



**VyOS**

The universal networking platform



**Merula**

**/** VYOS SUCCESS STORY

# Merula Revolutionizes ISP Edge Routing with VyOS

A Cost-effective, High-Performance Success Story

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## The Challenge

Merula Limited, a prominent ISP providing reliable voice, data, and hosting services for businesses, faced a crucial challenge with their edge routers. Previously relying on Quagga and Cisco solutions, they migrated to Juniper but encountered limitations with the MX104 routers. Seeking faster failover capabilities and a cost-effective alternative to Juniper, Merula embarked on a quest to find a robust, reliable, and budget-friendly network operating system (NOS) for their transit routers.

## Exploring Options

To overcome the limitations of the MX104 routers, Merula evaluated various alternatives. Their objective was to find a solution that not only delivered superior performance but also offered substantial cost savings. Aware of VyOS from previous experience, Merula recognized its operational compatibility with Juniper and its reputation for ease of use. Intrigued by the potential benefits, they decided to explore VyOS as a viable option.



### Why VyOS?

The primary factors that led Merula to choose VyOS as their preferred solution were its exceptional performance, cost-effectiveness, and ease of use. Merula deployed an 8x10G server equipped with 128GB RAM, SSD storage, and two Intel Gold processors. Remarkably, this VyOS-based edge routing infrastructure solution cost a mere \$45,000, a stark contrast to the exorbitant price tag associated with the Juniper solution using MX204 routers, which exceeded \$500,000.

Furthermore, VyOS boasted a command-line interface (CLI) similar to Juniper, making the transition seamless for Merula's network engineers. While VyOS introduced the requirement to save after committing changes, this became an inside joke among the team, underscoring the ease of adaptation. Merula was impressed with VyOS's compatibility and found it simple to learn, minimizing the learning curve for their staff.

## Solution and Benefits

Merula harnessed the power of VyOS to address their specific use case of transit routers, employing VyOS with EVPN (Ethernet Virtual Private Network) technology. Each site now features one or two "transit routers" capable of handling eight full routing tables. The robust failover capabilities of VyOS allowed any site to route or failover to another site within a remarkable response time of approximately 4 seconds, vastly superior to



the roughly 10-minute BGP convergence duration experienced with the MX104 routers, which also could not support as many full BGP tables as the team needed.

One of the key aspects that solidified Merula's success story was the unparalleled support and responsiveness of the VyOS community. The availability of a dedicated Slack channel facilitated prompt assistance, enabling Merula to resolve issues swiftly. Their positive experience with VyOS support prompted Merula to invest in paid support, impressed by the resolution of driver issues within a remarkable 48-hour timeframe.

**Merula's partnership with VyOS has yielded significant benefits. By adopting VyOS as their go-to NOS for all routers across their network, Merula achieved outstanding performance, substantial cost savings, and a standardized image and configuration throughout their infrastructure. With the ability to handle future prospects such as 100G interfaces, VyOS has emerged as an integral part of Merula's network architecture.**

**As Merula continues to explore VyOS for additional use cases, such as CPE (Customer Premises Equipment) and LNS (PPoE & IpoE), they are consistently impressed by the pace at which VyOS is evolving and the unwavering support they receive. VyOS has become a true game-changer for Merula Limited, empowering them to provide exceptional ISP services while maximizing efficiency and minimizing costs.**

