



NETWORKS

PAC-12 TUNES UP FOR SPORTS-HUNGRY FANS WITH ALL-STAR JUNIPER NETWORK

Summary

Company:

Pac-12 Networks

Industry:

Broadcasting

Business Challenges:

Pac-12 Networks serves up hundreds of TV broadcasts and digital content pieces to millions of subscribers across six states. To manage so many moving parts, Pac-12 needed a very high-performance, secure, and ultra-reliable network.

Technology Solution:

- SRX5600 Services Gateway
- QFX5100 line of Switches
- Juniper Advanced Threat Prevention
- Junos Space Network Management Platform

Business Results:

- Enabled delivery of high-quality live video streams of 850 events across seven TV networks and digital channels to millions of subscribers
- Increased network capacity to support subscribers' desire to watch their favorite college sports on TV, online, and on social media
- Mitigated theft of intellectual property that reduced viewership revenue

The Pac-12 is the “Conference of Champions,” known for winning more NCAA championships than any other conference. Twelve universities from six states make up the sprawling western conference, and they share ownership of the broadcasting flagship, Pac-12 Networks. When sports fans want to watch soccer matches, football games, swim meets, and more, they tune in to Pac-12 Networks.

Pac-12 Networks offers seven 24/7 TV networks and digital properties. Today, the networks currently broadcast 850 live collegiate events each year.

“We knew our large numbers set the bar high and that we would be doing more linear video production than any other collegiate network in the country,” says Howie Chung, director of campus and events infrastructure at Pac-12 Networks.

Serving up hundreds of TV broadcasts and digital content pieces called for a high-performance, ultra-reliable network. The IT team architected a massive network that travels across six states and connects 116 venues, operated from a data center at the media company’s San Francisco headquarters.

Sports Fans Test Network Endurance

Sports fans loved the dedicated content, and the universities drew up new plays for events and venues. But the high volumes of traffic began to push the existing network’s endurance limits. As requests for new apps and services mounted, the network team began searching for a network that was more powerful and easier to manage for the 2020-21 season.

“Our requirements were growing, and technology was changing quickly,” Chung says. “We started looking at other ways to scale what we had and how to change the existing network to meet current and future needs.”

A lean team played a significant role in the decision. “We are a small team and we were running four or five different vendors’ equipment in our network,” says Grady Rodgers, senior manager of infrastructure and IT at Pac-12 Networks. “It made sense to consolidate to one network provider.”

“A Juniper network minimizes latency so that our subscribers can watch high-quality video with no glitches.”

- Grady Rodgers, senior manager of infrastructure and IT, Pac-12 Networks

Recruited for All-Network Assignment

Pac-12's IT team had in-depth conversations about network architecture and technology roadmaps that would enable them to build an operationally simple network to meet their demanding requirements. Juniper's vision of engineering simplicity and trusted solutions sealed the deal for Pac-12's network and security needs.

"We've replaced everything we had with Juniper," Chung says. "Every time we picked up the phone to speak with tech support, sales, or engineering, we left the conversation feeling smarter and happier. They were definitely the right choice for our IP WAN," says Chung.

Juniper Networks® SRX5600 Services Gateway, which is optimized for large enterprises, provides advanced security and WAN connectivity, including to Internet2 for dedicated transport to the member universities. University venues are connected with Juniper branch firewalls. Juniper Networks QFX5100 line of Switches delivers high-performance, scalable 10GbE/40GbE data center switching.

"It's been great to partner and collaborate with Juniper. We know Juniper has our best interest in mind and will find the right solutions that are the best fit for us."

- **Howie Chung**, director of campus and events infrastructure, Pac-12 Networks

Juniper Advanced Threat Protection, deployed on the SRX Series Services Gateways, finds and blocks network threats based on policies. It uses SecIntel, Juniper's security intelligence feed, along with sandboxing and machine learning to identify day-one threats.

An all-Juniper network delivered immediate performance and operational improvements. Automation has earned the most valuable player award during popular sports events, such as March Madness. When traffic activity spikes quickly and unexpectedly, the infrastructure automatically calls on reserves to keep broadcasts stable and reliable.

The team also depends on the Junos Space® Network Management Platform. "Managing our entire infrastructure and environment from Junos Space gives us many advantages," Chung says. "We can automate and simplify all the configuration, fault, performance, and security management from one platform."

"Everything just comes together better in a Juniper world."

- **Grady Rodgers**, senior manager of infrastructure and IT, Pac-12 Networks

Game Day Coverage

"A Juniper network minimizes latency so that our subscribers can watch high-quality video with no glitches," says Rodgers. "The scalability of our network makes it possible to give fans content in all types of formats."

On game days, Pac-12 Networks pushes a steady stream of traffic from the event venues to its San Francisco data center, and then up to the cloud for broadcast to viewers. The content team can quickly create video posts for digital and social media.

There's plenty of room for more fans and more events. "Our Juniper network allows us to stream all channels without interruptions," Chung says. "When we are ready, it is a simple upgrade to 40 Gbps and 100 Gbps."

Future Workout Plans

Like the Pac-12 Conference, Pac-12 Networks is teed up to continue winning.

"It's been great to partner and collaborate with Juniper," Chung says. "We know Juniper has our best interest in mind and will find the right solutions that are the best fit for us."

At this point in a very competitive entertainment game, Rodgers points out, "Everything just comes together better in a Juniper world."

For More Information

To find out more about Juniper Networks products and solutions, please visit 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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