

Airport WiFi 7 Engineering & Architecture



Client Overview

In 2024, our clients' airports welcomed a combined 53.43 million passengers, setting a new record for our client. Passenger traffic across both airports increased 5.8% over 2023, with the majority of the growth following the addition of six new airlines and expanded flight schedules.

With rising passenger volumes and growing digital expectations from travelers, our client recognized the importance of ensuring its wireless infrastructure could continue to support a modern, connected airport experience.

Challenge

Our client's last major investment in wireless infrastructure occurred in 2017, when they deployed a Cisco Wi-Fi 5 network to support both corporate and public Wi-Fi services at both airports. These networks provided connectivity for Airports, staff, passengers, tenants, business partners, and visitors.

Since that deployment, wireless technology has significantly evolved, and data consumption has grown dramatically due to mobile devices, cloud applications, streaming services, and new digital services designed to enhance the passenger experience.

By 2025, our client recognized that to continue delivering a high-quality, reliable connectivity experience, it needed to modernize and expand its wireless infrastructure to support next-generation capabilities, higher device density, and increasing bandwidth demands.

NFF's Role

Our client selected NFF to support a major wireless modernization initiative across its airport ecosystem. NFF began by conducting a comprehensive assessment of their existing corporate and public Wi-Fi infrastructure and developing a full-scale architecture and deployment roadmap for transitioning to next-generation Wi-Fi 7 technology.

54.43
Million Passengers

**Two Airports
and Corporate HQ**

**20 Million
Square Feet
of Coverage**

As part of the engagement, NFF delivered:

Detailed wireless site surveys

Comprehensive current-state infrastructure assessments

Updated Wi-Fi heat maps and coverage modeling



A validated Wi-Fi 7 architecture and design

Risk assessments and budgetary estimates

A phased implementation and deployment roadmap

End-user training and technical documentation

NFF's strategy encompassed more than 20 million square feet of coverage across both airports, including all public and private buildings, associated structures, and outdoor areas, as well as our client's corporate headquarters.

This holistic approach ensured that our client had a clear, strategic blueprint for deploying a secure, high-performance wireless environment capable of supporting both operational needs and passenger connectivity.

Results

NFF delivered a comprehensive Wi-Fi 7 system design and implementation strategy that provides our client with a scalable and future-ready wireless foundation. The recommended approach includes both a phased

modernization strategy and an "à la carte" deployment model, allowing our client to align upgrades with operational priorities, passenger needs, and available funding.

The solution establishes a next-generation extended Wi-Fi ecosystem across our client's facilities, designed to support long-term innovation while minimizing the risk of premature technology obsolescence.

This initiative reinforces NFF's commitment to delivering secure, scalable, and high-performance networking solutions for complex, mission-critical environments, while helping our client ensure a seamless and connected experience for millions of travelers each year.

NFF Certifications



District of Columbia
Certified Business
Enterprise (CBE)



U.S. Small Business
Administration

U.S. Small Business
Administration Certified
Small Business



ISO 27001:2022
Certified



ISO 9001:2015
Certified

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ABOUT NETWORKING FOR FUTURE INC.

Since 1996, Networking For Future, Inc. (NFF) has been engineering the backbone of mission-critical systems for government and enterprise clients. With headquarters in Washington, DC, we provide expert technology consulting and design-build solutions that solve complex challenges and deliver measurable real-world results. NFF is an ISO 27001:2022 and ISO 9001:2015 certified company. Our expertise includes solutions for Artificial Intelligence Enablement, Data Center & Cloud, Intelligent Networks, Secure, Connected IoT Technologies, Professional and Managed Services, Workforce Solutions and Zero Trust Strategies.