



VyOS
Networks



/ SOLUTION BRIEF

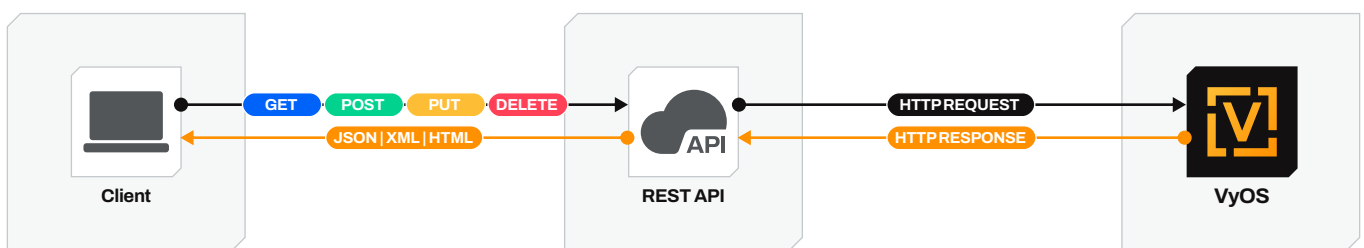
SMARTER NETWORK AUTOMATION WITH VYOS REST API

Overview

Modern networks demand agility, scalability, and programmability. Traditional command-line or manual configuration approaches can no longer keep pace with the speed and flexibility required by cloud-native, DevOps, and multi-tenant environments.

VyOS, the open-source network operating system, goes beyond traditional routing by introducing a **modern REST API**, enabling **true network programmability** and seamless integration with automation and orchestration platforms.

With the **VyOS REST API**, enterprises and service providers can transform their networks into **software-driven, automated** infrastructures capable of continuous delivery, proactive monitoring, and instant scaling.



What is the VyOS REST API?

The **VyOS REST API** provides a **standards-based interface** for interacting programmatically with VyOS systems.

It allows automation tools and applications to **configure, monitor, and orchestrate** network services using simple HTTP methods (GET, POST, PUT, DELETE), the same way cloud-native applications are managed today.

Key Capabilities:

- **Configuration management:** Create, modify, or delete routing, VPN, and firewall policies via API calls.
- **Monitoring:** Query operational data, interface statistics, and routing tables programmatically.
- **Orchestration:** Integrate VyOS into end-to-end workflows alongside cloud and DevOps platforms.
- **Security:** Built-in authentication, authorization, and HTTPS encryption ensure safe API access.

Benefits of REST API-Driven Automation

With VyOS REST API, repetitive and error-prone tasks become standardized, consistent, and fast. Instead of manually entering commands, automation frameworks can manage your network in real time, improving agility and operational reliability.

Key Advantages:



Seamless integration

Works natively with **Ansible**, **Terraform**, and **CI/CD pipelines** for automated updates and provisioning.



Instant service deployment

Create VPN tunnels, routing policies, or firewall rules with a single API call.



Continuous monitoring

Programmatically validate configuration and state, enabling proactive maintenance and faster troubleshooting.



Elastic scalability

Dynamically scale configurations across enterprise, cloud, or service provider environments.



Reduced operational cost

Minimize manual intervention while ensuring predictable, repeatable outcomes.

What is the VyOS REST API?

The VyOS REST API enables organizations to adopt **network-as-code principles**, where infrastructure behaves like software, versioned, tested, and continuously delivered.

This programmability helps unify network operations with modern DevOps practices, improving responsiveness and accelerating innovation.

With VyOS REST API, you gain:

- **Full programmability** across routing, security, and VPN services.
- **Vendor-agnostic interoperability** with automation frameworks and orchestration platforms.
- **Future-ready architecture** aligned with cloud-native and SDN principles.

Conclusion

The **VyOS REST API** redefines network automation by bridging the gap between traditional networking and modern software practices.

It empowers IT and network teams to move beyond static configuration models and embrace **dynamic, intelligent, and fully programmable infrastructure**.

By integrating VyOS REST API into automation pipelines, enterprises achieve faster service delivery, **higher reliability, and lower operational overhead**, unlocking the full potential of software-defined networking.

Unlock the future of networking. Automate with VyOS REST API.