SPECIFICATION SHEET

DELL EMC VXRAIL™ APPLIANCE

on 14th Generation of Dell EMC PowerEdge Servers

The standard in hyper-converged infrastructure

The Dell EMC VxRail™ Appliance, the exclusive hyper-converged infrastructure appliance from Dell EMC and VMware, is the easiest and fastest way to extend and simplify a VMware environment. Powered by VMware vSAN™ and managed through the vCenter interface, the Dell EMC VxRail Appliance provides existing VMware customers an experience with which they are already familiar. Seamless integration with existing VMware tools also lets customers leverage and extend their current IT tools and processes.

The Dell EMC VxRail Appliance architecture is a distributed system consisting of common modular building blocks that scale linearly from 3 to 64 nodes in a cluster. With the power of a whole Storage Area Network (SAN), it provides a simple, cost-effective hyper-converged solution that delivers multiple compute, memory, storage, network and graphics options to match any use case and cover a wide variety of applications and workloads.

Based on industry-leading VMware vSAN and vSphere software and built with new Intel® Xeon® Scalable Processors, the Dell EMC VxRail Appliance allows customers to start small and grow, scaling capacity and performance easily and non-disruptively. Single-node scaling and storage capacity expansion provide a predictable, “pay-as-you-grow” approach for future growth as needed. Built on the 14th generation of PowerEdge servers, the bedrock of the data center, VxRail is designed for today’s mission-critical workloads by offering more processor, flash storage and network connectivity options than its predecessor. Performance is better than ever with 2x better response times and up to 2x better IOPS.

The Dell EMC VxRail Appliance comes stacked with mission-critical data services at no additional charge. Data protection technology including Dell EMC RecoverPoint for VMs and VMware vSphere Data Protection are incorporated into the appliance, with the option of adding Data Protection Suite for VMware and Data Domain Virtual Edition (DD VE) for larger environments that require more comprehensive data protection.

The Dell EMC VxRail Appliance is also backed by Dell EMC’s world-class support with a single point of contact for both hardware and software, and includes Dell EMC ESRS for call-home and proactive two-way remote connection for remote monitoring, diagnosis, and repair to ensure maximum availability.

Detailed specifications and a comparison of the Dell EMC VxRail Appliances on 14th generation PowerEdge Servers follows.

	E Series	V Series	P Series	S Series
Compute, storage and memory (per node)				
Chassis	1U1N	2U1N	2U1N	2U1N
Intel™ Xeon™ Scalable Processor Family				
CPU sockets	Single or dual	Dual	Single or dual	Single or dual
CPU cores	4 - 56	8 - 56	8 - 56	4 - 56
CPU frequency	2.0 GHz – 3.6 GHz	2.0 GHz – 3.6 GHz	2.0 GHz – 3.6 GHz	2.0 GHz – 3.6 GHz
RAM*	96 GB – 1536 GB	192 GB –1536 GB	96 GB – 1536 GB	96 GB – 1536 GB
Cache SSD	400 GB – 1600 GB	400 GB – 1600 GB	400 GB – 1600 GB	400 GB – 1600 GB
Hybrid storage	1.2 TB – 16 TB	1.2 TB – 40 TB	1.2 TB – 40 TB	4 TB – 48 TB
All flash storage (SAS or SATA)	1.92 TB – 30.7 TB	1.92 TB – 76.8 TB	1.92 – 76.8 TB	Hybrid only
Drive bays	10 x 2.5”	24 x 2.5”	24 x 2.5”	12 x 3.5” *and* 2 x 2.5”
Max disk groups	2	4	4	2
Boot Optimized Storage Solution (BOSS)	2 x 240GB SATA M.2 RAID 1	2 x 240GB SATA M.2 RAID 1	2 x 240GB SATA M.2 RAID 1	2 x 240GB SATA M.2 RAID 1
Max PCIe GPUs	n/a	1x-2x NVIDIA Tesla M10 or 1x-3x NVIDIA Tesla M60	n/a	n/a

*Exceeding 768GB RAM requires dual socket CPU
**1600 GB cache SSD only in hybrid configurations
***Adding GPUs reduces total RAM and additional network connectivity

	E Series	V Series	P Series	S Series
Clustering and scaling				
Max nodes (per cluster)	64	64	64	64
Min nodes (per cluster)	3	3	3	3
Scaling increment (in nodes)	1	1	1	1

*8 nodes maximum per cluster in 1 GbE models

	E Series	V Series	P Series	S Series
Networking (per node)				
Appliance connectivity	4x10 GbE RJ45 *or* 4x10 GbE SFP+ *or* 4x1 GbE RJ45*	4x10 GbE RJ45 *or* 4x10 GbE SFP+	4x10 GbE RJ45 *or* 4x10 GbE SFP+ *or* 4x1 GbE RJ45*	4x10 GbE RJ45 *or* 4x10 GbE SFP+ *or* 4x1 GbE RJ45*
Management port	1x1 GbE iDRAC9 Enterprise RJ45	1x1 GbE iDRAC9 Enterprise RJ45	1x1GbE iDRAC9 Enterprise RJ45	1x1 GbE iDRAC9 Enterprise RJ45
Optional connectivity (max additional ports)	Up to 8x10 GbE RJ45	Up to 16x10 GbE RJ45 *or* Up to 16x10 GbE SFP+	Up to 16x10 GbE RJ45 *or* Up to 16x10 GbE SFP+	Up to 12x10 GbE RJ45 *or* Up to 12x10 GbE SFP+

*1 GbE connectivity limited to single socket CPU

	E Series	V Series	P Series	S Series
Power and dimensions				
High-efficiency dual redundant PSU	1100W 100V – 240V AC 1100W -48V DC	2000W 200V – 240V AC	1100W 100V – 240V AC 1100W -48V DC 1600W 200V – 240V AC	1100W 100V – 240V AC 1100W -48V DC
Redundant cooling fans	8	6	4 or 6	6
Physical dimensions	42.8mm/1.68in H 434.0mm/17.09in W 733.82mm/29.61in D 21.9kg/48.28lb	86.8mm/3.42in H 434mm/17.09in W 678.8mm/26.72in D 28.1kg/61.95lb	86.8mm/3.42in H 434mm/17.09in W 678.8mm/26.72in D 28.1kg/61.95lb	86.8mm/3.42in H 434mm/17.09in W 678.8mm/26.72in D 33.1kg/72.91lb

	E Series	V Series	P Series	S Series
Environmental and certifications				
Ambient operating temperature	10°C to 30°C 50°F to 86°F	10°C to 30°C 50°F to 86°F	10°C to 30°C 50°F to 86°F	10°C to 25°C 50°F to 77°F
Storage temperature range	-40°C to +65°C -40°F to +149°F	-40°C to +65°C -40°F to +149°F	-40°C to +65°C -40°F to +149°F	-40°C to +65°C -40°F to +149°F
Operating relative humidity	10% to 80% (non-condensing)	10% to 80% (non-condensing)	10% to 80% (non-condensing)	10% to 80% (non-condensing)
Operating attitude with no deratings	3048m approx. 10,000 ft	3048m approx. 10,000 ft	3048m approx. 10,000 ft	3048m approx. 10,000 ft
Heat dissipation	4100 BTU/hr	7500 BTU/hr	6000 BTU/hr	4416 BUT/hr
Certifications	UL (Covers cUL and does not require CSA), CE, EMC, FCC			

Learn more about Dell EMC VxRail Appliances

Contact a Dell EMC Expert

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