Dell EMC Ready Bundle for Virtualization

A pre-validated solution that adapts to your needs with new levels of flexibility, confidence and time to value

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Confidence

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Quickly deploy a right-fit, validated virtualization solution

Organizations have varied requirements in how they build infrastructure solutions to address growing business needs. Some prefer to consume infrastructure as pre-integrated systems while others prefer to build infrastructure that meets their specific needs. Dell EMC can now cater to the needs of all our customers with a portfolio of offerings across Ready Nodes, Ready Bundles and Engineered Systems. Dell EMC Ready Bundle for Virtualization, through its wide selection of tested and validated configurations, offers the required configuration flexibility, fast deployment and reliable operations for customers looking to build infrastructure.

Hardware built for modern virtualization needs

The Dell EMC Ready Bundle for Virtualization is a pre-validated and flexibly sized solution, with a choice of building blocks of compute, storage and networking — optimized to support VMware vSphere® virtualized environments. It can easily be right-sized to a high degree to fit your needs, from as small as two compute nodes with associated storage to as large as multiple high-density racks, scaled in increments as small as a single node or drive.

The Dell EMC Ready Bundle for Virtualization provides a scalable, validated, highly available and fully supported infrastructure with built-in monitoring for a general-purpose virtualized infrastructure. Built with design flexibility that caters to various business and technical requirements, the Dell EMC Ready Bundle for Virtualization is designed in accordance with the best practices and recommendations for virtualizing enterprise applications and maintaining required performance.

Flexibility
Get the flexibility to operate at any scale. The Dell EMC Ready Bundle for Virtualization provides the ability to start with just the right configuration for your needs, and scale easily – meaning no trade-offs on the convenience and flexibility of rack deployments or the different levels of performance that various storage solutions provide.

Confidence
The Dell EMC Ready Bundle for Virtualization is tested and validated to reduce risks. With over 74,000 engagements last year alone, Dell EMC has a wealth of experience across a range of deployment needs, including configuration, logistics, integration, data migration and asset disposition.

Time to value
Flexible design choices and configuration guidance vastly reduce the time it takes to procure, validate and integrate components. In fact, the Dell EMC Ready Bundle for Virtualization can be configured, quoted and ordered in minutes, while standardized deployment services further accelerate time to results.

Are you facing any of these challenges?

We need a virtualization platform that solves our unique infrastructure needs.
The requirements for virtualization infrastructure are very specific and tied to business needs, application requirements and the pace of growth — all of which can change over time. Without a range of choices, you may feel compelled to choose small, low-cost solutions that require a fork-lift upgrade later or a large, high-density solution that requires you to pay for capacity that is not immediately needed.

Dell EMC Ready Bundle for Virtualization provides flexibility in form factors, technologies and building blocks for your virtualization platform. With thousands of configuration combinations to choose from, the Dell EMC Ready Bundle for Virtualization offers:

- **Wide range of technology choices** – Rack or blade servers, traditional SAN or hyperconverged infrastructure (HCI) with VMware vSAN™, iSCSI or Fibre Channel
- **Wide range of sizes** – From a half-rack 3-node HCI configuration to a full-rack 40-node blade configuration with associated storage and networking
- **Deployment options** – Choice of do-it-yourself with a deployment guide, or a partner-led or Dell EMC led deployment in a merge center or on-site

With all this flexibility, you can easily build a design based on very specific needs such as capacity, workloads, server form factor, type of networking fabric and data center density requirements.

If I build it myself, I'm not sure the platform will deliver to my requirements.
When you partner with Dell EMC, you can leverage industry-leading expertise to confidently progress on your virtualization journey. The Dell EMC Ready Bundle for Virtualization is built on best-in-class Dell EMC products that are designed for virtualization across the ecosystem. It goes through a rigorous validation by Dell EMC engineers so the system works as designed. As a pre-validated solution, it eliminates the guesswork by providing recommended configurations specifically tailored to your needs. Since the configurations are designed with an assumption that disruptions are bound to happen, they are tested for failures at every level so that they have enough capacity to account for failures when they do occur.

And they're delivered with Dell EMC's global reach, exceptional execution and delivery, providing consistent deployment, management and maintenance in every region of the world. Finally, Dell EMC provides world-class support for deployed components – including software options – through Dell EMC ProSupport Plus, resolving issues faster when they occur and reducing the risk of severe issues and outages.

Designing and deploying virtualization infrastructure takes too long.
The Dell EMC Ready Bundle for Virtualization can eliminate or reduce various time-consuming elements in the infrastructure lifecycle across design, sizing, planning, deployment, testing and maintenance through testing and validation and best practices. Dell EMC System Builder provides a user interface that asks key questions about what you're trying to accomplish, including IT policies, configuration needs and workload requirements. Based on these requirements and preferences, Dell EMC sales teams and channel partners can quickly create a tailored yet validated solution that includes hardware, software and all services.

By offering flexible design choices and guidance on choosing the right components, the Dell EMC Ready Bundle for Virtualization takes the guesswork out of solution design and reduces the enormous time it takes to procure, validate and integrate components.

Dell EMC Solutions

The Dell EMC Ready Bundle for Virtualization combines compute, storage, fabric, top of rack (TOR) switches, virtualization, monitoring, deployment and support. Depending on the project requirements and your technology preferences, the Dell EMC Ready Bundle for Virtualization is available in Fibre Channel, iSCSI and software-defined storage using VMware vSAN.

The following charts show some typical configurations—but note that you can scale the Dell EMC Ready Bundle for Virtualization in increments as small as a single compute node or drive.

Configuration details

	Fibre Channel based configurations	iSCSI based configurations	VMware vSAN based configurations
Server	• PowerEdge R630 • PowerEdge R730 • PowerEdge FX2 with PowerEdge FC430 • PowerEdge FX2 with PowerEdge FC630	• PowerEdge R630 • PowerEdge R730 • PowerEdge FX2 with PowerEdge FC430 • PowerEdge FX2 with PowerEdge FC630	**Hybrid and all-flash** • PowerEdge R630 • PowerEdge R730 • PowerEdge R730xd **All-flash** • PowerEdge FX2 with PowerEdge FC430 • PowerEdge FX2 with PowerEdge FC630
Processor	Intel® Xeon® E5-2600 v5 Family	Intel Xeon E5-2600 v5 Family	Intel Xeon E5-2600 v5 Family
Traditional storage	• SC4020 with an SC220 enclosure • SC9000 with an SC420 enclosure	• SCv2020 with an SC120 enclosure • SC4020 with an SC220 enclosure	-NA-
Software-defined storage	-NA-	-NA-	VMware vSAN
Drives	200GB–15TB	200GB–15TB	400GB–1.92TB
Network	• Local area network (LAN) switch: Networking S4048 • Storage area network (SAN) switch: Brocade® 6505 or Brocade 6510 • Out-of-band (OOB) switch – S3048	• LAN switch – Networking S4048 • SAN switch – Networking S4048 • OOB switch – Networking S3048	• LAN switch – Networking S4048 • OOB switch – Networking S3048
Management server (optional)	PowerEdge R630	PowerEdge R630	PowerEdge R630
Monitoring and management software	VMware vRealize® Operations Manager™	VMware vRealize Operations Manager	VMware vRealize Operations Manager
Virtualization software	VMware vSphere 6.5 (optional)	VMware vSphere 6.5 (optional)	VMware vSphere 6.5 (optional)

These configurations are engineered to drive business success. To help you get the most out of your virtual environment, Dell EMC offers a range of additional software capabilities to facilitate application performance monitoring and optimization, security and advanced data protection, disaster recovery and more.

Software	• VMware vRealize® Log Insight™ • VMware vRealize® Automation™, VMware vRealize® Orchestrator™ • VMware vRealize Operations • VMware vSphere		
Net	Dell EMC Networking		Brocade 6510 (Fibre Channel)
Servers	PowerEdge R630	PowerEdge R730	128GB to 256GB
HCI	All vSAN Ready Nodes (Racks: R630, R730, R730xd & FX2: FC630, FC430)		
Storage	SCv2000	SC4020	SC9000

Built on best-in-class technology

Dell EMC PowerEdge R630 Server: Concentrate your computing and capacity to maximize data center efficiency with an ultra-dense virtualization or database engine that supports up to 24 flash SSDs in a 1U chassis.

Dell PowerEdge R730 Server: Impressive processor performance, a large memory footprint, extensive input/output (I/O) options and a choice of dense, high-performance storage or low-cost, high-capacity storage.

Dell EMC PowerEdge R730xd Server: Redefining server-based storage flexibility with the ability to boost workload efficiency like never before with unprecedented PowerEdge in-chassis storage flexibility.

Dell EMC PowerEdge FX2: Modular server, storage and networking blocks neatly combined in a compact, converged 2U rack chassis to redefine data center agility.

Dell EMC PowerEdge FC430 Server: A quarter-width, two-socket FX architecture server offering the ultimate in shared infrastructure density with the option for smaller, physically discrete servers.

Dell EMC PowerEdge FC630 Server: Two-socket, half-width 1U workhorse server blocks are ideal for a wide variety of business applications.

Dell EMC Storage SCv2020: Balances the need for low cost per terabyte with the performance to drive critical applications while maximizing your return on investment.

Dell EMC Storage SC4020: High IOPS and low latency to accelerate any application, and the flexible platform lets you start small and expand and adapt cost-effectively to meet changing workload needs.

Dell EMC Storage SC9000: The ideal solution for large-scale systems and distributed enterprise environments. It is designed and optimized for using flash storage.

Brocade 6505 Fibre Channel Blade: Blazing-fast 16Gbps Fibre Channel bandwidth with flatter, faster and simpler fabrics, increasing consolidation while reducing network complexity and costs.

Brocade 6510: Mid-market SAN switch reduces costs, enables a densely virtualized, scalable cloud infrastructure and unleashes the full potential of flash storage in a smartly designed 1U package.

Dell EMC Networking S3048-ON 1GbE: Top-of-rack (TOR) switch with an industry-hardened operating system (OS) and support for open networking, providing freedom to run third-party operating systems.

Dell EMC Networking S4048-ON 10/40GbE: High-density 1U TOR switch with forty-eight 10GbE uplinks. It offers ultra-low-latency and line-rate performance that is optimized for data centers.

Dell EMC Networking N4000 Series 10GbE: Modernize your networks with switches for Layer 3 aggregation that feature multi-chassis link aggregation (MLAG) and 12-unit stacking.

Why Dell EMC?

The combination of Dell and EMC brings together two industry-leading companies with strong reputations for value and innovation. Dell EMC holds leadership positions in some of the biggest and largest growth categories in the IT infrastructure business, and that means you can confidently source all your IT needs from one provider — Dell EMC.

- #1 converged infrastructure[1]
- #1 in traditional and all-flash storage[2]
- #1 virtualized data center infrastructure[3]
- #1 cloud IT infrastructure[4]
- #1 server virtualization and cloud systems management software (VMware)[5]
- #1 in data protection[6]
- #1 in software-defined storage[7]

[1] IDC WW Quarterly Converged Systems Tracker, June 2016, Vendor Revenue — EMC FY 2015.

[2] IDC WW Quarterly Enterprise Storage Systems Tracker, June 2016, Vendor Revenue — EMC CY 2015.

[3] Dell EMC Annual Report, 2015.

[4] IDC WW Quarterly Cloud IT Infrastructure Tracker, Q1 June 2016, Vendor Revenue — EMC FY 2015.

[5] IDC WW Virtual Machine and Cloud System Market Shares 2015, July 2016.

[6] Dell EMC Pulse, Gartner Recognizes EMC as a Leader in the 2016 Data Center Backup and Recovery Software Magic Quadrant, June 2016.

[7] IDC white paper, "Software Defined Storage: A Pervasive Approach to IT Transformation Driven by the 3rd Platform," November 2015.

Services and financing

Dell EMC Professional Services
Solutions customized for your needs
Leverage on-site integration or application implementation with Dell EMC Professional Services.

Support is always on for you
Enjoy unlimited access to 24x7 chat, email and phone support services with how-to assistance and disaster recovery from Dell EMC ProSupport.

Deployment assistance when you need it
You can trust Dell EMC to deploy the racked configuration in your data center, including network cabling, operating system, firmware and hypervisor with Dell ProDeploy.

Dell EMC Financial Services
- Full-service leasing and financing solutions are located throughout the US, Canada and Europe.
- Dell EMC Financial Services can finance the total technology solution.
- Efficient electronic quoting and online contracts offer the best customer experience.

Learn more about Dell EMC Financial Services.

Expand or refresh your virtualized environments with confidence

Don't wait to find out more about how you can get the flexibility, confidence and time to value you need to adopt, expand or refresh virtualization infrastructure. Contact your Dell EMC sales representative, or visit the Dell EMC Ready Bundle for Virtualization page to learn more.

Contact us

To learn more, visit dell.com/datacenter or contact your local representative or authorized reseller.