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CISCO

NBC Olympics Breaks Records at the 2018 PyeongChang Olympic Winter Games

NBC Olympics presents more content from more sources with a more efficient footprint:

- Resilient and scalable infrastructure across South Korea and United States

- Secure infrastructure, applications, and endpoints

- Always-on collaboration across expert teams

> "With Cisco's help, our network operations center in PyeongChang mimicked our world-class facilities in Stamford, Connecticut. It helped our teams deliver compelling, interactive sports coverage to our viewers, no matter where or when they were watching."

Dan Robertson,
Vice President, Olympics Information Technology, NBC Olympics

Introduction

More content than from any previous Winter Olympics was delivered from South Korea to the United States during the 2018 PyeongChang Olympics Winter Games. NBC Olympics presented more than 2400 hours of content, averaging 126 hours per day across its broadcast, cable, and digital platforms. NBC Olympics made sure of the reliable production of live and file-based Olympics coverage with a proven deployment model that could be rapidly configured and a scalable IP-based infrastructure that could deliver premium content between multiple venues in South Korea and NBC Olympics properties in the United States. More than 3000 professionals supported around-the-clock Olympics production across 7000 miles, benefiting from always-on collaboration technology that provided real-time communication among expert teams. With more than 2 billion streamed minutes of Olympic coverage, threat visibility, and protection across the NBC Olympics network, infrastructure and endpoints were critical to securing the most digitally connected Winter Olympics ever.

Business challenge and results summary

The 2018 PyeongChang Olympic Winter Games opened 536 days after the 2016 Rio Olympics concluded and would also go live only a few days after the NBC U.S. broadcast of the Super Bowl. NBC Olympics needed a reliable infrastructure for its Olympics production. It needed to be deployed and configured rapidly, connecting multiple locations across geographically dispersed venues in the PyeongChang area and properties in the United States. It needed to perform at scale to deliver the anticipated Olympics coverage, and it needed to operate consistently to make it easy to send live and file-based content back to U.S. audiences.

To send more content back to the United States than for any previous Winter Olympics, with essentially the same technology and operational footprint as the Rio Olympics, required confidence in the broadcast and IT infrastructure to perform reliably at scale. Proven deployment infrastructure was first shipped from Rio de Janeiro, Brazil, to Stamford, Connecticut, as "Racks In a Box" (RIBs). This enabled rigorous testing, modeling, and configurations in the time between the two Olympic Games and reduced the time to install and configure the RIBs in South Korea.

IP technology and routing provided the flexibility to enable remote Olympic venues to work directly with NBC Olympics studios and control rooms in PyeongChang and Stamford, lowering the footprint in South Korea while supporting the capability to send more content back to the United States. To power the more than 2 billion streamed minutes of Olympic coverage, IP-based Cisco Nexus® switching and ASR routing infrastructure provided reliable transport over IP with deterministic routing, and Cisco® DCM platforms provided proven hitless merge to make sure of reliable IP video transport.

NBC Olympics also benefited from operational efficiencies gained by connecting its 3000-strong staff across South Korea and the United States. Following the successful implementation of Cisco collaboration technology at the Rio Olympics, additional Cisco collaboration endpoints were installed across NBC Olympics environments in PyeongChang. This enabled real-time communication between talent, production staff, IT, and engineering across remote venues, studios, and control rooms. To bridge the distance and time across teams spread 7000 miles and 14 hours apart, NBC Olympics also installed Cisco collaboration endpoints in the hallways at its PyeongChang presence and Connecticut facility. This always-on collaboration facilitated a "watercooler effect," connecting individuals and teams.

The 2018 PyeongChang Olympics marks 10 years of partnership between Cisco and NBC Olympics. At the Olympics, where the highest-performing athletes compete and break records, Cisco and NBC Olympics continue to demonstrate the highest-performing partnership for evolving the production and distribution of live premium events to IP and breaking ever greater records.

Components:

- Cisco ASR9000 and Cisco Nexus routing and switching technology
- Cisco DCM for broadcast transport of IP video
- Next-generation intrusion prevention system, Cisco Firepower®, and Cisco Stealthwatch®
- Cisco collaboration endpoints, Cisco Spark™, and Cisco Spark Board
- Wireless and power over Ethernet switching infrastructure