

## ➤ IP Network Server NSC2U



- Front and Rear I/O flexibility, with up to 8 x Gb NICs in front
- Short depth, ruggedized 2U chassis
- “Appliance” look and feel
- Long life support (3 years)
- Dual, redundant AC or DC power option
- Hardware RAID option
- Industry-leading performance/watt

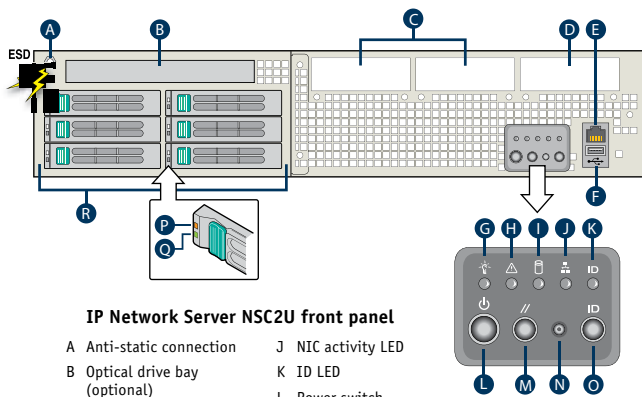
## Product Overview

IP Network Server NSC2U, featuring the Quad-Core Intel® Xeon® processors 5400 and 5300 series, provides extended lifecycle support and improved performance-per-watt over previous generation rack-mount servers. Due to high I/O throughput and performance, the NSC2U is an excellent choice for network security applications with large I/O requirements, including intrusion detection/intrusion prevention, VPN/firewall, and unified threat management solutions.

The NSC2U features shallow depth, DC power capabilities, and the ruggedness usually found on carrier-grade servers. It is well suited for enterprise application acceleration and content caching, and is an ideal platform for running Telco SoIP, including IMS, IPTV, video on demand (VoD), SIP application servers, IP-PBX, and IP-PSTN gateways.

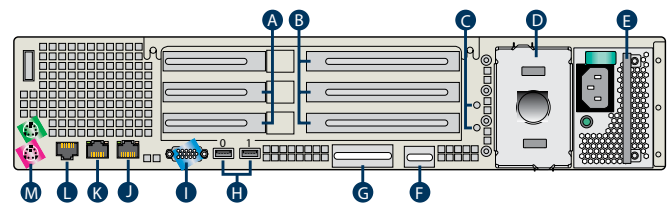
## Features & Benefits

Features	Benefits
Support for two 64-bit Quad-Core Intel® Xeon® processors (5400 series or 5300 series)	<ul style="list-style-type: none"> <li>➤ New 45nm enhanced Intel® Core™ microarchitecture boosts performance on multiple applications/user environments and data-demanding workloads</li> <li>➤ Faster performance with improved energy efficiency enables denser deployments</li> </ul>
Three-year extended lifecycle support with possible extension to five years	<ul style="list-style-type: none"> <li>➤ Reduces customer risk for long product roll-outs</li> <li>➤ Fewer platform transitions requiring additional testing and software</li> </ul>
Shallow 20-inch depth	<ul style="list-style-type: none"> <li>➤ Increases installation and service flexibility</li> </ul>
600W AC or DC hot-swap power supply	<ul style="list-style-type: none"> <li>➤ Flexibility of installation and applications</li> <li>➤ Uninterrupted operation (DC-backed power)</li> </ul>
Two rear-panel GbE NIC (Cu) ports	<ul style="list-style-type: none"> <li>➤ Scalable Ethernet ports, upgradeable to 20 GbE (max) based on PCI configuration and optional I/O modules</li> </ul>
Eight FB-DIMM slots (240-pin DDR2-533/667)	<ul style="list-style-type: none"> <li>➤ Maximum 32 GB memory (non-mirrored mode)</li> </ul>
Drive trays for up to six hot-swap 2.5-inch SAS hard disk drives	<ul style="list-style-type: none"> <li>➤ High-performance, enterprise-class drives for 24/7 operation</li> </ul>
Bay supports optical drive (purchased separately)	<ul style="list-style-type: none"> <li>➤ Accommodates Slimline CD-ROM; CD-R/W; CD DVD-R/W</li> </ul>
Customizable front bezel	<ul style="list-style-type: none"> <li>➤ Adaptable to customer needs and environment</li> </ul>
Up to five PCI slots for flexibility and additional I/O	<ul style="list-style-type: none"> <li>➤ Low-profile riser supports two PCIe x4 slots</li> <li>➤ Full-height, full-length riser supports two PCIe x4 slots and one PCI-X slot</li> </ul>
Optional Features	Benefits
Hardware RAID 5	<ul style="list-style-type: none"> <li>➤ Greater protection and reliability of data storage</li> </ul>
Intel® Remote Management Module 2	<ul style="list-style-type: none"> <li>➤ Lights-out management</li> </ul>
Flash storage capability supports 3rd party solid state drives (purchased separately)	<ul style="list-style-type: none"> <li>➤ High-speed, high-density storage, faster boot times, USB interface</li> </ul>
Optional I/O modules (rear)	<ul style="list-style-type: none"> <li>➤ Enables additional external SAS storage or two additional GbE NIC (Cu) ports on rear panel</li> </ul>
Additional four or eight front-panel GbE NIC ports (copper or fiber)	<ul style="list-style-type: none"> <li>➤ High-performance, enterprise-class drives for 24/7 operation</li> </ul>
Additional full-height risers for PCI-X	<ul style="list-style-type: none"> <li>➤ PCI-X (active): three independent PCI-X, each with maximum 133 MHz</li> <li>➤ PCI-X (passive): two PCI-X with maximum 100 MHz and one PCI-X (66 MHz) all on a shared PCI bus</li> </ul>



**IP Network Server NSC2U front panel**

- A Anti-static connection
- B Optical drive bay (optional)
- C 4x GbE ports (optional)
- D For future design use
- E Serial port (COM 2)
- F USB port
- G Power LED
- H Status LED
- I Disk activity LED
- J NIC activity LED
- K ID LED
- L Power switch
- M Reset switch
- N NMI switch
- O ID switch
- P Drive fault indicator
- Q Drive activity indicator
- R Hard drive bay (supports six 2.5" SAS)



**IP Network Server NSC2U rear panel**

- A Low-profile add-in cards or filler panels
- B Full-height add-in cards or filler panels
- C Grounding lugs (for DC)
- D Power supply #2 slot (filler panel shown)
- E Power supply #1 (AC module shown; DC modules also available)
- F Filler panel (optional GCM port)
- G Filler panel (optional dual NIC or external SAS ports)
- H USB ports
- I Video connector
- J RJ45 NIC 2 Connector (filler panel shown)
- K RJ45 NIC 1 Connector
- L RJ45 Serial port (COM 2)
- M PS2 mouse and keyboard

## ► Technical Information

Processor	Specifications
Type	Two (2) Quad-Core Intel® Xeon® processors 5400 series or 5300 series
Front-side bus	Supports 1066 MHz and 1333 MHz
Chipset	Specifications
Memory controller hub	Intel® 5000P Memory Controller Hub (MCH)
I/O controller hub	Intel® 6321ESB I/O Controller Hub (ICH)
Connections	Specifications
PCI adapter slot support	<b>One (1) low-profile riser:</b> > Two PCIe x4 slots — included <b>One (1) full-height, full-length riser — 3options:</b> > Two (2) PCIe x4 slots and one (1) PCI-X 133 MHz slot — included > Three (3) PCI-X slots (133 MHz max) — optional > Two (2) PCI-X slots (100 MHz max) and one (1) PCI-X slot (66 MHz) — optional
GbE NIC (CU) ports	Two (2) on base board (rear) Two (2) via I/O Option Module (rear optional) Eight (8) via Intel® PRO Bypass Adapters (front)
GbE NIC (Fibre) ports	Eight (8) via Intel® PRO Bypass Adapters (front)
USB 2.0 ports	Three (3): one front/two rear
Storage	Specifications
Type	SAS 2.5-inch hot-swap HDD
Redundancy	RAID 1 and RAID 5
Internal	Carrier with six HDD trays
External	SAS port on rear supports JBOD
Environmental	Specifications
Temperature, operating	10° C to 35° C (50° F to 95° F)
Temperature, non-operating	-40° C to 70° C (-40° F to 158° F)
Humidity, non-operating	50% to 90%, non-condensing with a maximum wet bulb of 28° C (at temperatures from 25° C to 35° C)
Altitude	0 to 1,800 m (0 to 5,905 ft) @ 40° C
Vibration, non-operating	2.2 Grms, 10 minutes per axis on all three axes
Shock, operating	Half-sine 2 G, 11 ms pulse, 100 pulses in each direction, on each of the three axes
Shock, non-operating	Trapezoidal, 25 G, 170 inches/sec delta V, three drops in each direction, on each of the three axes
Electrostatic discharge (ESD)	Tested to ESD levels up to 15 kilovolts (kV) air discharge and up to 8 kV contact discharge without physical damage
Acoustic	Sound power: < 7.0 BA at ambient temperatures at 23 ± 2 °C
RoHS	Complies with RoHS directive 2002/95/EC



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Memory	Specifications
Maximum memory capacity	32 GB (non-mirrored mode)
Number of DIMM slots	Eight (8)
Memory type	FB-DIMM technology at 533 and 667 MHz
Physical	Specifications
Height	3.45 inches (87.6 mm)
Width	17.14 inches (435.3 mm)
Depth	20 inches (508 mm)
Regulatory Compliance	Specifications
Safety	UL 60950-1, 1st Edition/CSA 22.2 60950-1, Low Voltage Directive 2006/95/EC, GS to EN60950-1, 1st Edition CB Certificate and Report to IEC60950-1, 1st Edition and all international deviations
<b>Electromagnetic Compatibility:</b>	
Australia/New Zealand	C-tick, Class A
Canada	ICES-003, Issue 4, Class A Limit
China	CCC Approval, Class A (EMC and Safety)
Europe	EMC Directive, 89/336/EEC EN55022, Class A Limit, Radiated and Conducted Emissions EN55024 Immunity Characteristics for ITE EN61000-4-2 ESD Immunity EN61000-4-3 Radiated Immunity EN61000-4-4 Electrical Fast Transient EN61000-4-5 Surge EN61000-4-6 Conducted RF EN61000-4-8 Power Frequency Magnetic Fields EN61000-4-11 Voltage Fluctuations and Short Interrupts EN61000-3-2 Harmonic Currents EN61000-3-3 Voltage Flicker
International	CISPR 22, Class A Limit, CISPR 24 Immunity
Japan	VCCI Class A
Korea	RRL Approval, Class A
Russia	Gost Approval
Taiwan	BSMI Approval, CNS 13438, Class A and CNS13438 Safety
USA	FCC 47 CFR Parts 2 and 15, Verified Class A Limit