**Hewlett Packard Enterprise**

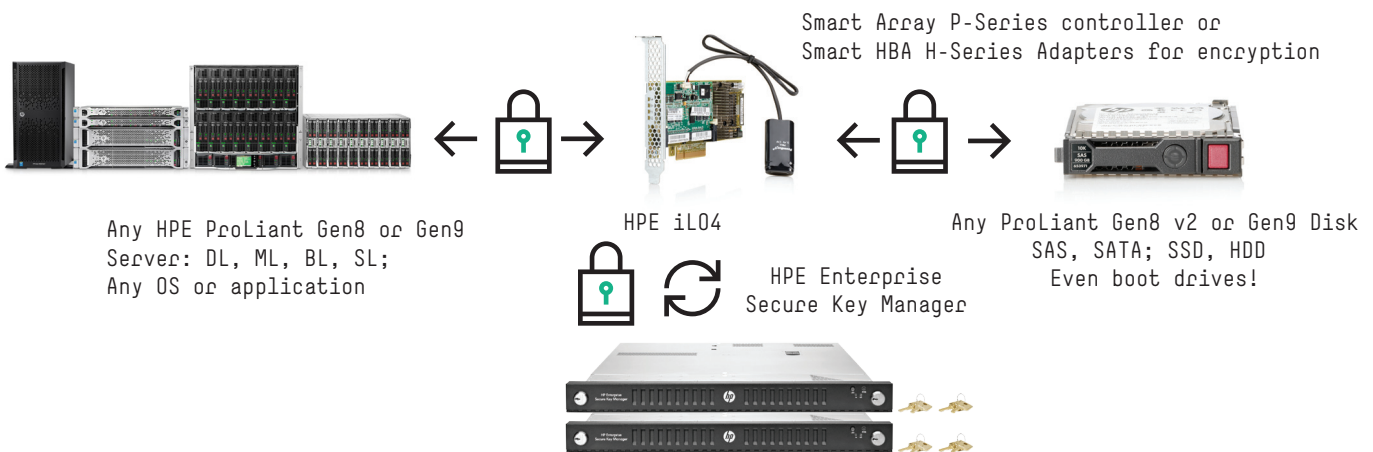# HPE Secure Encryption with HPE Enterprise Secure Key Manager

## Protect sensitive, critical data for HPE ProLiant Gen8 & Gen9 servers



Smart Array P-Series controller or
Smart HBA H-Series Adapters for encryption

Any HPE ProLiant Gen8 or Gen9
Server: DL, ML, BL, SL;
Any OS or application

HPE iLO4

HPE Enterprise
Secure Key Manager

Any ProLiant Gen8 v2 or Gen9 Disk
SAS, SATA; SSD, HDD
Even boot drives!

### Features and benefits

- Secure data encryption with local or remote key management

- High availability and scalability through remote key management only

- Simplified deployment and manageability

- Helps meet compliance regulations:

  – Payment Card Industry Data Security Standard (PCI DSS)

  – Health Insurance Portability and Accountability Act of 1996 (HIPAA)

  – Health Information Technology for Economic and Clinical Health Act (HITECH)

  – Sarbanes-Oxley Act of 2002 (SOX)

Today, good business practices and industry regulations require organizations to protect sensitive and private information from unauthorized disclosure or theft. HPE Secure Encryption with HPE Enterprise Secure Key Manager (ESKM) is a simple, controller-based disk data encryption solution that protects sensitive data at rest.

### HPE Secure Encryption for HPE ProLiant Gen8 and Gen9 servers

HPE Secure Encryption is a controller-based encryption solution for HPE ProLiant Gen8 and Gen9 servers that protects data-at-rest on any bulk storage attached to a P-Series Controller or Smart HBA H-series Adapter. It supports any hard disk drive (HDD) or solid-state drive (SSD) in the HPE Smart Drive portfolio for HPE ProLiant Gen8 and Gen9 servers or supported storage enclosures. The solution is available for both local and remote key management deployments.

Local key management provides the simplest approach to implementing HPE Secure Encryption and is intended for a limited number of servers. Remote key management deployment includes high availability clustering and failover with FIPS-compliant key server appliances that include a separate, secure, key database; key generation and retrieval services; identity and access management for administrators and for data encryption devices; secure backup and recovery; a local certificate authority; and strong audit logging for compliance validation.

The remote key management deployment requires HPE Integrated Lights-Out 4 (iLO4) and HPE ESKM 3.1 or later release.

For more information, visit: **hp.com/go/hpsecureencryption**

## HPE Integrated Lights-Out (iLO) Management

HPE iLO Management is a comprehensive set of embedded management features supporting the complete lifecycle of the server, from initial deployment, through ongoing management, to service alerting and remote support. HPE iLO Management comes standard on all HPE ProLiant Gen9 servers.

HPE iLO Advanced or Scale-Out editions v1.40 or later connects and auto-registers with the HPE ESKM. HPE iLO provides key exchange support between the HPE Smart Array P-series controller or Smart HBA H-series Adapter and the HPE ESKM to enable preboot support for OS disk encryption. Audit support is provided for all key management transactions.

For more information, visit: **hp.com/go/ilo**

**Remote key management mode allows central key management from just a few servers to more than 25,000 servers and millions of keys simplifying deployment and management.**

**Supported by HPE ProLiant Gen8 and Gen9 servers**
HPE Smart Array controllers are supported on HPE ProLiant Gen8 and Gen9 servers—tower and rack-mount, and HPE BladeSystem servers.

# HPE Enterprise Secure Key Manager

HPE ESKM provides a complete solution for unifying and automating an organization's encryption controls by securely creating, protecting, serving, controlling, and auditing access to business- and compliance-critical encryption keys. HPE ESKM supports a growing range of HPE server and storage products, partners, and solutions for data protection. HPE ESKM manages all encryption deployments from just a few servers to thousands of servers and two million keys per HPE ESKM cluster.

### Supported HPE ESKM
ESKM 3.1, ESKM 4.0, and future software versions

For more information, visit: **hpe.com/software/ESKM**

# HPE ProLiant Gen8 and Gen9 Server with Smart Array Controller

HPE Smart Array controllers provide enterprise-class storage performance, increased external scalability (in the case of controller for external disk), and data protection for select HPE ProLiant Gen8 and Gen9 rack and tower servers.

HPE Secure Encryption is supported on the following Smart Array controllers:

• ProLiant Gen8 servers with Px3x series controllers

• ProLiant Gen9 servers with Px4x or Hx4x series controllers running in RAID mode

For more information, visit: **hpe.com/us/en/servers.html**

## Compatibility matrix—ProLiant Gen9 BL, DL, ML, XL and external disk with ESKM

| SERVER MODEL | CONTROLLER FOR INTERNAL DISK | CONTROLLER FOR EXTERNAL DISK | SMART HOST ADAPTERS[1] | ESKM |
|---|---|---|---|---|
| BL460c Gen9 | P244br, P246br | | H244br | ESKM 3.1, ESKM 4.0+ |
| DL160 Gen9 | P440 | P441 | H240 | ESKM 3.1, ESKM 4.0+ |
| DL180 Gen9 | P440, P840 | P441 | H240 | ESKM 3.1, ESKM 4.0+ |
| DL360 Gen9 | P440ar, P440, P840 | P441 | H240ar, H240 | ESKM 3.1, ESKM 4.0+ |
| DL380 Gen9 | P440ar, P440, P840 | P441 | H240ar, H240 | ESKM 3.1, ESKM 4.0+ |
| ML350 Gen9 | P440ar, P440, P840 | P441 | H240ar, H240 | ESKM 3.1, ESKM 4.0+ |
| HPE Apollo Systems Family | | | H240 | ESKM 3.1, ESKM 4.0+ |

[1] in RAID mode only