XNK

Expeditionary Networking Kit (XNK)

The Expeditionary Networking Kit (XNK) is modular, scalable deployable communications solution that brings robust, small form factor IT and IP networking infrastructure to field operations. It is the first of its kind integrated solution that combines tactical-edge computing and storage, virtualization (traditional or hyper-converged), and secure IP networking (Type 1 or NSA Commercial Solutions for Classified based).

Modular Design

The XNK solution is modular and can scale to meet the smallest or largest customer requirements, including single person portable and airline carry-on luggage compliant solutions. The XNK is comprised of:

- XNK modules – Half Rack Width (HRW) route, switch, compute, power, and Software Definable Network-Appliances™ (SDN-A™)
- Software-based network functions and virtualized network appliances
- TFO chassis system

XNK Chassis System

The XNK chassis system is standards compliant and designed to retain HRW appliances and traditional commercial off-the-shelf (COTS) 1U, 2U, or larger

IT rack-mount appliances, providing the ultimate in flexibility. The XNK chassis can mount into traditional, fixed location IT racks and commercial IT transport cases. Available in 2U and 3U variants, the chassis system scales to any number of HRW, 1U, or 2U appliances, in any combination, to meet your mission requirements. HRW appliances can be inserted into and removed from the XNK chassis system quickly and easily without tools. They can operate freestanding outside the chassis system, as they do not rely on the chassis for power or network interconnectivity, only retention and transport.

HRW Form Factor

The HRW form factor is industry standard one Rack Unit (RU) tall in a half rack width and shallow depth. HRW appliances can be inserted into and removed from the XNK chassis system quickly and easily without tools. They can operate freestanding outside the chassis system, as they do not rely on the chassis for power or network interconnectivity, only retention and transport. The HRW mechanical specification is available to other vendors to encourage an open chassis ecosystem. Eliminating bespoke solutions and proprietary form factors, enables you to implement innovative technology from a range of tactical comms vendors, instead of being tied to just one for the life of a program.

Power and Network

All HRW appliances operate using wide-range dirty DC, with inputs on the front and back of each device. They support power loss protection using a small, internal Li-Ion "hold up" battery (10-15 minutes). Alternatively, HRW devices offer internal UPS logic to support larger external batteries for longer runtime requirements.

Sigma Defense offers several Half Rack Width appliances designed for use as a stand alone desktop appliances within the Expeditionary Networking Kit Mini Carbon Fiber VIP case or the scalable 2U-4U XNK Chassis System.
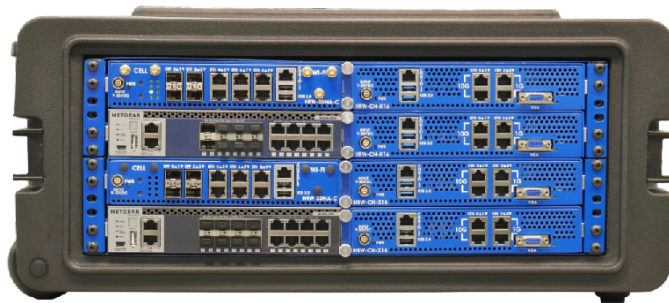
XNK

Software Definable Network-Appliances

- SDNA-ECB-HRW
- SDNA-HRW-X2
- SDNA-HRW-R
- SDNA-HRW-i7

Compute Nodes

- HRW-CN
- HRW- CN 1500

Miscellaneous

- CS HRW-P