

Lanner

Video Transport Gateway

NCA-6210

Solution Brief

Verified Intel® Select Solution for Visual
Cloud Delivery Network

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Overview

In an era where high speed networks are affordable and readily available, video streaming in high quality over IP has replaced the costly video broadcasting over analog or lease lines as a more flexible and cost-effective solution. Compared with regular data transmission, stricter requirements must be met for streaming broadcast-level video over an open Internet, where uneven deliveries, packet loss and buffering are unacceptable. For high quality video broadcast services such as Video on Demand (VOD) and Over the Top (OTT), user experience very much depends on continuous and seamless packet delivery over an open Internet.

To overcome issues such as jittery network traffic, packet loss and to deliver high-quality video content 24/7 over the Internet, service providers are constantly looking for robust, reliable network appliances that are designed and built for the next generation IP video delivery.

Lanner Video Transport Gateway NCA-6210



Lanner and Intel® have collaborated to validate Intel® Select Solution for Visual Cloud Delivery Network on NCA-6210, allowing the access to Intel® Quick Sync Video hardware accelerated encoding, decoding and processing. The software and hardware integration optimizes critical cloud workloads by enabling robust, high-performance video transcoding and analytics while reducing the latency for immersive media enhancement, targeting at AR/VR applications.

Lanner's NCA-6210, designed for high performance, high scalability, and full redundancy in visual cloud graphic and computing, is the first network appliance from Lanner selected for verification as an Intel Select Solution for Visual Cloud Delivery Network. Powered by the 2nd Gen Intel® Xeon® Scalable processors and Intel® Optane™ DC persistent memory, Lanner NCA-6210 features dual Intel CPU sockets with C621/C627 PCH, 8x NIC module slots and Intel® Advanced Vector Extensions 512 (Intel® AVX-512) instructions, Hyperscan and DPDK technologies.

Intel® Select Solution for Visual Cloud Delivery Network Hardware Configuration



Table 1: Intel® Select Solution for Visual Cloud Delivery Network Hardware Configuration

Platform	NCA-6210D
CPU	Intel® Xeon® Platinum 8270 CPU at 2.7 GHz 26C
DDR Memory	192 GB (12 x 16GB DDR4 at 2666 MHz)
Intel® Optane™ DC persistent memory	512 GB (4 x 128 GB Intel® Optane™ DC persistent memory in 2-1-1 Topology)
NIC	2 x Dual Port 25GbE Intel® Ethernet Network Adapter XXV710 SFP28 (IVM201 NIC module)
Intel QAT	Intel® C627 (LBG-T) chipset with Intel® Quick Assist Technology (Intel® QAT) enabled integrated
Storage (OS and primary data)	4 x Intel® Optane™ SSD P4510 Series 2.0 TB NVMe
LAN on Motherboard	2x 10G SFP+ MGT/IPMI Port

Hardware and Software Performance Validation

Intel® Select Solutions for Visual Cloud Delivery Network is based on Network Function Virtualization Infrastructure (NFVi) architecture with system modification specifically tuned for Content Delivery Network (CDN) node. In the virtualized CDN era, one CDN node could be deployed easily with virtual workloads, which normally would stress the platform on the networking capability, storage capacity and security performance. The CDN capability could be tuned for IP CDN (web content), video distribution or media transcoding.

Lanner NCA-6210 has been validated by following test suite, including

1. Infrastructure Benchmarks – Lanner NCA-6210 has been verified as an Intel Select

Solution for Visual Cloud Delivery Network in network performance using verification scripts on Intel® NFV Infrastructure Enabling Kit.

2. IP CDN Benchmarks – Achieve required HTTP/HTTPS requests running the full Nginx SW stack using the Jmeter test tool

3. Video Transcoding Benchmarks – FFmpeg is the widely used framework in the industry for media processing and media transcoding applications. Lanner NCA-6210 is certified by Intel’s highly optimized software SDK for HEVC encoding (HEVC-SVT) for media transcoding performance, which have been integrated into the FFmpeg package.

4. Video Streaming Performance Benchmarks – the HLS and DASH are recommended for video streaming benchmarking as they are used worldwide and have been well supported by the Nginx and Apache Traffic Server* (ATS) framework. Lanner NCA-6210 is certified by Jmeter with NGNIX-RTMP for video streaming.

Conclusion

As a verified Intel Select Solution for Visual Cloud Delivery Network, Lanner’s NCA-6210 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-6210, Lanner now has a verified solution to help communications service providers deliver new services to enterprises and small businesses.

Learn More

Lanner Intel® Select Solution for Visual Cloud Delivery Network :

<http://www.lannerinc.com/applications/telecommunication/intel-select-solutions-for-visual-cloud-delivery-network>

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

Intel® Xeon® Scalable Family: <http://www.intel.com/xeond>

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