



# NVIDIA SKYWAY

HDR/EDR Infiniband to 200G/100G  
Ethernet gateway

InfiniBand connects the world's top HPC and artificial intelligence (AI) supercomputers, delivering the fastest data speed, extremely low latency, and smart accelerations, together with the highest levels of efficiency and resilience.

IT organizations frequently choose InfiniBand solutions for connecting their compute and storage resources together. In scenarios where storage elements reside on an Ethernet network, or when outside connectivity to Ethernet is required, a high-speed gateway between InfiniBand and Ethernet networks is required.

## Optimized Design

Skyway is an appliance-based InfiniBand-to-Ethernet gateway, designed for quick and easy set up and management. Installed at the boundary between InfiniBand and Ethernet networks, the appliance supports standard IP routing protocols and is deployable on any InfiniBand topology. Skyway contains eight ConnectX Virtual Protocol Interconnect (VPI) dual-port adapter cards that enable the hardware-based forwarding of IP packets over InfiniBand (IPoB) to Ethernet, and vice versa.

Skyway also includes the NVIDIA Gateway operating system (MLNX-GW), which manages both the appliance hardware as well as the high availability and load balancing between gateway appliances and between ports.

## Scalability and Efficiency

Skyway's scalable architecture allows IT administrators to adapt to increasing user demand over time by connecting multiple Skyway appliances in parallel - achieving higher connectivity bandwidth. Each gateway supports 1.6 terabits per second (Tb/s) of total throughput, utilizing 16 ports with 100Gb/s bandwidth of traffic.

## InfiniBand Management

The InfiniBand subnet hosts a single, centralized subnet manager (SM), that acts as a software-defined network (SDN) controller for the InfiniBand network. An option to run the SM within the UFM (Unified Fabric Manager) is also available. For more information, please visit [NVIDIA UFM](#)

## Ordering Information

OPN	DESCRIPTION
MGA100-HS2	NVIDIA Skyway InfiniBand to Ethernet gateway appliance, 8x InfiniBand and 8x Ethernet ports, 2U server, 8x ConnectX-6 VPI dual-port HDR/200GbE adapters, 2 Power supplies (AC)



## PRODUCT SPECIFICATIONS

Dimensions	<b>Standard 2U appliance</b>
Connectivity	<b>8x HDR/HDR100/EDR ports</b> <b>8x 200/100Gb/s Ethernet ports</b>
Total throughput	<b>1.6 Tb/s</b>
Power supply	<b>80 Plus platinum 1+1 redundant power supply</b> > 1000 W @ 100 ~ 127 V > 2000 W @ 200 ~ 240 V
CPU	<b>Dual Intel Xeon scalable processors</b>
Software	<b>MLNX-GW gateway operating system</b>
System weight	<b>21kg</b>
System dimensions	<b>Height: 3.4in (87.9mm)</b> <b>Width: 17.2in (437.9mm)</b> <b>Depth: 29.9in (759.9mm)</b>
Mount rack	<b>2U rack mount</b>
Operating conditions	<b>Temperature</b> > Operating: 0°C-35°C > Non-operating: -20 0°C-60 0°C <b>Humidity</b> > Operating: 10%-85% @ 40 0°C non-condensing > Non-operating: 10%-95% @ 40 0°C (non-condensing)

Learn more about [NVIDIA Skyway](#)

