

Healthcare leader empowers patients with innovative mobility solution

Empowering patients and their caregivers to take an active role in their care is more important than ever. People are catching up on care that was missed or delayed during the peak of the pandemic. Many people, especially those with chronic conditions are sicker and in-person patient visits are rising. New and better solutions are needed to help patients keep their healthcare appointments and get the care they need.

This federal healthcare provider, which cares for millions of Americans, began to address the role of patient engagement in health outcomes long before COVID. One tactic in patient-centered care was to tackle the issue of tardy arrivals, and this groundbreaking work delivers more even value as patient volumes rise.

>>> CHALLENGE

Transform the patient experience with mobile

Late arrivals to appointments was a billion-dollar problem for this healthcare organization.

When a patient is tardy, their appointment may be cut short. Clinic schedules can be disrupted, causing cascading delays for other patients. Physicians, nurses, therapists, and other clinical staff can fall behind as well. Rescheduling a late arrival means the person misses out on the care they need, potentially resulting in a worse health outcome.

This healthcare organization sought an innovative solution to help patients and their families arrive on time and easily navigate healthcare resources throughout often very large medical centers.

>>> SOLUTION

AI-driven mobile patient engagement takes the lead

The healthcare organization deployed an innovative mobile solution to support patient engagement, wayfinding, and safety. The mobile patient engagement solution was first deployed at the provider's medical center in the southeastern U.S.

Based on proven outcomes, the provider expanded the use of the mobile patient engagement solution to a dozen medical centers across the U.S.

ThunderCat, designs, deploys, and manages the mobility solution that delivers this high-touch experience to patients, their caregivers, and staff.

The patient engagement solution includes a mobile app, Juniper Wireless Access solution, and InPixon location solution and a wayfinding platform.

"The Juniper Mist microservices cloud architecture is a big advantage to delivering a superior patient experience," says Gordon McKinley, mobility services manager at ThunderCat. "Juniper wireless and Mist AI are vital to helping patients navigate their way to their appointments to get the care they need."

Juniper wireless access points, driven by Mist AI, deliver predictable, reliable, and measurable Wi-Fi for guest and visitors at a dozen of the provider's locations. The Juniper wireless can be air-gapped or securely integrated with a medical center's clinical and administrative network.



AT-A-GLANCE

- Healthcare wayfinding improves patient satisfaction and outcomes
- Mobile patient engagement solution is used at more than 12 locations
- Federal healthcare organization serves more than 9 million people
- ThunderCat is ranked 47 on the 20221 Washington Technology Top 100, an indicator measuring the performance of government contractors



Juniper Cloud Services use a combination of artificial intelligence, machine learning, and data science techniques to optimize network user experiences and simplify operations. Juniper Mist Wi-Fi Assurance and Juniper Marvis Virtual Network Assistant give IT clear visibility into the user's network experience and can speed troubleshooting when issues arise.

Juniper access points include patented virtual Bluetooth® LE (vBLE) technology to enable the location-based experience. Juniper Mist User Engagement uses the vBLE technology and cloud-based machine learning for real-time indoor location and navigation. With virtual beacons replacing physical hardware, location services is vastly simplified. Beacons can be deployed and moved easily, and there's no need to replace batteries in the future.

ThunderCat offers the mobility solution as a fully managed service. For organizations that prefer to manage their own networks, Juniper's AI-driven networking simplifies network operations.

»» OUTCOME

Improved patient satisfaction and care

The mobile patient engagement solution helps people arrive on time for their medical care. A mobile app reminds the patient or their caregiver to leave on time, taking into account factors like traffic and weather. When they arrive at the medical center, the app can guide them to an open parking spot.

From there, the mobile app offers turn-by-turn directions to their appointment. The stress and anxiety of finding their way around a huge medical center is reduced, and people arrive for their appointments on time.

Patients who prefer not to use the mobile app can make a quick stop at a large touch-screen kiosk as they enter the facility and print hard-copy directions.

"We saw a live demonstration of the patient engagement wayfinding application," says Patrick Sullivan, a retired regional director in the Office of Information and Technology, Veterans Health Administration.

"The smart phone app functions like Waze or Google Maps to guide patients and visitors in real time throughout their visit to the medical center," Sullivan continues. "The app can guide patients to parking, appointment check-in, laboratory, radiology, the canteen and back to the car. Any patient, caregiver, visitor or staff member with a smartphone will appreciate this patient engagement tool."

Real-time visibility for high-value assets

"With AI-driven wireless, the healthcare provider can also deliver a better experience for their clinicians and medical staff," says McKinley. "With Juniper, we can extend the value of the network to support patient safety and clinical workflows."

In several assisted living centers, the Juniper wireless is integrated with smart building elements to keep patients safe. Dementia patients wear smart bracelets so that if they approach an exit, the door automatically locks to keep them from wandering. The nursing station is notified with the patient's exact location so they can assist promptly.

Juniper Mist Asset Visibility makes it easy for staff to precisely locate high-value assets, such as computer carts, portable X-rays, wheelchairs, or other equipment without the complexity of maintaining a hardware-heavy real-time location tracking system. Nurses can simply open up a mobile app to locate the item, allowing them to spend more time on patient care and less time hunting in hallways and supply closets for missing equipment.



About ThunderCat

Currently ranked #65 on the CRN Solution Provider 500, the award-winning ThunderCat Technology is a Service-Disabled Veteran-Owned Small Business (SDVOSB) that delivers technology products and services to government organizations, educational institutions, and commercial companies. Led by a combat-wounded CEO, ThunderCat is a systems integrator that brings an innovative approach to solving customer problems in and around the datacenter by providing strategies for Data Storage, Networking, Cyber Security, and Cloud Transformations. A proven leader, ThunderCat Technology provides and optimizes technologies from best-of-breed manufacturers. Clients include DoD, DHS, VA, Treasury, FBI, State of Virginia, State of NY, Sony, VISA, and CareFirst.

To learn how ThunderCat can help your organization, contact us at info@thundercattech.com or visit www.thundercattech.com.



About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, automation, security and AI to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability and equality.

