on HPE 3PAR StoreServ Storage is encrypted as it is written to the drives. In the event of a drive failure, the data is protected from unauthorized access. The encryption process happens inside the drive architecture without any user intervention.
- Local Key Manager (LKM) included with the HPE 3PAR StoreServ encryption license is used to manage all drive encryption keys within the array and provides a simple management interface.
- An optional Enterprise Key Manager (EKM), a critical component to the overall data protection strategy, helps provide the flexibility and scalability to manage encryption keys across the data center environment with multiple encryption devices.

### Secure your data with FIPS 140-2 Validated SEDs and Key Management

- All SEDs and EKM are certified by the U.S. National Institute of Standards and Technology (NIST) and Canadian Communications Security Establishment (CSE) as meeting Level 2 or higher security requirements for cryptographic modules as defined in the Federal Information Processing Standards (FIPS) 140-2 Publication.

## Maximum data security

HPE 3PAR StoreServ Data-at-Rest Encryption supports full disk encryption (FDE) based on the Advanced Encryption Standard (AES) 256 industry standard. AES is a specification for the encryption level of electronic data established by the U.S. National Institute of Standards and Technology (NIST) in 2001. AES is a symmetric key algorithm that uses the same key for encrypting/decrypting the data on the hard disk drive or solid-state drive.

For added security, HPE 3PAR StoreServ Data-at-Rest Encryption offers the option to choose FIPS 140-2 Security Level 2 validated SED, Enterprise Key Management (EKM) drives in support of FIPS 140-2 standards. FIPS 140-2 validated SEDs and EKMs have been certified by the U.S. National Institute of Standards and Technology (NIST) and Canadian Communications Security Establishment (CSE). This ensures that these select HPE 3PAR StoreServ FIPS 140-2 validated SEDs and EKMs use sound security practices and enforce strong security standards. Level 2 certification ensures that no physical tampering may be done to HPE 3PAR StoreServ SEDs without showing evidence of tampering.

## **Access authentication with flexible key management**

HPE 3PAR StoreServ provide users with the flexibility to meet their key management requirements. Customers have the option of using an integrated Local Key Manager (LKM) or an Enterprise Key Manager (EKM).

Enterprise Key Managers, including HPE's Enterprise Secure Key Manager (ESKM) is a complete solution for generating, storing, serving, controlling, and auditing access to data encryption keys. It enables customers to protect and ensure continuous access to business-critical, sensitive, data-at-rest encryption keys, both locally and remotely. ESKM 4.0 KMIP meets the highest standards for all KMIP versions and supports all your HPE Storage KMIP enabled solutions, including HPE 3PAR StoreServ storage.

## **HPE Technology Services**

The support services portfolio will help complement the performance and reliability of the HPE 3PAR StoreServ Storage infrastructure. HPE provides complete, end-to-end lifecycle services for your entire infrastructure—servers, storage, networks, and software. Our services also help you consolidate your support management and whenever necessary, we collaborate with independent software vendors directly. By integrating hardware and software services, we offer you a support experience that is relevant to your business needs.

### **Advise, transform, and integrate**

Navigate through the complexities of storage, backup, archive, disaster recovery, and Big Data with advisory, transformation, and integration consulting.

### **Deploy and implement**

Access expertise to support deployment, operations, relocation, sanitization, and disposal plus improvement-focused education.

### **Operate and support**

Find the level of personalized, proactive, and simplified support right for your business.

**Note:** Specific service availability varies by product.

### **HPE Foundation Care**

A comprehensive suite hardware and software services aimed to help increase the availability of IT infrastructure.

### **HPE Proactive Care**

An integrated set of reactive and proactive services designed to help you improve the stability and operation of your converged infrastructure to achieve better business outcomes. HPE Proactive Care has been specifically designed to support devices in IT environments, providing enhanced support that covers servers, operating systems, hypervisors, storage, storage area networks (SANs), and networks.

## Data sheet

Optimize your IT investment strategy with new ways to acquire, pay for and use technology, in lock-step with your business and transformation goals.

[hpe.com/solutions/hpefinancialservices](http://hpe.com/solutions/hpefinancialservices)

HPE Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment.

[hpe.com/go/factoryexpress](http://hpe.com/go/factoryexpress)



Take five minutes to calculate the potential three-year cost savings and ROI you can expect by migrating from your current storage to an HPE 3PAR StoreServ Storage solution. [Click here](#) to go to the HPE Storage Quick ROI Calculator.

Gain the skills you need with ExpertOne training and certification from Hewlett Packard Enterprise. With HPE Converged Storage training, you will accelerate your technology transition, improve operational performance, and get the best return on your Hewlett Packard Enterprise investment. Our training is available when and where you need it, through flexible delivery options and a global training capability.

[certification-learning.hpe.com](http://certification-learning.hpe.com)

### HPE Proactive Care Advanced

This service expands on HPE Proactive Care Service and is designed to help maximize the benefits of IT investments, maintain IT infrastructure stability, achieve business and IT project objectives, reduce operational costs, and free IT staff for other priority tasks. An assigned HPE Account Support Manager (ASM) provides personalized technical and operational advice, including HPE best practices gleaned from HPE's broad support experience.

### HPE Datacenter Care

HPE's most comprehensive support solution tailored to meet specific data center support requirements. It offers a wide choice of proactive and reactive service levels to cover requirements ranging from the most basic to the most business-critical environments.

### HPE Lifecycle Event Services

These services are sold on a per-event basis and include services to help deploy technologies and solutions as well as assessments and other services to help optimize and operate the IT infrastructure.

### Get connected and get back to business

Unlock all of the benefits of your technology investment by connecting your products to HPE Enterprise. Achieve up to 77% reduction in down time, near 100% diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7 monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server, storage, and networking products, securely connected to HPE support.

To learn more, visit [hpe.com/services/storage](http://hpe.com/services/storage).

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