

Calsoft Labs designed and developed a Virtual CPE NFV solution targeting telecom operators to provide security services and management. We were also instrumental in developing an OpenStack orchestration with Northbound interface to Service Provisioning platform of Service Providers.

The Client

The client is a recognized leader in cloud managed virtual networking services. They developed the world's first cloud managed network services platform for both on premise hardware and hosted services. Today over 3,000 companies in over 60 countries, across industry verticals leverage client solutions for virtualized network services.

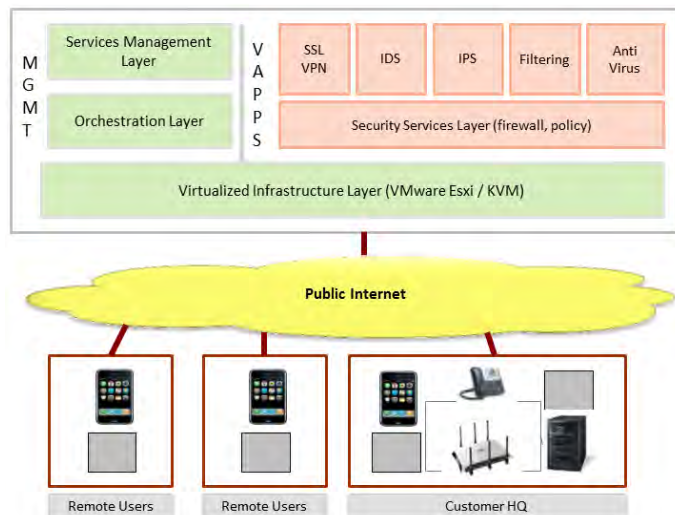
The Challenge

The client wanted to develop a platform to provide virtualized security services and management for telecom operators. The platform should also support an OpenStack orchestration for Virtual CPEs.

The Solution

Centralized NFV Controller for Telecom Operators

- Development of a centralized controller based on virtualized infrastructure (VMware and KVM) for performing remote and SMB customer related services
- Virtualization of security SSL termination, IDS/IPS, content filtering, antivirus and firewall, utilizing open source and proprietary implementations
- Expandable platform for various types of networking functions virtualization
- Development of a management stack
- System testing & integration with various CPE devices



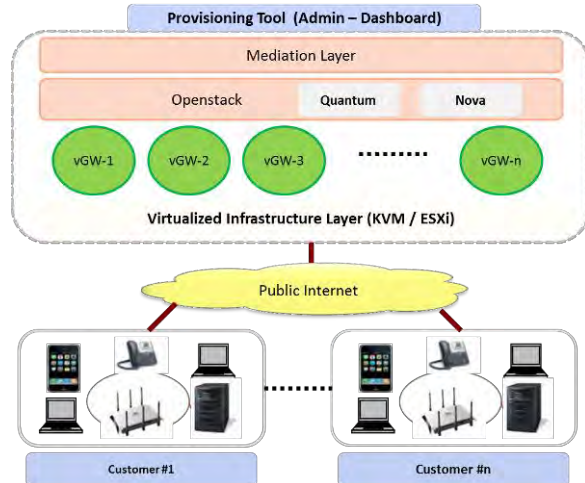
OpenStack Based Orchestration for Virtual CPEs

- Development of orchestration functions for compute and network virtualization based on OpenStack
- Mediation layer provides authentication and image management services



Virtual CPE NFV Solution for Security Services

- OpenStack services used for instance creation, configuration, monitoring, load balancing, DHCP, routing/switching, etc.
- Enhancements to ensure high availability
- System testing based on different scenarios



Platform Components Developed

Integrated Security

- Anti Virus, Firewall, Site to Site VPN, Remote Access & Mobility, Content Filtering, Intrusion Detection & Prevention, QoS

Technology and Resources

Calsoft Labs' extensive experience in virtual appliance instantiation and orchestration was leveraged for providing the solution.

- OS: Linux
- Virtualized Infrastructure: VMware ESXi, Red Hat KVM
- OpenStack Components Used: Quantum, Nova
- Team size: 30

About Calsoft Labs

Calsoft Labs provides specialized concept to market Product Engineering services to product and technology companies in select market segments. Our target markets include Automotive, Consumer Electronics, Industrial Automation, Networking, Storage and Independent Software Vendors (ISVs). Calsoft Labs delivers unmatched business value to its customers through a combination of process excellence, reusable frameworks and technology innovation.

Calsoft Labs is a wholly owned subsidiary of ALLEN. Set up in 1988, ALLEN is a European leader in Engineering and Technology Consulting (ETC) with 14,800 employees in over 16 countries worldwide.

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