

# ECIX Future Proofs Internet Exchange with Force10 Networks to Deliver 10 Gigabit Ethernet Services

Customer  
PROFILE

**Customer**  
ECIX



**Industry**  
Internet Exchange

**Application**  
Network Core

**Highlights**  
ECIX selected the Force10 C300 resilient switch to optimize its infrastructure for future growth.



*The Internet exchange ECIX is collocated at the Interxion colocation facilities in Düsseldorf, Germany.*

Strong competitive and pricing pressures make it extremely challenging to be an Internet exchange in Central Europe. If providing an increasingly commoditized service with large competitors is not difficult enough, these businesses must also grapple with the difficulty of successfully launching new services and finding underserved markets while building a network infrastructure that supports new customers and rapidly increasing traffic.

Facing this situation was ECIX, an Internet exchange based in Düsseldorf, Germany and run by the Peering GmbH, whose management believed that offering value-added ECIX services to its ISP customers at reasonable prices and growing the company in uncertain economic times starts with having a secure, reliable, and cost-effective network infrastructure.

To optimize its infrastructure for anticipated future growth, ECIX chose to deploy the C-Series resilient switch from Force10 Networks as the core for its Internet exchange.

## **Having the Tools to Execute**

For Internet exchanges throughout the world, the service delivery goals are very similar: Provide fast, secure and reliable services at an affordable price and differentiate based on services and pricing. The varying degrees of success, however, are in the ability to execute.

On the software side of the business, ECIX was focused on providing customers with customized software to help them better manage critical business activities such as their own network traffic. These customers were comprised of more than 40 ISPs in and around Düsseldorf, Hamburg and Berlin. On the infrastructure side, 10 Gigabit Ethernet ranked at the top of the list in terms of key services that customers were requesting.

ECIX's competitors, some of which were much larger companies with more generous marketing budgets, already offered 10 Gigabit Ethernet connectivity but at a higher price. However, with ECIX's comparatively lean operations, the company knew it had to offer a more cost-effective service that would be amenable to its mid-sized customers. That service required more flexibility, reliability and performance to support it as efficiently as possible.

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**Stefan Wahl**  
CEO, ECIX

After evaluating high-priced routers and enterprise-level switches, ECIX selected the Force10 C300 resilient switch to power its 48 Gigabit per second optical network based in Düsseldorf. With up to 64 line-rate 10 Gigabit Ethernet ports, ECIX could immediately meet the connectivity needs of its customers. And for a company adding about one ISP customer per month, they had the necessary port density to seamlessly accommodate future growth.

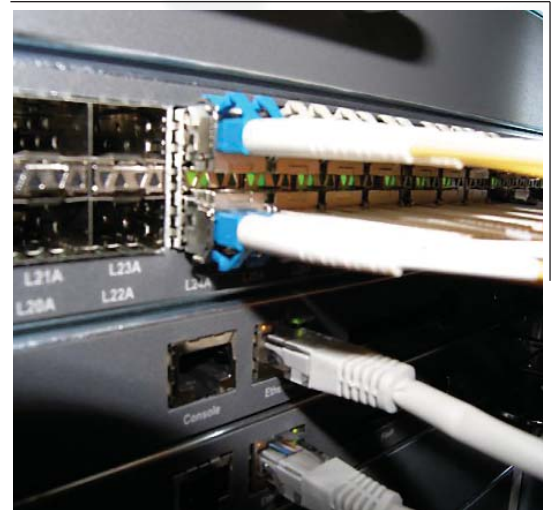
With ISP customers eagerly awaiting 10 Gigabit Ethernet ECIX services, quick and easy deployment was important to the overall success of ECIX’s business. With a smaller footprint than competitive systems, the Force10 C300 enabled network managers to maximize their data center space and install patch panels and power supplies without difficulty.

“Just by looking at the C-Series, you can see that Force10 made a quantum leap in terms of design,” says CEO Stefan Wahl. “It’s not simply a redesign of an old box, and as an engineer, I appreciate their thought process in this area.”

### Gaining Overall Flexibility

The hardware and software features of the Force10 C300 provide more flexibility for ECIX on a daily basis, which is crucial considering the ever-changing needs of ISP customers. For example, the flexibility of FTOS, the modular Force10 operating system, and the familiar, industry-standard command line interface enables network managers to leverage existing expertise without the time or cost of additional training, reducing management costs.

The ease-of-use that is built into FTOS allows ECIX to rapidly configure such crucial features as port level security. With MAC learning limits, ECIX can limit the numbers of MAC addresses assigned to each port to insulate the network from any customer-related configuration errors. Additionally, FTOS enables ECIX to assign bandwidth limits to certain traffic types, such as unicast or broadcast, to mitigate traffic spikes



*The Force10 C300 allows the ECIX Düsseldorf Internet exchange to offer guaranteed 10 Gigabit Ethernet services.*

as a result of customer configuration errors. With responses programmed in, the Force10 C300 can automatically act to correct the issue, further reducing management time and costs.

In addition to providing port-level security to ensure the health of the network, the Force10 C300 enables ECIX to monitor and optimize its network in real-time. Online diagnostic and serviceability features allow ECIX to troubleshoot issues without bringing down the network. Additionally, enhanced MIBs enable runtime hardware and data plane status monitoring. With these capabilities, the C300 allows managers to optimize their network for their unique application and traffic needs.

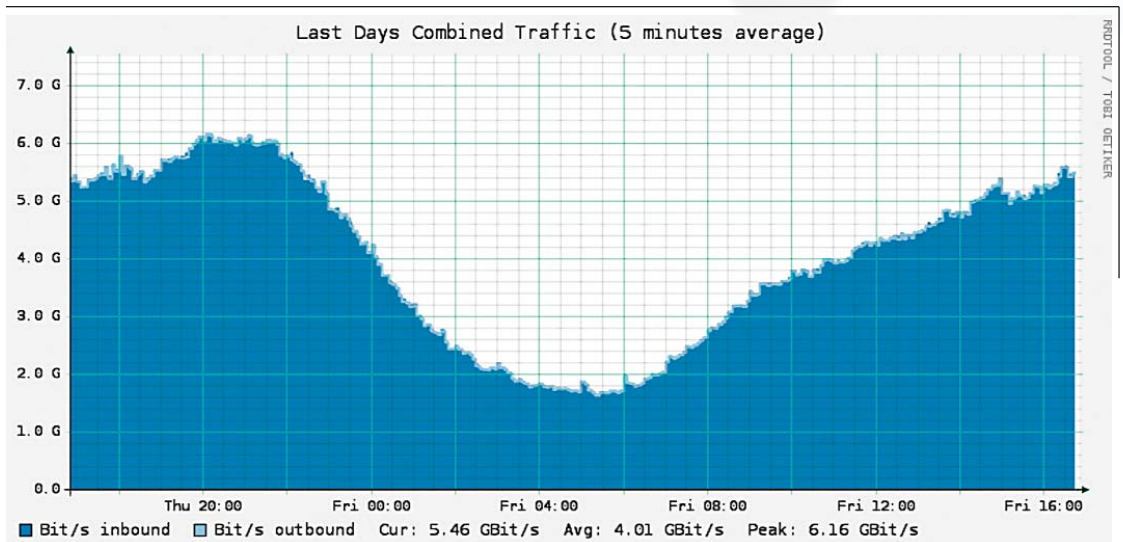
The reliability of the Force10 C300, at the hardware level, further reinforces the benefits of FTOS. The passive copper backplane, for example, is not a power consuming component and is therefore not a point of failure within the system. The passive quality of the backplane also reduces system-level power and cooling requirements. Additionally, hot insertion and failover technologies and full system redundancy ensure that in the event of a failure, the C300 continues to function with zero packet loss.

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**Stefan Wahl**  
CEO, ECIX



Typical 24-hour traffic statistics at the ECIX Düsseldorf Internet exchange.

An Internet exchange's reputation is only as good as the reliability of the service it is providing. For ECIX, the Force10 C300 offered reliability features of a high-end core switch at a price point that allowed it to deliver cost-effective 10 Gigabit Ethernet ECIX services.

### Greater Confidence Helps Promote Future Business Opportunities

Deploying the highly secure and reliable Force10 C300 has instilled greater confidence in ECIX to deliver always-on service to customers.

“With Force10, we now have the ability to guarantee our services through SLAs moving forward,” says Wahl. “Previously, I just didn't have that confidence.”

While some ISPs prefer to peer only at Internet exchanges located in Amsterdam, London or Frankfurt, Wahl believes more businesses will look to Düsseldorf as an alternative in the future because of its geographic location. With Force10 at the core of his network, Wahl feels well positioned to answer the needs of an increasing number of private companies that he anticipates will leverage the capabilities of exchanges, such as his.

“If you have more content suppliers, they have to inject the content somewhere into the network and an Internet exchange is good for this. I see exchanges, such as ours, playing a big role in the future by extending the reach of these content services.”



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