Optigo Networks at Seattle sports field
Stadium winning with robust network solution for HD surveillance

One Seattle-based stadium's surveillance system was experiencing performance issues during peak traffic. This location had limited fiber when Absco Solutions, a facility vulnerability company, approached Optigo Networks for a retrofit project. The surveillance system was staged to be moved off the corporate IT network as the bandwidth was getting maxed out, leading to intermittent connectivity issues. The existing network was not built to handle a surveillance system of this type and would not support more cameras. The network was serving a dual IT and OT purpose. Optigo Connect™ was used to design a parallel network, offering a robust, scalable, and cost-effective solution, restoring crystal clear video quality.

Key statistics
- 187 cameras
- High-definition 16MP cameras
- 12 NVR servers
- 1.5 million sq. ft.
- Converged systems

Background

Seattle's premier professional sports venue spans 1.5 million sq. ft. The massive center has a comprehensive surveillance system, with over 187 cameras, several 16MP cameras, and 12 network video recorder (NVR) servers. Before approaching Optigo Networks, the stadium's video surveillance system was connected to the IT network. *No fiber was used before…When the stadium was packed with people using the Wi-Fi at games, access control, phone lines, and the like, would produce a high volume of communication on the IT network. This volume exhausted the bandwidth capacity and caused glitches in the surveillance system, with portions of the video having a rainbow effect due to packet loss. The stadium had two options with this converged infrastructure: either reduce the quality of their video streams, meaning they would not get the full value of the high-quality cameras; or add more high-quality cameras to an already poor system, making the network worse.

Challenges

To avoid this security compromise, they had to connect the surveillance devices onto a dedicated fiber network. The stadium's fiber was limited, but adding more fiber would be far too expensive. Optigo Networks' ability to divide the existing fiber and isolate security devices from the IT network was crucial to this project, specifically only needing one strand versus the standard of two.

Solution

Optigo Networks offered a simple, cost-efficient solution for a robust and scalable security system. To resolve the video performance issues and expand capacity to scale, the access control and video surveillance both went onto an isolated, single-mode fiber network. With Optigo's unique fiber technology, the amount of fiber required was 65% lower. Optigo's design integrated seamlessly with the stadium's infrastructure, preserving their old switches and adding new Optigo switches. Optigo Networks' design improved the surveillance system to crystal clear perfection, made it dependable, and allowed the security system to scale with the addition of more than 40 16MP cameras.