



## MADEO'S OPEN NETWORKING TRANSITION FOR DATA CENTER

Madeo Consultant charts the course towards the future of open networking by selecting OcNOS for its data center upgrade

In the rapidly evolving landscape of Data Center networking, Madeo Consultant, a leading software provider and Data Center systems integrator based in France, successfully transformed its network infrastructure with IP Infusion's OcNOS. This case study explores how IP Infusion OcNOS provided a superior alternative to modern open networking and traditional solutions.

Madeo Consultant identified the need for a comprehensive upgrade to meet increased demand and support new services, including cloud networking software-as-a-service. Madeo prioritized the adoption of EVPN VxLAN and BGP features within its Data Center and Service Provider software packages.

### Challenge

Facing the need for an upgrade, Madeo evaluated various network disaggregation strategies, including SONiC and open networking hardware.

SONiC fell short in delivering the BGP features crucial to Madeo's use case. Additionally, Madeo encountered difficulties with SONiC's CLI, finding it hard for integration with existing infrastructure.

The need to avoid vendor lock-in for optics was another significant challenge for Madeo, as past experiences with proprietary solutions had led to costly and inflexible outcomes.

## HIGHLIGHTS

The upgrade design, which highlights the synergies between **IP Infusion**, **UfiSpace** and **Edgecore**, deliver a solution characterized by the following key features:

### OcNOS vs. Proprietary Solutions

- **Reduced TCO** – OcNOS transparent licensing and white box hardware offered significant total cost of ownership savings
- **Optics Freedom** – Madeo was able to use optics from preferred vendors
- **Hardware Flexibility** – Enabled Madeo with a custom-fit solution at an off-the-rack cost

### OcNOS vs. SONiC

- OcNOS was delivered as a **platform ready for deployment** on qualified ODM platforms from UfiSpace and Edgecore
- **EVPN VxLAN and BGP Capabilities** – OcNOS came with comprehensive BGP support
- **Industry-standard CLI** – Enabled Madeo with simple transition from Cisco

## Solution

Madeo selected IP Infusion's OcNOS as a comprehensive alternative to Cisco and SONiC. OcNOS not only offered a mature market solution, end-to-end support experience, and significant cost savings, but also addressed the shortcomings observed with SONiC, which include comprehensive BGP support, and an industry-standard CLI. Madeo replaced its existing Cisco Nexus 3048 and Catalyst 3750 switches with OcNOS, leveraging the solution's capabilities to enable EVPN VxLAN and optics for increased performance.

Deployed on Edgecore and UfiSpace hardware, OcNOS provided an easy transition with an industry-familiar command line interface. The ability to choose from various hardware vendors allowed Madeo to tailor a custom-fit solution at an off-the-rack cost, addressing their specific requirements.

## Customer Testimonial

“Disaggregated networking software from IP Infusion, combined with EdgeCore and UfiSpace hardware, solved our upgrade needs seamlessly. Being able to choose between a variety of hardware vendors allowed us to find a custom-fit solution at an off-the-rack cost. Simple product licensing from IP Infusion made the upgrade experience complete. The transition from our existing Cisco infrastructure to OcNOS was remarkably easy, thanks to the industry-standard CLI. This not only saved us time but also eliminated the need for extensive retraining. IP Infusion's commitment to providing a mature market solution, coupled with the flexibility to use optics from our trusted vendors, made OcNOS the ideal choice for our Data Center Interconnect use case. We are now delivering software as a service more efficiently, thanks to the increased performance and future-proofing achieved with IP Infusion's solution.”

– François Defrocourt, Solutions Engineer for Madeo Consultants

## The Deployment

Madeo's deployment strategy involved connecting two data centers using Edgecore access switches and UfiSpace routers, creating a seamless Data Center Interconnect (DCI) based on VxLAN technology. This architecture not only enhances network efficiency but also ensures a robust and interconnected infrastructure. The data centers are powered by VMware ESX along with vCenter for efficient virtualization management, while NetApp storage, utilizing both NFS and iSCSI protocols, provides a reliable and scalable storage solution. The server infrastructure comprises pizza box servers equipped with 4x10G connectivity, intelligently allocating 2x10G for storage and 2x10G for data. This carefully planned deployment not only meets the immediate networking needs of Madeo but also lays a solid foundation for future scalability and adaptability to evolving technology requirements.

### SOFTWARE PRODUCTS

- IP Infusion OCNOS-SP-IPBASE-800
- IP Infusion OCNOS-DC-IPBASE-2000

### HARDWARE PRODUCTS

- UfiSpace S9510-28DC - 1U 2x 100GE/400GE QSFP-DD, 2x 40GE/100GE QSFP28, 24x 10GE/25GE Open Routers
- Edgecore AS7326-56X-AC - 1U 2x 10G SFP+, 48x 25GE SFP28, 8x 100GE QSFP28 Open Access Switches

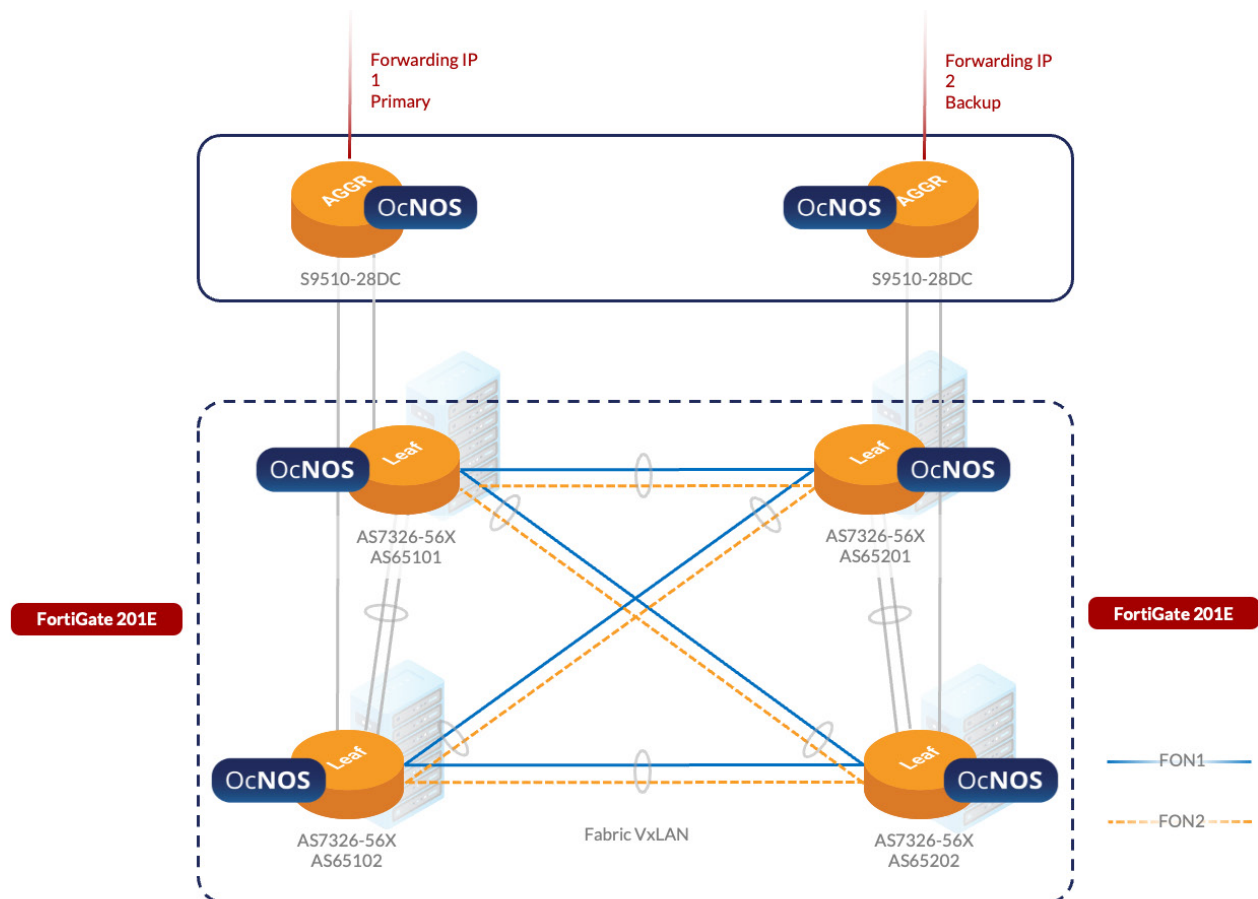


Figure 1. Madeo Data Center Deployment Reference Network Topology

## Summary

By choosing IP Infusion OcNOS over Cisco and SONiC, Madeo Consultant successfully overcame the challenges posed by their evolving network requirements. The implementation of IP Infusion's OcNOS not only addressed Madeo's immediate upgrade needs but also positioned them for future scalability. The enhanced network infrastructure empowered Madeo to deliver software as a service efficiently, meeting the demands of their diverse client base. Collaboration with IP Infusion provided Madeo with a reliable, flexible, and cost-effective solution, reinforcing the value proposition of disaggregated open networking in a commercial setting.

“When selecting new network infrastructure to power our data centers, choosing IP Infusion's OcNOS over Cisco and SONiC has proven instrumental for Madeo Consultant. The collaborative journey with IP Infusion not only addressed our challenges but also delivered a reliable, flexible, and cost-effective solution. This success underscores the profound value of embracing disaggregated open networking in a commercial setting, showcasing OcNOS as the catalyst for transformative efficiency and innovation in our network infrastructure.”

– François Defrocourt, Solutions Engineer for Madeo Consultants

### Contact for More Information:

For more information on the OcNOS software, please contact [sales@ipinfusion.com](mailto:sales@ipinfusion.com).

### ABOUT IP INFUSION

IP Infusion is a leading provider of open network software and solutions for carriers, service providers and data center operators. Our solutions enable network operators to disaggregate their networks to accelerate innovation, streamline operations, and reduce Total Cost of Ownership (TCO). Network OEMs may also disaggregate network devices to expedite time to market, offer comprehensive services, and achieve carrier grade robustness. IP Infusion network software platforms have a proven track record in carrier-grade open networking with over 500 customers and over 10,000 deployments. IP Infusion is headquartered in Santa Clara, Calif., and is a wholly owned and independently operated subsidiary of ACCESS CO., LTD. Additional information can be found at <http://www.ipinfusion.com>

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