Dell EMC Ready Bundle for Red Hat OpenStack Platform

Rapid, automated deployment of a reliable and easy-to-manage OpenStack cloud

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Transform to meet the needs of the digital economy

The emerging digital economy is driving transformation for IT organizations as they steadily shift focus and strategies to embrace cloud and on-demand service operations. IT organizations must evolve rapidly or risk becoming obsolete. Private and hybrid cloud technologies create an opportunity for IT to reinvent their alignment with the business to meet the new demands of users and customers. Many enterprise, commercial and individual developers have embraced OpenStack® as the leading open source cloud platform to harness the innovation, efficiency and agility that are essential for digital business operations.

However, deploying OpenStack can be challenging due to the interdependency of OpenStack's multiple projects and the rapid evolution in OpenStack components. Integrations with hardware, cloud management software, services and enterprise IT systems are needed to package the OpenStack platform into a solution that addresses real organizational needs and therefore delivers real results to an enterprise. But as the OpenStack user community can tell you, this work requires significant knowledge, investment and continued commitment.

Not all OpenStack clouds are created equal

Trusted technology vendors — Dell EMC and Red Hat® — have solved this dilemma by co-engineering the Dell EMC Ready Bundle for Red Hat OpenStack Platform. It combines a core validated architecture with select extensions to create an adaptive infrastructure that integrates the best innovations from the OpenStack community with proven Dell EMC and Red Hat technologies. This open, secure, reliable and supported solution is built on validated, integrated components and features rapid, automated provisioning to simplify and speed deployment — so you can take advantage of cloud benefits sooner.

Respond faster to business and market demands
Swiftly deploy and scale cloud infrastructure with a solution bundle that simplifies and speeds deployment with cutting-edge cloud services and automation.

Get the stability and reliability your environment demands
Dell EMC and Red Hat have collaborated to address gaps in OpenStack and deliver a highly stable, reliable and supported cloud infrastructure.

Simplify cloud management
The Dell EMC Ready Bundle for Red Hat OpenStack Platform streamlines and removes the complexities of OpenStack deployment and its operating environment with an easy-to-use management interface.

Rapid, automated deployment

Reliable operations

Simplified management

Do these challenges sound familiar?

It takes too long to get cloud infrastructure up and running

Dell EMC Ready Bundle for Red Hat OpenStack Platform is a jointly engineered solution that provides validated configurations for system hardware, software, storage and networking — designed to provide a rapid on-ramp to OpenStack-powered clouds. The co-engineered solution speeds time to results with innovative automation tooling that spans the entire core architecture and establishes a foundation for in-place non-disruptive version upgrades, deployment automation spanning bare-metal setup through workload instantiation, code verification-testing automation, host maintenance mode and virtual machine (VM) live migration — to name a few.

We're having trouble with reliable operations

Not just any OpenStack cloud can deliver a production-scale environment and meet enterprise reliability and security standards. Dell EMC and Red Hat have collaborated to address gaps in OpenStack and deliver a highly scalable, secure and supported OpenStack-powered cloud infrastructure. For example, high availability is designed into the configuration. Key OpenStack services are made highly available by clustering the OpenStack controller nodes. The high availability controller nodes are used to host redundant active-active database configurations. Plus, you can rely on expert support from Dell EMC and Red Hat for the entire solution, resulting in an extended lifecycle beyond the six-month release cadence of OpenStack.

Data center management is too complex

Dell EMC collaborates with Red Hat to streamline and remove the complexities of OpenStack and its operating environment. Dell EMC and Red Hat's integrated solutions allow you to deploy, provision, monitor, manage and scale OpenStack environments with management for the hardware, operating system, and cloud software. With Red Hat OpenStack Platform, system administrators can get private clouds up and running quickly and keep them running reliably — with the ease and elegance of a multi-featured, enterprise-grade cloud manager.

Red Hat OpenStack Platform delivers the Red Hat Enterprise Linux® operating system, OpenStack software, and Red Hat OpenStack Director in a single, hardened software distribution. Red Hat performs compatibility testing, code backporting, code patches and updates to produce a stable, reliable and secure enterprise cloud operating environment. Read more about the Dell EMC and Red Hat Alliance.

Dell EMC Ready Bundle for Red Hat OpenStack Platform

This jointly engineered OpenStack cloud solution brings together a core architecture with selected, validated extensions — creating an adaptive infrastructure that integrates the best innovations from the OpenStack community with proven Dell EMC and Red Hat technologies. What's more, Dell EMC and Red Hat put all configurations and deployment options through extensive validation and stress testing in Dell EMC and Red Hat labs, so you can deploy with confidence.

There are two architectural options for this Ready Bundle. For the first option, the configurations are built on Dell EMC PowerEdge R-series rack servers, including the PowerEdge R430/R630/R730/R730xd Servers, and include infrastructure and extended support. The newest option supports configurations built on the FX-series of modular servers. Both architectures consist of 10 nodes, have 10Gb networking, and start in one rack with mix-and-match sizing that allows you to scale back to a half-rack or scale out to three racks.

Flexible technical specifications

Compute and controller nodes	Dell EMC PowerEdge R430, R630, R730 or R730xd Servers	Dell EMC PowerEdge FC630 Servers
Software-defined storage nodes	Dell EMC PowerEdge R730xd Servers	Dell EMC PowerEdge FC630 and FD332 Servers
CPU	Intel® Xeon® E5-2600 v4 family dual processors	Intel Xeon E5-2600 v4 family dual processors
Memory	128/256/512GB per node	
Network	Dell EMC Networking S3048/S4048-ON switches 1GbE/10GbE configurations	
Management	Dell EMC iDRAC 7 Remote Access Server Management Dell EMC OpenManage Essentials	
Cloud platform	Red Hat OpenStack Platform (OSP) 10 Red Hat Ceph 2.0 Storage	
Dell EMC Services	Dell EMC and Red Hat joint deployment services Dell EMC ProSupport, ProSupport Plus Up to 3 years support on hardware and software	
Dell EMC Professional Services	Dell EMC Cloud Assessment Dell EMC Data Center Transformation Workshop Dell EMC Cloud Transformation Services Dell EMC Hybrid Cloud Consulting Dell EMC Application Migration Services	

Extend, enhance and customize the core cloud infrastructure with validated and documented options that let you adopt OpenStack community-based innovation with leading OpenStack cloud technologies. Available extensions include:

- Docker container support and Containers as a Service (CaaS) with OpenShift Container Platform.
- Multi-cloud management, including self-service provisioning, monitoring, policy and governance with CloudForms®
- Chargeback and showback capabilities with CloudForms reporting
- Platform as a Service (PaaS) with CloudForms and OpenShift integration.
- Advanced software-defined networking with Midokura® Enterprise MidoNet®.

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 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]

Why Red Hat OpenStack Platform?

It matters which OpenStack distribution and which Linux offering you choose. This is why Red Hat — recognizing the critical interdependencies between the two — co-engineered them together with closely aligned product engineering teams. Paired with Red Hat CloudForms's open, hybrid management for workloads and infrastructure as well as Red Hat Ceph Storage's highly redundant, software-defined storage, the Red Hat OpenStack Platform is an integrated and managed foundation for production-ready clouds.

By choosing Red Hat OpenStack Platform, customers benefit from the fast pace of open source project innovation while maintaining a stable platform for production deployment. With Red Hat OpenStack Platform, your customers can concentrate on delivering the cloud services their customers demand, while Red Hat maintains the core OpenStack code and the underlying Linux platform on which it depends.

[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

Support is always on for you

Dell EMC ProSupport offers a single point of accountability with access to highly trained experts who are available 24x7. Support is provided by experts trained in the Dell EMC Ready Bundle for Red Hat OpenStack Platform. For hardware issues, standard next business day on-site service is included, along with optional parts and labor response times. ProSupport also includes collaborative assistance for third-party hardware, and software troubleshooting and issue diagnosis. For more details, visit Dell EMC ProSupport.

OpenStack implementation and consulting

Dell EMC Services can provide implementation of the Dell EMC Ready Bundle for Red Hat OpenStack Platform in your data center. The service includes hardware rack integration (on- or off-site) plus host operating system and OpenStack software installation. If you have advanced requirements, Dell EMC offers custom statement of work–based OpenStack Cloud Consulting services, including workshops, assessments, design and custom implementation. Find out more at Dell EMC ProDeploy.

Solutions customized for your needs

You can leverage on-site integration or application implementation with Dell EMC IT Transformation and Consulting Services.

Dell EMC Financial Services

Get the most out of your budget. This is the only OpenStack solution offered with flexible OpenScale Payment Solutions — including Pay As You Grow and Provision And Pay — backed by Dell EMC Financial Services. You can customize your payment plan to align with your business needs and increase the impact of your budget. Dell EMC Financial Services also offers:

- Full-service leasing and financing solutions throughout the US, Canada and Europe
- Financing for the total technology solution
- Efficient electronic quoting and online contracts for the best customer experience

Learn more about Dell EMC Financial Services.

Get a reliable, easy-to-manage OpenStack cloud faster than you ever thought possible

Don't wait to find out more about how you can get rapid, automated deployment of a reliable and easy-to-manage OpenStack cloud. Contact your Dell EMC sales representative, or visit the Dell EMC Ready Bundle for Red Hat OpenStack Platform web page to learn more.

Contact us

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

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