Colt Delivers Network Services Faster and at lower costs

Summary

Company:
Colt Technology Services

Industry:
Service Provider

Challenges:
Deliver IP services to customers faster and with greater agility while better managing network investments

Selection Criteria:
Colt was seeking an integrated, scalable, hybrid L2/L3 capable high-performance edge device to support the evolution to Network Functions Virtualization (NFV).

Network Solution:
- MX960 3D Universal Edge Router

Results:
- Simplified and accelerated service delivery and service assurance
- Reduced CapEx and OpEx while maintaining high quality levels
- Enabled faster innovation so that flexible and hybrid services could be introduced more quickly
- Optimized for Colt's longer term SDN aspirations

Colt Technology Services provides managed IT services, networking, and communications solutions to European businesses and government customers. The company has pioneered Ethernet and IP/MPLS networks across Europe, and Colt's network spans 22 countries, including direct fiber connections to 19,600 buildings and 20 data centers in 39 major European cities.

Challenge

At the heart of Colt's success is a fundamental belief that organizations that are customer-centric and embrace change will thrive. The service provider puts this belief into practice as it combines its pan-European network and extensive IT infrastructure with expertise in IT managed services to deliver, process, secure, and store its customers' business information.

"Colt has undergone a period of transformation," says Nicolas Fischbach, director of network and platform strategy and architecture at Colt. "Colt isn't a pure telco or data center provider anymore. We are a new breed of company—a service provider that can provide combined network and compute services and one that works flexibly with our customers to build services and solutions that solve real business problems."

To address evolving customer requirements, Colt wanted a network that could deliver Ethernet and IP services more flexibly, while containing operational expenses (OpEx) and capital expenses (CapEx). In the long run, Colt needed a way forward to deliver hybrid and cloud-enabled services to customers.

"It is important to optimize our CapEx and OpEx spending, but at the same time, we can't simply manage costs. We must also deliver compelling value to our customers' CIOs who are looking for flexible, pay-as-you-consume services," says Fischbach. "The service delivery model we had years ago no longer fits, because it took too long to create and roll out new services. We needed to shift to a more agile service creation and delivery model, while maintaining the quality Colt is known for."

"The partnership between Juniper and Colt is very successful. It's based on trust, a deep level of engagement, shared expertise, and a passion for delivering the best solution for our customers."

Nicolas Fischbach, Director of Network and Platform Strategy and Architecture, Colt Technology Services

Selection Criteria

"The future of networking is more simplification, more automation, and more elasticity," says Fischbach. "We need architectures and technology components that enable us to achieve that. We can create a new virtual machine for a customer in minutes, so why should it take weeks to deliver a new service over an existing infrastructure? The network has to evolve to be very elastic, highly integrated, and fully automated to provide the flexible services that our customers demand today."

Like most service providers, Colt used to install multiple devices on its customers' premises to deliver Internet access or IP-VPN services. But with carrier Ethernet becoming the universal transport method, Colt can deliver IP and Ethernet services over the same transport and with a single customer premises equipment (CPE) device.

That simplification creates other opportunities. The ability to create and deliver IP functions from the network, rather than from the CPE, is made possible by implementing Virtual CPE (vCPE) on the edge routers. vCPE is a major milestone in Colt's journey to introduce more flexible and hybrid services to customers, including simplifying in-life changes of the service type, introducing innovations more quickly, and lowering costs. vCPE leverages the software capabilities built within Junos to provide the IP-CPE control, data, and forwarding planes.

Solution

Colt chose the Juniper Networks® MX960 3D Universal Edge Router to build the best network for delivering next-generation, scalable network services. "Juniper is one of our key partners enabling us to realize our vision," says Fischbach. "The MX Series router effectively supports our IP routing and switching requirements as well as future carrier Ethernet demands. Juniper collaborated closely with us to develop our Virtual CPE capabilities, which will take us to the next step of our high-performance, cost-effective, cloud-based vCPE solution."

The MX Series portfolio is optimized for Juniper Networks' software-defined networking (SDN) strategy. Its architecture cleanly separates control, management, services, and forwarding planes and supports virtualized networking functions both inline and with high-performance service cards.

"We are interested in all developments in the fast-evolving SDN technology space and therefore continue to evaluate with Juniper overlaying SDN and NFV technologies," says Fischbach.

Results

Innovation with Virtual CPE is delivering significant business benefits to Colt and its customers. vCPE has enabled Colt to simplify service delivery and deployment, and with the complementary use of carrier Ethernet, in many instances Colt can now deploy and manage a single Layer 2 device on the customer's premises, rather than managing multiple Layer 2 and Layer 3 devices. Eliminating the on-premises router also reduces complexity in the service chain, which has enabled Colt to further reduce the CapEx and OpEx. "It's much more than CapEx savings to us," says Fischbach. "vCPE will help our customers pick the right services, change services in-life, and enable us to turn on new services on demand without having to go back to the customer premises."

Colt can innovate faster and introduce new services more quickly and cost-effectively, without the need for complex upgrades at the customer site. The burden of managing the IP-CPE hardware and software lifecycle is reduced. vCPE allows dynamic bandwidth management, in-life change of service characteristics, and faster introduction of new features, which allows the provider to enable new services while simplifying network design and operation.

"The business problems that our customers need solved and the service velocity that they need from us are key drivers behind our SDN vision," says Fischbach. "In the process, NFV became a very practical use case. The demand for agility and models like pay-as-you-use that we see emerging from our customers' CIOs must be reflected in the way we architect our network and deliver services. To do that quickly and efficiently requires virtualization."

Next Steps and Lessons Learned

Colt is working closely with Juniper as it builds the best next-generation network and in-the-cloud vCPE capabilities. "The partnership between Juniper and Colt is very successful," says Fischbach. "It's based on trust, a deep level of engagement, shared expertise, and a passion for delivering the best solution for our customers."

"The network horizon for virtualized network services is here and now," says Fischbach. "At first, people were reluctant, but we're seeing readiness with leading vendors like Juniper. We are at the forefront of this activity, even as others risk being left at the side of the road."

For More Information

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

About Juniper Networks

Juniper Networks challenges the status quo with products, solutions and services that transform the economics of networking. Our team co-innovates with customers and partners to deliver automated, scalable and secure networks with agility, performance and value. Additional information can be found at Juniper Networks or connect with Juniper on Twitter and Facebook.

Corporate and Sales Headquarters

Juniper Networks, Inc.

1133 Innovation Way

Sunnyvale, CA 94089 USA

Phone: 888.JUNIPER (888.586.4737)

or +1.408.745.2000

Fax: +1.408.745.2100

www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.

Boeing Avenue 240

1119 PZ Schiphol-Rijk

Amsterdam, The Netherlands

Phone: +31.0.207.125.700

Fax: +31.0.207.125.701

EXPLORE JUNIPER
Get the App.

JUNIPER 1ON1

Download on the App Store

ANDROID APP ON Google Play

3520486-002-EN Mar 2017

JUNIPER
NETWORKS