

PARTNER SOLUTION BRIEF

Secure and Flexible Network Infrastructure for Edge Environments

VyOS and ZEDEDA have partnered to provide a seamless and unified network solution for distributed edge environments, enabling organizations to efficiently distribute network functions and services closer to where they are needed.

ZEDEDA

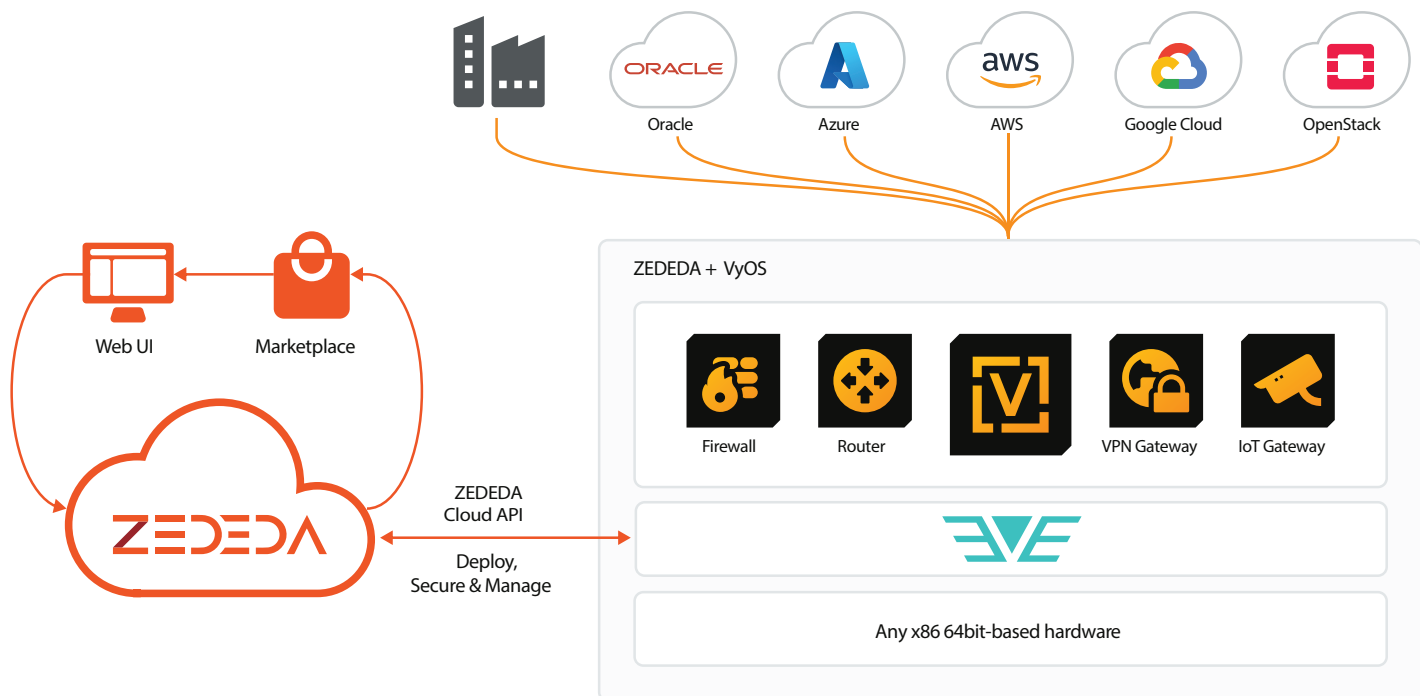


As critical IoT and edge systems become increasingly interconnected, the inherent challenges in security and complexity are becoming more apparent. Efficiently deploying network functionality within distributed environments while maintaining security for both legacy and modern IoT and edge devices can be a daunting and time consuming task.

VyOS and ZEDEDATA have partnered to provide a seamless and unified network solution for distributed edge environments. Leveraging the ZEDEDATA edge orchestration platform together with VyOS Universal Router enables organizations to efficiently distribute network functions and services closer to where they are needed, optimizing network traffic and enhancing overall edge computing efficiency.

VyOS Universal Router is a fully featured, open source network operating system for routers and firewalls. VyOS offers comprehensive, advanced networking and routing solutions with High Availability. VyOS supports multiple dynamic routing protocols via FRRouting, various VPN protocols, and other network routing and security features, available through a unified stateful CLI and an HTTP API for management automation.

ZEDEDATA delivers an open, distributed, cloud-native edge orchestration and management solution, simplifying the security and remote management of edge infrastructure and applications at scale. ZEDEDATA leverages an open architecture built on EVE-OS, from the Linux Foundation. EVE-OS delivers an industry leading identity and software attestation workflow that ensures the device can be trusted and that the entire software stack is exactly as expected.



Benefits of a Unified Network Solution for the Distributed Edge

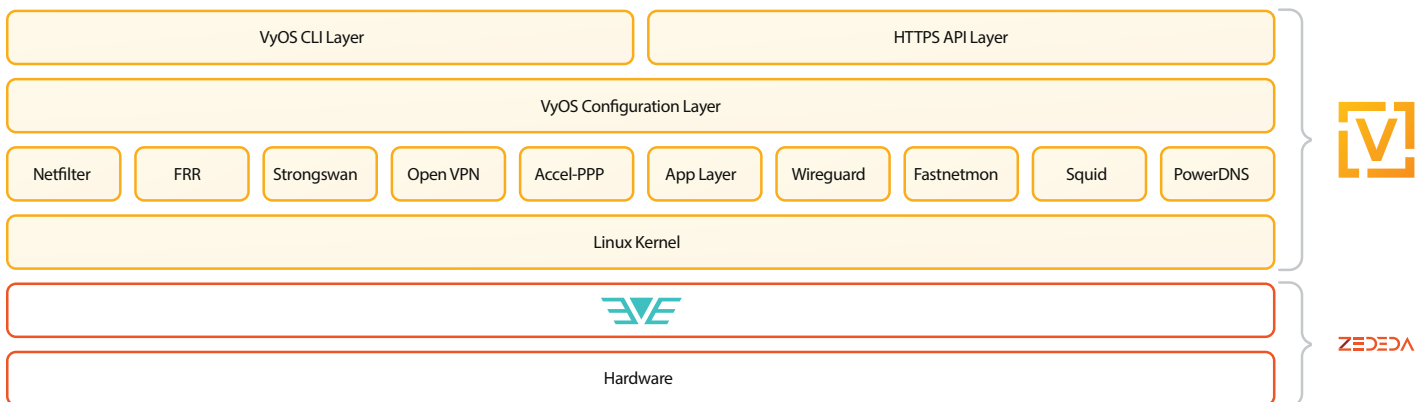
Built to address the challenges of the distributed edge, the joint VyOS and ZEDEDATA solution provides seamless integration of workloads, efficient distribution of edge capabilities, robust orchestration, and uncompromising zero trust security. Benefits of the joint solution include:

Enhanced Network Functionality: VyOS is an open-source network operating system that offers robust routing, firewall, and VPN capabilities. By combining VyOS with ZEDEDATA's edge virtualization and orchestration platform, organizations can extend these networking functionalities to edge devices, enabling secure and reliable communication across distributed environments.

Increased Security: VyOS offers advanced security features, including stateful firewalling, VPN encryption, and network segmentation. The integration of VyOS with ZEDEDATA's zero trust security architecture, customers benefit from a comprehensive security framework and can enforce consistent security policies across their edge infrastructure. This helps protect sensitive data and resources while ensuring secure communication between edge devices and the central network.

Scalability and Flexibility: ZEDEDATA enables the seamless management and deployment of virtualized network functions (VNFs) on a wide range of edge devices. By integrating VyOS, which is highly scalable and flexible, organizations can leverage the combined solution to efficiently scale their networking capabilities as per the requirements of their edge deployments.

Open Source Collaboration: Open source principles are core to both VyOS and ZEDEDATA, fostering collaboration and community-driven development, while also enabling customers to avoid risk of vendor lock-in. By joining forces, the VyOS and ZEDEDATA solutions benefit from shared expertise and contributions from a diverse community, resulting in continuous improvement, bug fixes, and new feature development.



Technology Overview

The VyOS and ZEDEDATA solution enables customers to effortlessly set up a VyOS instance that functions as an NVF (Network Virtual Function) within ZEDEDATA, based on VyOS architectures supporting most technologies and RFC standards, allowing customers to significantly enhance their network capacity. There's no need to worry about hardware limitations or stringent security prerequisites, and there are diverse methods to establish connections with various cloud providers.

The VyOS architecture facilitates seamless integration and adaptability with open source core daemons, enhancing the network's capabilities and aligning them with the VyOS API and providing customers with a streamlined integration process and exposure to various layers (northbound and southbound) via both CLI interfaces and APIs.

ZEDEDATA leverages EVE-OS, from the Linux Foundation. EVE-OS is a lightweight, open source Linux-based edge operating system, with open orchestration APIs. EVE-OS runs on over 75 different hardware platforms, providing customers the flexibility to choose the ideal configuration for every workload.

VyOS Universal Router installs on edge nodes within minutes via the ZEDEDATA Marketplace, which is used to define the desired state of the applications running on the node. This includes selecting application infrastructure (e.g., VMs, containers, Kubernetes, NFVs), application services (e.g., networking, security), and the applications themselves.

Example Use Cases

The joint VyOS and ZEDEDATA solution is suitable across diverse environments, use cases, and industries. A few use cases we support include:

- Enterprise Edge Router
- Edge IoT Gateway
- VPN Gateway
- ISP Border Router
- Cloud Gateway
- BRAS



Ready to Learn More?

Contact your VyOS or ZEDEDATA sales representative or reach out to sales@zededa.com or sales@vyos.io.



CONTACT@ZEDEDATA.COM

About ZEDEDATA

ZEDEDATA makes edge computing effortless, open, and intrinsically secure – extending the cloud experience to the edge. ZEDEDATA reduces the cost of managing and orchestrating distributed edge infrastructure, while increasing visibility, security and control.

ZEDEDATA ensures extensibility and flexibility by leveraging a partner ecosystem, and EVE-OS, open-source Linux-based edge operating system.