ADOPT NETWORK FUNCTIONS VIRTUALIZATION FASTER WITH RED HAT AND CISCO

SOLUTION BRIEF

58%

of telecommunications companies find choosing from the many orchestration technologies and stacks to be a main challenge in implementing NFV.[1]

Red Hat and Cisco offer a pre-integrated NFV infrastructure solution that is reliable, easy, and fast to deploy. The Cisco NFV Infrastructure, powered by Red Hat Enterprise Linux OpenStack Platform, supports high service availability, simplifies operations, reduces costs, and includes carrier-grade support to help you succeed in a competitive and fast-paced market.

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GAIN AGILITY WITH NETWORK FUNCTIONS VIRTUALIZATION

Network functions virtualization (NFV) can help telecommunications organizations contain expenses, grow revenue, and raise operational efficiency and agility. Because NFV uses standard x86 servers, it is more cost-effective than a traditional, dedicated network infrastructure. The adaptable, virtualized environment lets you develop, launch, and decommission applications faster and more easily. Massive scalability allows you to quickly deploy resources to meet both short spikes in demand and longer-term growth.

Based on standards created by the European Telecommunications Standards Institute (ETSI) Industry Specification Group for NFV, Red Hat and Cisco offer an NFV infrastructure solution that can help your organization deploy NFV rapidly and reliably. High service availability, simplified operations, and an optimized, workload-agnostic design let you deliver a variety of virtual network functions (VNFs) while lowering costs and increasing agility.

SIMPLIFY AND SPEED NFV DEPLOYMENT

An NFV environment comprises many elements – in fact, 58% of telecommunications companies say choosing from the many orchestration technologies and stacks is their main challenge in implementing NFV.[1] All components of the Cisco NFV Infrastructure, powered by Red Hat® Enterprise Linux® OpenStack® Platform, are tested and pre-integrated for increased stability, security, and interoperability. The European Advanced Networking Test Center (EANTC) has also validated this solution to deliver the performance and functionality needed for effective NFV deployment. All of this eliminates the need for in-house research, integration, and verification work, greatly simplifying implementation. The modular design lets you choose the right size and options for your organization and easily expand and adapt over time. Each package option is delivered fully configured and ready to deploy. Set-up services are available to further accelerate your transition to NFV.
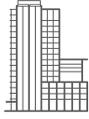
INCREASE VISIBILITY AND REDUCE OPERATING COSTS

55% of telecommunications companies cite managing, orchestrating, and realizing the potential of VNFs as a barrier to deploying NFV.[1] The Red Hat and Cisco solution includes integrated management software that unifies administration and automates common tasks. This streamlines management, reduces operational expenses (OpEx), and increases staff productivity. Meanwhile, increased visibility into your infrastructure and resource usage lets you prevent issues from affecting service availability and improves infrastructure planning.

GAIN OPEN FLEXIBILITY AND INNOVATION

An open environment gives you more flexibility and lets you employ the latest innovation. As a result, 83% of network operators demand or prefer to use open systems within their networks, and 95% view open source as a positive attribute of any NFV solution.[2] Red Hat and Cisco are leaders in the open source communities that are building technologies used in NFV. Both companies contribute to projects and guide development to better meet demanding telecommunications requirements.

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1 *Telecoms.com Intelligence, "Industry Survey 2015," February 2015.*
2 *Doyle Research, "Open Networking Drives NFV Innovation for the Telecom Industry," December 2014.*

Based on leading open technologies like OpenStack, the Red Hat and Cisco solution delivers greater interoperability, flexibility, and choice. Compliance with ETSI standards gives you access to a broad ecosystem of complimentary technologies and prepares your infrastructure for change. Use Cisco or third-party VNF, NFV orchestration, and VNF management products to customize your environment.

ENLIST COORDINATED, CARRIER-GRADE SUPPORT

Disparate NFV solutions based on community projects often cannot deliver the rigorous support service level agreements (SLAs) telecommunications providers need. With many different components, suppliers, and vendors, it can be difficult to obtain a support contract for your complete architecture. The Red Hat and Cisco solution includes coordinated support designed specifically for telecommunications providers, giving you a single point of contact to support your entire NFV infrastructure. Issues are resolved faster and with less hassle, resulting in fewer business interruptions.

VIRTUALIZE YOUR NETWORK WITH RED HAT AND CISCO

The Cisco NFV Infrastructure, powered by Red Hat Enterprise Linux OpenStack Platform, combines industry-leading hardware and software into a complete, validated, ready-to-deploy NFV foundation. Each of the components works together to provide a highly available foundation for VNF delivery. Based on Cisco® UCS® servers and Cisco Nexus switches, Cisco's unified, easy-to-manage compute, storage, and networking system forms the NFV infrastructure component of the ETSI standard architecture. These elements are administered using Cisco UCS Manager and Cisco software-defined networking (SDN) controllers. With highly available operation, large memory capacity and I/O bandwidth, and hardware-embedded security features, Intel® Xeon® E5 and E7 processors deliver stable, high performance computing to Cisco UCS servers. Commercially hardened and fully supported, Red Hat Enterprise Linux OpenStack Platform serves as the virtual infrastructure manager (VIM) for the NFV environment. Red Hat Ceph Storage is tightly integrated with OpenStack and provides efficient, scalable, highly available, and cost-effective storage to the solution.

The Cisco NFV Infrastructure is part of the foundation layer of the Cisco open network architecture for service providers. This open, programmable framework integrates physical and virtual networking, computing, and storage. With the Cisco open network architecture, you can get more value from your network, improve business agility, and simplify operations while preparing for new business models and revenue.

CONCLUSION

NFV can help you succeed in a fast-paced, highly competitive market. With a pre-validated design, simplified operations, innovative, open foundation, and carrier-grade support, the Cisco NFV Infrastructure, powered by Red Hat Enterprise Linux OpenStack Platform, lets you virtualize your network faster and more reliably. To learn more about this solution, contact your Red Hat or Cisco representative or visit the following links:

- redhat.com/en/technologies/industries/telecommunications/nfv-platform
- cisco.com/go/NFVI