



## Solution Brief

# Dell Engineered Solutions for VMware EVO: RAIL

Hyper-converged appliance optimizes infrastructure and application delivery

### At-A-Glance

Dell Engineered Solutions for VMware EVO: RAIL benefits:

- Achieve faster-time-to-value
  - Deploy VMs in just 15 minutes from power on
  - Adopt a simplified appliance-based solution with a streamlined software-defined management experience
- Provide elasticity to your environment
  - Rapidly expand capacity with auto discovery of new infrastructure
  - Gain linear scaling and performance to meet growing user and business needs
- Enable greater ease of use
  - Intuitive, consumerized user interface for ease of configuration
  - Operate with a single-pane-of-glass management experience
  - Use out-of-the-box integrations with existing VMware management tooling

### Accelerate time to value

The Dell Engineered Solutions for VMware EVO: RAIL deliver a transformative user experience for virtual infrastructure, virtual desktop infrastructure (VDI), private cloud and general purpose workloads. The Dell Engineered Solutions for VMware EVO: RAIL combine Dell 2U/4 node servers and virtual infrastructure management software from VMware into a software-defined appliance, helping customers achieve faster time-to-value, provide elasticity to their environments, and enable greater ease of use for their infrastructure and application workload delivery.

### Dell's 2U/4-node server – Powerful, streamlined, efficient

The Dell Engineered Solution(s) for VMware EVO: RAIL is an integrated hyper-converged appliance that is ordered as a single bundle and comes pre-installed with all required software components to get you up and running quickly. The appliance has 4 independent server nodes/blades enclosed within a single 2U chassis, allowing twice the density of four comparable 1U servers, and offers 192 GB of physical memory per node, 13.1TB of tiered storage (Solid State and SAS) and 10GbE Ethernet.

### Designed with your needs in mind

The Dell 2U/4 node server is designed to deliver the highest possible performance in a dense, scale-out package. This shared-infrastructure server offers a mix of performance and efficiency that makes it an exceptional data center building block for VMware environments.

The diagram illustrates the Dell Engineered Solutions for VMware EVO: RAIL, showing two editions: Virtual Infrastructure Edition and VMware Horizon Edition. The Virtual Infrastructure Edition is described as ideal for virtual infrastructure and general-purpose workload deployments, while the VMware Horizon Edition is ideal for virtual desktop infrastructure (VDI) deployments based on VMware Horizon. The diagram also includes a photograph of the Dell 2U/4 node server appliance.

	<b>Engineered Solutions optimized for VMware EVO: RAIL</b> <ul style="list-style-type: none"><li>• Dell 2U/4 nodes of shared local storage</li><li>• Single support contact for hardware/software</li><li>• Value-added software, services and support</li></ul>	
	<b>VMware EVO: RAIL Software Bundle</b> <ul style="list-style-type: none"><li>• EVO: RAIL Rapid deployment, configuration, and management engine</li><li>• Compute, network &amp; storage virtualization with vSphere &amp; vSAN</li></ul>	
<b>Virtual Infrastructure Edition</b> Ideal for virtual infrastructure and general-purpose workload deployments		<b>VMware Horizon Edition</b> Ideal for virtual desktop infrastructure (VDI) deployments based on VMware Horizon

Figure 1. Dell Engineered Solutions for VMware EVO: RAIL

## Simplified Linear Scale-out

With Dell's Engineered Solutions for VMware EVO: RAIL you can easily scale performance, bandwidth and capacity by adding appliances. Each appliance adds compute, storage and networking resources in minutes. New appliances are automatically discovered and can be added to a cluster with zero configuration required.

## Outstanding performance

The Intel® Xeon® processor E5-2600 product family powering the Dell 2U/4 node server enables lightning fast results—helping to boost performance up to 80 percent, reduce latency up to 30 percent, and increase memory bandwidth 2.3 times, compared to the Intel Xeon processor 5600 series used in previous-generation servers.

## VMware EVO: RAIL Software

The VMware EVO: RAIL software bundle comes fully loaded on Dell Engineered Solutions for VMware EVO: RAIL.

## Simplicity Transformed

EVO: RAIL enables power-on to VM creation in minutes, radically easy VM deployment, one-click non-disruptive patch and upgrades, simplified management...you get the idea.

## Software-Defined Building Block

EVO: RAIL is a scalable Software-Defined Data Center (SDDC) building block that delivers compute, networking, storage, and management to empower private/hybrid-cloud, end-user computing, test/dev, and branch office environments.

## Highly Resilient by Design

Resilient appliance design starting with four independent hosts and a distributed Virtual SAN datastore ensures zero application downtime during planned maintenance or during disk, network, or host failures.

## Infrastructure at the Speed of Innovation

Meet accelerating business demands by simplifying infrastructure design with predictable sizing and scaling, by streamlining purchase and deployment with a single appliance SKU.

## Ease of Adoption

EVO: RAIL is optimized for the new VMware user as well as for experienced administrators. Minimal IT experience is required to deploy, configure, and manage EVO: RAIL, allowing it to be used where there is limited or no IT staff on-site.

## Why Dell?

Dell Engineered Solutions for VMware EVO: RAIL are an important addition to Dell's growing engineered solutions portfolio, designed to automate and simplify IT.

- Dell's extensive expertise and industry leadership in x86 server architecture, hardware systems management, web scale deployments and with VMware environments were brought to bear in the development and co-engineering of this solution
- Dell is the single source for technical support and our premium support service is bundled with every EVO: RAIL appliance. Value-added deployment, consulting and managed services are available as well.
- Dell's comprehensive services portfolio for VMware environments, with thousands of joint customers, will ensure that customers get the most out of their VMware environments
- Dell's broad software portfolio delivers comprehensive solutions for data protection, security, performance monitoring, and cloud management to compliment your virtualization environment

## Get the services and support you want

Dell's broad portfolio of planning, implementation and maintenance services can help accelerate your IT initiatives and grow your business. Each Dell Engineered Solution for VMware EVO: RAIL offers a single support contract for hardware, software and services.

ProSupport:

Our premium support service, which is included with the Dell Engineered Solution for VMware EVO: RAIL, offers highly trained experts around the clock and around the globe to address your unique IT needs. We'll help you minimize disruptions and maximize availability of your critical workloads with

- 24x7x365 access to certified hardware experts
- Collaborative support assistance with over 195 third-party vendors
- Hypervisor and operating system support
- On-site parts and labor response options including next business day or four-hour mission critical

## Transformational time-to-value

Dell Engineered Solutions for VMware EVO: RAIL provide the best hyper-converged experience for VMware vSphere and VMware Horizon customers through simplified configuration, optimized scale-out, and ease-of-integration into existing VMware environments.

## Specifications

The Dell Engineered Solutions for VMware EVO: RAIL are offered in two editions – a general purpose solution called the Virtual Infrastructure Edition and a VDI-focused edition for VMware Horizon environments.

The solution includes

Feature	Technical Specification
VMware Software	EVO: RAIL Software stack <ul style="list-style-type: none"> <li>EVO: RAIL Deployment, Configuration and Management Software</li> <li>vCenter Standard</li> <li>vSphere Enterprise+</li> <li>vSAN</li> <li>Log Insight</li> <li>Horizon (For the VDI Offering)</li> </ul>
Dell Hardware	Each appliance includes <ul style="list-style-type: none"> <li>4 server nodes in a single 2U server</li> <li>192GB of physical memory per node</li> <li>Twelve 1.2TB SAS drives, four 480 SSD and four 300GB SAS drives (for the boot Oss) for a total of 20 drives per appliance</li> <li>10GbE Ethernet</li> </ul>
Dell Services	3 year ProSupport for Hardware <ul style="list-style-type: none"> <li>Optional: ProSupport (Mission Critical)</li> </ul>

Dell Engineered Solutions for VMware EVO: RAIL offer performance, efficiency and scalability for your VMware environment in a single dense package.

	Per Appliance	4 Appliances
Server VMs	~100	~400
VMware Horizon VMs	~250	~1000
Virtual SAN Datastore	13.1 TB	52.4 TB

Dell Engineered Solutions for VMware EVO: RAIL help customers optimize infrastructure and application delivery in a streamlined, hyper-converged appliance. The software component delivers the radically new, end-to-end user experience that drives simplicity. It streamlines initial setup and provisioning of virtual infrastructure and ongoing operations with an easy to use interface. The software is built and optimized for the new VMware user as well as for experienced administrators. Minimal IT experience is required to deploy, configure, and manage EVO: RAIL, allowing it to be used where there is limited or no IT staff on-site. As EVO: RAIL utilizes VMware's core products like vCenter and vSAN, administrators can apply existing VMware knowledge, best practices, and processes.

For more information go to [Dell.com/VMware](http://Dell.com/VMware)

