

CASE STUDY

Access and Core Cloud OcNOS Aggregation Router





OVERVIEW

Founded in 1988, Lintasarta is one of Indonesia's oldest and largest data services providers, with over 2,500 corporate clients representing more than 55,000 networks which include fiber optic data communication services, satellite networks, managed security & collaboration, data centers and disaster recovery centers (DRCs), cloud computing and Managed Services. Lintasarta's infrastructure is based on the Next Generation Network (NGN) platform.

Like many rapidly growing network service providers, Lintasarta is constantly evaluating and upgrading its own network to present topline services to its customers. Upgrades must be cost-effective, technically robust and support the business use case. Open networking solutions provide all these qualities and ensure a logical path to migration for both existing legacy networks and any future network needs.

Being a leading provider of open network software solutions for wireline and mobile network operators, IP Infusion is the perfect network technology partner for Lintasarta. Extensive experience in selling, deploying and servicing carrier grade open networking software solutions in real-world environments makes IP Infusion unique in the industry, evidenced by the growing customer list of top-tier Service Providers and Data Centers. Lintasarta chose IP Infusion to provide products and strategies to make its open networking project a reality.



HIGHLIGHTS

- Seamless migration of legacy network into high-performance next generation network
- Upgraded legacy devices with feature-rich OcNOS based products, co-existing with legacy network
- Segment Routing and EVPN Ready IP/MPLS Transport Network
- Upgraded Core Network with nx100G capacity
- Software: OcNOS Aggregation Router with nationwide SR-MPLS
- Hardware: UfiSpace S9501-28SMT, UfiSpace S9500-30XS, Edgecore AS5916-54XKS

Original Networking Challenges

To migrate their legacy network into a future ready network, Lintasarta had identified the following challenges:

- Upgrade Core Cloud to have nx100G port bandwidth capable devices
- Deploy advanced transport capabilities such as Ethernet VPN (EVPN) and Segment Routing (SR)
- Faster roll out of new services and co-exist with legacy MPLS and Metro Ethernet Network
- Cost effective disaggregated solution for network migration

Why IP Infusion?

IP Infusion's OcNOS based Aggregation Router (OcNOS-AGGR) provided Lintasarta with a migration path to seamlessly overcome the networking challenges that they were facing with their legacy network. This included deployment of new services on OcNOS platforms as well as inter-operating with the existing legacy network.

The OcNOS capabilities were in accordance with the network infrastructure development plan that Lintasarta identified for the next 10 years. OcNOS provided a fully validated Multiprotocol Label Switching (MPLS) solution with advanced capabilities including EVPN and Segment Routing. The Technical Support that IP Infusion extended to Lintasarta ensured seamless migration of their network. Being the market-leading disaggregated Network Operation System (NOS), IP Infusion's OcNOS was able to future-proof the network with L2/L2/MPLS capabilities at an economical price.

"IP Infusion's OcNOS software provides the carrier-grade capacity that helps us scale for long-term requirements, while reducing overall costs. We have future-proofed our network with IP Infusion's very competitively priced, open and tested solution. Their OcNOS solution architecture advantage and solid maintenance and support allows for seamless migration strategies that will result in increased innovation for our customers."

- Arya Damar, CEO, Lintasarta



The Deployment

Due to cost and performance constraints, Lintasarta was looking for networking products that would scale up performance to current needs, as well as having standards to support for a 10-year upgrade cycle. This upgrade will be compatible with its current equipment as well as prepare for an eventual migration to a completely disaggregated network architecture.

Currently, the Lintasarta network has a core cloud that runs OSPF + LDP + RSVP-TE signaling and is now migrating to OSPF-SR + SR-TE. L2VPN services are migrating to EVPN ELINE/ELAN.

It also has multiple access clouds running OSPF + LDP+RSVP-TE with L2VPN services.

Lintasarta's use case involves the following:

- 1. IS-IS-SR/OSPF-SR/EVPN multi-area in the core cloud.
- 2. LDP/RSVP-TE in the access cloud.
- 3. SR-LDP interop in a multi-domain/instance use case.

Lintasarta is migrating its legacy access and core clouds to IP Infusion's OcNOS based disaggregated solutions. Software will be deployed on a variety of hardware from **UfiSpace and Edgecore**.

HARDWARE PLATFORMS

- UfiSpace S9501-28SMT
- UfiSpace S9500-30XS
- Edgecore AS5916-54XKS

Additional information is available here.

DEPLOYMENT TOPOLOGY



MPLS Access Cloud consists of 50+ devices with L2VPN Services. Core Cloud consists of 250+ devices using OSPF, LDP and RSVP-TE.



Results

A disaggregated networking solution allows flexibility in network procurement, deployment and management. By separating the software functions from the hardware vendors, customers are ensured to benefit from having their deployment supported by a common point of contact from IP Infusion. Additionally, the value proposition of hardware vendors will favor the end user with a choice of open networking vendors to choose from. Interoperability with existing networks while providing the proper platform for future growth guarantees Lintasarta will be prepared to deliver any network service that its customers might require.

Benefits Realized

- Future-proofed terabit-scale provides great scalability
- Inter-operability with legacy network and ensured reliable migration
- Eliminated vendor lock-in, protecting against supply chain disruptions
- Reduced TCO by replacing legacy hardware with open networking

"Lintasarta, as an industry leading service provider with a next-generation network design, is helping to meet Indonesia's increasing demand for lower-cost, reliable connectivity. We are proud to provide Lintasarta with a proven open networking solution that helps deliver the transformative benefits of the digital economy for all its customers."

- Atsushi Ogata, President and CEO of IP Infusion

Contact for More Information:

For more information on the OcNOS software, please contact 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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