zpe

TRUSTED BY
6 OF THE **TOP 10**
MOST VALUABLE GLOBAL TECH GIANTS

Leaders in IT Management Infrastructure

Rediscover Resilience with Enterprise-grade Ops for the Data Center, Branch, & Edge

zpe 10 Celebrating 10 Years of Innovation

Cut workloads, reduce errors, and mitigate attacks. ZPE Systems delivers Big Tech's resilience practices on an infrastructure & management platform made for any organization

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The ZPE Systems Journey
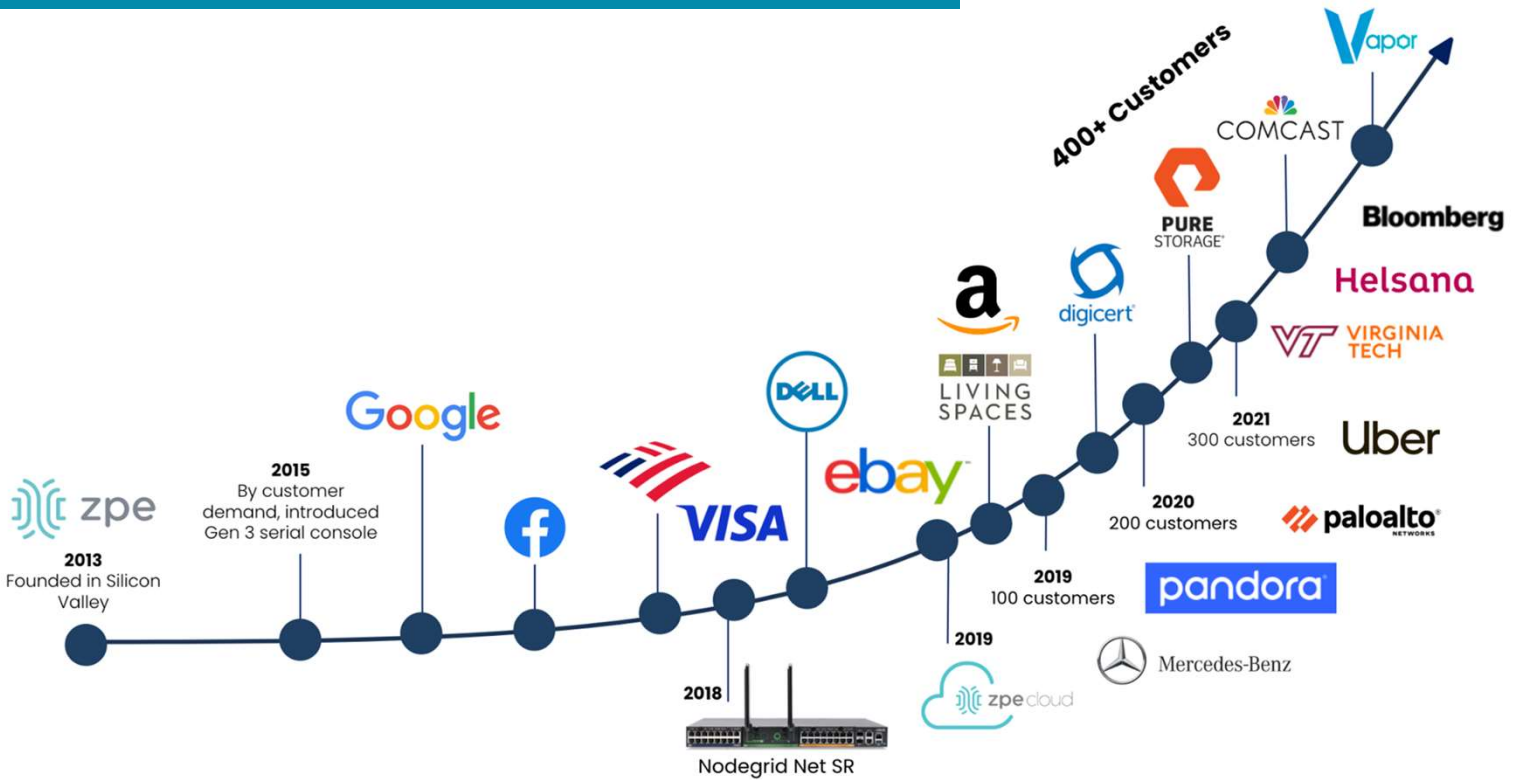
ZPE Systems addresses Big Tech's need for operational excellence by delivering a secure isolated management infrastructure.

The extensible, secure-by-design Nodegrid platform served as the drop-in solution for achieving remote troubleshooting to Infrastructure- as-code and hyperautomation, while providing an isolated control plane for resilience against outages and cyberattacks.

Together with Big Tech, we've perfected Nodegrid and the best practices they use to cut their workloads, automate operations, and quickly patch andrecover from ransomware.

We now serve 6 of 10 top tech giants, and we're helping 400 other customers achieve operational excellence through Big Tech's best practices for infrastructure and management.

Founded: 2013, Private
Headquarters: Silicon Valley - Fremont, CA
Offices: Brazil, Ireland, India, France
Global & Enterprise Customers: >400
Employees: 140+
Sales region: Global, 100% channel

From Traditional Operations to DevOps in any industry

Hyperscale Data Center & Colocations
Optimize services and increase resilience
- Secure Isolated Management Infrastructure
- Anxiety free datacenter automation with 'undo' button

digicert®

Utilities
Maintain strict SLAs and reduce capex / opex
- Remote jumpbox access and out-of-band
- Collapse 6 appliance in-1 ZPE NetSR Nodegrid

Vapor

Retail
Set up stores fast and stay online with just 2 IT staff
- Day 0 automation - skip staging
- Out-of-band in each MDF for large square footage

LIVING SPACES

Campus / Education
Reduce MTTR and automate troubleshooting
- Central MDF & IDF access
- Compute & add-on cards

VT VIRGINIA TECH

Remote Critical Infrastructure
Eliminate truck rolls and leverage critical data
- Host 3rd party SD-WAN, NGFW, apps, agents
- Sensors for IoT/OT and environmental monitoring

slb

Branch Offices
Prevent cyber attacks and ensure continuity
- Remote troubleshooting from ZPE Cloud
- 4G/5G for out-of-band shared as 2nd WAN

SCHOOLSFIRST FEDERAL CREDIT UNION

What resilience looks like with Nodegrid

50%
fewer work-hours using Nodegrid's remote access and automation

0 days
between patches using Nodegrid's IaC integration & config 'undo' button

100%
uptime using Nodegrid's dedicated environment for instant response & recovery
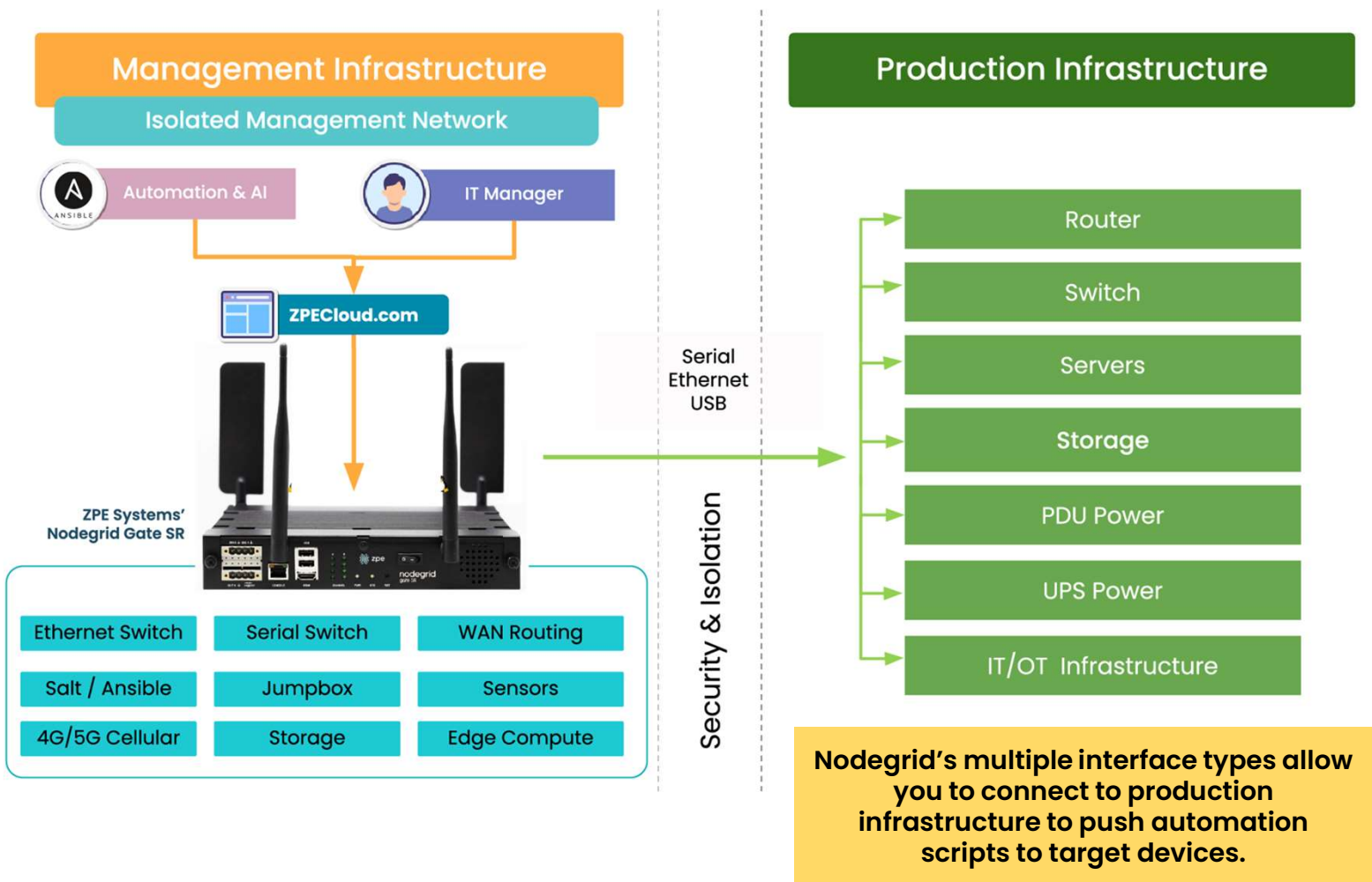
Hyperscale Data Centers

Why Hyperscale Data Centers need Gen 3 Serial Consoles and Isolated Management Infrastructure
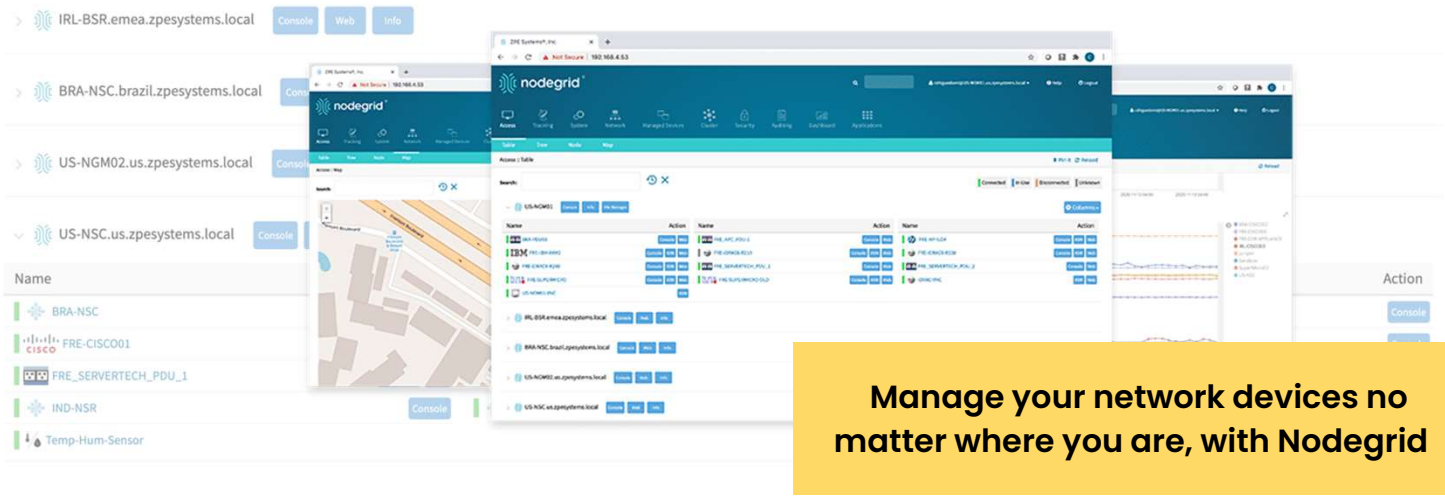
Instead of using production networks for admin tasks, an out-of-band management network (or Isolated Management Infrastructure, as written by CISA), gives admin access to devices via a fully independent network. This mitigates the risk of human errors or security threats taking your production network offline. IMI simplifies and accelerates remediation, and Gen 3 serial consoles offer a drop-in approach to deploying an IMI.

Why IMI is crucial to the data center:

- You get 24/7 remote access to your critical data center infrastructure, even if your WAN link goes down, so you can troubleshoot and recover without expensive truck rolls.
- You can fight through cyber attacks using full remote access to isolate, cleanse, and recover production gear without exposing yourself.
- You can avoid performance impacts on the production network and end-users, by performing resource-intensive network orchestration on the IMI's dedicated management plane.

CISA defines Isolated Management Infrastructure as the 'Best Practice' to network design

Nodegrid's multiple interface types allow you to connect to production infrastructure to push automation scripts to target devices.

Benefits for the Data Center

- Maintain and manage target devices, including PDUs, without rolling trucks
- Reach every node in the data center with low-level remote access
- Get one UI for mixed environments, regardless of pin-outs or management software
- Shrink training times & fatigue with normalized commands across all solutions
- Work efficiently with clustering to access distributed locations and devices
- Stay invulnerable to supply chain attacks with provisioning of factory-default boxes
- Save specialized staff for value-add tasks by automating routine jobs

NEW   ## Nodegrid Serial Console Plus

Connect 16, 32, 48 or 96 *(Patent No. 9,905,980)* serial devices and quickly scale to millions of nodes. Dual SFP+ and dual Ethernet ports keep data free from slowdowns, while the multi-core Intel CPU delivers blazing responsiveness. Built-in 5G/4G LTE and Wi-Fi options give you reliable cellular failover and secure out-of-band access, so you can keep it all online all the time.

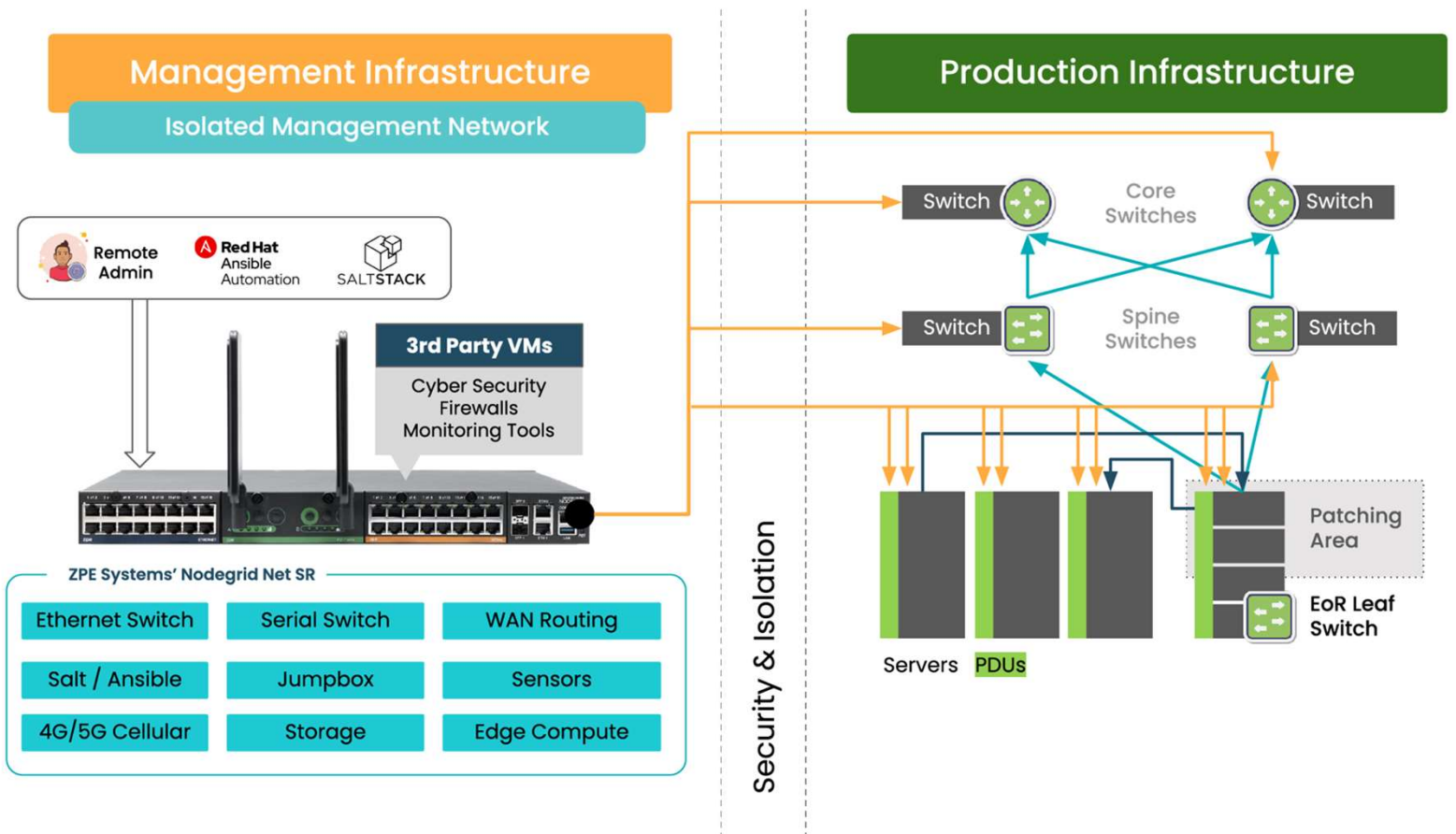| Popular SKUs	
ZPE-NSCP-T48R-STND-DAC	ZPE Systems Nodegrid Serial Console Plus - 4-Core Intel CPU, 4GB DDR4 RAM, 32GB Storage. 48-Port Serial RJ45, 2x 1GbE, 2x SFP+, 4x USB (2x USB 2.0, 2x USB 3.0.) Dual DC (DAC)
ZPE-NSCP-T48R-STND-DDC	ZPE Systems Nodegrid Serial Console Plus - 4-Core Intel CPU, 4GB DDR4 RAM, 32GB Storage. 48-Port Serial RJ45, 2x 1GbE, 2x SFP+, 4x USB (2x USB 2.0, 2x USB 3.0.) Dual DC (DDC)
ZPE-NSCP-T48R-STND-DAC-4G	ZPE Systems Nodegrid Serial Console Plus - 4-Core Intel CPU, 4GB DDR4 RAM, 32GB Storage. 96-Port Serial RJ45, 2x 1GbE, 2x SFP+, 4x USB (2x USB 2.0, 2x USB 3.0.) Dual DC (DAC) 4G LTE with Dual SIM
ZPE-NSCP-T96R-STND-DDC-4G	ZPE Systems Nodegrid Serial Console Plus - 4-Core Intel CPU, 4GB DDR4 RAM, 32GB Storage. 96-Port Serial RJ45, 2x 1GbE, 2x SFP+, 4x USB (2x USB 2.0, 2x USB 3.0.) Dual DC (DDC) 4G LTE with Dual SIM

How Gen 3 out-of-band via IMI reduces deployment times, cuts costs, & meets changing requirements

Colocation deployments often require hours of on-site work and ongoing maintenance, and significant overhauls to solve new use cases. Nodegrid's Gen 3 out-of-band via IMI is lean yet powerful. Multi-function devices shrink the stack to save valuable rack space. The open Nodegrid OS integrates into any automation, IaC, or DevOps environment, for zero-touch deployments and true lights-out management. The extensible OS and modular hardware also allow you to address new requirements with code or simple field maintenance.

Why IMI is crucial to colocation operations:

- You get plug-n-play deployments, with a secure environment dedicated to Day 0 - 3 operations.
- You put operations on autopilot, because Nodegrid supports automation, IaC, and DevOps regardless of your environment, for a true lights-out management approach.
- You meet changing requirements, with the extensible Nodegrid OS and modular hardware that allow you to deploy the apps and services you need, anywhere, anytime.

Management Infrastructure
Isolated Management Network

Remote Admin | Red Hat Ansible Automation | SALTSTACK

3rd Party VMs
Cyber Security
Firewalls
Monitoring Tools

ZPE Systems' Nodegrid Net SR

Ethernet Switch	Serial Switch	WAN Routing
Salt / Ansible	Jumpbox	Sensors
4G/5G Cellular	Storage	Edge Compute

Security & Isolation

Production Infrastructure

Switch — Core Switches — Switch

Switch — Spine Switches — Switch

Patching Area

EoR Leaf Switch

Servers   PDUs

Branch & Remote Edge

Scale on demand with efficient operations, no matter how small your team

Lean IT teams are spread thin by branch operations, with inflated device stacks, complex admin processes, and limited support for automation. Nodegrid and ZPE Cloud solve these challenges by eliminating the need for dedicated devices, centralizing administrative control, and enabling automation for any skill level. You get the agility to deploy on demand using a secure platform that scales to the needs of your team and your business.

Why IMI via Nodegrid is crucial to the branch:

- You collapse your stack by consolidating 6+ functions into one device, for an agile solution that's easy to deploy and adapt to your needs.
- You get centralized access at each site, with a single point-of-entry that makes jobs point-and-click simple while minimizing your attack surface.
- You reduce manual and repetitive tasks, by safely testing and deploying automation based on your skill level.

Consolidation & High Availability

Router / SD-WAN

Dual Cellular

Switch

Firewall

Out-of-Band Console Switch

Automation & Jumpbox Server & VM server

Guest OS FIREWALL A

Guest OS ROUTER A

paloalto NETWORKS

128T

ZTP and recovery via factory reset button

Prolonged downtime, truck rolls

Near 100% uptime, agility, cost savings

Nodegrid Services Routers

Put branch networks at your fingertips and savings in your hand

Nodegrid was built to overcome vendor lock-in and provide fully customizable networking. Our hardware features x86 architecture & the Linux-based Nodegrid OS, so you get an open platform backed by powerful internal components. The vendor-neutral Nodegrid Manager software ties everything together under one interface for simple, uncompromising branch management.

- Shrink your stack using all-in-one hardware that can host every function
- Choose solutions based on your exact needs, thanks to guest OS & application hosting / containers
- Simplify management onto one clean interface, regardless of your vendor solutions
- Stay future-proof with the flexible Nodegrid OS & robust add-on modules (Nodegrid Net SR)
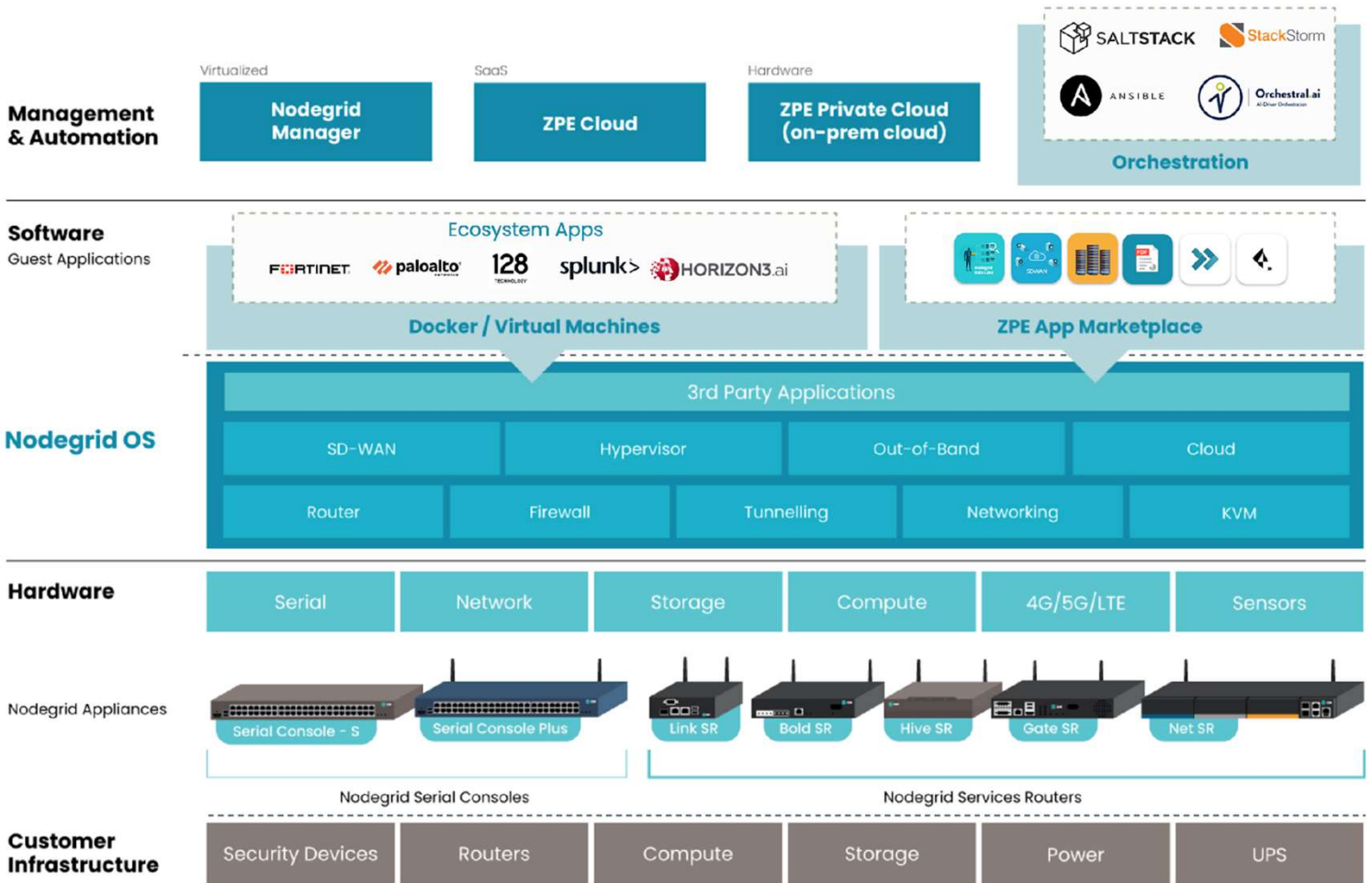
	Nodegrid Link SR	Nodegrid Bold SR	Nodegrid Hive SR	Nodegrid Gate SR	Nodegrid Net SR
CPU	2 Core - Intel x86_64	2, 4 Core - Intel x86_64	4 Core - Intel x86_64	4, 8 Core - Intel x86_64	4, 8, 16 Core - Intel x86_64
Memory	4 or 8GB DDR3 DRAM	4 or 8GB DDR3 DRAM	16GB DDR4 DRAM	8, 16, 32, 64GB DDR4 DRAM	8, 16, 32, 64GB DDR4 DRAM
Storage – Disk 1 *Optional Disk 2 Available*	16GB Hardware Encrypted SSD	32GB Hardware Encrypted SSD	16GB Hardware Encrypted SSD	32GB Hardware Encrypted SSD	32GB Hardware Encrypted SSD
VM / Docker Support	1-2	1-2	1-4	1-8	1-8
PoE+	PoE+ Input	-	-	4x PoE+ Output	
4G/5G Dual SIM	1x 4G/LTE with 2 SIM slots	2 concurrent 4G/LTE modems with 4 SIM slots	2 concurrent 4G/5G modems with 4 SIM slots	2 concurrent 4G or 5G modems with 4 SIM slots	10 concurrent 4G/5G modems with 20 SIM slots
Wi-Fi	Wi-Fi 5	Wi-Fi 5	Wi-Fi 5 6 coming soon	Wi-Fi 5	Wi-Fi 5
GPIO	2 DIO, 2 Out	-	-	2 DIO, 2 Out, 1 Relay	-
Power	PoE -or- Single DC (SDC)	Single AC (SAC)	Single DC (SDC)	Dual DC (DDC)	Single AC (SAC), Dual AC (DAC), Single DC (SDC), Dual DC (DDC)
Mode	OOB	OOB	Gateway	OOB	OOB
ZPE USB Sensor support	Yes	Yes	Yes	Yes	Yes
ZPE Cloud Support	Yes	Yes	Yes	Yes	Yes
Interfaces	1x Serial RJ45, 1x 1GbE (PoE In), 1x SFP+, 2x USB	8x Serial RJ45, 4x 1GbE Switch, 1x 1GbE, 4x USB (2x USB 2.0, 2x USB 3.0)	USB Serial, 2x 1GbE Copper/SFP, 4x 2.5GbE, 2x 10GbE SFP+, 2x USB 3.0	8x Serial RJ45, 8x GbE Switch (4x PoE+ Output), 1x GbE, 4x USB (2x USB 2.0, 2x USB 3.0)	Base Chassis - 2X 1GbE, 2X SFP+ (10G), 3 USB (2x USB 2.0, 1x USB 3.0)

ZPE Cloud Centralized fleet management and orchestration

Device management, access and zero touch provisioning are paramount needs for enterprises. All Nodegrid devices in Gateway mode automatically connect to ZPE cloud and wait for automation scripts to kick off additional jobs such as software upgrades and detailed configurations. Additional apps such as Nodegrid Data Lake can store information from ZPE sensors and enable AI capabilities.

ZPE Nodegrid building blocks

Environmental Monitoring Sensors & Alarms

| GPIO | Particulate | Temperature & Humidity | Flange Mount | USB Signal Beacon | Airflow | Smoke |

Automation Infrastructure Solution Comparison

Vendors	Gen3 OOBI	OOBI-WAN and Security	Platform & Tools	Management	
				On-Prem	SaaS
ZPE Systems	●	●	●	●	●
Vendor A	◔	◑	◔	●	○
Vendor B	◑	◕	○	◑	○
Intel NUC/Whitebox	○	○	●	○	○

Security in Layers
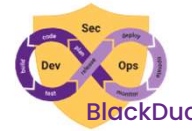
		ZPE Systems	Others
Security Integrations	● CyberArk, Delinia, Horizon3.ai ● PaloAlto, Fortinet, Cloudflare	✓ ✓	○ ○
Certification and Processes	● SOC2 Type 2, FIPS140-3, ● PSIRT, Pentesting	✓ ✓	○ ○
Software & Cloud	● Latest Kernel and CVE patches ● Zero Trust based access ● SAML2 based SSO ● MFA ● Latest encryption standards	✓ ✓ ✓ ✓ ✓	○ ○ ○ ○ ○
Software Development	● Dynamic Code Analysis ● Static Code Analysis ● Software BOM analysis including Open Source Software Composition ● Continues Security Assessments ● Zero CVE Policy	✓ ✓ ✓ ✓ ✓	○ ○ ○ ○ ○
Hardware	● Secure Signed OS ● Password-protected BIOS and Boot Loader ● TPM 2.0 ● Self Encrypted Disk ● Secure Boot	✓ ✓ ✓ ✓ ✓	○ ○ ○ ○ ○

SYNOPSYS®
Coverity
Validated

SYNOPSYS®
BlackDuck
Validated

SYNOPSYS®
Whitehat
Validated

SOC 2 TYPE II CERTIFIED

FIPS 140-3

Validated Virtualized Applications

paloalto NETWORKS | HORIZON3.ai | @ atsign | JUNIPER NETWORKS | puppet | SALT PROJECT
VERSA NETWORKS | CLOUDFLARE | DARKTRACE | Check Point SOFTWARE TECHNOLOGIES LTD | StackStorm | ANSIBLE
silver peak | FORTINET | CYBERARK | CLOUDGENIX | STELLAR CYBER | CHEF

ZPE Systems, Inc. HQ
Fremont, California

ZPE Europe Limited
Ireland, Paris, Germany

ZPE Systems
Singapour

ZPE Systems India Private Limited
India

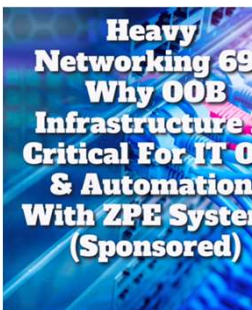**ZPE Brasil Sistemas LTDA**
Brazil

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Putting IT Operations on Autopilot

Jennifer Autry presents the story of Vapor IO. See how they used automation to reduce deployment times and make operations more efficient.

Heavy Networking 691: Why OOB Infrastructure Is Critical For IT Ops & Automation With ZPE Systems

Living Spaces details how ZPE Systems rethinks Out of Band so you can leverage this network for more than rebooting servers and configuring switches.

(NEW) Product Selector