Hybrid Clouds built with Nuage Networks and Red Hat®

SOLUTION OVERVIEW

The Nuage Networks and Red Hat SDN-based cloud solution makes your IT organization more agile, flexible, and automated. Based on this solution, you can launch network services to support cloud applications faster, reduce operational costs, and take full advantage of cloud technologies.

SOLUTION FOR

Enterprises in all industries who want to expand the capabilities of their datacenter infrastructures to support cloud applications both within the datacenter and across the wide area network.

OpenStack® is an open source infrastructure as a service (IaaS) initiative for creating and managing large groups of virtual private servers in a datacenter. Red Hat Enterprise Linux® OpenStack Platform is the production-ready solution for enterprise hybrid clouds.

73% of enterprise executives believe moving to the cloud will help them improve levels of service automation.

Source: *KPMG, 2014 Cloud Survey Report: Elevating Business in the Cloud,* January 2015.
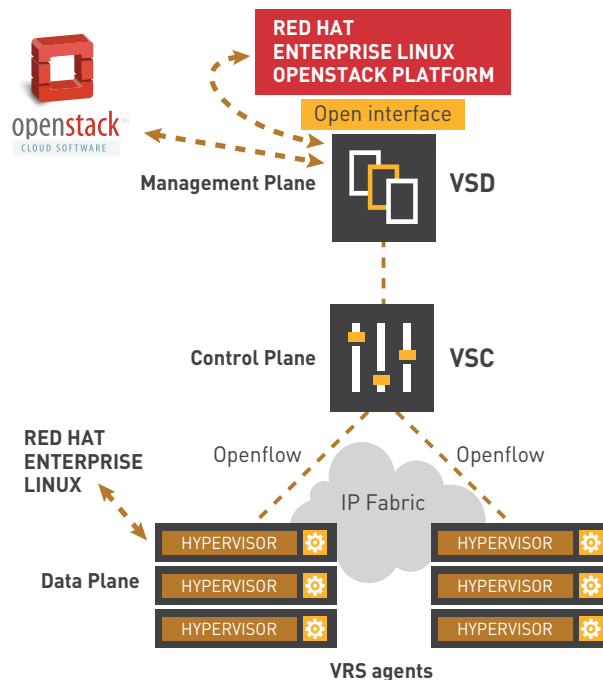
- Build scalable, application-centric clouds that accelerate IT resource deployment
- Improve agility and responsiveness while reducing operating complexity and costs
- Smooth LAN and WAN application integration, and extend the benefits of a hybrid cloud to all enterprise locations, including remote branches

Nuage Networks and Red Hat offer an application-centric SDN-based cloud solution that virtualizes and simplifies your datacenter network, so you can maximize the value of your cloud infrastructure.

Cloud services promise rapid, cost-effective instantiation of applications, which can improve business agility and simplify operations. To deliver on this promise, however, datacenter networking must be as agile and flexible as your virtualized server and storage infrastructure. Complex, static networking models require tedious, error-prone manual programming, which increases operational costs, reduces efficiency, and delays the availability of network services for cloud applications.

Moving to a virtualized, Software Defined Networking (SDN) model can help you enjoy all the benefits the cloud has to offer.

With enhanced network flexibility, automated network management, and scalability across multiple tenants and datacenters, Nuage Networks and Red Hat help you reduce costs, launch cloud applications faster, and increase the efficiency of your cloud infrastructure. An open hybrid cloud based on Nuage Networks and Red Hat is the future of enterprise IT!

Solution features and benefits

Based on a unique, application-centric approach, the Nuage Networks and Red Hat SDN-based cloud solution abstracts application networking requirements from your physical network topology to streamline management operations and improve agility. Programmable business logic and a powerful policy engine let you define Level 2-4 network requirements once in simplified application terms and ensure compliance with resource policies across your infrastructure on a per-tenant and per-application basis.

Event-driven network service instantiation reserves network resources as they are required and without manual intervention, allowing the demands of cloud applications to be quickly met for thousands of users. This frees network administrators to focus on critical issues.

Seamless interoperability across multiple administrative domains and datacenters lets you place cloud workloads optimally across your infrastructure, improving server utilization and allowing cloud bursting and hybrid cloud services.

BUSINESS BENEFITS

The Nuage Networks and Red Hat SDN-based cloud solution virtualizes and automates your network so you can deliver critical resources faster while simplifying network management and reducing operating expenses.

NUAGE NETWORKS VSP

Nuage Networks Virtualized Services Platform (VSP) is an open SDN platform for virtualizing datacenter networks using x86 hardware. Nuage Networks VSP is certified on the Red Hat Enterprise Linux OpenStack Platform.

RED HAT AND INTEL® CLOUD INFRASTRUCTURE

The Nuage Networks solution leverages Red Hat's open software stack and Intel's high-performance processors and network adapters.

Red Hat Enterprise Linux, with the integrated Kernel-based Virtual Machine (KVM) hypervisor, supplies high-performance virtual machines. Red Hat Storage provides flexible, cost-effective, virtualized storage. Red Hat Enterprise Linux OpenStack Platform gives you a fully supported, enterprise-grade cloud platform.

Nuage Networks Virtualized Services Platform (VSP)

Virtualized Services Directory (VSD)
- Programmable policy and analytics engine lets you define and enforce resource policies in a user-friendly manner

Virtualized Services Controller (VSC)
- Functions as a network control plane and enables federated and highly scalable networks

Virtual Routing and Switching (VRS)
- An enhanced Open vSwitch, makes up the network forwarding plane and applies the Layer 2-4 traffic policies defined in the VSD
- Tracks virtual machine creation, migration and deletion to dynamically adjust network connectivity

About Nuage Networks

Nuage Networks strikes at the heart of the cloud networking challenge: Choreographing datacenter and wide-area networks to maximize responsiveness, utilization and visibility. Nuage Networks delivers a highly programmable infrastructure that bridges the gap between the application-centric view and the equally important network-centric view, realizing the full power of SDN. The Nuage Networks solution combines groundbreaking SDN and virtualization techniques with unmatched networking expertise to deliver a massively scalable solution that consistently spans datacenters and remote locations. Our solution enables enterprise IT to respond instantly and securely to the demands of users and applications anywhere.

Discover more at **www.nuagenetworks.net** and follow us **@nuagenetworks**