

DELL EMC READY SOLUTION FOR VMWARE NFV PLATFORM

THE CHANGING COMMUNICATIONS MARKET

Data from mobile devices will reach:

107 exabytes per month

Total mobile data traffic is forecast to rise at a compound annual growth rate (CAGR) of 39 percent, reaching close to 107 exabytes (EB) per month by the end of 2023. Also, it is expected that 20 percent of mobile data traffic worldwide will be carried by 5G networks¹. Service providers need to rapidly scale up their capability and meet this growing demand. However, the current network architecture comprises of expensive hardware-based appliances with software tightly embedded into them. This not only makes the network rigid and fragmented, but also expensive with limited scalability.

Network functions virtualization (NFV) can help you overcome these issues by increasing infrastructure flexibility, efficiency, and scalability — while also reducing costs and lowering innovation risks. Dell EMC and VMware provide a proven, adaptable infrastructure for NFV environments. Based on open standards and engineering collaboration, the Dell EMC Ready Solution for VMware NFV Platform delivers exceptional scalability and agility in an integrated, optimized, and cost-effective package.

Dell EMC Ready Solution for VMware NFV Platform Overview

The Dell EMC Ready Solution for VMware NFV Platform is a turnkey solution optimized to simplify and accelerate production deployments. With this solution, Dell EMC has built a fully integrated and validated solution that enables service providers to immediately launch their own services on top of this Network Function Virtualization (NFV) platform, minimizing, if not eliminating, the need to apply engineering resources to develop their own infrastructure.

The solution combines hardware, software, and Dell EMC engineering and is designed to create a more flexible, scalable, and agile platform for CSPs. It includes open standards-based Dell EMC cloud infrastructure hardware (compute, networking) and a choice of a Virtual Infrastructure Manager (vCloud Director or VMware Integrated OpenStack) with vSAN. The solution also supports 14th generation PowerEdge Servers based on Intel® Xeon® Scalable Processors.

The solution is pre-validated with VMware vCloud NFV Platform Edition 3.0, and it encompasses both hardware and software. This specific software is optimized around Dell EMC cloud infrastructure hardware. The pre-validated solution minimizes adoption time and significantly reduces time to service from weeks to days/hours. The solution also provides carrier-grade reliability for SLA requirements.

Based on internal Dell EMC testing, an expert resource required an average of 5 days to deploy the baseline infrastructure of the solution. Automation tools, included with the solution, reduce deployment time to approximately 5 hours.

Other capabilities include support for Kubernetes to facilitate adoption of containers. Kubernetes is only supported with VMware Integrated OpenStack. In addition, leveraging Dell EMC's strength on Open Networking, the solution provides network fabric support with Big Switch Networks to help service providers build a data center fabric.

At its core, the VMware vCloud NFV Platform includes the vSphere virtualization platform, vSAN, NSX, vCloud Director or VMware Integrated OpenStack for the VIM, and vRealize Operations for operations management. Deploying VMware vSphere as host nodes and virtual machines will allow the gaining performance, security, and operational advantages.

¹ [Ericsson Mobility Report](#), June 2018

In addition, there are two VIM options available with the Dell EMC Ready Solution for VMware NFV Platform. You can select either VMware vCloud Director or VMware Integrated OpenStack depending on which option is more suitable.

A Proven, Optimized NFV Infrastructure

To promote cost-effectiveness, agility, innovation and interoperability, the European Telecommunications Standards Institute (ETSI) has proposed a modern NFV Infrastructure based on open technologies and architectures.

In Figure 1, the Dell EMC Ready Solution for VMware NFV Platform integrates all of these components into a flexible, customizable building block. Dell EMC and VMware co-engineered this infrastructure for optimized performance, security, and stability. Plus, the companies continue to work together to incorporate the newest technology and business innovations into the solution so you can confidently keep pace with your evolving requirements.

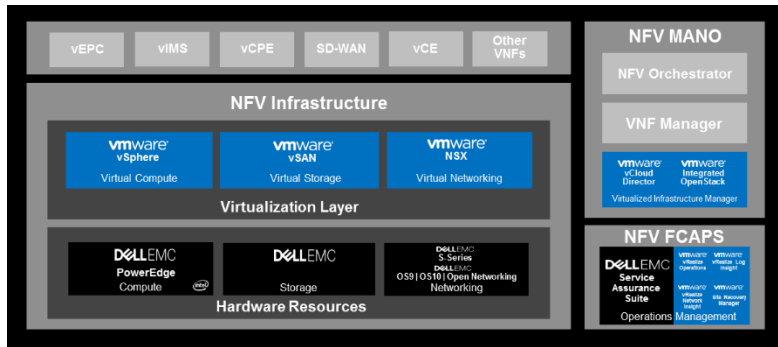


Figure 1: Dell EMC Ready Solution for VMware NFV Platform

Why Choose Dell EMC Ready Solution for VMware NFV Platform?

The Dell EMC Ready Solution for VMware NFV Platform offers several customer benefits to help CSPs rapidly implement Dell EMC cloud infrastructure hardware and VMware vCloud NFV Platform software jointly:

- **Ready-to-use solution:** The solution has been fully engineered, validated, tested and documented by Dell EMC. This decreases your investment and deployment risk, and it enables faster deployment time.
- **Ease of ordering:** The full solution is orderable from Dell EMC. No need to buy vCloud NFV Platform separately.
- **Choice:** VMware vCloud NFV provides a choice of Virtual Infrastructure Manager, giving you the flexibility to deploy on OpenStack or using vCloud Director.
- **Long lifecycle deployment:** The solution includes long-life Intel® Xeon® processors which reduces your investment risk and protects your investment in the solution for the long-term.
- **Seamless customer experience:** Dell EMC provides a single point of contact for pre-sales and post-sales support for the entire solution and length of your deployment for peace of mind.
- **Consulting services:** The solution includes consulting services designed to simplify installation and configuration of the ready solution in your environment.
- **Customizable solution:** The solution is prescriptive, but it can be customized to address each customer's unique virtual network function (VNF) workload requirements.

Conclusion

The Dell EMC Ready Solution for VMware NFV Platform is a ready-to-operate solution for CSPs. Pre-validated with Dell EMC cloud infrastructure hardware and VMware vCloud NFV Platform, it reduces the time it takes to procure, validate, and integrate components. The solution helps CSPs accelerate infrastructure virtualization and NFV adoption.

Dell EMC Ready Solutions for Service Providers

The Dell EMC Ready Solutions for Service Providers offer a simple and reliable path to identify and acquire tested and validated solutions aligned to CSP workloads so that you can accelerate innovation, reduce risk and lower the total cost of ownership. The Dell EMC Ready Solutions for Service Providers delivers hassle-free, confidence-inducing, packaging of best-of-breed disaggregated components to help CSPs get up and running quickly.

From fully systems delivered with full lifecycle support, to reference architectures and solutions with pre-constructed templates, tools and documentation that serve as starting points for your own custom built solutions, you can count on Dell EMC to help you deliver better outcomes. Services and support from Dell EMC and channel partners complement your resources, while agile options from Dell Financial Services remove traditional capital budget bottlenecks.