



# DREAMHACK SETS GUINNESS WORLD RECORD FOR 1.6 TBPS INTERNET WITH JUNIPER ROUTING

## Summary

**Company:**

DreamHack

**Industry:**

Media and Entertainment

**Business Challenges:**

Build the world's fastest event network to support an e-sports and creative festival

**Technology Solution:**

- MX960 5G Universal Routing Platform
- EX4600 and EX2300 Ethernet Switches

**Business Results:**

- Set Guinness World Record for fastest Internet speed achieved at an event, with 1.6 Tbps of capacity
- Built an event network from scratch in four days using automation
- Created Instagram-worthy spot in front of the core routers

A festival of e-sports, cosplay, and creativity, DreamHack broke the world's record for the fastest Internet speed at an event. DreamHack relied on Juniper routing and automation to build a blistering 1.6 Tbps network in five days to support fiercely competitive gamers and fun.

More than 52,000 people flocked to DreamHack Summer 2018 in Jönköping, Sweden, to watch e-sport tournaments, play computers with friends, engage in cosplay and epic laser tag, and dance to electronic music. Competitors battled it out playing Counter Strike: Global Offensive, Super Smash Bros, League of Legends, Overwatch, and Fortnite, and participated in tons of bring-your-own computer (BYOC) tournaments.

"I could talk for hours about our events, but without being there it's very difficult to describe," says Markus Viitamäki, CTO of DreamHack. "The atmosphere is extremely energetic in that everyone shares the same interests. People are very passionate about computers and gaming itself. People come to DreamHack because they love computer games and to meet friends they spend time with online playing games."

DreamHack set a Guinness World Record for the fastest Internet speed at an event. With capacity of 1.6 Tbps, DreamHack Summer broke its 2011 world record 13 times over—that's plenty of bandwidth to satisfy even the biggest e-sports players. "We have always beaten records, because we think it's fun and love the challenge," Viitamäki says.

### No Lagging Allowed

For gamers, there's nothing more frustrating than when a game glitches or freezes, and there's simply no patience for a spinning circle of death. Building a gaming network is exceptionally difficult. At DreamHack, a few milliseconds of lag can mean the difference between winning a \$50,000 prize for first place and nothing for ninth.

*"The core routers are the key to our environment since our users have high demands on how the Internet should be, and how stable it should be. We are very happy with Juniper from a stability and a performance standpoint."*

- Markus Viitamäki, CTO, DreamHack

In order to provide attendees an exceptional gaming experience, DreamHack chose the Juniper Networks® MX960 5G Universal Routing Platform, which is packed with highly scalable routing, switching, security, and service features for its network core. The high-performance MX960 router can deliver up to 12 Tbps of system capacity. The Internet connection was provided by the Swedish telecom company Com Hem, whose dense wavelength-division multiplexing (DWDM) links carried the festival traffic more than 324 kilometers to DreamHack's data centers in Stockholm.

*“In most parts of our network, we have already fully automated the deployment of the MX960s. As a bonus, the team loves automation and is very good at it. They can automate almost anything!”*

- Markus Viitamäki, CTO, DreamHack

DreamHack used the Juniper Networks EX4600 Ethernet Switch for high-density 10GbE connectivity in the aggregation layer. It also used the low-power Juniper Networks EX2300 Ethernet Switch in premium areas of the BYOC network where gamers have a dedicated 1 Gbps port with 10 Gbps uplink.

“The core routers are the key to our environment since our users have high demands on how the Internet should be, and how stable it should be,” says Viitamäki. “We are very happy with Juniper from a stability and a performance standpoint.”

In corporate environments, people are blissfully unaware of the network. That's decidedly not the case among gamers who want bragging rights that they were there for the setting of a world record. In fact, the DreamHack central hub with the MX960 routers was a favorite spot for selfies. “People took pictures in front of the MX960 routers, because obviously they don't have routers like that at home,” Viitamäki says.

### Speed Setup with Automation

The team had five days to build the event network from the ground up, from pulling fiber to racking and stacking servers, storage, and the network. Working under intense time pressure, manual network configuration—which would add days to the schedule—is simply not a feasible option.

Viitamäki values the programmability of the MX Series router. Juniper Networks Junos® operating system, which powers Juniper's networking and security products, enabled the DreamHack team to streamline provisioning, monitoring, and decommissioning the event network. By automating network deployment, the team had more time to focus on delivering world-class performance.

“We have started building our network much faster by automatically deploying based on templates,” he says. “In most parts of our network, we have already fully automated the deployment of the MX960s. We put a lot of effort into those kinds of things to make it very fast. As a bonus, the team loves automation and is very good at it. They can automate almost anything!”

A team of volunteers worked on the DreamHack network, ranging from senior professionals building networks for major service providers and enterprises to university students. Pushing the boundaries of networking is part of the fun. “They want to come here for the challenge of building such a big network in so few days, and at the same time to spend time with people who have the same interests working with cool hardware and learning new things,” Viitamäki says.

### Big Growth for LAN Parties

DreamHack hosts 12 festivals across Europe, North America, and all the way to India this year. “What we've noticed quite quickly is that the U.S. has the potential to be our biggest market in the future,” says Viitamäki. “LANs, in general, are very small in the U.S. When we came with our brand and history and started actively working with events, we have seen a good growth, almost 25 percent each year, for each event we have done in the U.S.”

With a flexible, automated Juniper network at the core of its festival and e-sports tournaments, DreamHack is ready to build an even stronger community of gamers, cosplay fans, and friends around the world.



## For More Information

To find out more about Juniper Networks products and solutions, please visit [www.juniper.net](http://www.juniper.net).

## About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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