

Lanner uCPE NCA-4020 **Solution Brief**

**Verified Intel® Select Solutions for Universal
Customer Premises Equipment (uCPE)
Infrastructure on CentOS**

Version: 1.0

¹ Date of Release: 2020-04-02

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 NCA-4020 is a verified Intel® Select Solutions for uCPE Infrastructure on CentOS, 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

Upon verification, the NCA-4020 will be integrated with high compute capability and state-of-the-art networking COTS platforms which is pre-configured with high level scalability, computing throughput, and virtualization. The integrated uCPE platform aims at simplifying the deployment process for today's SDN/NFV ecosystem.



Lanner uCPE NCA-4020

Lanner's NCA-4020 is a verified Intel Select Solution for uCPE Infrastructure on CentOS, powered by Intel® Xeon® D-2100 processor family and offering computing prowess at 8 - 16 core counts, up to 128GB system memory, 10x RJ45, 8x PoE+ and 4x 10G SFP+ ports. As a verified solution on CentOS, NCA-4020 is programmed with DPDK support and Intel® QuickAssist Technology (Intel® QAT) for running multiple VNFs, delivering up to 2.9X network performance, 1.6X compute capability and 2.8X storage volume.

Designed to optimize uCPE capability on CentOS, NCA-4020 will deliver hardware robustness and performance enhancement minimizing testing and validation efforts, while accelerating time-to-market deployment and competitive edge for running multiple security VNFs in SD-WAN infrastructure.



Intel® Select Solutions for uCPE Infrastructure on CentOS

HW Configuration - Lanner NCA-4020

Table 1: HW Configuration

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

Performance Optimized for Virtual Network Functions (VNF)

As an Intel Select Solution for uCPE Infrastructure on CentOS, 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 for 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 Infrastructure on CentOS, 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 Solutions for uCPE on CentOS:

<https://www.intel.com/content/www/us/en/products/docs/select-solutions/ucpe-infra-centos-brief.html>

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>



Note: * Intel, the Intel logo, and Xeon are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.