

Korean company “conglomerates” a private cloud

The company is part of the third-largest conglomerate in South Korea. A leading service provider in South Korea, the company offers server hosting, IT consulting, outsourcing, and system integration services to the conglomerate’s enterprises and other companies.

Business benefits

Strengthen position as strategic service provider

The company’s customers – each a very large enterprise – had requirements that could not be fulfilled without taking a new private cloud approach based on Software Defined Networking. As a result of their innovative approach, the company has strengthened its position as a strategic service provider to the conglomerate.

Protect each company’s critical information from external and internal threats

The company was able to implement a shared private cloud infrastructure, yet provide additional protection against both external (hacker) threats and internal threats (between enterprise customers). In particular, protection levels are substantially raised within each datacenter and between clouds.

Establish competitive efficiencies of scale

By “conglomerating” a private cloud based on the needs of multiple large enterprises, the company is able to leverage efficiencies of scale that can eventually approach those of some public cloud providers.



Needs

The company was facing a critical junction in its evolution. Its customers — very large enterprises in the conglomerate — wanted to transition from hosting to a private cloud environment. Their cloud needs could not be met by a legacy networking architecture.

- Customers required the private cloud and hosting service to be on the same network, but there was no solution to bridge the two architectures.
- Full network multi-tenant controls including performance and security were needed, but the legacy network did not offer these capabilities.
- Multiple Cloud Platforms and server virtualization platforms had to be supported side by side.
- Each customer wanted self-provisioning capabilities, but no efficient capabilities existed.
- A hybrid cloud was desired for handling bursts of demand.

These visionary goals called for the creation of an entirely new approach to cloud hosting – a “conglomerate” private cloud.

The company’s approach

The company implemented Nuage Networks Virtualized Services Platform (VSP) for full Software Defined Networking (SDN) capabilities. Since the Nuage Networks VSP product family overlays existing network hardware, no networking hardware replacements or upgrades were required. To manage bare metal servers without upgrades, the Nuage Networks 7850 Virtualized Services Gateway (VSG) was implemented.

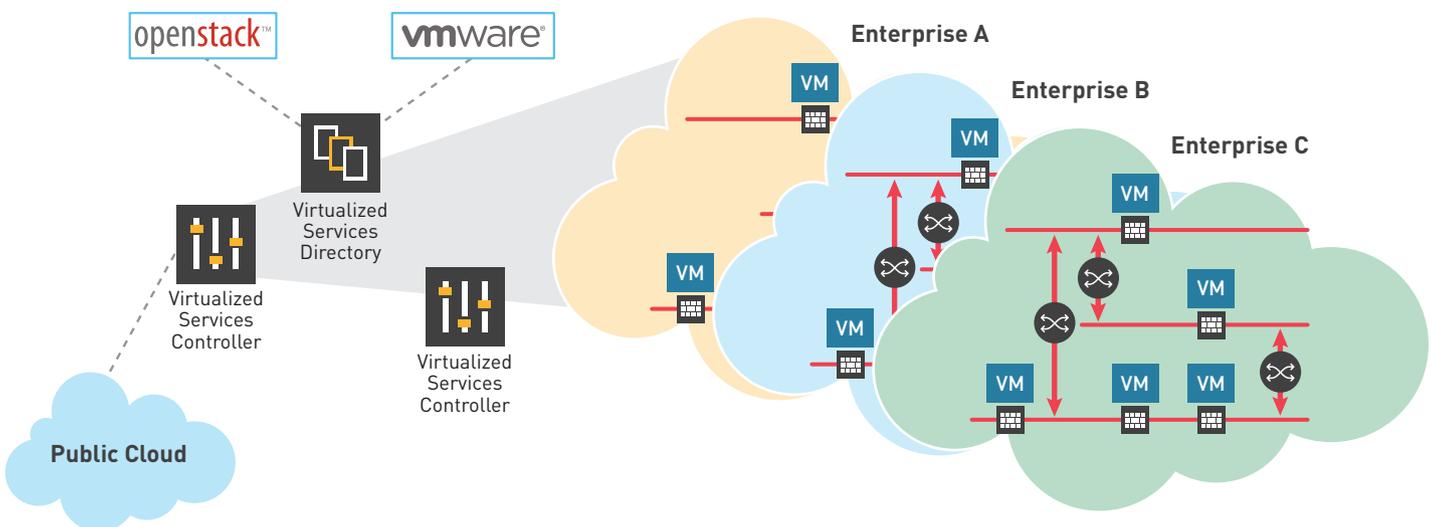
The company extended its customer-friendly user interface (UI) to enable provisioning of network assets. The company UI works with the Virtualized Services Directory (VSD) using a REST API. Being able to simultaneously support both OpenStack® and VMware CMS systems, the VSD provides the self-service automation and efficiency capabilities required to meet the demands of the company’s customers.

Nuage Networks VSP also provides a unified fabric between the company private cloud and public cloud providers. Each enterprise can hybridize their private cloud with a public cloud via the federation capabilities of the Virtualized Services Controller (VSC).

From a security perspective, Nuage Networks VSP isolates each enterprise’s network with a unicast Virtual Extensible LAN (VXLAN). Security within the datacenter is provided through a default “Zero Trust” security policy and complete isolation of even VM-to-VM communications on the same hypervisor.

Each enterprise uses one or more server virtualization platforms of choice such as those from VMware and KVM. Future plans include support for Docker containers.

FIGURE 1. Nuage Networks VSP provides a unified fabric across clouds and enterprises



About Nuage Networks

Nuage Networks (www.nuagenetworks.net) brings a unique combination of groundbreaking technologies and unmatched networking expertise to the enterprise and telecommunications industries. The Silicon Valley-based business has applied radically new thinking to the problem of delivering massively scalable and highly programmable SDN solutions within and across the datacenter and out to the wide area network with the security and availability required by business-critical environments. Nuage Networks, backed by the rapidly growing IP/Optical Networks business of Nokia, has the pedigree to serve the needs of the world's biggest clouds. The cloud has made promises — the mission of Nuage Networks is to help you realize them.

The company is enjoying the best of both worlds. The company provides the cost economies of a shared cloud along with the capability to burst to public cloud providers on demand. Yet, the company's private cloud security and controls protect the conglomerate's most vital asset — its information.

How this approach changes the game

This innovative approach helps the company change the game for its customers and its competitors.

Dedicated cloud for each enterprise

Responding to customer demands, the company is providing a dedicated private cloud for each enterprise.

High levels of protection against both external and internal threats

Leveraging the isolation and security capabilities of Nuage Networks VSP, the company has increased the security protection of each enterprise as well as the conglomerate as a whole.

Parity with public cloud providers

The company's price point leverages economies of scale across the conglomerate. These economies enable the company's pricing to be on par with that of public cloud providers.

Self-service provisioning

Customers are able to self-service for network provisioning. This capability both addresses customer demands and enables the company to scale efficiently.

Public cloud bursting

If the company attempted to handle multiple large enterprises' unpredictable surges in demand, the result would likely be an extremely large but generally idle cloud. A hybrid public-private cloud approach enables the company's customers to offload bursts of demand onto a public cloud. The net result is greater flexibility and cost efficiencies for the company's customers.

Adding it all up

The company is innovating a new approach — a private cloud that "conglomerates" private clouds for each enterprise. This approach provides the cost economies of a cloud approach for the conglomerate along with the controls and safety of a dedicated private cloud for each company within the conglomerate.