Lanner

Lanner uCPE NCA-4020

Solution Brief

Verified Intel Select Solution for Universal Customer
Premises Equipment (uCPE)

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Overview

The trend of cloud computing presents an opportunity to replace physical CPE (customer premises equipment) with virtualized, software-defined CPE, in order to establish flexible branch-to-cloud connections. Over the past few years in the industry, many enterprises have implemented virtual branch network by focusing on virtualized network services. In other words, virtual machines are replacing physical equipment to assure branch network connectivity while saving on hardware costs.

The Lanner uCPE NCA-4020 is a verified Intel Select Solutions for uCPE, based on a reference design from Intel that enables OEMs, system integrators and service providers to deliver SD-WAN solutions to their customers in an easy-to-deploy offering with workload-optimized performance.

Lanner uCPE NCA-4020

Lanner has collaborated with Intel to deliver an Intel® Select Solution for universal customer premises equipment (uCPE). The integrated hardware/software uCPE solutions will simplify and accelerate the process of selecting and deploying the uCPE needed for today's SDN/NFV applications.

The NCA-4020 is the first uCPE device from Lanner verified as an Intel Select Solution for uCPE. Optimized as a uCPE platform for network virtualization, NCA-4020 features four 16-core Intel® Xeon® D-2100 processors, 10x GbE RJ45 (8 Port PoE+), 4x 10G SFP. With Data Plane Development Kit (DPDK) and Intel® QuickAssist Technology (Intel® QAT) for enhancing the network performance, the optimized Lanner NCA-4020 hardware can assure a robust, high-performance uCPE solution, reduce testing and validation efforts, and accelerate time-to-market deployment.

Intel® Select Solution for uCPE HW Configuration – Lanner NCA-4020

Table 1: Intel® Select Solution for uCPE HW Configuration

NCA-4020	Base Platform	Plus Platform
Processor Number	Intel Xeon D-2183IT	Intel Xeon D-2187NT
Processor Spec.	16 Cores 22M Cache 2.20 GHz	16 Cores 22M Cache 2.00 GHz
Intel® QuickAssist Technology	N/A	100G Crypto/Comp.
Memory	4 GB DDR4 2400 MHz, 4 * 4 GB Total of 16 GB	64 GB DDR4 2667 MHz, 4 * 16 GB Total of 64 GB
NIC Module	4 x 10 GbE (XL710 NIC module)	4 x 10 GbE (XL710 NIC module)
Storage	Intel SSD DC S3700 Series 800GB	Intel SSD DC S3700 Series 800GB

Performance Optimized for Virtual Network Functions (VNF)

As an Intel Select Solution for uCPE, the Lanner NCA-4020 is a performance-enhanced, white-box uCPE solution package powered by the latest generation of Intel Xeon D processors and Data Plane Development Kit (DPDK) packet processing software. With these integrated technologies, it delivers significant performance enhancement in running multiple security VNFs in SD-WAN infrastructure.

Both DPDK and Intel QAT are core technology components of the Intel Select Solution for uCPE reference design. Intel requires compliant platforms to implement DPDK software and provide sufficient connectivity to the Intel QAT engines for common compute-intensive VNF workloads.

Pre-validated uCPE for Time-to-Market Deployment

Lanner supplies the virtualization-optimized uCPE platforms pre-validated with leading software providers, making these appliances optimized for accelerating the deployments of SD-WAN, SD-security, quality of service (QoS) and other SDN/NFV deployment.

Software Add-ons for Enhanced Security and Management

The Lanner uCPE NCA-4020 is protected with firmware/BIOS-based security features. It offers

integrated crypto keys, BIOS authentication and firmware security vulnerability testing to enable service providers to embrace WAN efficiency without compromising on security features.

Conclusion

As a verified Intel Select Solution for uCPE, Lanner's NCA-4020 offers workload-optimized, easy-to-deploy combination of leading hardware and software as well as access to an ecosystem of a large number of tested and optimized virtual network functions (VNFs), required to get to market quickly with a differentiated product. With the NCA-4020, Lanner now has a verified uCPE solution to help communications service providers deliver new services to enterprises and small businesses.

Learn More

Lanner Intel Select for uCPE: http://www.lannerinc.com/applications/sd-wan/intel-select-for-ucpe

Intel Select Solutions web page: https://builders.intel.com/intelselectsolutions

Intel Xeon D processor family: http://www.intel.com/xeond

Intel Select Solutions are supported by the Intel Builders Program: https://builders.intel.com

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