SOLUTION BRIEF

TrueNAS® Privacy & Security Compliance Features

No Matter its Size, Every Business Operates in a Regulated Environment

With legislation like the European Union General Data Protection Regulation (GDPR), it's no longer only government and medical providers that need to comply with strict privacy and security regulations. If your business handles credit card information or customer personal information, you must navigate an alphabet soup of regulations that each include distinct obligations and equally-distinct penalties for failing to comply with those obligations.

From PCI DSS to the GDPR to HIPAA, data security stands out as a fundamental requirement for regulatory compliance, and TrueNAS is ready to serve as a key component in your compliance strategy.

TrueNAS Provides Features for Real Security and Compliance

TrueNAS is a universal data platform with the choice of file, block and object storage interfaces built on the OpenZFS self-healing file system for hybrid and all-flash configurations. Unlike many competing storage systems, each TrueNAS scales from a few terabytes to multiple petabytes, all with a common user experience and full data interoperability.

TrueNAS uses a comprehensive set of network and storage encryption techniques to safeguard your data throughout its life cycle and help assure your regulatory compliance.

TrueNAS Data Security Features

Category	Feature	Benefit
Access	Active Directory and LDAP Directory Services	Centralized User Access and Authentication
	User & Group Permissions	Directory-level User and Group permission management, augmented by fine-grained client-managed permissions
	TLS and SSH Certificate Management and CA	Secure web UI and remote shell access
	Network Access Control	Subnet and host-level client access management for most protocols
	High Availability	Automatic controller failover to ensure data availability to users
Privacy	Data-at-Rest Encryption	Self-encrypting drives (TCG Opal 2.0 SSDs and HDDs) and block-level software encryption in case of hardware theft
	Data-in-Flight Encryption	Encrypted replication data to mitigate data interception
	Datasets-Level User Separation	User and customer separation for storage through replication
Data Integrity	Self-Healing File System	Protection from bit rot and multiple drive failures for reliable long-term data storage
	Scheduled Data Integrity Checks	Detect and correct block-level errors to mitigate data corruption
	ECC Memory	Detect and correct data-in-flight errors
	Auditable Software	Open Source for review to avoid backdoors or data exfiltration
Operations	Unified Sharing Solution	Data-at-Rest encryption supports file, block and object protocols
	Immutable Snapshots	Snapshotted data cannot be modified to prevent tampering
	Snapshot Rollback	Mitigate ransomware and user error with instant snapshot rollback
	Replication	Replicate data securely between systems on the LAN and WAN
	Logging	Log all system events or locally to external systems
	API Automation	REST API for automated configuration and security management
	Scheduled tasks	Scheduled snapshots, replication and other management tasks such as “right to be forgotten” compliance

These TrueNAS security features simplify the delivery of robust and compliant solutions for each industry. Unlike many other solutions, TrueNAS includes security features at no extra cost. You can find more information on security options specific to TrueNAS Enterprise on this page.

Regulation	Purpose of Regulation	TrueNAS Features
PCI DSS	The Payment Card Industry Data Security Standard (PCI DSS) was developed to encourage and enhance cardholder data security and facilitate the broad adoption of consistent data security measures globally.	Self-healing file system Dataset-level data separation
EU GDPR	The General Data Protection Regulation (GDPR) intends to strengthen and unify data protection for all individuals within the European Union (EU).	Data-at-rest encryption using self-encrypting drives, and block-level software encryption
HIPAA, ePHI, vEPR & HITECH	The Health Insurance Portability and Accountability Act (HIPAA), Electronic Protected Health Information (ePHI), Electronic Health Record (EHR) and Health Information Technology for Economic and Clinical Health Act (HITECH) all protect the privacy and security of medical records.	Data-in-flight encryption for network connections Immutable snapshots with scheduled deletion
FIPS 140-2	The Federal Information Processing Standard (FIPS) Publication 140-2 is a U.S. government computer security standard used to approve cryptographic modules.	FIPS 140-2 Level 2 or TCG OPAL 2.0/AES 256-bit