DATASHEET

SDNA-HRW

Software Definable Network Appliance (SDNA) Half Rack Width (HRW)

The SDNA-HRW is our highest performing SDN-A, featuring Intel® processors with Intel QuickAssist® Technology (QAT). Intel QAT significantly increases cryptographic performance by adding dedicated cryptographic acceleration hardware on the Intel Xeon CPU, supporting 20 Gbps and 50 Gbps AES encryption performance levels. By using the dedicated cryptographic acceleration logic, the balance of the Intel Xeon processor can be leveraged for software based Virtualized Networking Functions (VNF) or application servers.

The SDNA-HRW combines the capabilities of an "all WAN technology consuming" IP networking router, a 12-port switch, and an enterprise-class virtual machine (VM) server into a single HRW appliance. It offers a multitude of commercial networking technologies that include Ethernet (copper and fiber), 802.11ax Wi-Fi 6, 3G/4G/5G upgradable Cellular, and additional Ethernet based commercial WAN technologies support. Because the SDNA-HRW is software programmable, it yields a flexible, scalable, interoperable solution that is future proof. It has enough processing power to support today's software-based IP networking technologies and performance levels to support impending 5G use cases and beyond.

SDN-A Technology

The SDNA-HRW leverages our Software Definable Network-Appliance technology, which allows you to create a networking appliance based on your preferred vendor's software-based VNFs. SDN-As support several different VM hypervisors, along with networking function VMs from companies such as Cisco, Aruba, Juniper, Palo Alto, Fortinet, and IAS ROS. When used with IAS ROS hypervisor, users can benefit from the SDN-A's cellular and Wi-Fi transport technologies.

Applications

- NSA Commercial Solutions for Classified (CSfC)
- Forward Operating Bases
- Continuity of Operations use cases

Network Functions Virtualization

The SDNA-HRW looks and functions like an enterprise-class tactical IP router. It is also a purpose-built x86 based appliance with enough processing power, memory and storage to support run multiple VMs on a single piece of hardware. By leveraging virtualization, the HRW SDN-A C3000 significantly reduces the overall size, weight, power consumption and cost of deployable communications solutions. SDN-As support most commercial vendors' software-based IP networking function and application server based VM technologies, including:

- IAS Router Operation System (IAS ROS) (as a bare metal hypervisor or as a VM)
- Cisco CSR1000V, ASAv, ISR1000v, Viptela/vEdge (on VMware or IAS ROS)
- Aruba Virtual Mobile Controller (VMC) (on VMware or IAS ROS)
- Palo Alto Networks VM Firewall (on VMware or IAS ROS)
- Windows Server 2012 and 2016 VMs (on VMware or IAS ROS)
- Linux VMs (on VMware or IAS ROS)
- Juniper SRXv (on VMware or IAS ROS)

Specifications

- 8.3 x 1.6 x 10.8 inches (WxHxD)
- Weight: < 4lbs, 1.82kg
- Operating Temperature: -4°F ~ +158°F
- Wide Range Dirty DC Input: 9 ~ 36 VDC
- Power Consumption: 100 ~ 120W
- 2) 802.11ac, 802.11ax, and/or 3G/4G/5G cellular radios
- RJ45 console interface
- Wide range 9~36VDC input, Wide range
- 83~264 VAC, 50/60Hz PSU included
- Features Intel Quick Assist Technology

Other Half Rack Width Appliances and Ralated Products

Ethernet Switches

- HRW Cisco ESS3300 – (26) RJ45 1G ports, (2) 10G, (10) 802.3at PoE ports
- HRW Netgear M4300 – 8 10G RJ45 & 8 10G SFP+
- HRW Netgear M4300 - 12 10G RJ45 & 12 10G SFP+
- HRW Netgear M4300 - 24 10G RJ4

Compute Nodes

- HRW Intel® Xeon® D-1500 (8c/16t, 12c/24t, and 16core/32thread variants)
- HRW Intel® Xeon® D-2100IT (8c/16t, 12c/24t, and 16core/32thread variants)
- HRW Intel® Xeon® D-2100IT TEMPEST Level 1

Software Definable Network-Appliances™

- HRW SDN-A™ BaNkS
- HRW SDN-A™ Xeon® D-2100NT w/Intel QAT
- HRW SDN-A™ MICRO

Miscellaneous

- HRW Haivision Kraken Video Transcoder
- HRW AC input – (8) 150watt 24VDC output PSU
- HRW AJ Power Source AC & DC input – 400 watt PSU with scalabe UPS battery (8 output)
- HRW JPS Interoperability RoIP appliance