

Frequently Asked Questions: Dell EMC ScaleIO Ready Node

Table of Contents

- [General Questions](#)
- [Technical Questions](#)

General Questions

Question: **What is a Dell® EMC® ScaleIO® Ready Node?**

Answer: ScaleIO Ready Nodes are the combination of ScaleIO software-defined block storage and Dell PowerEdge® servers, optimized to run ScaleIO, enabling customers to quickly deploy a fully architected, software-defined, scale out server SAN. The server and ScaleIO software are fully supported by Dell EMC. This greatly simplifies the process of buying and deploying ScaleIO server SAN, as well as provides customers the benefit of knowing the solution is pre-validated, tested and configured to provide the best performance possible.

Question: **Dell EMC ScaleIO is Software Defined Storage; why are we selling hardware?**

Answer: Many customers prefer to buy storage software with the hardware it will run on, instead of having to plan and purchase the hardware in addition to the ScaleIO software. The ScaleIO Ready Node enables customers to decrease the time needed to plan and deploy a software-defined server SAN architecture, realizing the benefits faster. As a result, customers get one sales experience, one support experience and the confidence of knowing their solution was designed to deliver optimal performance (pre-validated, tested and configured).

Question: **How can customers consume ScaleIO?**

Answer: Customers have 3 different ways to consume ScaleIO:

DIY: ScaleIO software empowers you to turn your x86 server into an SDS infrastructure.

Optimized Server SAN: ScaleIO Ready Node which is fully supported, pre-architected, pre-configured, and pre-validated solution, that combines ScaleIO software with optimized Dell PowerEdge servers to provide the best performance possible.

Turnkey, Hyper-converged infrastructure (HCI): VCE™ VxRack™ System with FLEX integrates compute, software-defined storage, networking, and virtualization. It then utilizes ScaleIO software, and VCE Vision™ Intelligent Operations software, to create a rack scale solution that is fully supported and sustained.

Question: **Is Dell EMC responsible for supporting the entire solution stack?**

Answer: Dell EMC is responsible for the ScaleIO software and the server hardware components in the ScaleIO Ready Node. However, the customer will be responsible for handling day-to-day management of their network switches, power,

and racks. At this time the customer is also responsible for the licensing and updates to all of the OSES or Hypervisors running on the ScaleIO system.

Question: What version of ScaleIO software is required for ScaleIO Ready Node?

Answer: ScaleIO version 2.0.0.2 is the minimum required version for ScaleIO Ready Node.

Question: What are the top use cases for ScaleIO?

Answer: The top use cases for ScaleIO, regardless of deployment model, include core data center use cases, such as Infrastructure-as-a-Service (IaaS), Enterprise and Modern applications, mixed workloads and OpenStack. ScaleIO software combined with ScaleIO Ready Node meets the needs of customers who want to design/update their own infrastructure using fully tested and supported server SAN/software configurations.

Customers interested in a management and orchestration stack that spans the domains of compute/storage/virtualization and networking should look at VCE VxRack System with FLEX. To learn more about VxRack FLEX please click [here](#).

Question: How is ScaleIO Ready Node different from VxRack FLEX?

Answer: To consume ScaleIO as a fully integrated, turnkey, hyper-converged solution the best option is a VxRack FLEX. The VxRack FLEX is a VCE engineered and manufactured product with industry-best life cycle management and assurance, adding rack-scale capabilities that make it easy for customer to achieve extreme scale.

For customers who are looking to build their own software-defined block storage infrastructure, and who want a little more flexibility in the architecture components, ScaleIO Ready Nodes deliver this flexibility. It allows organizations to purchase the network and rack components of their choosing to build their own CI/HCI infrastructures.

Question: Does Dell EMC ViPR® support the ScaleIO Ready Node?

Answer: Yes. ViPR supports the ScaleIO Ready Node. ViPR does not have any ScaleIO Ready Node specific interagation today and will function the same as when used with ScaleIO software on third-party hardware.

ViPR integrates with ScaleIO and its component to create the Block Service from those components. ViPR Block is a service that creates a server-based SAN from local application server storage by integrating ScaleIO into ViPR. ScaleIO acts as a storage provider to ViPR. ViPR provides a Unified Management Console for all Storage within the infrastructure and creates a service catalog to consume storage.

Question: What collateral is available and where can I find it?

Answer: ScaleIO Ready Node collateral can be found on the [ScaleIO product page](#) and the [ScaleIO ECN page](#).

You can also download a Free and Frictionless version of the ScaleIO software before purchasing any of the three available consumption models (ScaleIO software, ScaleIO Ready Node, VxRack System with FLEX). Simply visit www.dell EMC.com/getscaleio and download the ScaleIO software for free for an unlimited time, without capacity restrictions for non-production use.

Technical Questions

Question: What type(s) of ScaleIO Ready Node configurations can I choose from?

Answer: We offer ScaleIO Ready compute nodes, which are designed for both storage and applications (HCI), as well as storage nodes, which are designed to only power the ScaleIO storage. Both All-Flash and Hybrid configurations available. For information on the available configurations, please visit the [ScaleIO Ready Node Specification Sheet](#).

Question: What is the difference between VxRack Node and ScaleIO Ready Node?

Answer: VxRack Node is a generation of server technology which is older than the ScaleIO Ready Node. Based on 13th generation Dell PowerEdge servers, ScaleIO Ready Node features the latest Intel Broadwell-based CPUs. ScaleIO Ready Node also features a software-based caching solution, SanDisk[®] DAS Cache, instead of a physical cache card.

Question: Can VxRack Node and ScaleIO Ready Node be in the same ScaleIO system?

Answer: Yes, but to maintain consistent performance they should not be in the same storage pools. A best practice, to simplify management, is to keep them in separate Protection Domains entirely.

Question: Which Hypervisors or Oses are supported on a ScaleIO Ready Node?

Answer: VMware ESX[®] and Microsoft[®] Hyper-V[®] are both supported hypervisors. Windows and Linux are also supported bare-metal operating systems. For details about supported software, please consult the [EMC Simple Support Matrix](#) for ScaleIO.

Question: What are the minimum and maximum number of nodes in a single ScaleIO system?

Answer: The maximum number of nodes within any given ScaleIO system is 1024. The minimum number of nodes is 3, with the ability to increase in single node increments

Question: How many TB or PB of storage can be deployed per square meter of floor space with ScaleIO Ready Node? How does this compare with legacy storage arrays?

Answer: ScaleIO Ready Node can be 50% more power/cooling/space efficient when comparing the entire solution including storage, application servers and networking switches.

Question: How much more energy efficient is ScaleIO Ready Node versus legacy storage arrays?

Answer: See above.

Question: In a typical data center environment how many TB can an FTE manage using ScaleIO? How does this compare with legacy storage arrays?

Answer: Current ScaleIO customers are deploying over 1PB of storage per FTE compared to 300TB of storage per FTE that is required for traditional storage arrays. ScaleIO is more efficient because: There is no performance management or raid

configuration (ScaleIO automatically makes sure there are no hot-spots); ScaleIO automatically takes care of failover, as well as additions of new resources, by rebalancing the system to optimize all resources. Scale grows in small or large increments (from 3 nodes to 1000+) and can be managed from a single pane of glass. Furthermore, ScaleIO does not have to deal with FC issues around port bindings, zoning or LUN masking.

Question: Is ScaleIO Ready Node Trade Agreements Act (TAA) compliant?

Answer: Yes. L10 integration, which represents the required substantial transformation, is done in a TAA Designated Country. Systems are configured with a TPM module; depending on the destination country and export regulations can be ordered without a TPM upon request.

The information in this publication is provided "as is." EMC Corporation makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose.

Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

EMC², EMC, the EMC logo, ScaleIO and ViPR are registered trademarks or trademarks of EMC Corporation in the United States and other countries. All other trademarks used herein are the property of their respective owners. © Copyright 2016 EMC Corporation. All rights reserved. Published in the USA. 09/16 handout H15407.1

EMC believes the information in this document is accurate as of its publication date. The information is subject to change without notice.

EMC is now part of the Dell group of companies.