

10

TOP REASONS WHY DELL EMC SCALEIO.

Data Center Grade Software-Defined Storage.

Dell EMC ScaleIO is scale-out software-defined storage (SDS) purpose built to help IT organizations transform their block storage infrastructure at their own pace. It enables customers to operate their data center with the efficiency of a web-scale company, regardless of the size of their organization, in the most efficient and cost effective way possible. ScaleIO transforms the lifecycle of traditional storage management, enabling elasticity and flexibility that can lower TCO by 50%, accelerate storage deployment by 83% and enable 32% faster application deployment cycle.¹

1 | Simplified storage lifecycle

ScaleIO enables customers to standardize their storage infrastructures on x86 server hardware and Ethernet, removing the need for expensive SAN network equipment and expertise. This simplifies the storage lifecycle by reducing the time needed to plan, order, deploy and manage SDS. It also eliminates complex forklift upgrades and risky, expensive, data migrations. The result in improved operational efficiency and lower TCO.

2 | Massive scalability

EMC ScaleIO is designed to massively scale from three to thousands of nodes, with up to 1024 nodes in a single cluster. As needs arise, additional storage and compute resources (i.e., additional servers and/or drives) can be added modularly. Storage and compute resources grow together or independently so growth is always aligned with application needs.

3 | Unparalleled flexibility

You have the flexibility to deploy a single-layer, co-resident, a two-layer, storage-only architecture, or a mix of both. Its hardware and OS agnostic architecture so you can design your environment with the hardware, operating system (physical and/or virtual, including OpenStack), and media of your choice (including all-flash like NVMe).

4 | Supreme elasticity

ScaleIO empowers you to add or remove storage and compute resources on-the-fly. Additions and removals can be done in small or large increments because the ScaleIO system automatically reconfigures itself as the underlying resources change to optimize performance and enhance resiliency. Data is rearranged and spread across the servers without requiring operator intervention, therefore eliminating the need for costly and disruptive data migrations.

5 | Compelling economics and ruthless efficiency

ScaleIO enables a pay-as-you-grow approach to capacity planning; therefore you only pay for what you need, when you need it. Also, because it uses standard x86 servers and Ethernet, there are no expensive dedicated storage components like fabric and HBA's required. Finally, by simplifying storage lifecycle management, operational efficiency is improved leading to lower OpEx costs. You and your staff regain valuable time lost due to data migrations and forklift upgrades. You can now grow your environment incrementally and perform non-disruptive rolling server upgrades without ever impacting applications.

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6 | Extreme performance

ScaleIO abstracts, pools and automates block storage in x86 servers, meaning all servers participate in servicing I/O requests. Its massively parallel processing ensures I/O is aggregated and made accessible to any application within the cluster. Performance scales linearly as the number of servers grows, eliminating bottlenecks. Performance optimization is automatic; rebuilds and rebalances occur in the background without impact to running applications. Using storage pools designated performance tiers can be created using low-latency, high-bandwidth flash media, while low-cost spinning disks can be used to create a designated capacity tier.

7 | High resiliency

ScaleIO provides high resiliency due its core architecture and various data protection options; customers have been able to reduce unplanned downtime by as much as 96%. The core architecture enables a distributed data layout (two-copy mesh mirroring), auto-rebuild / rebalance capabilities, background device scanning, in-flight checksum, oscillating failure detection, instant maintenance mode, and non-disruptive upgrades - even during planned maintenance windows, which are fundamental to ensuring data is always accessible. Data protection options such as protection domains, fault sets, snapshots, and replication further enhance a customer's capabilities for protecting data. ScaleIO also has support for EMC Secure Remote Services (ESRS), so you can improve problem resolution time by as much as 5x and before there is an impact to operations.

8 | Essential Security

ScaleIO offers uncompromising security features. It integrates with Active Directory (AD) / LDAP providing more granular access and privileges for user roles. This provides you the ability to utilize a single password authentication system and without having to maintain a separate one for ScaleIO. The secure connection between the ScaleIO components using Secure Socket Layer (SSL) encryption prohibits unauthorized and/or compromised access to the system. Additionally, the Software Component Validation feature has the internal logic needed to validate and ensure the security of the ScaleIO components.

9 | Enterprise-grade capabilities

EMC ScaleIO meets and exceeds the needs of Enterprises and Service Providers. It offers features to increase performance, interoperability, monitoring, fault tolerance, and availability. ScaleIO provides enterprise-grade data protection, multi-tenant capabilities, and add-on enterprise features such as QoS, thin provisioning, data-at-rest-encryption (D@RE) and snapshots, and user friendly administrative console for easy management.

10 | Variety of consumption models

When it comes to SDS, ScaleIO delivers the consumption model that will help you reach your goals quickly and efficiently. If you are looking for a fully integrated, turnkey, rack-scale hyper-converged solution then Dell EMC VxRack System FLEX will meet your needs. If you are looking for a pre-configured and validated hardware/software bundle to use within your existing network infrastructure, Dell EMC ScaleIO Ready Nodes are an easy to order and deploy, high-performance, SDS building block solution. And finally, if you want the ultimate in flexibility you can select ScaleIO software and deploy it on the hardware of your choice.



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