

PRODUCT BRIEF

Dell EMC CloudLink™: Key Management and Encryption for VxFlex OS Software-defined, Scale-out SAN

For data center teams charged with managing large-scale and rapidly growing storage infrastructures, scalability and flexibility are at the core of the challenges they face. Enterprises are transitioning from traditional SANs to software-defined storage to provide the scalability and flexibility required by modern workloads. Dell EMC VxFlex OS™ allows organizations to create server-based SANs from local server storage that delivers on-demand performance and capacity.

Traditional security controls are no longer sufficient for data owners responsible for securing sensitive data regardless of its location. New security solutions must address privacy, regulatory, and data remanence (residual data) requirements. The solutions must be flexible enough to support various encryption approaches for diverse use cases.

Storage infrastructure-level encryption provides a convenient way to secure data in a private datacenter that is completely transparent to the applications deployed on the physical and virtual machines that consume the storage.

Vital to this approach is external, policy-based key management to ensure that encryption keys and sensitive data are controlled by the data owner. CloudLink provides policy-based key management and data at rest encryption for Dell EMC VxFlex OS devices.

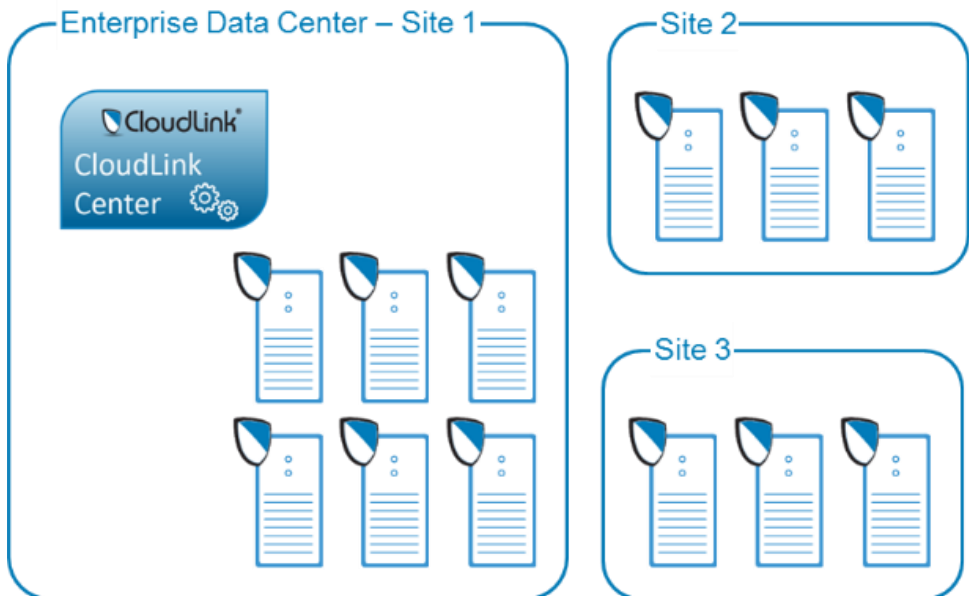


Figure 1. CloudLink deployed across multiple sites

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CloudLink highlights

- Provides infrastructure-level data-at-rest encryption of Dell EMC VxFlex OS devices
- Easy-to-deploy CloudLink Center virtual appliance manages encryption keys and security policy
- Provides a single administration interface for monitoring and controlling security across multiple sites and VxFlex OS clusters
- CloudLink Center provides a complete set of REST APIs for encryption management and monitoring
- Flexible, full lifecycle key management provides complete control of your keys independent of the infrastructure
- Support for HSMs for high assurance key generation and storage
- Integration with KMIP-compliant external key managers

CloudLink highlights

- Simple, easily automated deployment in new or existing VxFlex OS environments with zero downtime
- FIPS 140-2 validated key management
- AES-NI hardware-based encryption acceleration on servers with Intel CPUs

CloudLink benefits

- Compatible with new and existing VxFlex OS environments
- Supports all VxFlex OS configurations
- No need to deploy agents at the application layer, allowing fully transparent encryption
- Provides centralized control for multiple sites/clusters with full role-based access control for key management

VxFlex OS Data Server device encryption

CloudLink delivers infrastructure-level encryption and external, policy-based key management that allows you to secure Storage Data Server (SDS) devices. CloudLink operates directly on SDS devices so that data at rest encryption is transparent to applications. CloudLink Agents do not need to be deployed on the application layer, as all data written to the SDS devices are fully encrypted.

There is no impact to VxFlex OS features, because encryption is performed before data is written to SDS devices. This ensures that the enterprise-grade data protection and resiliency provided by VxFlex OS are uninterrupted by the encryption process.

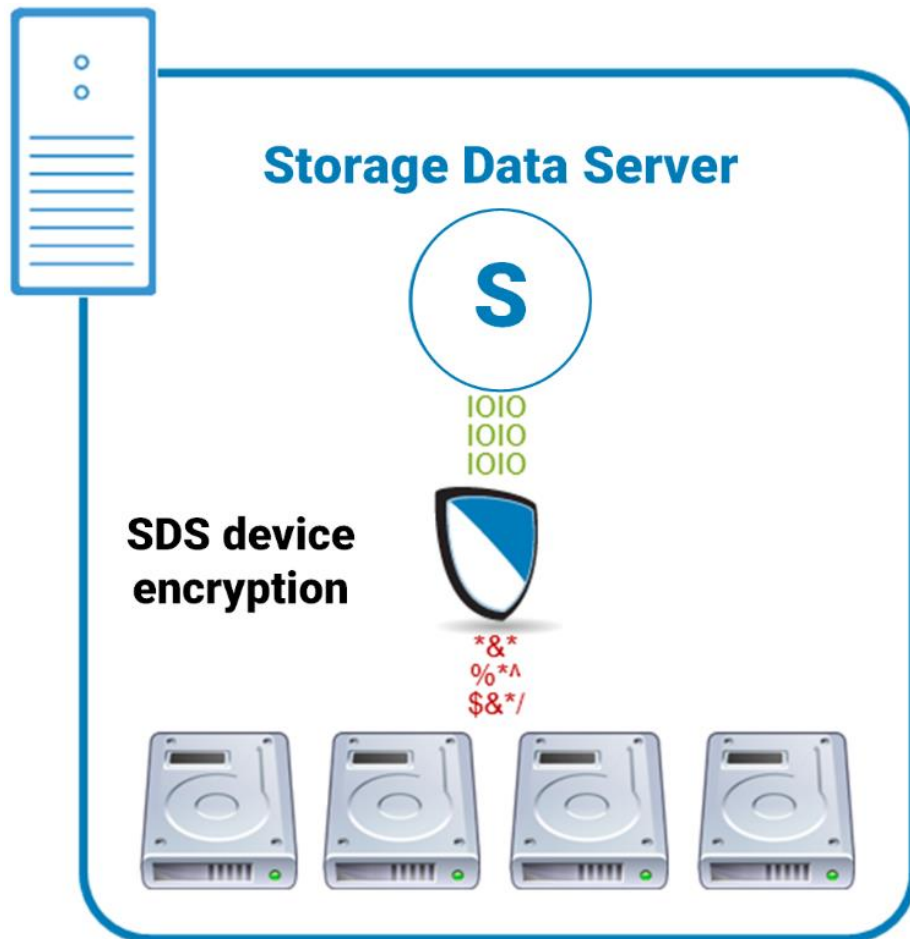


Figure 2. VxFlex OS storage encrypted by CloudLink

Software-defined encryption for software-defined storage

CloudLink provides software-defined encryption for software-defined storage. This allows encryption to be applied with minimal dependency on the underlying hardware platform on which VxFlex OS is deployed. This also ensures that CloudLink supports VxFlex OS deployment models, including storage-only, hyper-converged, and those on ESXi.

CloudLink encryption can be simply, easily, and automatically applied to both new and existing VxFlex OS deployments. Encryption management and monitoring for all encrypted SDS devices is provided by the CloudLink Center web application. CloudLink Center also hosts a full set of REST APIs that allow full automation of deployment tasks.

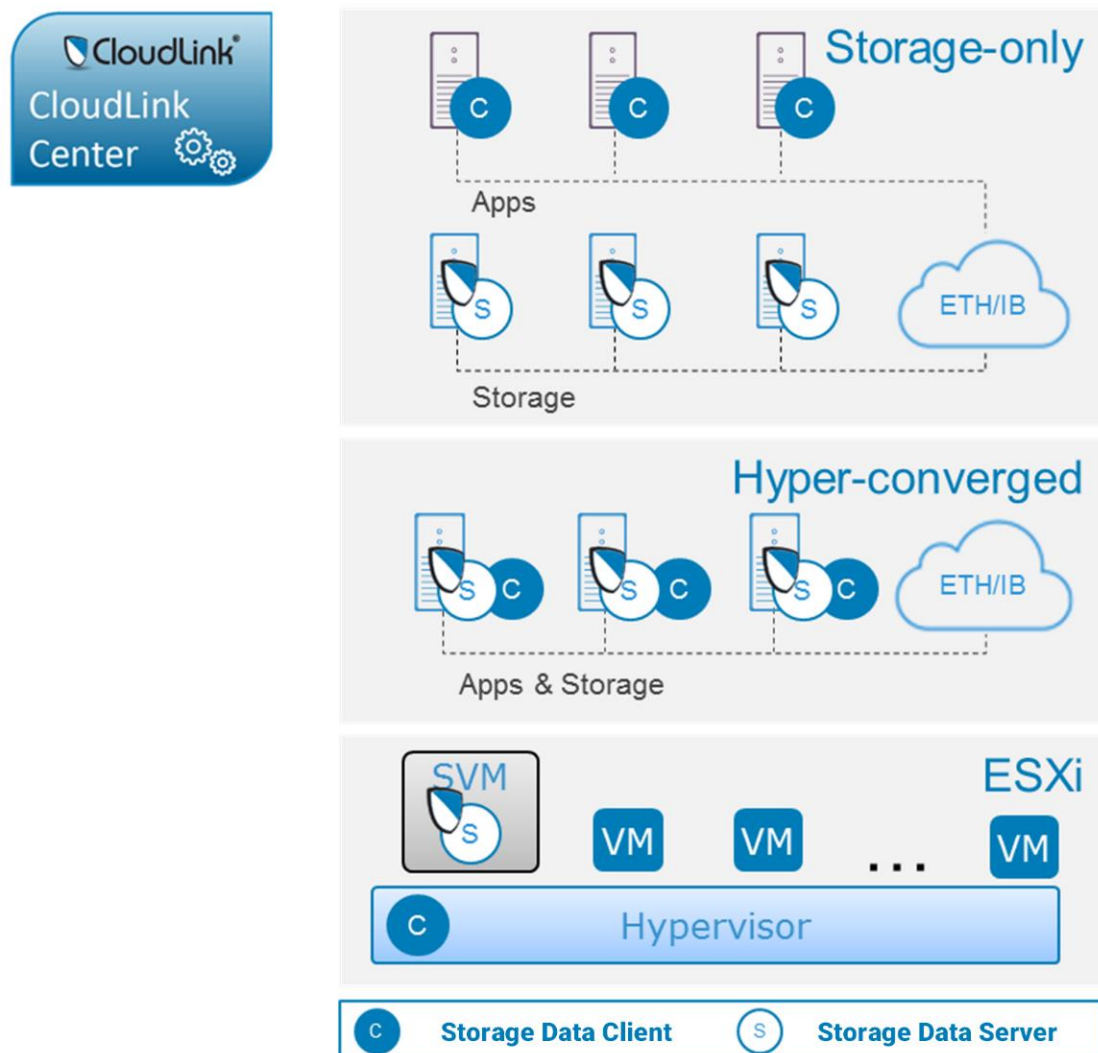


Figure 3. CloudLink encryption for software-defined storage

Confidently secure sensitive data

CloudLink provides the security controls required to move forward with VxFlex OS software-defined storage initiatives. CloudLink's flexibility and simplicity allows you to secure your data with confidence without affecting the massive scalability, enterprise-grade data protection, flexibility, and elasticity that make VxFlex OS the top choice for enterprises wishing to move beyond the traditional SAN.

Contact us

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