![RUCKUS COMMSCOPE logo]

NORTHWEST HARVEST

Non-profit uninterruptedly distributes millions of meals with AI-driven converged RUCKUS network

Northwest Harvest is a non-profit that supports 400 regional food banks across the Washington State region. When the organization began work on its new distribution center in Yakima, its IT team needed to deliver secure, high-performance Wi-Fi® connectivity all across the facility. Its new AI-driven RUCKUS® network comprised of switches and indoor access points supports a combination of bandwidth-intensive handheld scanners, mobile workstations, printers, and warehouse management applications across the network—while reducing the burden on IT.

northwest HARVEST

Customer
Northwest Harvest

Location
Washington State

itn interface technologies northwest

Solution Provider
Interface Technologies Northwest

Challenges

- High-ceiling warehouse with 55,000 square feet sub-zero freezer that created connectivity challenges

- Staff needed simple, dependable connectivity anywhere

Solution

- RUCKUS One™

- RUCKUS R650 Access Points

- RUCKUS ICX® 7150 switches

Benefits

- Wireless coverage everywhere lets staff connect to applications and other tools on the warehouse floor, in the office, and in the market

- The RUCKUS switches were fast and simple to install and haven't experienced a single failure

- RUCKUS One helped ensure maximum coverage and performance

Streamlining food distribution to dozens of partners

Northwest Harvest is relentlessly focused on ending hunger in Washington and changing the systemic and social issues that limit access to food. Food insecurity is especially high in the Yakima Valley area. When the COVID-19 crisis struck, its school district handed out more than

173,000 meals in the first nine days of the pandemic. Managing food storage and distribution is a key focus area of Northwest Harvest given its state-wide reach.

Managing food storage and distribution is one of the main challenges that Northwest Harvest faces. The organization supports 65 hunger relief programs and 17 schools in nine counties for central Washington. To make distribution as efficient as possible, the non-profit built a new distribution facility that would improve its ability to transport food to partner programs, optimize its operational footprint, and deepen agricultural and food distribution partnerships and opportunities in the Yakima valley.

Collaborative design for a challenging environment

The new facility in Yakima was designed to enable Northwest Harvest to control all of its inventory management and food distribution from a massive centralized location. To do it, the organization needed to stay connected to inventory management systems, office applications, and other services using mobile devices, wireless handheld scanners, and a variety of Internet of Things (IoT) devices. Given the growing volume of activity, the solution would have to provide seamless, secure Wi-Fi coverage throughout the facility. The wireless solution would also need to be simple to use and dependable. Even a brief interruption in connectivity could bring distribution systems to a halt, risking missed deliveries and pick-ups for partners and meal service programs.

Delivering complete coverage across the center was challenging. The Yakima building is a massive facility spanning 200,000 square feet, with 8000 square feet of office space, a 55,000 square

foot sub-zero freezer, and a separate 4,000 square foot community market. The environment is also fully chilled to support both packaged goods and produce.

With so many devices, appliances, and potential sources of interference, good RF and network design was critical to making sure the deployment was successful. Northwest Harvest turned to RUCKUS and Interface Technologies Northwest to build and install the solution.

Working closely together, Interface Technologies Northwest and RUCKUS considered their client's needs, and assembled a solution based on their specific requirements. The collaborative relationship was strong, since the two organizations work together often, combining their technical expertise with deep knowledge of network and wireless design.

Delivering seamless coverage everywhere

At the heart of the solution are 48-port RUCKUS ICX 7150 stackable access switches. Designed to deliver enterprise-class performance and flexibility, their

10 GbE ports provide high bandwidth to support the latest wireless devices. Their Power over Ethernet (PoE) technology makes it easy to connect wireless access points and other edge devices, using standard Ethernet cables. The main warehouse facility uses five ICX 7150 switches, while the community market uses one.

For wireless connectivity, ITN installed 69 RUCKUS R650 Indoor Access Points in the main facility, and three more in the marketplace. Based on the Wi-Fi 6 standard, these access points support a maximum rate of 3.5 Gbps, with onboard IoT support.

The deployment went smoothly, and the new solution is easy for the Northwest Harvest team to administer, using RUCKUS One cloud management. With features like auto-provisioning for fast setup and deployment, and smooth firmware upgrades, the IT team can spend less time worrying about fixing network outages, and more of its time planning for future needs.

Using advanced AI and patented machine learning (ML) algorithms, RUCKUS One helps the Northwest

Harvest IT team react quickly to incidents, and keep them from becoming issues that could impact its food storage and distribution processes. It also classifies issues by severity, to help provide guidance on which issue to focus on first.

Delivering smooth supplies through every season

With its RUCKUS solution in place, Northwest Harvest enjoys seamless connectivity throughout its new facility—even with on-site obstacles like freezers and racks. Its staff can stay connected everywhere, on any device, as they operate handheld scanners, track inventory, and stay productive on office applications.

To continually optimize coverage and performance at the center, the organization utilizes RUCKUS One. Enabled by artificial intelligence (AI) and machine learning (ML), this cloud service delivers deep-dive insights into what's happening on the network, and how to make it operate as efficiently as possible. The network was designed with scalability in mind, since the facility would

need to quickly ramp up operations to distribute large quantities of food during holiday months and other busy times.

Northwest Harvest is already making plans to expand its RUCKUS solution. After experiencing success at its new Yakima building, the organization has also upgraded a site in Auburn to improve its connectivity and performance as well.

"Building a new distribution center in Yakima was a key step in Northwest Harvest's strategy to help cut hunger in Washington state in half by 2028. Success with a project of this size came through great partnership and solid expertise. ITN is extremely good at what they do and they take pride in being a great partner along the way."

Lawanda Graham,
Northwest Harvest IT Director

About RUCKUS Networks

RUCKUS Networks builds and delivers purpose-driven networks that perform in the demanding environments of the industries we serve. Together with our network of trusted go-to-market partners, we empower our customers to deliver exceptional experiences to the guests, students, residents, citizens and employees who count on them.

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