ENGHOUSE NETWORKS VALIDATES THEIR MULTIMEDIA MESSAGING SERVICE CENTRE AS A VNF

Enghouse Networks provides Multimedia Messaging Services (MMS) to mobile operators, delivering a comprehensive technology solution for today's hybrid networks and the next generation of telecommunications. In this project, the company leveraged CENGN's services and vendor equipment to validate their VNF Manager and their virtualized Multimedia Messaging Service Centre (vMMSC).

Enghouse Networks enables market leadership for telecommunication services by providing communications service providers (CSPs) with an extensive, integrated commercial-off-the-shelf (COTS) product portfolio that delivers operational excellence, value and marketplace advantages in an era of increased competition and shrinking margins.

Their products offering includes Business Support Systems (BSS), Operations Support Systems (OSS), Network Security, Control & Routing Automation, Mobile Value Added Services, and Revenue Generation. Decades of experience as a trusted technology partner has allowed Enghouse Networks to build long-term, valued relationships that drive sustainable growth internally and for their clients. Looking to build on their previous success, Enghouse Networks has worked with CENGN to virtualize the network functionality of one of their mobile value added services.

GROWING CUSTOMER DEMANDS

Around the world, mobile operators and service providers need to strike a balance between delivering increasingly rich services and greater quality to subscribers, while maintaining margins and generating new revenue streams in a competitive, growing global marketplace. Consumers are demanding reliable, rich and ubiquitous multimedia services, all of which require greater network performance and agile, scalable offerings. This set of challenges presents an opportunity for service providers and their vendors to work together to create solutions that will enhance subscribers' experiences, enable marketplace differentiation, and grow revenue.

THE MULTIMEDIA MESSAGE SERVICE CENTRE

The Enghouse Networks MMSC solution is utilized by networks around the world to enhance the way that mobile network operators deliver rich multimedia content. Their MMSC can run on any Openstack or network function virtualization infrastructure (NFVI), which means that it can be deployed within a wide range of networks systems and architectures. It enables opportunities for the mobile industry to generate new revenue streams by attracting new customers with innovative and improved features and data plans, and through their subscriber base via cross and up-sell offerings.

Smartphones and other mobile devices that generate rich content sharing are everywhere, and overall global subscriber data consumption is projected to double every three years, driven by sophisticated media, apps, and platforms. The expanding consumer demand for high quality, high volume, and instant network access necessitates MMSC service platform growth and scalability that supports end users to send data heavy content such as pictures, videos, and audio messages at any time, from anywhere.

The Enghouse Networks MMSC enables network operators and service providers to meet subscribers' expectations, and to potentially create new B2B revenue streams by providing opportunities for enterprises and advertisers to extend their global reach through person-to-person (P2P) and application-to-person (A2P) messaging.

Enghouse Networks is taking the next step with their solution by validating the network function virtualization (NFV) of their MMSC.

SDN & NFV

The telecommunications industry is undergoing a rapid change towards utilizing software-defined networking (SDN) and NFV to reduce their hardware footprint and to modernize their networks and services through automation and orchestration. These two processes work in conjunction to provide a number of benefits such as increased network agility, performance, and management control. The benefits of SDN and NFV are clear when compared to the process of manually changing or updating the architecture of a network, product, or service – operations and network planning are streamlined, new technologies are integrated more quickly, and time to market is drastically reduced, contributing to margins and new revenue.

In sum, the objective of the Enghouse Networks NFV-enabled MMSC testing project was to validate this rich content processing and delivery solution's agility and adaptability. Enghouse Networks is now looking to deploy their vMMSC on diverse service provider technology environments to help clients better address their requirements, business models, and revenue generation goals.

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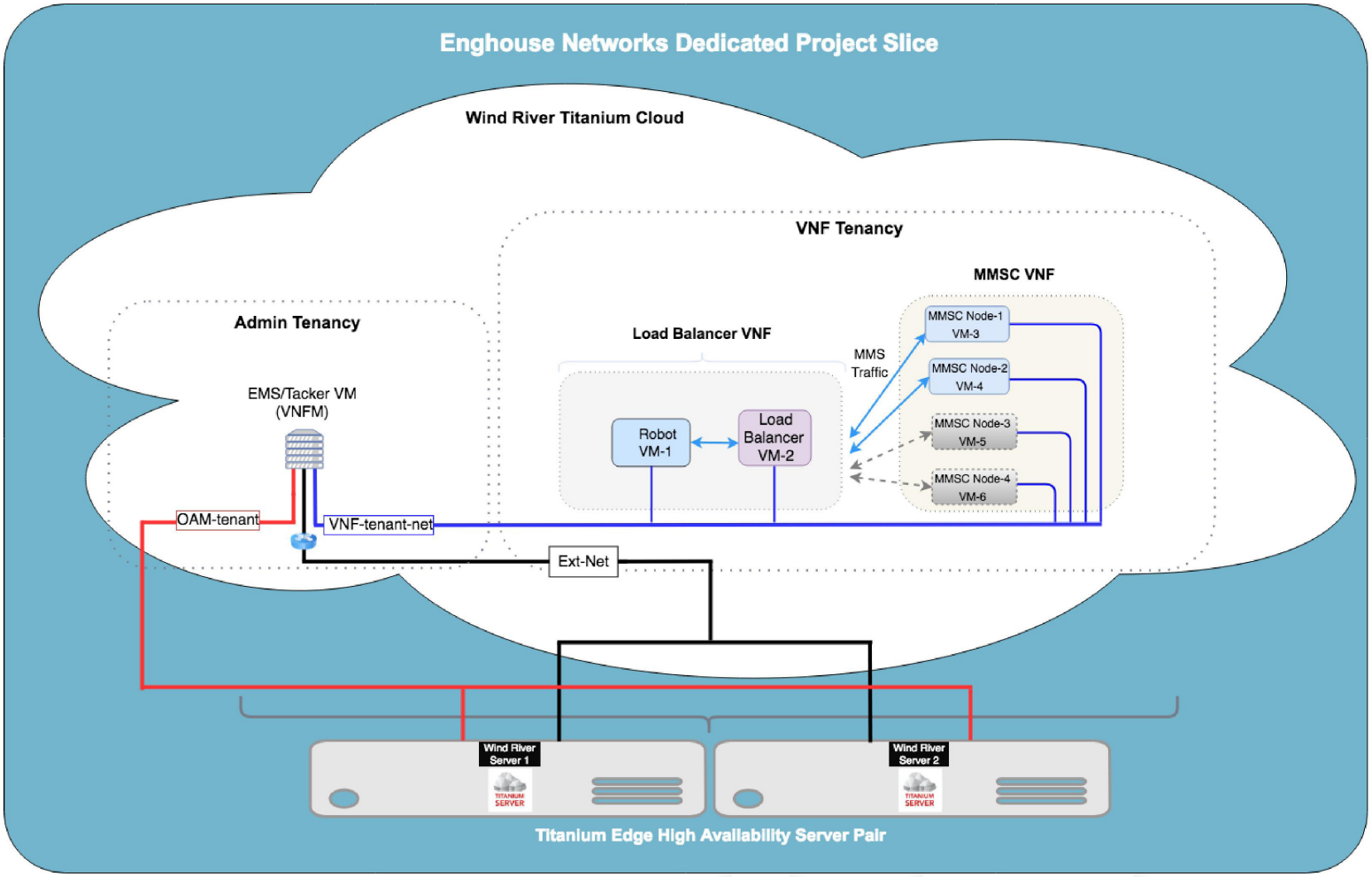
TESTING THE VIRTUAL MMSC

Enghouse Networks used the CENGN infrastructure to validate the Virtual Network Functions Manager and their MMSC as a virtual network function (VNF) through a series of tests. To conduct the project, the company was given an entire dedicated cloud tenancy to the OpenStack-based, highly available Wind River Titanium Edge.

With Titanium Edge, Enghouse Networks was able to utilize both a full admin and VNF tenancy. In this project, The MMSC VNF was on-boarded and instantiated by Enghouse VNF Manager (Using MMSC VNF TOSCA Descriptor), and the MMSC VNF functionality was validated through automated regression testing applied by Robot Framework. Simulated messages were sent from a bot to the MMSC, where it was received by the MMSC load balancer. The load balancer then forwarded the message to one of the MMSC nodes where the message was stored and processed. From the MMSC node, the message was then relayed back to the bot through the mobile station international subscriber directory number (MSISDN).



RESULTS

The aim of each test was to validate that the NFV-enabled MMSC could submit and retrieve multimedia messages when the content contained picture, audio, slides, and text. Enghouse Networks passed all 5 tests that were conducted, and successfully validated the operation of their solution.

CONCLUSION

This project demonstrated the successful network function virtualization operation of the Enghouse Networks MMSC in an OpenStack environment. Having administrative and VNF tenancy on Wind River's Titanium Edge was beneficial to Enghouse Networks, as they required access to OpenStack services such as Keystone, Heat, and Nova. By completing this project, Enghouse Networks has proven that the VNF enabled version of their MMSC is carrier grade and deployment ready.

CENGN
CENTRE OF EXCELLENCE IN NEXT GENERATION NETWORKS

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