Fluidata Consolidates Network Architecture for Enhanced Service Delivery to Customers

Summary

Company:
Fluidata

Industry:
Telecommunications

Challenges:
- Enable broadest set of MPLS and VPLS services
- Support the growing demand for Ethernet connectivity, instead of DSL
- Reduce capital expenditure
- Use engineering resources more effectively

Selection Criteria:
Fluidata needed a network platform that offered high-density 1GbE and 10GbE, as well as scale to 100GbE in the future, all with rich IP/MPLS services. It also needed simplicity in network design and management.

Network Solution:
- MX Series 3D Universal Edge Routers
- EX4200 line of Ethernet switches
- Junos operating system

Results:
- Secure future-proof network implementation with feature-rich devices
- Improved services to clients
- Lower long-term capital expenditure through modular and scalable approach
- Single operating system simplifying operations and network management

As an Internet service provider focused on business customers, Fluidata operates its own highly resilient network from 10 UK data centers, provides Layer 2 DSL and Ethernet services to more than 50 ISPs, and manages entire core networks for service providers and enterprise customers. Fluidata supports broadband growth with its Service Exchange Platform, which looks to connect all networks to all ISPs and is proving popular with rural and new network operators who want to offer their customers a wide choice of ISPs.

Fluidata was operating three separate networks to serve its Layer 3 and Layer 2 customers. Driven by the desire to reduce costs, it wanted to consolidate these independent networks in order to improve efficiency, simplify network management, and improve operations. It also wanted the new network to be easy to upgrade and scale in line with business growth and technology trends; for example, customers were increasingly demanding Ethernet leased line services with higher throughput than traditional DSL offerings, which put a strain on the current networks. Finally, Fluidata also wanted to implement advanced MPLS and virtual private LAN service (VPLS) to broaden its service capabilities in response to customer demand for higher bandwidth.

Selection Criteria

Fluidata looked for a network solution to provide high 1GbE and 10GbE port densities, with the ability to easily add 100GbE ports in the future. Space and power efficiency was an important factor in the decision as well. Fluidata also wanted network elements with high data throughput without sacrificing a rich feature set, scalability, or resiliency and reliability. Operationally, Fluidata sought to limit the number of operating systems and management platforms in use on the network, and while it sought industry-standard compliant devices to help simplify network management, it was unwilling to compromise on features.

"This standardization across the board allowed us to have a single operating system, Junos OS, for the management of all routing, switching, and security elements in our core network. It means that we can focus our operations resources and be proactive in our support approach."

Piers Daniell, Managing Director, Fluidata

Piers Daniell, managing director at Fluidata, explains the decision to select Juniper Networks: "Based on our previous experience with Juniper Networks, we felt Juniper solutions would substantially strengthen our core network. Both Juniper and Imtech, our implementation partner, were committed to creating a solution which would fit our capital and operational expenditure budgets."

Solution

To strengthen its existing network, Juniper Networks® MX Series 3D Universal Edge Routers (both the MX480 and MX240 models) were installed at each core node. Each MX Series chassis offer full forwarding, routing, and power redundancy. Additionally, at each site a number of Juniper Networks EX4200 Ethernet Switch devices provide customer and supplier connectivity.

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More than 10,000 individual customer lines had to be migrated to the new network infrastructure. As Daniell explains, "Imtech engineers, as well as Juniper Professional Services, helped us with the planning stage, and as a result the transition to the new environment was completely seamless."

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Results

With the introduction of the new network, Fluidata noticed distinct performance improvements. It is now able to offer more choice on network design with technologies such MPLS and VPLS, L2 multipoint-to-multipoint connections, L2 and L3 VPN connectivity, and Layer 2 Tunneling Protocol (L2TP) for DSL

support. "Although we didn't calculate specific ROI, we realized a much quicker return than expected. Our robust network infrastructure now helps us to win bigger projects. Although there is clearly an initial cost, thanks to the modular chassis setup of the system which fits easily around our requirements, our capital expenditure will be lower in the long term," Daniell says.

Fluidata's new network is fully scalable to accommodate future growth, easier to manage and maintain, and offers a number of customer-facing features.

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Next Steps and Lessons Learned

Fluidata plans to add 100GbE interfaces on its privately operated optical fiber network, and also plans to expand the network to support new colocation sites. Juniper Networks' infrastructure solution is fully able to manage these enhancements.

Daniell concludes: "The volume of traffic we deal with is significant, and it's only going to grow. We feel well equipped with the Juniper Networks infrastructure providing us scalability and full resilience. We are confident that the network will cope with whatever the future has in store for us."

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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