



# Centralized Key Management for Securing your Hyper Converged Infrastructure

**“By 2020, 40% of organizations will have a multisilo data encryption strategy, up from 15% today.”**

– Gartner, “Develop an Enterprise wide Encryption Strategy or Lose the Data”

Coupling a powerful, yet flexible, hyperconverged data center with a solution that orchestrates your encryption strategy is the key to achieving data security without hindering business productivity. Together, Fornetix and Nutanix bring orchestration and scalability to your infrastructure in a secure way, resulting in a more controlled and cost-effective approach.

Nutanix simplifies datacenter infrastructure by integrating server, storage, networking, and virtualization resources into a turnkey hyper converged solution that runs any application at any scale and can be deployed in less than 1 hour. Nutanix applies a holistic approach to security throughout their solution which includes support for FIPS 140-2 compliant data-at-rest encryption, with options to leverage self-encrypting drives (SEDs) or software based encryption using standard drives. This capability allows customers to encrypt data using strong encryption algorithms backed by enterprise grade key management.

With an integration made possible through the Key Management Interoperability Protocol (KMIP), Nutanix communicates with the Fornetix Key Orchestration™ Key Management System to ensure unification and control over encryption keys across the enterprise.

## KEY ORCHESTRATION™

Fornetix Key Orchestration focuses on the key management, distribution, and federation of the associated encryption keys, resulting in a coordination of data security and data availability for Nutanix customers, with no impact to performance. This provides users with an enterprise encryption key management solution that combines encryption key lifecycle automation with granular user access controls across data-at-rest and data-in-motion, making it the ideal partner to fully utilize the security functionality enabled by design by the Nutanix solution.

## SOLUTION ARCHITECTURE

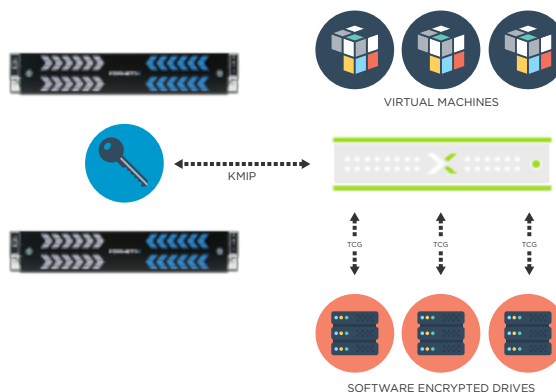


Figure 1: Graphic above demonstrates how the integration between Nutanix and Fornetix supports flexibility and high availability, while powering data-at-rest encryption.

## KEY SOLUTION BENEFITS

Together Nutanix and Fernetix help you to achieve data security by delivering an enterprise encryption key management solution that provides:

### Security Shaped by Trusted Standards

Nutanix and Fernetix both utilize KMIP to allow for simplistic deployment. KMIP provides a comprehensive protocol for communication across various key management environments, reducing costs and increase efficiency of heterogeneous devices and applications. Key Orchestration is built on the concept of interoperability through vetted and understood industry standards, leading to heightened organizational security governance and maximizing business productivity.

### Scalability Without Affecting Performance

With the ability to manage 100's of millions of keys on one Key Orchestration Appliance without impacting performance. When paired with the predictable performance that comes when adding additional storage and compute abilities to the Nutanix Cloud Platform, the sky is the limit when it comes to these capabilities.

### Alignment of Business Processes with Simplified and Centralized Key Management

Fernetix Key Orchestration helps coordinate encryption key lifecycle activities with applications, communications, and infrastructure management. By coordinating these resources with the rest of the enterprise, the monitoring of key utilization becomes aligned with other components of policy, enterprise monitoring, and management functions. This makes encryption more accessible and operationalizes it as a service. Key management then becomes an integral component of mission management, placing encryption in line with other aspects of secure data and communications environments.

### FIPS 140-2 Out-of-the-box Compliance

Comply with FIPS 140-2 Level 2 requirements with a physical tamper proof Fernetix Key Orchestration appliance.



## NUTANIX READY VALIDATION

Fernetix Key Orchestration  
Validated on Nutanix AHV and AOS  
for Software Data-at-Rest  
Encryption.

## > RESOURCES AND GETTING STARTED

### ABOUT FERNETIX

Fernetix® Key Orchestration™ is a ground-breaking cybersecurity solution designed to unleash encryption's full potential by simplifying key management. Perimeter defenses alone have proven insufficient at protecting sensitive information during a data breach. Fernetix empowers organizations to build a data security strategy with encryption as the strong foundation. Safeguard sensitive information with a system backed by granular policy tools, user access controls, and powerful automation. Key Orchestration is a scalable and flexible solution that can manage hundreds of millions of encryption keys while integrating seamlessly with existing technology investments.



T. 855.NUTANIX (855.688.2649) | F. 408.916.4039  
[info@nutanix.com](mailto:info@nutanix.com) | [www.nutanix.com](http://www.nutanix.com) | [@nutanix](https://twitter.com/nutanix)

Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at [www.nutanix.com](http://www.nutanix.com) or follow us on [Twitter@nutanix](https://twitter.com/nutanix).

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