City of Redondo Beach Deploys Xirrus High Performance Wi-Fi to Improve Staff/Public Experience and Operational Efficiency

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CHRISTOPHER BENSON,
IT TECHNOLOGY DIRECTOR,
CITY OF REDONDO BEACH

Overview

THE CITY OF REDONDO BEACH is a coastal Southern California town located 20 miles from downtown Los Angeles. With white sand beaches and year-round sunny weather, Redondo Beach is a preferred resort destination and one of the most desirable areas to live in the country.

The city boasts its own police department, fire and public works departments, two public libraries, 15 parks and 13 parkettes, a large recreational and commercial harbor as well as the Redondo Beach Pier and Seaside Lagoon. Redondo Beach outfitted its city buildings, libraries and performing arts center with Wi-Fi access to create more dynamic recreational experiences for the public and increase productivity for the city's 420 employees and 15 departments.

The Challenge

Installed in 2006, the incumbent controller-based Wi-Fi solution was difficult to manage and rapidly becoming outdated. The IT team began to experience equipment failure leading to wireless outages. Additionally, performance did not match the density requirements of the areas served. Due to the rigidity of the system, the staff spent a significant amount of time managing and repairing the network when it failed. These compounding issues resulted in City staff receiving complaints about the spotty access and poor network speed.

City administrators began to evaluate alternative Wi-Fi vendors and looked at Xirrus Wi-Fi through the company's partnership with Avaya. Xirrus Wi-Fi's strongest selling point for Redondo Beach's IT administrators was the support for Shortest Path Bridging to the access point through Avaya's Fabric Connect service. Also attractive were the application layer visibility and management capabilities. Lastly, the ability to tune all radios to either 2.4 or 5GHz was of particular importance to the IT team to future-proof the network. Redondo Beach IT staff deployed 82 Xirrus Wi-Fi APs in total, including two radio XR-520s, 4 radio XR-4420s, and 8 radio XR-4820s.

"It's been very reliable to date. We didn't have any dead-on-arrival units upon implementation and it hasn't hung or crashed on us. It's just runs since the day it went in," said Christopher Benson, IT Technology Director at City of Redondo Beach. "Other than basic management, we haven't had to spend any time troubleshooting or fixing anything. For a department with our staffing level, that's a big plus."
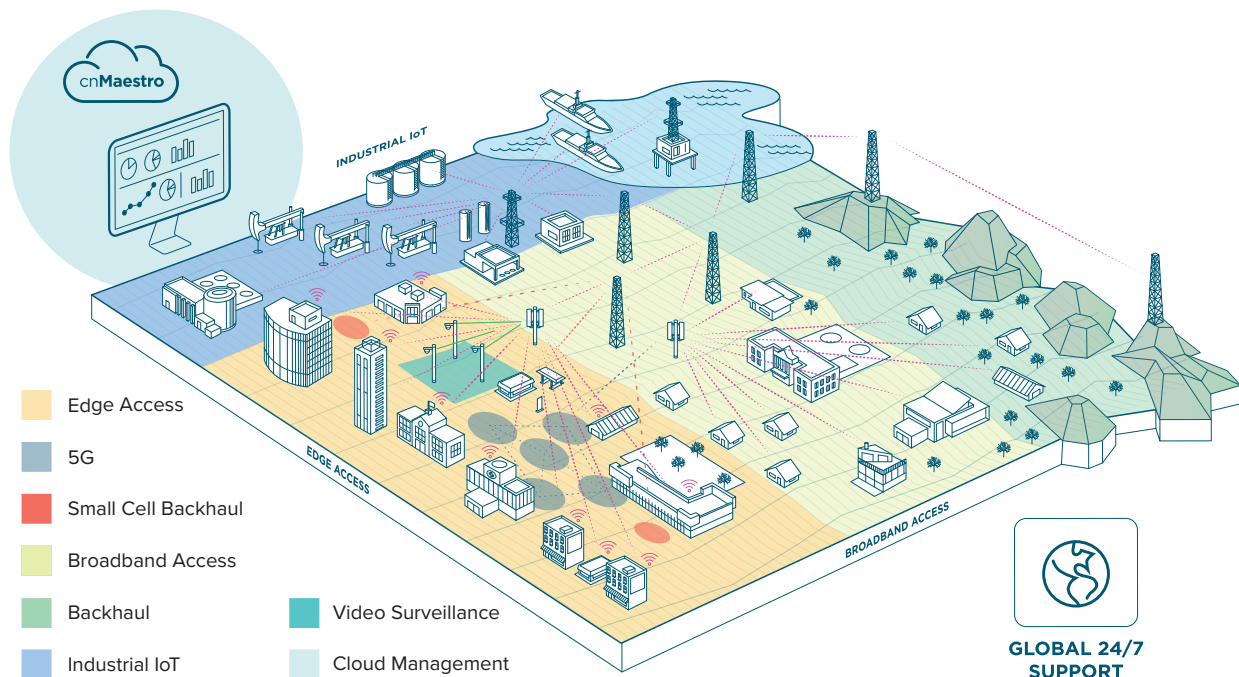
Xirrus Application Control provides the City of Redondo Beach visibility into application usage to determine how the network is being used by constituents, partners and city staff. One area of focus for the City is ensuring that their network is not used for illegal downloads of content. With Xirrus Wi-Fi, IT administrators are able to block access to certain applications and thereby limit the City's risk and liability.

Network administrators also monitor and control bandwidth used for certain applications in order to optimize network usage rather than increasing the Internet pipe size, which can be a costly proposition. This throttling also reserves headroom for people accessing the public network.

The previous network at the City of Redondo Beach was rigid and did not provide the flexibility for the system to grow and change with the evolving technological landscape. Rather than a forklift overhaul to move to the next generation of wireless standards, administrators can tune the Xirrus radios to the 5GHz band as wireless devices change over time. This lets Redondo Beach keep its infrastructure in place and adapt it to changes in clients.

With the Xirrus Wi-Fi network fully up and running, IT administrators observed a significant reduction in time spent managing troubleshooting the network. Since the day the network deployed, there have been no complaints from the public or constituents of the city. They have also noted an increase of Wi-Fi usage by the public and staff due to the reliability and speed of the network. Users no longer become frustrated and log off after experiencing slow speeds, as with the previous network.

Cambium Networks' Gigabit wireless solutions enable municipal, enterprise and service provider operators to tailor connectivity to meet exact requirements and grow as needs evolve.

The two public libraries offer free Wi-Fi access the public, and despite being the highest-density areas of the city's network, the performance has been seamless. Redondo Beach also offers Wi-Fi access to guests attending events or corporate events at the performing arts center. Lastly, the City utilizes outdoor units to cover patio areas and the loading dock at the performing arts center.

Advantages of Xirrus Wi-Fi

WITH THE EXPLOSION OF SMARTPHONES AND TABLETS, mobility has become pervasive. People expect to connect wirelessly. Organizations depend on high-bandwidth to send and receive voice, video and data, from any device to any one. Xirrus Wi-Fi APs draw from cellular tower design principles to provide wired-like reliability, increased user density and capacity plus superior security. They perform under the most demanding conditions and have lower infrastructure requirements. When integrated with business and IT objectives, they help you do more than ever before.

Cambium Networks applies the "best practices" of wired networking to wireless infrastructures by distributing the intelligence to the edge and outfitting Wi-Fi APs with dense multi-state radios in the same manner as a wired switch. Xirrus Wi-Fi APs work as part of a strategic IT infrastructure advantage that fuels organizations.