

HRW SDN-A™ BaNkS

Software Definable Network-Appliance™

The latest addition to our cutting-edge portfolio of network function virtualization (NFV) appliances, the **HRW SDN-A™ BaNkS**, combines the capabilities of an "all WAN technology consuming" IP networking router, a 20 port Power over Ethernet (PoE) switch, and an enterprise-class virtual machine server into a single Half Rack Width (HRW) appliance.

Funded by a Combatant Command to significantly reduce the size, weight, power, and cost of their mobile and vehicular deployable communications solutions, a single SDN-A BaNkS device can run a dozen or more virtualized network functions (NFV) or virtualized servers. NFVs include IP routers, firewalls, certificate authorities, IDS/IPSSs, Wi-Fi controllers, domain controllers, file servers, WAN acceleration VMs, RoIP, media server VMs, and application server VMs. The BaNkS also provides Ethernet port density and Power over Ethernet rival to dedicated Ethernet switches.

The SDN-A BaNkS is one of several HRW appliances designed for use as standalone desktop appliances, within the Tactical Field Office (TFO) 2U~42U Chassis System or the TFO-MINI, a carbon fiber VIP roller board case that is small enough to stow in an aircraft overhead storage bin.



Virtualization

- ◀ Supports most commercial vendors' software-based IP networking function and application server based virtual machine technologies
- ◀ Supports at least (12) virtualized network functions or virtualized application servers running simultaneously

Key Features

- ◀ Sub U Systems' most capable and versatile Software Definable Network-Appliance™
- ◀ Performs routing, switching, computing, and virtualization roles in a single, small, lightweight, low power, processor and memory robust appliance
- ◀ True enterprise-class performance, with Gigabit and 10 Gigabit interfaces and packet processing to match
- ◀ Toolless design, removable hard disk bay cartridge
- ◀ Half Rack Width form factor (HRW) - Operates stand-alone as a desktop appliance, in Tactical Field Office (TFO) Chassis, or the TFO-MINI Chassis system (FAA airline overhead compliant)
- ◀ Temperature responsive cooling fans, ensuring the quietest operation possible
- ◀ Additional product variants arriving in 2021, which retain all the processing power and memory
 - ◀ SDN-A BaNkS LITE with (8) Ethernet interfaces -
(2) 10G and (6) 1G interfaces
 - ◀ SDN-A BaNkS 1U with (70) Ethernet interfaces -
(4) 10G and (66) 1G interfaces



HRW SDN-A™ BaNks

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Specifications

- ◀ Size: 12" x 8.4" x 1.6" (L x W x H)
- ◀ Weight: 4.5 pounds
- ◀ Intel® Xeon® D 8, 12, and 16 core processors
- ◀ (2) 2.5" SATA drive bays
- ◀ Micro USB console interface

WAN Technology

- ◀ (2) 10 Gigabit routed Ethernet ports
- ◀ (18) Gigabit routed Ethernet ports
- ◀ Up to (3) 802.11ac, 802.11ax, and/or 3G/4G/5G cellular radios (Optional)
- ◀ Wi-Fi client and/or Access Point (Optional)

Power

- ◀ Wide Range Dirty DC Input: 9 ~ 36 VDC
- ◀ Power Consumption: <80 watts (excluding PoE)
- ◀ (10) 802.11at Power over Ethernet (PoE) ports
- ◀ PSU: 83~264 VAC, 50/60Hz

VPN Technology

- ◀ Commercial National Security Algorithm (CNSA)
- ◀ SSL VPN (OpenVPN interoperable)

Environmental

- ◀ Operating Temperature: 0°C ~ +75°C

Other Half Rack Width Appliances and Related Products

Software Definable Network-Appliances™

- ◀ HRW SDN-A™ BaNks
- ◀ HRW SDN-A™ Xeon® D-2100NT w/Intel QAT
- ◀ HRW SDN-A™ C3000 w/Intel QAT
- ◀ HRW SDN-A™ MICRO

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

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



TFO-MINI VIP Case

Miscellaneous

- ◀ HRW Haivision Kraken Video Transcoder
- ◀ HRW AC input – (8) 150watt 24VDC output PSU
- ◀ HRW AC & DC input – 400 watt total @ 24VDC (8 output PSU/UPS)
- ◀ HRW JPS Interoperability RoIP appliance (8 input w/radio control)

