Encrypted Containers™

Security and data protection are key business requirements for leveraging virtualized solutions in production environments, especially when it comes to the usage of containers. Utilizing container disk encryption – which enables users to quickly and easily protect data used by containers – delivers the enhanced security needed by today's businesses, while allowing them to take advantage of the lower total cost of ownership and performance benefits that containers provide.

Business Challenge

Today's new world of agile infrastructure and rapid app development is enabling businesses of all sizes to be more efficient and competitive. At the same time, it's also creating a need for companies to ensure data is protected at all times, in all places. This extends to the use of containers, making security a key requirement for both System Admins, Developers, and Operations teams. For service providers and hosters, encrypted containers address the security concerns of customers by helping protect company data from outside threats and cyberattacks.

Protect Containerized Apps and Workloads

Virtuozzo delivers encrypted containers that allow for the confidential preservation of sensitive company data, while helping meet compliance requirements. By leveraging disk encryption to protect container data "at-rest", service providers and hosters can deliver a value-added service to their customers.

Key Features

Encrypts data "at-rest" to ensure company information is never stored in an unencrypted form

Enables users to encrypt individual container volumes

AES-256

Uses AES-256 strength encryption

Supports key rotation – change and rotate encryption keys without re-encryption

Extensible support for KMS (Key Management System) via simple scripted integration

Value-Added Services for Service Providers and Hosters

Hosters and service providers can leverage encrypted containers to improve their competitive position by offering more value to their customers, including:

ADDED DATA SECURITY FOR COMPLIANCE

Encrypted containers help ensure that end customers meet regulatory and compliance requirements for data security when using containers.

PROTECTION AGAINST UNAUTHORIZED USER ACCESS

Add an extra layer of protection in the event of a software error or an attack that grants the wrong user with access to company data used by containers.

IMPROVED BACKUP PROTECTION

It's difficult and expensive to give backups the same level of data security as your primary data. Leveraging disk encryption for backups enables the container to be restored, but not started (or have the data read) without a key.

VIRTUAL DRIVE AND HARDWARE DISPOSAL

Utilize encryption key deletion as a fast and secure method for virtual drive and hardware disposal, or in the case of lost or stolen equipment. Reliable data removal can be difficult, expensive, or incomplete- and in the case of physical drives may require destruction- which prevents recycling. Encryption key deletion guarantees the data used by containers cannot be recovered by anyone.

Getting Started with Disk Encryption

Using disk encryption in Virtuozzo containers is simple and available out-of-the-box at no extra charge for users of Virtuozzo 7. You will need to set up a KMS (Key Management System) or use an existing one, and integrate it with VIrtuozzo servers.

To get started, follow the instructions in this link:
bit.ly/managing-container-encryption

Once this is completed, you're ready to start using Virtuozzo Encrypted Containers.

About Virtuozzo

Virtuozzo is a leading virtualization software provider with integrated container, hypervisor and storage solutions that power production-ready workloads with the lowest TCO for service providers and hosters. Virtuozzo developed the first commercially available container technology in 2001, and today is used by more than 700 customers worldwide, including the world's leading hosters, with 5 million containers and virtual environments in production. Virtuozzo is also an active and recognized contributor to many influential open source projects, including Linux kernel, OpenVZ, CRIU™, KVM, Docker, OpenStack, CNCF and OCI.

To learn more, visit **www.virtuozzo.com**.