# **VMware EVO:RAIL**

A radically simple building block for your software-defined data center



VMware EVO:RAIL™ is a hyper-converged infrastructure appliance designed to help you meet today's data center challenges head on by optimizing your entire IT infrastructure lifecycle. From planning, design and, procurement to deployment and management, EVO:RAIL is a building block for your software-defined data center that radically simplifies your data center operations.

#### KEY BENEFITS

- Radically simplify all your data center operations
- · Increase your speed of business
- Ensure top performance for all your virtualized workloads with best-in-class VMware software and flexible hardware configurations
- Lower your CapEx and OpEx cost
- Reduce your risk with high-resiliency hardware, built-in security policies and VMware software



EVO:RAIL Architecture: Flexible, Scalable and Resilient

EVO:RAIL Appliance	Nodes per Appliance	4
	Max VM's per Appliance	800*
EVO:RAIL Cluster	Max Appliances per cluster	16
	Max VM's per Cluster	12,800*
EVO:RAIL Hardware	Hardware form factor	2U
	Configurations	Flexible hardware configurations with up to 100 options

Depending on your hardware configuration and VM profile

## Introducing EVO:RAIL

#### What is EVO:RAIL?

EVO:RAIL combines VMware compute, network, storage, and management resources into a hyper-converged infrastructure appliance to create a simple, easy-to-manage, all-in-one solution for all your virtualized workloads, including tier-1 production and mission-critical applications. Offered by selected partners, EVO:RAIL is backed by a single point of contact for software and hardware support.

## Radically Simple

Meet accelerated business demands by simplifying infrastructure design with predictable sizing and scaling, and by streamlining purchase and deployment. With EVO:RAIL, you go from initial power-on to VM deployment in minutes, and easily scale to 16 appliances. Manage your VMs, appliance, and cluster from a single pane of glass.

#### Resilient and Secure

Designed with four independent hosts, distributed Virtual SAN™ datastore, built-in VM security policies, and leveraging best in class VMware availability capabilities ensures zero application downtime during planned maintenance or during disk, network, or host failure.

## Trusted and Proven

Powered by VMware's industry leading infrastructure virtualization technology, including VMware vSphere®, vCenter Server™ and VMware Virtual SAN™, EVO:RAIL delivers the first hyper-converged infrastructure appliance designed, powered, and validated by VMware.

## The EVO:RAIL Engine

## Management that Adapts to You

EVO:RAIL orchestrates deployment, configuration, and management in a predictable manner to maximize cost efficiency. Deployment, configuration, and management tasks are streamlined, allowing users to configure and deploy VMs in minutes, not hours or days, and add new appliances to a cluster in a few clicks.

The EVO:RAIL management interface is optimized for both new and for experienced administrators. Administrators with minimal IT knowledge or in environments with limited on-site IT access can easily deploy and managed their virtualized IT environment.

The EVO:RAIL engine simplifies virtual machine provisioning by utilizing predefined sizing and security policies that are enacted with a single click. Once provisioned, VMs can be monitored at a glance from the dashboard. You can monitor compute and storage resources, including CPU, storage, and VM usage and health, by individual nodes, by appliance, as well as by entire clusters.







With four independent ESXi hosts in an EVO:RAIL appliance updating is non-disruptive, requiring zero down-time.

## Infrastructure that Grows with You

EVO:RAIL allows you to radically simplify and automate IT infrastructure scale-out. Increasing compute, networking, or storage resources is as easy as powering up a new appliance and adding it to an EVO:RAIL cluster. The EVO:RAIL engine automatically discovers the new appliance and shares configuration information with other appliances in the cluster effortlessly with only a password and a few mouse clicks.

EVO:RAIL scales up to 16 appliances per cluster, for a total of 64 ESXi™ hosts and one Virtual SAN datastore, managed by a single vCenter Server and EVO:RAIL engine instance.

### **Preloaded Management Software**

EVO:RAIL software is preloaded by your selected EVO:RAIL partner and is comprised of:

- EVO:RAIL deployment, configuration, and management engine
- vSphere Enterprise Plus, including ESXi for virtual compute management
- VMware Virtual SAN for virtual storage
- vCenter Server
- VMware vRealize<sup>™</sup> Log Insight<sup>™</sup>

As part of the vSphere Loyalty Program, customers can leverage existing vSphere Enterprise Plus licenses.

## **Resilient Design**

The EVO:RAIL appliance is designed with fault-tolerance and high availability in mind with four independent nodes, each consisting of dedicated compute, network, and storage resources:

- Four ESXi hosts in a single appliance enables resiliency for unplanned hardware failures and planned maintenance
- Two fully redundant power supplies
- Two redundant 10GbE NIC ports
- Enterprise-grade ESXi boot device, HDDs, and SSDs
- Fault-tolerant Virtual SAN datastore

#### **Use Cases**

EVO:RAIL supports any applications that run on vSphere or Virtual SAN. Each EVO:RAIL appliance is designed to run up to 800 virtual machines scaling-out up to 12,800\* virtual machines in a 16 appliance cluster.



- Easily add up to 16 appliances for increased capacity
- Application uptime ensured through HA, DRS, Virtual SAN, and EVO:RAIL™ Engine
- All virtualized workloads running on VMware, including tier-1 apps



- Sized up to 800\* VMs per appliance
- Handle peak performance requirements (boot, login, read/write storms)
- Quick and easy deployment and configuration



- Consistent footprint and deployment operations
- IT-in-a-box
- Simplified user experience ideal for non-VMware experts
- · Quick and easy deployment and configuration



- Service Provider VPC building block for MSP and hosting
- Consistently and easily deployed on-prem and off-prem (Colo)
- Quick and easy scale-out appliances to increase capacity
- \* Depending on your hardware configuration and VM profile

Hardware and Software Specification (per Appliance)			
EVO:RAIL engine, vSphere Enterprise Plus, Virtual SAN, vCenter Server, vRealize Log Insight			
Processor	8 x Intel E5 Processors, Ivy Bridge or Haswell (48, 64, 80, 96, or 144 cores)		
Memory	• 512, 768, 1024, 1536, or 2048 GB		
Storage	• 16 or 27.2 TB Hybrid Storage (HDD/SSD)		
Network	8 x 10 GbE NIC port (copper or fiber)     4 x 1 GbE for BMC port		
	EVO:RAIL et vCenter Ser  Processor  Memory  Storage		

## Learn More

- Call 877-4-VMWARE (outside North America call +1-650-427-5000)
- Visit http://www.vmware.com/products/evorail and try a free demo
- Follow us @vmwevorail







