



ZPE Systems' Nodegrid Virtual Services Router (VSR) and Out-of-Band Infrastructure WAN (OOBI-WAN)

Summary

Most enterprises operate a hybrid- or multi-cloud environment, which adds significant overhead, complexity, and architectural challenges. This turns networking and security into an operational battleground, where teams are ill-equipped to win against inefficient operations and outages.

The Nodegrid Virtual Services Router (VSR) solves this as part of an out-of-band infrastructure WAN (OOBI-WAN). The VSR bridges the gap between physical and virtual solutions, creating a dedicated and unified OOBI-WAN plane through which to manage diverse on-prem and cloud infrastructure. This allows enterprises to accelerate go-to-market deployments, reduce overhead & costs, and fortify IT against outages.

Problem - Disjointed operations bog down business

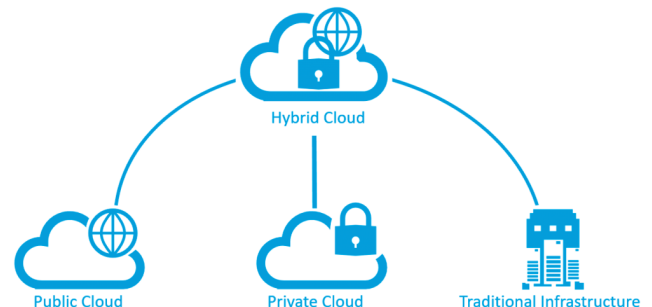
Approximately 80% of enterprises operate a hybrid- or multi-cloud environment. This trend is expected to grow as workloads move from data centers to different cloud and colo/edge locations. The reasons for these deployments can be complex, but key benefits include vendor lock-in avoidance, and greater choice for developers to develop and run solutions in environments best suited to their organization's needs. In short, enterprises gain more control over the offerings they consume and where they host their data.

However, multi- and hybrid-cloud environments pose a huge challenge to operations and security; each has unique requirements, security policies, and other attributes. Network and security specialists must use non-standard tools to operate these complex environments, which leads to slow deployments, inflated operating costs, and prolonged MTTR and outages.

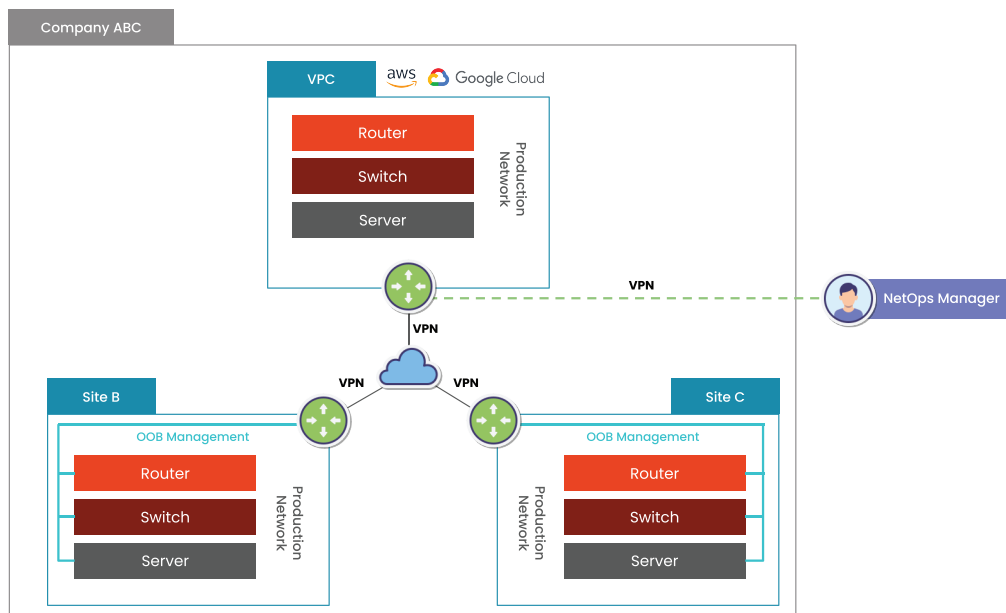
Gap - Complex ops back admins into a corner

IT administrators must use multiple systems and tools to manage their complex environments. These tools often include:

- Automation and orchestration solutions
- Jump boxes
- Dedicated backup connections, like 4G/5G WAN
- File storage
- and many more



Typically, setting up secure admin access to these systems requires deploying one or multiple VPN connections to each site. The interconnection of these environments to provide cross-environmental services for automation, orchestration tools, and other systems adds layers of complexity, as VPN, security, monitoring, and routing options differ from solution to solution and environment to environment.



Add to it the fact that roughly 60% of observed security risks are caused by misconfigurations, and admins are inevitably backed into a corner. The complexity is constantly battling to undermine their efforts, forcing them to weigh the risk of config errors against delivery timelines. Should they delay in order to build a resilient and secure environment, or deploy on time and hope that errors/outages don't crop up?

Without a way to cut through the complexity, admins will always face this dilemma.

ZPE Systems' VSR & OOB-I-WAN give admins a secret weapon

Admins managing hybrid infrastructure can now gain consistency on a unified enterprise operations platform. This is delivered by the Nodegrid Virtual Services Router (VSR) and out-of-band infrastructure WAN (OOB-I-WAN), which create a dedicated control plane that brings together on-prem and cloud solutions under one management umbrella. Admins can simplify how they manage complex environments, with the VSR and OOB-I-WAN solution serving as their secret weapon to accelerate deployments, cut through ops complexities & costs, and slash MTTR & outages.

This solution arms admins with:

- **Improved Network Security** - A dedicated management network that's physically isolated from the primary network gives admins greater security over critical infrastructure. The VSR & OOB-I-WAN provide secure remote access. Admins can quickly patch devices in order to repel attacks, and in case of a breach, they can remotely take devices offline to fix, refit, and redeploy.
- **Increased Network Visibility** - The VSR & OOB-I-WAN enable administrators to monitor and manage their devices in real-time. They gain in-depth visibility to quickly identify and resolve issues, while this control plane doubles as automation infrastructure from which to deploy firmware upgrades, config updates, and software installations.
- **Improved Service Availability** - The isolated management network lets admins access, troubleshoot, and recover infrastructure via dedicated LTE/WAN links, which are completely separate from the main network. In the event of an outage or failure, admins can reliably reach their critical infrastructure and quickly restore services.
- **Improved Scalability** - The VSR & OOB-I-WAN scale to accommodate expanding organizations. Because the VSR can be hosted on Google Cloud Platform or Amazon Web Services, and the OOB-I-WAN is set up on Nodegrid hardware, organizations can scale their unified management as quickly as they can deploy the VSR and Nodegrid devices.
- **Simple, Centralized Management** - The out-of-band infrastructure gives admins a central location to manage their global fleets and environments. This drastically reduces the need for on-site visits while making operations jobs simple, streamlined, and efficient.

If you like it, you should put TWO rings on it

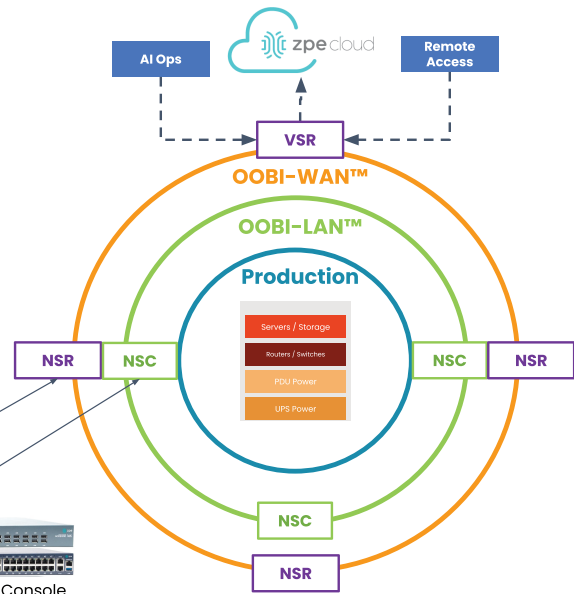
or risk \$3M+ payout and downtime.

Benefits

- Reduce risk of downtime
- Minimum attack surface
- Simplify IT remote access
- Simple to scale
- AI Ops Ready

OObI-WAN + OObI-LAN

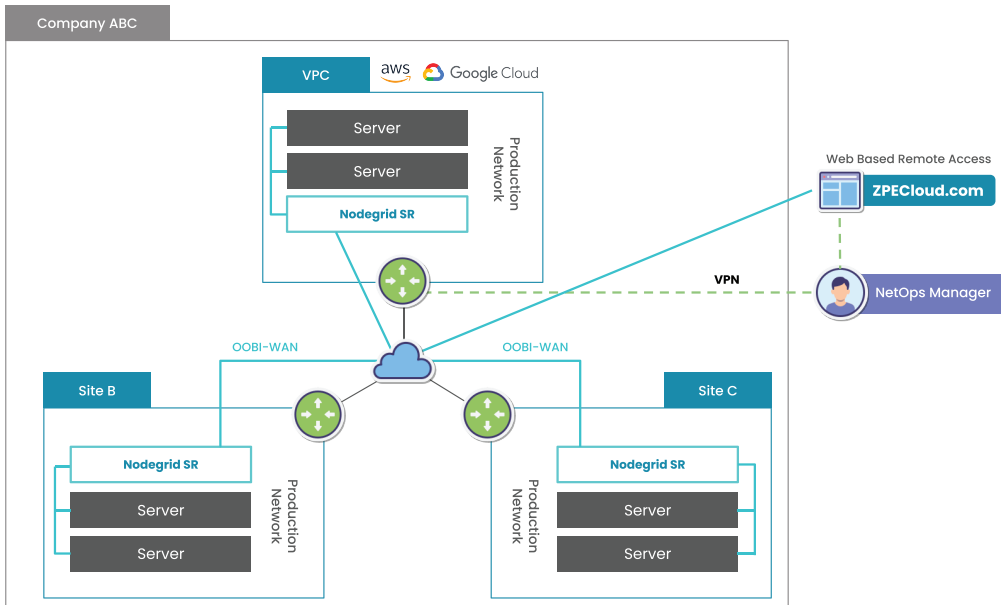
- OObI-SDWAN™
- 5G WAN
- ZPE Cloud
- Edgenative Automation
- X86 for VM & tools
- Secure hardened Platform



The VSR offers the same automation infrastructure as Nodegrid hardware, but offers an easy-to-scale solution that can be deployed in the public cloud. Rather than requiring multiple technical resources to perform several days' worth of work, the VSR cuts deployment times to a few hours and requires only one technical team member.

The VSR's flexibility and availability enables new use cases.

Secure OObI-WAN from one vendor



Customers can easily deploy the VSR in their private cloud deployments. These can serve as hubs in their OObI-WAN architecture to provide high redundancy.

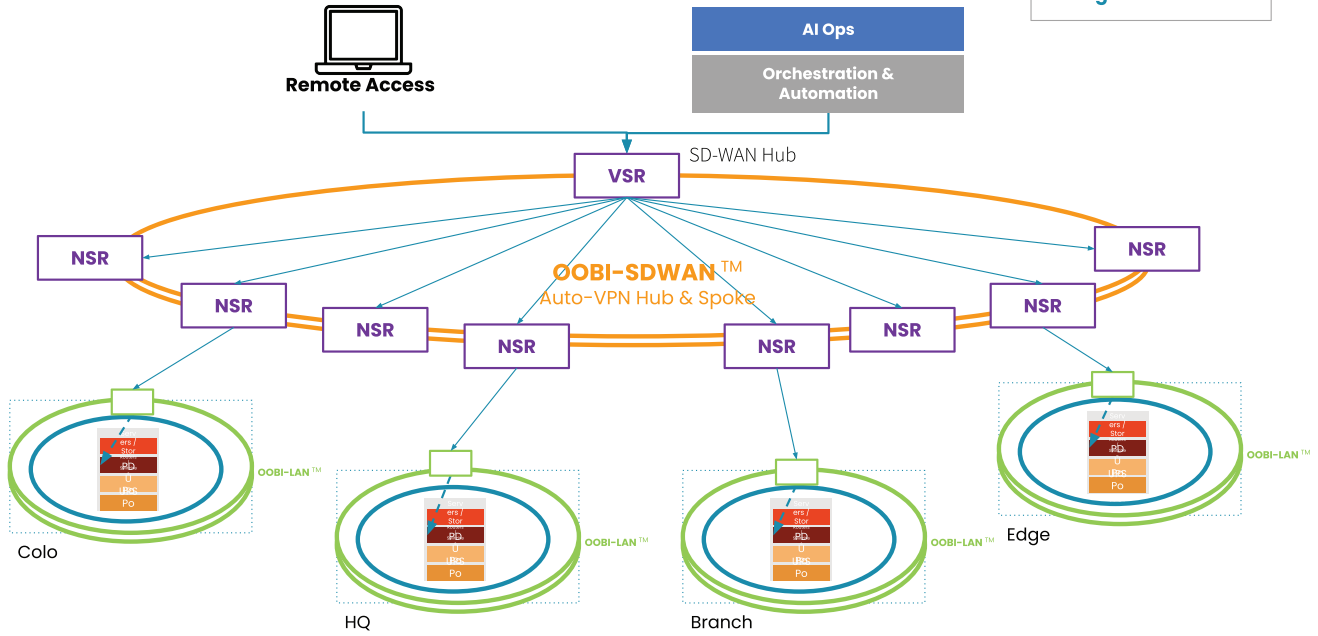
All management and out-of-band networks from data centers, co-locations, branch/edge, and other physical locations can directly connect to these hubs via secure VPN. Admins connect via VPN to these central points and to access all connected resources based on the enforced security model.

The complete solution can be implemented and managed using ZPE Cloud. This unified solution dramatically reduces complexity to simplify deployments and operations.

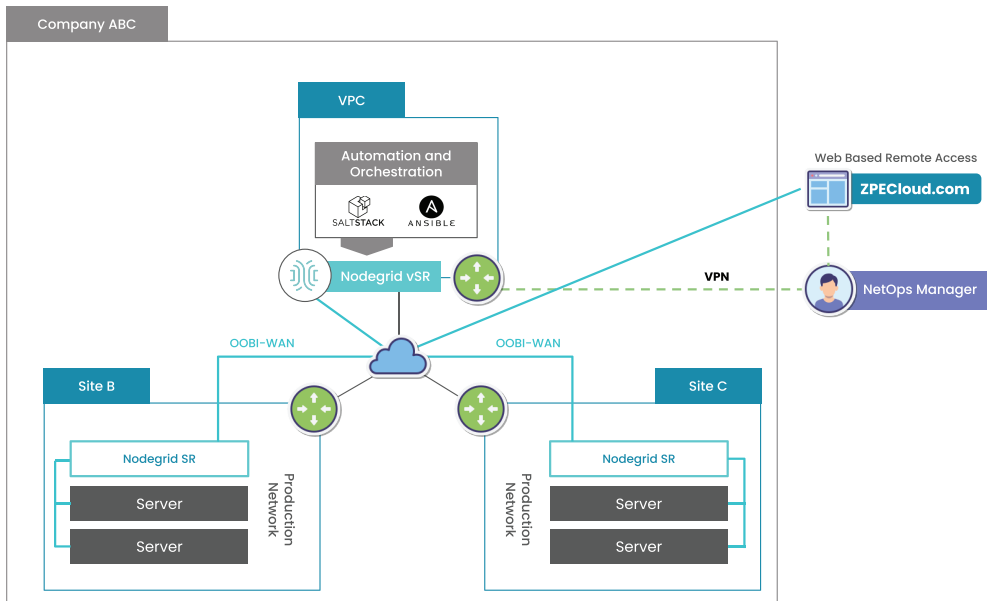
Secure Out-of-Band Infrastructure Rings: OOBI-LAN™ & OOBI-WAN™ & OOBI-SDWAN™

Datcenter to Edge

Legend:
 Ring 1 - OOBI-LAN
 Ring 2 - OOBI-WAN
 Ring 3 - Production

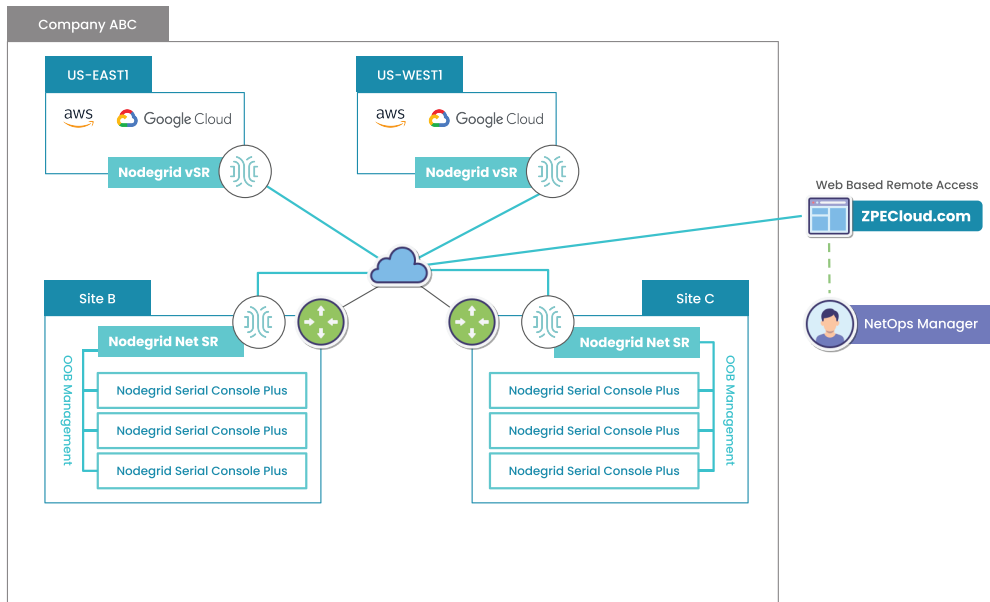


Unified hybrid-cloud network automation infrastructure



A secure OOBI-WAN forms the backbone of reliable automation infrastructure. Automation and orchestration solutions require secure connectivity to all managed devices across environments. OOBI-WAN provides a unified hybrid-cloud management network, complete with the tools required for connectivity, troubleshooting, and recovery from outages. This solution completely separates the control plane from the data plane, allowing daily management traffic and production traffic to flow unimpeded.

Out-of-Band Infrastructure Centralized Management



For private cloud, the VSR acts as a central management instance that replaces traditional on-prem solutions. This offers out-of-band management that's easy to scale and provides full access to connected devices from a single instance.

Try the VSR free for 60 days and defeat ops complexity

Hybrid-cloud environments are necessary for modern enterprises, but can slow business to a crawl. Diverse tools and environments add complexity that leaves admins battling slow deployments, inflated operating costs, and prolonged outages. The Nodegrid VSR and OOB-I-WAN solution are an admin's secret weapon to cut through this complexity.

This flexible solution can be deployed in public and private cloud instances, scales quickly, and simplifies infrastructure management under one umbrella. The dedicated control plane adds layers of resilience to maintain critical systems, while simultaneously streamlining operations between public cloud, private cloud, and on-prem solutions.

Try the VSR free for 60 days and see how you can defeat ops complexity. Visit zpesystems.com/contact for more details or to set up a personalized demo.