

MSI NFV solution

Opening NFV with MSI

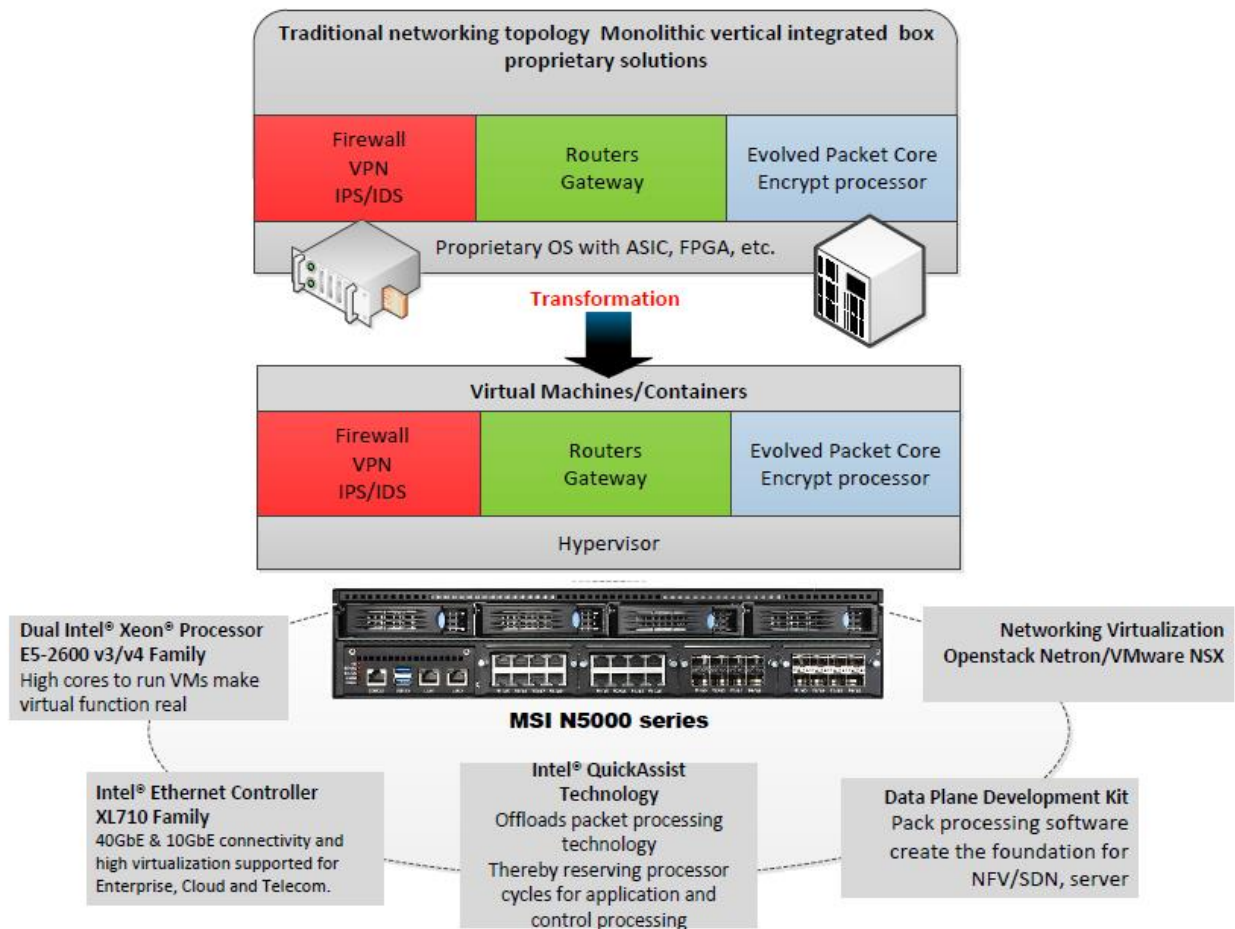
What is NFV and why?

ETSI published the concept of Network Functions Virtualisation (NFV) and how relates to Software-Defined Networking (SDN) in October 2012. Network Operators' networks are populated with a large and increasing variety of purpose-built appliances. To launch a new network architecture and services requires variety-operating space and power consumption to accommodate these boxes is becoming more difficult than ever. Moreover, there is a flood of new traffic types in the network from cloud-based Web 2.0 over-the-top (OTT) service providers such as What'sApp, Facebook, and Netflix who deliver volume media content. With growing mobile network economy, wireless infrastructure in industrial internet, automotive, and IoT-based value-added services. Mobile network operators also pay attention to virtualize their networks to be cost-efficiency, agility, and earlier time to market (TTM) earlier. All the formerly networks bottleneck and limited innovations were expected to be resolve by NFV technology.

NFV transforms Networking

NFV aims to transform the way that network operating and services infrasturcture by virtualization technology to consolidate network equipment types onto x86-based platform. The classic vision for NFV transformation in figure 1. NFV transforms the way of network services deployment in 3rd party software that can run on x86-based platform.

Figure 1. Vision for NFV transformation



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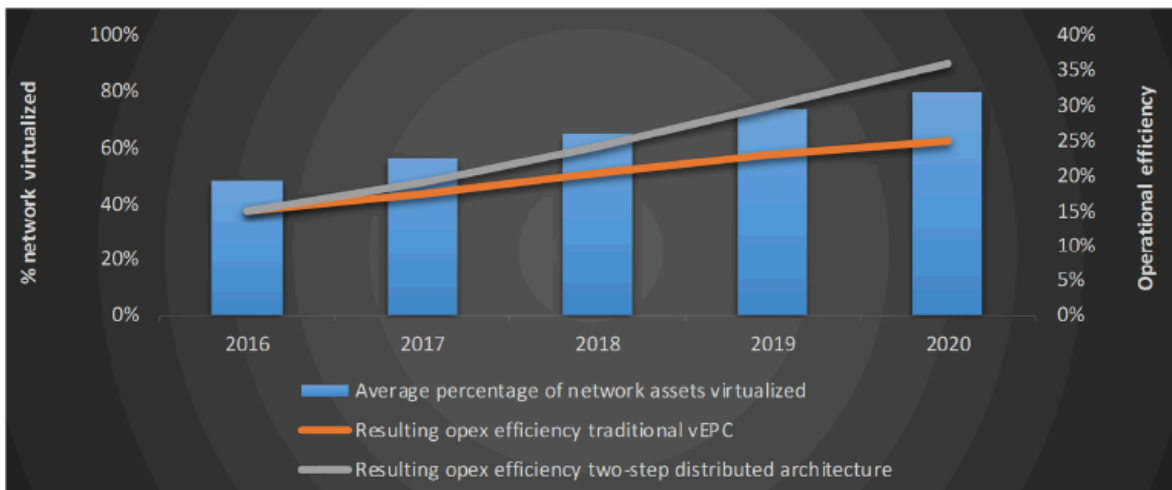
Although NFV framework has no limited conditions of x86-based system, MSI provides a high modular network appliance for

maximizing the cost-efficiency. MSI N5000 series has powerful processing with high cores ability to fulfill virtualization need and flexible NIC modules for customized configuration. Within NFV implementing period, the percentage of virtualization of network services is going continually. MSI NIC module series has 1GbE, 10GbE and 40GbE bandwidth to satisfy each network traffic demand. N5000 series is the best choice for building NFV as paying as growing.

Expected Business Benefits

NFV is able to save money from reducing purpose-built network appliance and leverage legacy assets during NFV framework developing. According to IDC research, NFV also reduce operation cost greatly. The operation cost includes backhaul, internet interconnect, facilities labor, services optimization and relative assurances. NFV also provides wide-scope network services that include virtualizing network fabric (routers, switches and application delivery controllers), EPC and service orchestration functions. For mobile network operators, IDC estimates that operation cost efficiency could reach around 38% after 5 years from 2016. The detail of virtualized assets cost-efficiency as figure 2. The two-step distributed architecture means the scenario, which implemented SDN technology.

Figure 2. Virtualized Assets Cost-Efficiency



Source: IDC, 2016

On the other hand, NFV framework also provides high availability of network appliance multi-version and multi-tenancy, which allows a single platform for different applications users and tenants. Increase speed of Time to Market by minimizing the typical network operator cycle of innovation. Use 3rd party software to run virtual network functions on VMs, easily manage, immigration and provision remotely.

Summary

Obviously, the NFV technology is a global trend. MSI can proactively work and offer versatile hardware optimizations for NFV developing. As ETSI emphasizes the NFV is highly complementary to SDN. MSI has already produce rich network security products and validated relative software. Here is an easy way to launch NFV/SDN next-generation network by using MSI solutions.

Quotation: ETSI, NFV White Paper

Quotation: IDC, Economic Benefits of Virtualized Evolved Packet Core