

# Pure Storage and Thales

## Helping payment processors provide a frictionless customer experience



### Key Benefits

- Offer great customer payment processing experience through high performance while complying with data security regulatory mandates for data-at-rest by securing files with encryption, access controls and data access audit logging
- Prevent fraud with end-to-end data encryption while shrinking storage footprint up to 10x through uniquely-enabled efficiencies such as compression and deduplication
- Simplify data security administration with centralized key management, encryption and access policies
- Easily implement Privileged Access Management controls at a granular level that enable administrators to work as usual, secure, control, manage and monitor privileged access to critical assets, while never exposing the sensitive data

### The Problem: Payment processors need to protect sensitive data while ensuring efficient operations

The payments space is changing rapidly. Changing consumer tastes and new approaches (P2P mobile payments, EMV, contactless, real-time payments and online shopping) mean that payment processors more than ever need innovative ways to enhance customer experience and payment transaction performance. The

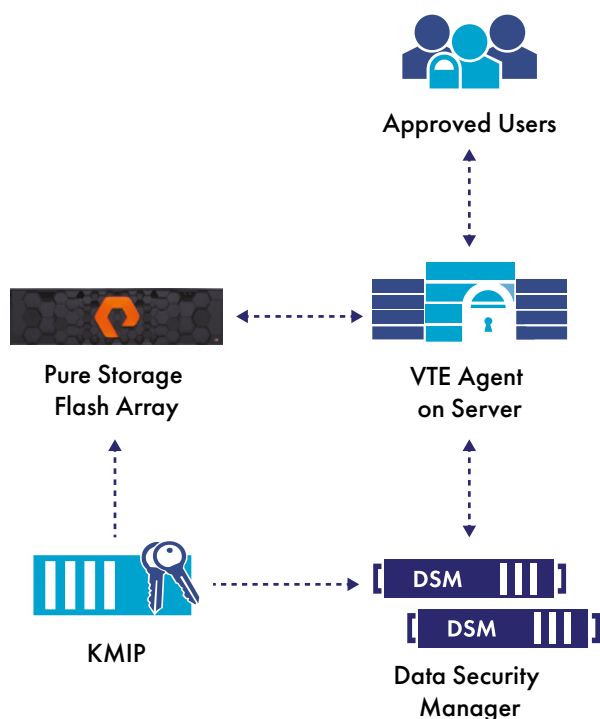
exploding volume of data involved in today's payment processing environment, combined with increasing demands for data security, are putting tremendous pressure on payment processors to maintain processing performance and speed, while ensuring the security and protection of sensitive data. The dilemma here is that these increasing service demands have often required a tradeoff between data security and storage efficiency.

### The Challenge: Avoiding tradeoffs between data security and storage efficiency

Pure Storage FlashArray delivers consistent sub-millisecond latency with 10:1 average total storage efficiency and greater than 99.9999% availability, for an ideal enterprise storage solution for payment processors. However, as overall payment transaction volume grows, driven by the proliferation of mobile payments, and regulatory data security mandates come into play, the need to secure sensitive data becomes more acute, as well as more challenging. Data encryption is the most effective mechanism for securing sensitive data, but until now encryption and storage efficiency technologies like data compression and deduplication have been mutually exclusive.

## Pure Storage and Thales deliver efficient and secure storage for payment processors

The Pure Storage FlashArray is the world's first enterprise-class, all-NVMe & NVMe-oF flash storage array. Included with every FlashArray is the Evergreen storage subscription, advanced software-defined data management capabilities (including array-based snapshots and cloning), the ability to deliver 0 RTO with ActiveCluster, and hybrid cloud capabilities with Cloud Data Services. Whether accelerating transactional databases or simplifying a hybrid cloud at scale, the rich data services and effortless administration of FlashArray makes enterprise storage something organizations simply don't need to worry about anymore. The combination of Pure Storage FlashArray and Vormetric Transparent Encryption for Efficient Storage delivers an industry first; the speed, efficiency and agility of all flash storage merged with the security and integrity of data encryption. Data in Pure Storage FlashArray can be encrypted, compressed, and deduplicated, setting a benchmark for efficient secured storage.



**Figure 1**  
With Pure Storage FlashArray and Vormetric Transparent Encryption for Efficient Storage, payment processors no longer need to make the choice between data security or storage efficiency:

## Why use Vormetric Transparent Encryption for Efficient Storage and Vormetric key management with Pure Storage FlashArray?

Vormetric Transparent Encryption for Efficient Storage provides a high degree of security for data stored on Pure Storage FlashArray by encrypting data while retaining critical storage efficiencies, such as deduplication and compression. Access policies are set and encryption keys are defined by Vormetric Data Security Manager, which utilizes KMIP, for centralized key management.

Vormetric Transparent Encryption and Data Security Manager include the following key features:

- Non-intrusive and easy to deploy. Vormetric Transparent Encryption agents are deployed on servers at the file system or volume level and support both local disks as well as cloud storage environments like Amazon S3 and Azure Files, enabling encryption and access control without requiring changes to applications, infrastructure, systems management tasks or business practices.
- Vormetric Transparent Encryption for Efficient Storage only employs strong, standards-based encryption protocols, such as the Advanced Encryption Standard (AES) for data encryption and elliptic curve cryptography (ECC) for key exchange. The joint solution can be enabled to support FIPS 140-2 Level 1, 2, and 3.
- The solution provides a single, centralized management interface for cryptographic keys and applications.
- It offers high availability and standards-based enterprise encryption key management
- It continuously enforces policies that protect against unauthorized access by users and processes, as well as creating detailed data access audit logs of all activities.
- It applies granular, least-privileged user access policies that protect data from external attacks and misuse by privileged users.
- The DSM supports KMIP versions 1.0-1.4 enabling secure key management for native encryption solutions.

For more detailed technical specifications, please visit [thalescpl.com](http://thalescpl.com) and [purestorage.com](http://purestorage.com).



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