NEXCOM Launches NSA 7146, a Verified Intel® Select Solution for NFVI

Until recently, changes to data types and network services were relatively few and occurred at a slow pace. Traditional IT infrastructure was built using dedicated devices to meet functional network needs and not much beyond. Examples include dedicated firewalls, load balancers, and routers. However, with the rapid growth of IoT and mobile networking devices and the gradual deployment of 5G networks, more diverse and challenging data traffic continues to emerge and the importance of information security has increased exponentially. New and complicated usage cases and applications make new deployments, upgrades, and replacements of network functions and components a more frequent occurrence than ever before. Thus, traditional IT infrastructure building methods cannot meet the demands presented by such rapid change.

Challenge: Old IT infrastructure models no longer work

To illustrate this, assume an e-commerce service that leverages traditional IT infrastructure. It blocks and filters malicious traffic at the frontend with dedicated firewalls. One day, said e-commerce company launches a popular promotion program, leading to a dramatic increase in network traffic that far exceeds the handling capacity of its existing firewall. As preparations to handle the increase were not undertaken in advance, rushing to buy and deploy additional firewalls to expand capacity in time proves very difficult. Even if the hypothetical e-commerce company can somehow manage to buy and deploy additional firewall devices, once the promotion ends those dedicated appliances will sit idle as traffic goes back to pre-event levels. This case illustrates the rigidity of traditional IT network infrastructure, which has become a limitation for the growth of business revenue and a cause for increased operating costs in the rapidly changing business environment of today.

Solution: NFVI for a more dynamic environment

There exists a way to efficiently pool and distribute the computing power of IT infrastructure through standardized hardware. Users can flexibly configure the capacity of various network functions according to real time needs. For example, for more firewall capacity, infrastructure allocates additional computing resources to

firewall defenses not in days but in minutes, with no additional hardware required. Then, the system auto assigns computing resources to other functions should firewalls become a lower priority. That kind of intelligent, centralized, yet highly adaptive topology makes up the architecture known as NFVI (Network Function Virtualization Infrastructure).

NFVI architecture uses standardized general-purpose hardware to simplify IT operation and maintenance. Shared computing power reduces investment in dedicated hardware. Flexible virtualized network function deployment responds quickly to changing business conditions and significantly reduces hardware resource waste and idleness. Although NFVI has numerous benefits, selecting a suitable starting point may be a challenge in itself. In addition to a range of competing vendors on the market (each with many models), users also need to contend with different testing methods, software and hardware combinations, differences in performance, and other subtle aspects such as hardware security and convenience of deployment. Making a choice based on limited information often proves very difficult. To address the situation, Intel has created the Intel® Select Solutions program to highlight workload-optimized solutions. When users choose an Intel® Select Solution for NFVI, they can quickly and efficiently deploy various network virtualization devices securely and easily. Users need to spend far less time, effort, and expense evaluating hardware and software options.

Conclusion

As a long-term Intel® partner, NEXCOM proudly introduces the NSA 7146. NEXCOM is further pleased to announce that the NSA 7146 has achieved complete Intel Select Solutions for NFVI gen 2 verification. The NSA 7146 offers a 2U rackmount network appliance based on the Intel® Xeon® Scalable processor family and delivers a workload-optimized platform for Network Function Virtualization Infrastructure, or NFVI. The NSA 7146 features enhancements to computing performance through dual scalable processors and flexible NEXCOM Ethernet modules rated for 1GbE up to 100GbE. The embedded C627 chipset supports Intel® QuickAssist Technology (Intel® QAT) to accelerate heavy network encryption/decryption from the CPU. The NSA 7146 also includes IPMI 2.0 remote management and swappable system fans for simple operation and easy maintenance. The CRPS redundant power supply prevents service interruption caused by single PSU failures. The NSA 7146 brings forth an excellent option for deployment of Network Function Virtualization Infrastructure in a fast-changing business world.

Figure1. Intel® Select Solutions for NFVI Environment

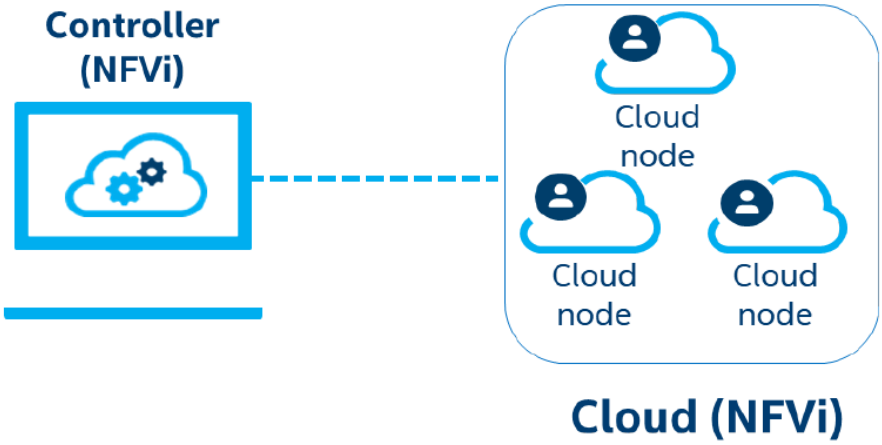

Table 1: Detailed NFVI Cloud Note configuration and specifications.

Item	**Ingredient**
Server Name	NSA7146
Processor	2xIntel® Xeon® Gold 6252 processors at 2.1 GHz
DRAM	12x32G DDR4 at 2666 MHz
Network Controllers	Intel® XXV710-AM2
Intel® QAT	C627
Intel SATA SSDs	2* 480GB intel SSD SATA
Intel® 3D NAND SSDs	4* 2.0T intel P4510 NVMe
LAN on Motherboard	4x10G SFP+
SOFTWARE	
Operating System	RHEL Server 7.6, RH OpenStack Platform 13.0/14.0 https://access.redhat.com/ecosystem/hardware/4182101
Caching Frameworks	NGINX*, Apache Traffic Server (ATS)
Media Libraries	FFmpeg, Media Service Studio*, Scalable Video Technology

Table 2: Detailed NFVI Controller Note configuration and specifications.

Item	**Ingredient**
Server Name	NSA7146
Processor	2xIntel® Xeon® Gold 5218 processors at 2.1 GHz
DRAM	12x16G DDR4 at 2666 MHz
Network Controllers	Intel® XL710-BM1
Intel® QAT	C627
Intel SATA SSDs	2* 480GB intel SSD SATA

Intel® 3D NAND SSDs	-
LAN on Motherboard	4x10G SFP+
SOFTWARE	
Operating System	RHEL Server 7.6, RH OpenStack Platform 13.0/14.0 https://access.redhat.com/ecosystem/hardware/4182101
Caching Frameworks	NGINX*, Apache Traffic Server (ATS)
Media Libraries	FFmpeg, Media Service Studio*, Scalable Video Technology

For more information, please check the following link:
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