MSI ONP solution

MSI Open-networking based on Intel® ONP 2.1

Developing SDN/NFV with Intel® Open Network Platform

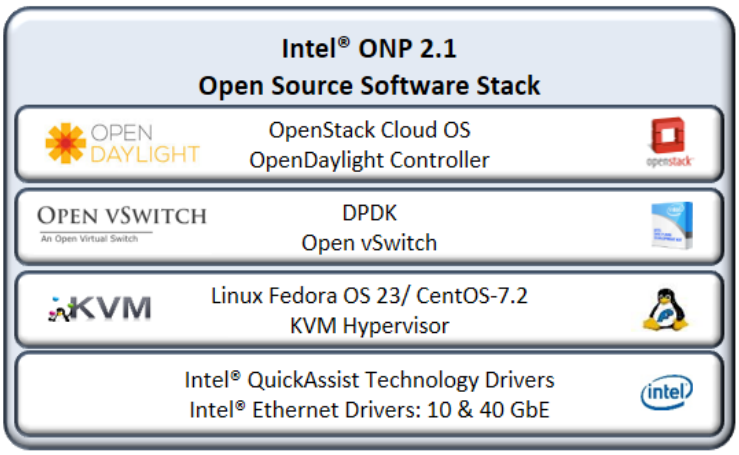
SDN/NFV framework is under-developing in Cloud/DC/Telco area over years. Since IT has faced many network challenges and urgent to address network bottlenecks. Therefore, Intel is to optimize and provide an overall open-ecosystem with x86 platform. The well-known targets to achieve as follows:

1. Virtualized network for federated applications, multitenancy, isolation, VMs mobility.
2. Dynamic programming, simplified management of VMs and devices and deployment be time to market.

Due to SDN/NFV are integrated by different hardware, OS and applications, especially the open-source software need to be fix and do comprehensive experiments to come out. MSI will be ahead of this global trend and helps customer with Intel support team to optimize SDN/NFV solutions.

Intel® Open Network Platform 2.1 Architecture

Intel® Open Network Platform (Intel® ONP) is a Reference Architecture that provides engineering guidance and ecosystem-enablement support to encourage widespread adoption of Software Defined Networking (SDN) and Network Functions Virtualization (NFV) solutions in Telco, Enterprise, and Cloud. Intel® ONP 2.1 released latest software scripts who adopts advanced open-ecosystem software including the follows:



Intel® ONP 2.1 also provides hardware options for configuring the best performance of open network platform on Intel solutions. MSI has designed hardware optimization for consolidation and virtualization technology on Intel® ONP.

MSI Open-networking solution

Attribute to latest Intel® ONP 2.1 hardware and software reference, MSI has series of network security to optimize such great platform to enable SDV/NFV cost-effectively. For working this powerful platform, MSI N5000 series is able to integrate whole Intel® ONP open-source and the high-end appliances to boost the next-generation network revolution.

The key processors and Ethernet controllers supported in Intel® ONP 2.1 namely:

✓ **Processor**

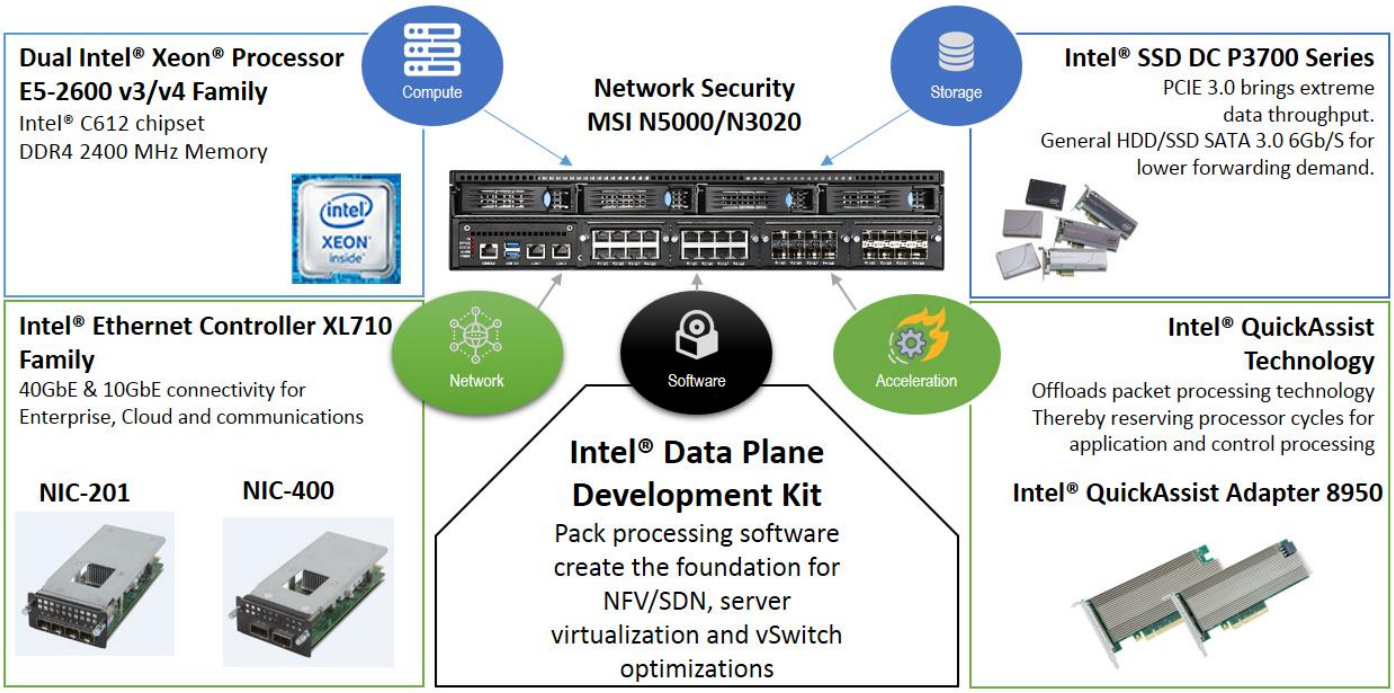
- Intel® Xeon® processor D-1500
- Intel® Xeon® processor E5-2600 v3
- Intel® Xeon® processor E5-2600 v4

✓ **Ethernet controller**

- Intel® Ethernet Controller 82599ES 2x 10GbE
- Intel® Ethernet Controller XL710-BM1 4x 10GbE
- Intel® Ethernet Controller XL710-BM2 2x 40GbE

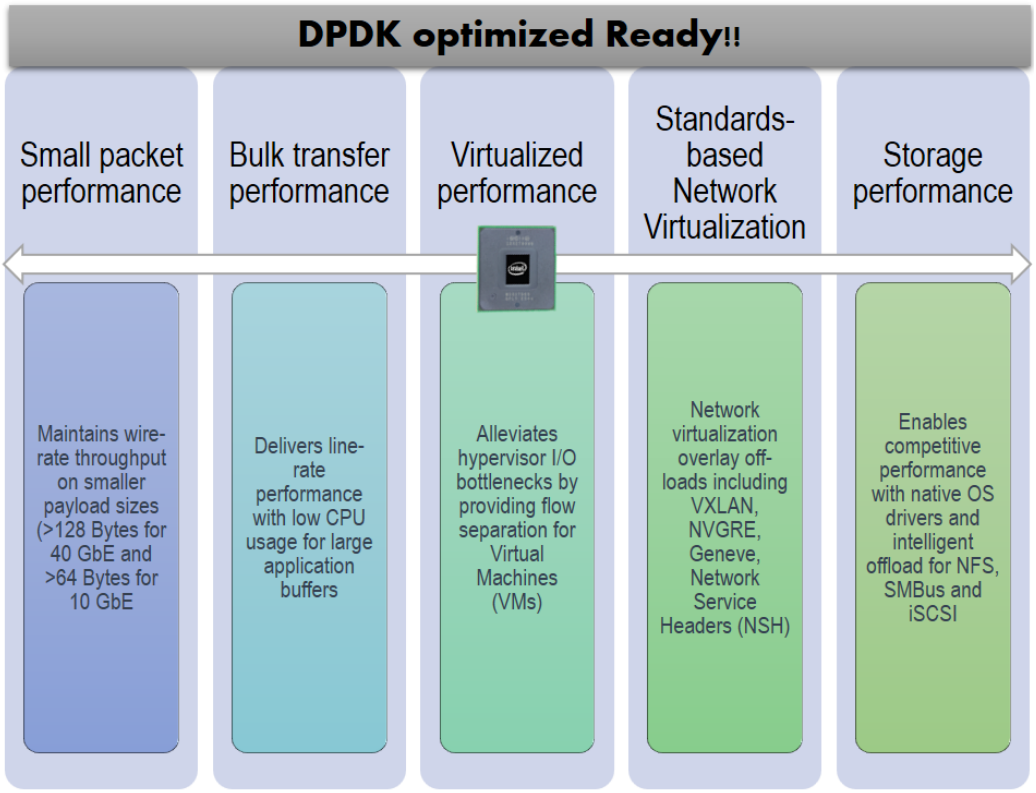
MSI network security series has versatile options such as N5000a, N5000b, N3020a and N3020b for designed reference. Figure 1 represent the MSI hardware options as Intel® ONP 2.1 configuration.

Figure 1. Hardware options optimization



MSI network security adapters has already supported Data Plane Development Kit (DPDK) for accelerating network L3 pack processing on vSwitch operation in virtual network function (VNF). MSI NIC-201 and NIC-400 were designed to address these challenges of network virtualization and VNFs chaining technology. Intel® Ethernet Controller XL710 has brilliant supports and performance on open-networking with DPDK technology. Relative technologies as figure 2 listed.

Figure 2. Intel® Ethernet Controller XL710 technology



Summary

With MSI and Intel® ONP 2.1 reference to make SDN/NFV real and better is historical milestone to next-generation of open-networking. The value-added network security from MSI that support ONP and accelerate the development for time to market. As SDN/NFV-enabled networks can join servers and storage in the virtualization scope, network service providers that can offer such resources reliably and securely can reduce customers' total cost of ownership of network resources and maintain (or increase) profitability at the same time.

Quotation: Intel® Open Network Platform Release 2.1 Reference Architecture Guide

<產品連結> 

<產品連結>