

Securing and Scaling Next-Generation Compute

Thales Data Security
Solutions and HPE ProLiant
Compute Protect AI and
Data-Driven Workloads

Why Secure and Compliant Compute Matters More Than Ever

As AI and data-driven workloads grow, enterprises face greater pressure to securely and efficiently scale computing capacity while adhering to strict regulations. Sensitive data moves across increasingly distributed environments, on-premises, cloud, and edge, which creates new vulnerabilities throughout the AI lifecycle.

Meeting evolving regulations such as GDPR, HIPAA, PCI DSS, and NIS2 requires comprehensive protection, lifecycle-aware encryption, and unified governance. To remain competitive and meet rising demands, organizations must integrate security, visibility, and operational efficiency into the core of their compute environments.

A Unified Approach to Security and Performance

HPE ProLiant Compute's trusted hardware foundation, combined with Thales Data Security Solutions, delivers a security-by-design architecture that protects sensitive data throughout its lifecycle, enabling enterprises to support next-generation AI and analytics workloads confidently.

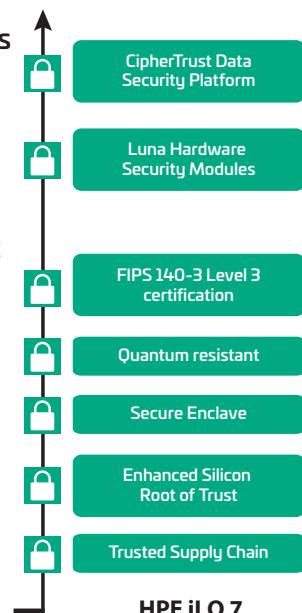
Thales Data Security Solutions

- End-to End data security
- Root of trust
- Secure, compliant, sovereign



HPE ProLiant Compute Gen12

- Top-tier security with first industry standard servers
- Secure against future quantum computer threats – industry first
- Independent security processor within HPE iLO 7 – tamper resistant protection
- Boot with an immutable (unchangeable) source in silicon
- Starts at the factory



Security, Compliance, and Sovereignty for the full HPE ProLiant Compute stack

This extends protection beyond hardware, incorporating encryption, key management, and cryptographic assurance directly into the compute environment. This model ensures that sensitive data remains protected not only when stored or in transit but also throughout its entire lifecycle, including during AI training and inference workloads. The result is a unified, compliant, and future-ready platform that allows organizations to innovate confidently while meeting even the strictest regulations.

Power Next-Generation Workloads: HPE ProLiant Compute

HPE ProLiant Compute offers a robust, security-focused foundation for modern enterprise compute infrastructure by integrating protection directly into the hardware. Its Silicon Root of Trust, an unchangeable hardware identity embedded in the server's ASIC, verifies firmware integrity at every boot cycle, preventing tampering and enabling automated recovery if compromised. Coupled with iLO 7, ProLiant provides secure, out-of-band lifecycle management with FIPS 140-3 validated cryptography, role-based access controls, secure remote operations, and ongoing firmware integrity checks.

HPE's Secure Supply Chain extends protection from factory to deployment, ensuring servers arrive with verified components, locked configurations, and tamper-resistant firmware, meeting standards for sensitive industries. Together, these features establish a trusted compute base that is quantum-resistant, compliant with strict frameworks, and optimized for hybrid cloud, edge, and AI workloads. This makes HPE ProLiant Compute an ideal platform for organizations that need to align performance, security, and compliance from the ground up.

Unified Control Across Environments: Thales CipherTrust Data Security Platform

Thales CipherTrust Data Security Platform (CDSP) enhances the HPE ProLiant Compute foundation by delivering centralized data protection and compliance controls across on-premises, private cloud, or multicloud environments. CDSP consolidates data discovery, classification, encryption, tokenization, monitoring, and centralized key and secrets management into a single, unified platform, making it easier for enterprises to enforce data sovereignty and meet compliance requirements without impacting performance.

At the center of CDSP is CipherTrust Manager, which provides centralized policy enforcement, key lifecycle management, and unified visibility to support audit readiness and regulatory reporting. Integrated with ProLiant deployments, CDSP delivers scalable, data-centric security that enhances operational efficiency and strengthens compliance across distributed environments.

Hardware Root of Trust for Compute Security: Thales Luna HSMs

Thales Luna Hardware Security Modules (HSMs) serve as the hardware root of trust for securing cryptographic keys and protecting mission-critical workloads across HPE ProLiant environments. FIPS 140-3 Level 3 validated and equipped with NIST-standardized post-quantum cryptographic (PQC) algorithms, Luna HSMs provide verified integrity and system trust from the moment a server powers on.

Together, CDSP and Luna HSMs create a compliance-first security fabric essential for organizations protecting their most valuable digital assets.

Key Features & Benefits

- Trusted Compute Foundation** – HPE iLO 7 Silicon Root of Trust ensures hardware and firmware integrity, enhanced by Thales' cryptographic enforcement.
- Centralized Key Management** – CipherTrust Manager unifies lifecycle management of encryption keys, supporting BYOK, HYOK, and BYOE strategies for sovereignty and control.
- Compliance by Design** – Joint solution simplifies adherence to global regulations such as GDPR, HIPAA, PCI DSS, eIDAS, DORA, NIS2, reducing audit burdens and risk exposure.
- Future-Ready Cryptography** – Luna HSMs embed PQC algorithms, ensuring long-term protection against next-generation threats.
- Secure AI & Analytics Pipelines** – Protect sensitive data across ingestion, training, inference, and storage stages without degrading performance.
- Operational Efficiency** – Pre-integrated security controls and automation streamline deployment, reduce overhead, and accelerate time to compliance.

Industry Focus: Real-World Impact in Regulated Environments

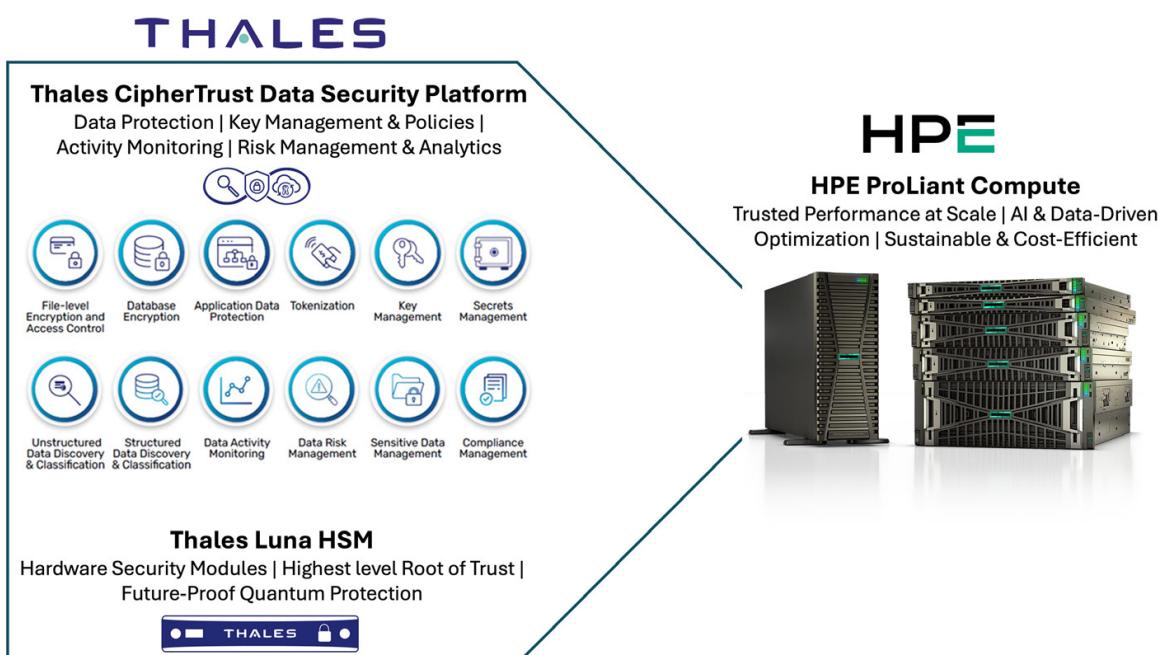
Highly regulated industries require strong security, strict compliance, and full data sovereignty across hybrid and multi-cloud environments. HPE ProLiant Compute and Thales Data Security Solutions deliver a unified, compliant, and future-ready platform that protects sensitive workloads while enabling AI, analytics, and modernization initiatives.

Cloud & Service Providers (CSPs / MSPs)

- Delivers multi-tenant, hardware-isolated cryptographic environments for secure service delivery at scale.
- Simplifies global compliance through geo-fencing, audit logging, and policy automation.
- Supports differentiated services such as confidential computing, secure enclave provisioning, and data protection-as-a-service.

Financial Services

- Safeguards payment processes and cardholder data using Luna HSMs and CDSP, meeting PCI DSS standards.
- Ensures data sovereignty across borders through key custody, geo-fencing, and centralized policy controls.
- Eases audits and supports PQC readiness with tamper-evident logs and unified key management.



Government & Public Sector

- Provides mission-grade protection for classified and sensitive data with hardware root of trust and strong encryption.
- Ensures compliance with mandates such as NIS2, CNSA 2.0, and the Cyber Resilience Act through sovereign key control and policy enforcement.
- Supports Zero Trust architectures with least-privilege access, MFA, and secure PKI operations.

Summary: A Trusted Foundation for Next-Generation Compute

Enterprises must balance performance and innovation with the need to protect sensitive data in an evolving threat and regulatory landscape. HPE ProLiant Compute and Thales Data Security Solutions together provide a secure, compliant, and scalable foundation for modern AI and analytics workloads. Featuring hardware-based protections, centralized key and policy management, and a certified hardware root of trust, the joint solution secures the entire data pipeline. It maintains sovereign control across hybrid and multicloud environments. HPE and Thales empower organizations to advance AI and analytics with confidence, transforming compute into a trusted platform for security, compliance, and digital resilience.

About HPE

HPE is the edge-to-cloud company that helps organizations accelerate outcomes by unlocking value from all of their data, everywhere. Built on decades of reimagining the future and innovating to advance the way people live and work, HPE delivers unique, open, and intelligent technology solutions, with a consistent experience across all clouds and edges, to help customers develop new business models, engage in new ways, and increase operational performance.

About Thales

Thales is a global leader in cybersecurity, helping the most trusted organizations protect critical applications, data, identities, and software anywhere, at scale. Through Thales' integrated platforms, customers achieve better visibility of risks, defend against cyber threats, close compliance gaps, and deliver trusted digital experiences for billions of consumers every day.