

# Nodegrid Gate SR™

Deliver targeted functionality right where you need it

**Nodegrid Gate SR™ (GSR)** delivers converged infrastructure for more flexible networking. Deploy anywhere on your network to boost your provisioning capabilities and set up virtualized environments. Use the extensible **Nodegrid OS** to integrate third party and custom solutions, while the GSR serves as your convenient management gateway to all your end devices. Streamline your workload – from provisioning, to configuration, management, and beyond.

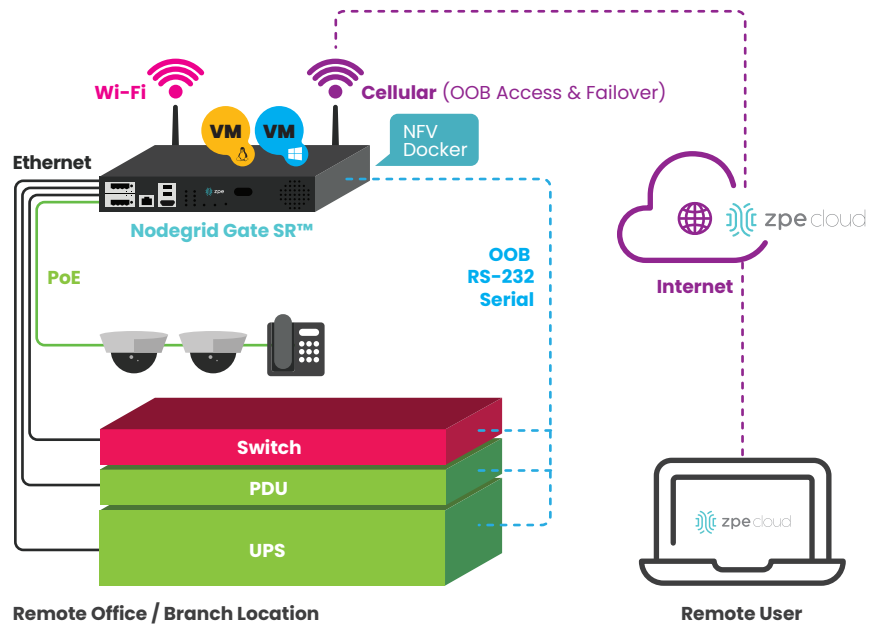


## Benefits

- **Reduce CAPEX & OPEX expenses** with a consolidated, extensible solution & automated management
- **Reduce downtime & trips** to remote locations with instant remote access
- **Minimize MTR, downtime, & expenses** with secure, centralized remote device access & control
- **Increase site reliability** with open industry standard hardware & easy-to-use software

## Features

- **Gen 3 Out-of-Band Management Integration**
- **Extensible Applications** with virtualization & containers
- **Zero Touch Provisioning (ZTP)** over the WAN for fast & easy setup in remote locations
- **Integrates with ZPE Cloud & Nodegrid Clustering Feature** for a unified, vendor-neutral management solution
- **Modern x86\_64bit Linux Kernel** for fast security patching & widespread software availability
- **Extended Automation** based on actionable data
- **Failover to 5G/4G/LTE & Wi-Fi**
- **Encrypted Data Transit** with SSL, IPsec & Wireguard VPN technologies
- **DHCP Server** Extra IPs for your remote site or replace your current router altogether
- **Built-In Firewall**
- **Secure** Selectable encrypted cryptographic protocols & cypher suite levels, configuration checksum™
- **Power Control & Monitoring** Get alerts on IT device health & solve problems automatically
- **Automation/Orchestration** Puppet, Chef, Ansible, RESTful APIs



## Use your GSR in with ZPE Cloud for even more time savings.

**True Zero Touch Provisioning** lets you automate deployments and configuration changes, including your connected end devices. Automate & create scripts to address issues before problems occur. **This powerful solution also features the Gen 3 out-of-band you expect from Nodegrid®.** Prevent downtime and instantly gain access to solutions and infrastructure – from SD-WAN and firewall applications, to serial consoles, PDUs, and IPMI devices.

## Nodegrid Gate SR Interfaces

- 9X Gbit Ethernet (4 with PoE+)
- 8X Serial RS-232 Ports
- 2X SFP+
- 2X Digital IO
- 2X Cellular 5G/4G/LTE
- 1X Relay
- 1X OUT
- 1X Wi-Fi 5

## Technical Specifications

### Connectivity

- 1X 1 Gigabit Ethernet Port
- 2X SFP+ 10 Gigabit Ports
- Built-in switch with 4 PoE+ Gigabit Ethernet Ports
- Failover to 5G/4G/LTE modem with Dual SIM, Console Port
- 4X Gigabit Ethernet Ports
- Multiple Routing Tables

### Managed Power Devices

Vendor-neutral PDU support

### Managed IPMI Devices

OpenBMC, HP iLO, Dell iDRAC, Supermicro/Quanta IPMI, IPMI 2.0 compatible devices, Cisco CIMC/UCS, IBM IMM, Oracle ILOM, EMC/NetApp Storage IPMI

### Sensors

- Support for a wide range of USB sensors

### Managed Devices

- Serial devices, USB devices, Network devices, PDU, & IPMI devices

### Networking

- IPv4 / IPv6 Support
- Embedded Layer 2 Switching, VLAN, Layer 3 Routing, BGP, OSPF, RIP, QoS, DHCP (Client & Server)

### Port Access

- Direct access by port name, TCP port, device name & IPv4/IPv6
- High performance port login: <1 sec on SSH, <3 sec on Telnet
- 250+ simultaneous sessions
- Port sharing
- Command Line Interface (CLI)
- Port custom field support, port icon configuration, port search
- Device clustering across multiple Nodegrid units
- Break-over SSH support

### System Management

- Extensible, automated control based on actionable real-time data
- Web GUI management portal, web console, Command Line Interface (CLI), Linux root shell, SNMP, RESTful API
- Zero Touch Provisioning (ZTP) via LAN/DHCP, WAN/ZPE Cloud, USB for configuration & firmware updates
- Multiple & customizable user levels of access
- Auto-discovery via network scan & custom probes
- SNMPv1,v2 & SNMPv3-v1 IPv4/IPv6 with MD5, SHA-224, SHA-256, SHA-384, SHA-512, DES, AES-192, AES-256
- Orchestration Integration & Automation: Puppet, Chef, Ansible, RESTful, ZPE Cloud & Nodegrid Cluster feature
- File sharing via FTP, NFS, SSHFS, Windows Sharing, web file browser, ZPE Cloud
- Remote Procedure Call (RPC, gRPC)
- NetFlow, LLDP

### Operating System

Built-in x86\_64bit Nodegrid OS

### Warranty

2-Year Limited Warranty

### Power Specifications

- 36V-75 VDC dual power input (redundant)
- Power consumption 45 W typical
- AC Power adapter (add-on), 100-240V~, 1.2A, 50-60Hz, Operating temperature: -25C – 60C

### Access Protocols

HTTPS, SSHv2;(Optional) HTTP, Telnet & SSHv1

### Device View Options

Tree, Table, Geo Map, Node, & WEB Interface with search



### Security

- Hardened device with BIOS protection, TPM 2.0, UEFI Secure Boot, Signed OS, Self-Encrypted Disk (SED), Geofencing
- X.509 SSH certificate support, 4096-bit encryption keys
- Selectable cryptographic protocols for SSH & HTTPS (TLSv1.3, TLSv1.2, TLSv1.1, TLSv1)
- Selectable cypher suite levels: high, medium, low, custom
- IPsec, WireGuard, OpenSSL VPNStrongswan with support for multi sites
- Local, AD/LDAP, RADIUS, TACACS+, Kerberos, authentication
- SAML 2.0 support via Duo, Okta, Ping Identity, ADFS
- Two-Factor Authentication with RSA & DUO
- Local, backup-user authentication support
- User-access lists per port
- Group/role-based authorization: AD/LDAP, RADIUS, TACACS+, SAML2
- Fine grain & role-based access control
- Firewall: IP packet & security filtering, IP forwarding support
- MD5 / SHA System Configuration Checksum™
- System event logging to file, syslog, email, ZPE Cloud, Splunk & more
- Custom security settings
- Strong password enforcement

### Data Logging & Notifications

- Local port buffering – 20 MB per port
- Local, NFS, syslog, off-line data logging
- Time stamp & rotation for data logging
- Event destination: email, syslog, local, syslog, email, ZPE Cloud, Splunk & more
- Notification: syslog, email, ZPE Cloud, Splunk & more

### CPU & Storage (Upgrades Available)

- Intel x86\_64 quad core
- 8-32GB DDR4 DRAM
- 32GB Hardware encrypted SSD

### Interface

- 8X RJ45 Serial ports
- 2X SFP+ (10G)
- 1X Gigabit (10/100/1000BT) Ethernet interfaces on RJ45
- 4X Gigabit (10/100/1000BT) Ethernet interfaces on RJ45 with Built-in Switch
- 4X PoE+ Gigabit (10/100/1000BT) Ethernet interfaces on RJ45 with Built-in Switch
- 2X GPIO (Digital I/O TTL level 5.5V max @ 64mA)
- 1X Digital Out Port (Signal MOSFET Digital Output 2.5V to 60V @ 500mA max)
- 1X Relay Port (NC relay contact max 24V @ 1A)
- 2X USB 3.0 Host on Type A
- 2X USB 2.0 Hosts on Type A
- 1X Wi-Fi -(Optional)
- 2X 5G or 4G/LTE Cellular Modem Slots with Dual SIM (Optional)
- 1X HDMI port

### Physical

- Front-Rear mounting brackets
- Size (L X W X H): 241.3 X 260.35 X 44.45 mm (9.5 X 10.25 X 1.75 in)
- Weight: 0.9 kg (2 lb)
- Shipping weight: 3.6 kg (8.0 lb)
- Shipping (L X W X H): 349.25 X 374.65 X 177.8mm (13.75 X 14.75 X 7 in)

### Environmental

- Operation: -40 to 60° C (-40 °F to 176° F), 5-95% RH, non- cond.
- Storage: -20 to 80° C (-4°F to 153° F), 5-95% RH, non-cond.

**Technical Specifications (Continued..)****External Power Supply**

- IEC 60950, IEC 62368

**Internal Power Converter**

- IEC 60068

**Electrical Isolation**

- IEC 60950, IEC 62368

**EM Compatibility**

- EN 61000-3-2:2014
- EN 61000-3-3:2013
- IEC 61000-4-2: 2008
- IEC 61000-4-3: 2006 + A1: 2007 + A2:2010
- IEC 61000-4-4:2012
- IEC 61000-4-5:2014+A1:2017
- IEC 61000-4-6: 2013+ COR1:2015
- IEC 61000-4-8: 2009
- IEC 61000-4-11:2004 + A1:2017
- EN 61000-4-2: 2009
- EN 61000-4-3: 2006 + A1: 2008 + A2:2010
- EN 61000-4-4:2012
- EN 61000-4-5:2014+A1:2017
- EN 61000-4-6: 2014+AC:2015
- EN 61000-4-11:2004 + A1:2017
- EN 55032: 2015/ AC: 2016
- EN 55035: 2017

## Ordering Information

Channel SKU	Description	CPU	Memory	Power	Special
ZPE-GSR-48-Base	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 13X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC. Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	Base
ZPE-GSR-48-W5	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC, Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	Wi-Fi
ZPE-GSR-48-4G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC, 4G LTE (CAT12). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	4G
ZPE-GSR-48-4G-W5	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC, 4G LTE (CAT12), Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	4G Wi-Fi
ZPE-GSR-48-4G-W5-D128G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC, 4G LTE (CAT12), Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac), Disk2:128GB. Dual DC input (wide range DC) with one AC power adapter & cord included. Order ZPE-GSR-PSU for additional power supply. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	4G Wi-Fi Second Storage
ZPE-GSR-48-5G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 4-Core Intel 64bit CPU, 8GB DDR4, 32GB SLC, 5G LTE (Sub 6 with 4G/LTE CAT20). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	4 Cores	8GB	AC & DC	5G
ZPE-GSR-816-Base	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 13X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC. Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support & HW warranty. Includes 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	Base
ZPE-GSR-816-W5	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC, Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac). AC power adapter not included, order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	Wi-Fi

## Ordering Information

Channel SKU	Description	CPU	Memory	Power	Special
ZPE-GSR-816-4G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC, 4G LTE (CAT12). Dual DC input (wide range DC). AC power adapter not included, order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	4G
ZPE-GSR-816-4G-W5	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC, 4G LTE (CAT12), Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	4G Wi-Fi
ZPE-GSR-816-4G-W5-D128G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC, 4G LTE (CAT12), Wi-Fi 5 (866Mbps 2X2 dual stream 802.11ac), Disk2:1216GB. Dual DC input (wide range DC). AC power adapter not included, order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	4G Wi-Fi Second Storage
ZPE-GSR-816-5G	ZPE Nodegrid Gate SR. 8X RJ45 Serial rolled, 11X ETH, (5 GbE, 4X PoE+, 2 SFP+), 8-Core Intel 64bit CPU, 16GB DDR4, 32GB SLC, 5G LTE (Sub 6 with 4G/LTE CAT20). Dual DC input (wide range DC). AC power adapter not included. Order ZPE-GSR-PSU separately. Order ZPE Cloud & app subscription. Includes Standard 2-Year Support, HW warranty, & 90-day ZPECloud.com subscription.	8 Cores	16GB	AC & DC	5G

## Accessories

ZPE-GSR-PSU ZPE Nodegrid Gate SR. Power Supply (Primary & Secondary)

## Support

ZPE-GSR-TX-BASE-ALL-EW1G ZPE Nodegrid Gate SR. 1Y 24X7 Gold Upgrade Support  
 ZPE-GSR-TX-BASE-ALL-EW2G ZPE Nodegrid Gate SR. 2Y 24X7 Gold Upgrade Support  
 ZPE-GSR-TX-BASE-ALL-EW3G ZPE Nodegrid Gate SR. 3Y 24X7 Gold Upgrade Support



**NOTE:** If you need more storage or other combinations please contact ZPE Sales: [sales@zpesystems.com](mailto:sales@zpesystems.com)



Anatel: 01127-22-14117

003-170295  
D170171003

FCC ID: 2ARCQ-EM7565  
IC: 24339-EM7565

003-200132  
D200112003

FCC ID: N7NEM91  
IC: 2417C-EM91

020-170122

FCC ID: RYK-261ACNBT  
IC: 6158A-261ACNBT