

NR4400 Network Resilience Platform

Console Server | Out-of-Band Management | Edge Compute | Optional Global 4G LTE

The NR4400 is an edge compute platform that combines Total Out-of-Band Management, Smart Automation, and optional global 4G LTE connectivity in a single, secure appliance.

All models are managed through ZERO, Gearlinx's cloud-based platform that delivers centralized management, remote access, automation, and remediation at scale-eliminating the need for on-premises management infrastructure.



KEY SPECIFICATIONS

CONSOLE & CONNECTIVITY

Serial Console Ports	16 or 48 x RJ45 RS-232 software-selectable console ports
Network Ports	2 x 10/100/1000 Gigabit Ethernet plus 2 x 1GbE/10GbE SFP+ multi-rate ports
Local Console Port	1 x RJ45 RS232 serial port, straight or rolled, physically switched
USB Ports	1 x USB 3.0 and 8 x USB 2.0 ports for device console management
Remote Access	Integrated dual-SIM 4G LTE cellular module on LTE models

PHYSICAL & POWER

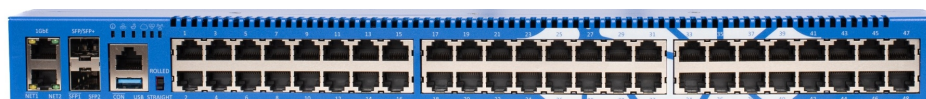
Power Input	Dual socket universal IEC C14 inlet, 100-240V AC, 50/60 Hz
Power Consumption	Noncellular 18W, Cellular 21W
Cooling	Passive cooling, forward or reverse mountable
Form Factor	1RU
Product Dimensions (W x D x H)	17.25 x 14.0 x 1.75 in (43.82 x 35.56 x 4.45 cm)
Product Weight	7.7 lbs / 3.5 kg

CELLULAR (LTE MODELS)

Cellular Module	Category 12 LTE
SIM Slots	2 x Mini-SIM (2FF); software selectable, hardware switchable
Antennas	2 x SMA (50 Ω, female)
Coverage	Global LTE Support (LTE-FDD/LTE-TDD/WCDMA/GSM bands)

See full band list on page 2.

FRONT VIEW (NR4448)



SYSTEM

CPU	2.0 GHz ARM Cortex A72 4-core
Memory	8 GB DDR4
Boot ROM	Boot/Firmware
Internal Storage	64 GB SSD storage for logs, containers, and VMs
Configuration Storage	512MB NAND

ENVIRONMENTAL

Operating Temperature	-5°C to 50°C, 23°F to 122°F
Storage Temperature	-30°C to 60°C, -22°F to 140°F
Humidity	5% to 95% non-condensing
MTBF	150,000 hours
Environmental Monitoring	Built-in temperature sensor

MANAGEMENT & PLATFORM

Management Platform	Gearlinx ZERO cloud platform
Automation	Zero Touch Provisioning, Python, Docker containers, OCI, REST API
Compute	KVM virtualization, guest OS support
Authentication	AAA (TACACS+, RADIUS, AD/OpenLDAP), SSH, SSO via OpenID (Microsoft/Google)
Protocols	IPv4/IPv6, SNMP, SSH, HTTPS, NTP, DHCP, LLDP, WireGuard, IPsec

Technical Specifications

Console Server | Out-of-Band Management | Edge Compute | Optional Global 4G LTE

CONSOLE PORT SPECIFICATIONS

NR4416	16 x RJ45 RS232 software-selectable serial ports, straight or rollover pinout
NR4448	48 x RJ45 RS232 software-selectable serial ports, straight or rollover pinout

INTERFACE PORTS

Primary / Secondary Network Ports	2 x 10/100/1000 Gigabit Ethernet, 2 x 1GbE/10GbE SFP+ multi-rate ports
Local Console Port	1 x RJ45 RS232 serial port, straight or rolled, physically switched
Managed Serial Ports	16 or 48 x RJ45 RS232 software-selectable 50 to 230,400 bps console ports
USB Ports	1 x USB 3.0 and 8 x USB 2.0 ports for device console management
Remote Access	Integrated dual-SIM 4G LTE cellular module

POWER REQUIREMENTS

Dual AC	Dual socket universal IEC C14 inlet, 100-240V AC, 50/60 Hz
Power Consumption	Noncellular 18W, Cellular 21W
Cooling	Passive cooling, forward or reverse mountable

CELLULAR CONNECTIVITY

Connectors	(2) 50 Ω SMA (center pin: female)
SIM Slots	(2) Mini-SIM (2FF); software selectable, hardware switchable
Coverage	Global LTE support
Speed	CAT12
Cellular Bands	LTE-FDD B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28; LTE-TDD B38/B39/B40/B41; WCDMA B1/B2/B4/B5/B6/B8/B19; GSM B2/B3/B5/B8

MEMORY AND CPU

Memory	8GB DDR4
CPU	2.0 GHz ARM Cortex A72 4-core
Boot ROM	Boot/Firmware
Internal Storage	64 GB SSD storage for logs, containers, and VMs
Configuration Storage	512MB NAND

Security, Compute & Platform



SECURITY, ENCRYPTION, AND AUTHENTICATION

Trusted Platform Module 2.0	TPM 2.0 physical security for remote provisioning
Embedded Firewall	nftables
VPN Tunnels	WireGuard and IPSec
Authentication Methods	AAA - TACACS+, RADIUS, Active Directory/OpenLDAP, local fallback
Hardware Secure Boot	SoC enforced bootloader signature checking



EDGE COMPUTE

Open OCI and Docker Containers	Deploy standards-based containerized applications at the edge
Linux KVM Virtualization Support	Linux KVM Virtualization Support



FEATURES

Software Features	Gearlinx, Total Out-of-Band, Modern Enterprise GUI/CLI, IPv4/IPv6, Serial Logging, Single Sign On using OpenID
Environmental Monitoring	Built-in temperature sensor



ENVIRONMENTAL

Operating Temperature	-5°C to 50°C, 23°F to 122°F
Storage Temperature	-30°C to 60°C, -22°F to 140°F
Humidity	5% to 95% non-condensing
MTBF	150,000 hours



REGULATORY APPROVALS

Cellular	PTCRB; GCF; AT&T; Verizon, T-Mobile; Canada
Certifications / Emissions	FCC Part 15 Subpart B Class A; CE; RCM; CAN ICES-3 (B)/NMB-3 (B); RoHS



PHYSICAL

Product Dimensions (W x D x H)	1RU 17.25 x 14.0 x 1.75 in (43.82 x 35.56 x 4.45 cm)
Product Weight	7.7 lbs / 3.5 kg
Status LEDs	NET1, NET2, Information, Network Link, Cellular Module, ZERO Connection, Heartbeat, User Session Active, Power Supply 1, Power Supply 2
Enclosure	Metal, reverse mountable

Ordering, Licensing & Accessories

1) PART NUMBERS AND SUBSCRIPTION OPTIONS

Part Number	Serial Ports	1GbE	10GbE SFP+	Global Cellular 4G LTE	Power Input
NR4416	16	2 x (RJ45 / SFP)	2 x SFP+	-	Dual AC
NR4416-4G	16	2 x (RJ45 / SFP)	2 x SFP+	Yes	Dual AC
NR4448	48	2 x (RJ45 / SFP)	2 x SFP+	-	Dual AC
NR4448-4G	48	2 x (RJ45 / SFP)	2 x SFP+	Yes	Dual AC

NR4400 products ship without power cables to reduce e-waste; power cables are available separately by region.

2) REQUIRED LICENSING SUBSCRIPTION

ORAAS-4400-1Y	NR4400 subscription license, 1 year enrollment units, ZERO Cloud Portal, 1 year hardware warranty, 1 year technical phone support, web support
ORAAS-4400-3Y	NR4400 subscription license, 3 years enrollment units, ZERO Cloud Portal, 3 year hardware warranty, 3 year technical phone support, web support
ORAAS-4400-5Y	NR4400 subscription license, 5 years enrollment units, ZERO Cloud Portal, 5 year hardware warranty, 5 year technical phone support, web support
ORAAS-4400-7Y	NR4400 subscription license, 7 years enrollment units, ZERO Cloud Portal, 7 year hardware warranty, 7 year technical phone support, web support
ORAAS-COTERM	Subscription license renewal; one enrollment unit added to Gearlinx ZERO Cloud Portal organization

3A) PACKAGE CONTENTS

444010	2 x Cellular Antennas - L only
444020	Cable - Straight through CAT5 - 6'
444030	Adapter - Straight pinout DB9F to RJ45 crossover serial - DTE
444040	Rack Mount Kit (ears and screws)
NRQSG	NR Quick Start Guide

3B) OPTIONAL ACCESSORIES

444030	Adapter - Straight pinout DB9F to RJ45 crossover serial - DTE
444031	Adapter - Straight pinout DB9F to RJ45 straight serial - DCE
444032	Adapter - Straight pinout DB9M to RJ45 straight serial - DCE
444020	Cable - Straight through CAT5 - 6'
444040	Rack Mount Kit (ears and screws)
444010	2 x Cellular Antennas
444011	Antenna Extender - Magnetic base with 10' coaxial cable

4) NR4400 POWER CABLES (SOLD SEPARATELY)

444000 US 	444001 Europe 	444002 UK 	444003 Australia/NZ 	444004 Japan 	444005 China 	444006 IEC C14 to C13 
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