

ARTEMIS HOSPITALS

RUCKUS Networks helps distinguished medical center maintain leadership position in customer care



Customer
Artemis Hospitals

Location
Gurgaon, India

Artemis Hospitals are sophisticated, state-of-the-art, multi-specialty facilities located on a nine-acre campus in Gurgaon, India. This trusted medical center offers more than 700 beds and clinical expertise across 12 centers of excellence, including emergency and trauma, transplant, heart, cancer and neurosciences. Established in 2007, they have become the first hospitals in the region to receive accreditations from the prestigious Joint Commission International (JCI) as well as India's National Accreditation Board for Hospitals & Healthcare Providers (NABH).

Requirements

- Seamless and reliable coverage across nine-acre campus

- Better switching and Wi-Fi infrastructure to meet the coverage, density and bandwidth requirements of the doctors, hospital staff and visitors
- Improved integration with independent internal and external networks around the hospital
- Scalable network infrastructure that can accommodate internet of things (IoT) devices

Solutions

- ICX® 7850 and ICX 7150 series switches
- R750 access points (APs)
- SmartZone™ network controllers
- RUCKUS® Cloud™

Benefits

- Increased bandwidth and network reliability

- Improved hospital productivity
- Strong signal coverage with no dead zones
- IoT-ready network
- Enhanced patient and guest experience

BACKGROUND

Designed to be one of the most advanced hospital groups in India, Artemis Hospitals have been a pioneer in providing comprehensive healthcare supported by leading-edge medical technology. They've relied on highly advanced infrastructure and equipment in domains and departments like prognostic, diagnostic and therapeutic imaging. They're also home to more than 400 doctors who count on the hospitals' network to deliver premium clinical care to all patients.

Fifteen years is a lifetime in technology

Despite being the state of the art when built in 2007, Artemis Hospitals' network and wireless connectivity was in need of a major refresh. With technology evolving exponentially and the use of wireless devices exploding, the hospital's wired and wireless network struggled to keep up. The network lagged. Coverage became spotty. And network connections were being dropped. Doctors' and hospital staff's productivity suffered as they were forced to wait on the network's delivery of important information.

Kapil Tyagi, Artemis Hospitals' chief technology officer, knew it was time to bring the entire network up to date and sought to make it scalable for emerging technology such as IoT components. "Our top priority is ensuring that we continue to uphold our reputation as a hospital that delivers world-class healthcare services in India," said Tyagi.



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Establishing network must-haves

To decide which technology would best fit the hospitals' needs, Tyagi mandated that the new technology would adhere to five important criteria:

- **Ease of deployment:** Since they operate 24/7, installing network equipment cannot interfere with providing critical patient care. Installing network gear needed to be quick and painless.
- **Performance:** Unforeseen surprises can occur in emergency situations. Switches and APs needed to provide stable, reliable transmission regardless of how many doctors, staff members or patients suddenly crowd a room or lobby.
- **Support:** The hospitals' network is an important part of providing patient care. So, hospitals' IT must be able to reach out to the OEM and distributor for service and support whenever they need it.
- **Pricing:** Selected network solution must be reasonable and cost-effective.
- **ROI:** Network solution must also demonstrate a solid return on investment.

After performing an exhaustive comparison between possible solutions, Tyagi and Artemis Hospitals selected ALGORT Technosolutions and RUCKUS Networks. Based on the exclusive RUCKUS patented technology and its performance reputation, including the Packet6 stress test, Tyagi was confident RUCKUS could handle anything the hospitals could throw at them.

"In the end, the clear choice was RUCKUS Networks," said Tyagi. "They outscored all the vendors we evaluated and have

performed as desired. In addition, they offer a far better licensing model and a future-ready, easy-to-manage network."

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Building a healthy network

After evaluating the hospitals' network shortcomings, ALGORT created a number of network solutions to provide faster speeds, more bandwidth and better coverage.

Working with Tyagi and Artemis' IT department, ALGORT set out to increase network bandwidth and improve performance by:

- Deploying RUCKUS ICX 7850 series switches with 80 Gb backbone between core and distribution in two separate buildings
- Installing ICX-7150-48 multigigabit PoE+ switches as well as ICX-7150 gigabit PoE+ switches with 20 Gb backbone between the edge stack and distribution switches

With these low-latency, fixed form-factor switches, ALGORT gave Tyagi the performance, flexibility and scalability the Artemis enterprise network required.

In their next step, ALGORT replaced existing APs with RUCKUS R750 multigigabit APs to increase capacity and improve coverage. These

high-performance indoor APs are top of the line in delivering dependable, secure connectivity in ultra-high density environments. By deploying R750s, ALGORT was able to enhance network reliability while upgrading the network to Wi-Fi 6.

R750 APs not only improved network performance but they also avoided signal interference and prevented throughput bottlenecks. They did this automatically due to the APs' BeamFlex®+ adaptive antennas, which allow them to dynamically choose among a number of antenna patterns (over 4,000 possible combinations) in real time to establish the best possible connection with each device. Moreover, they come with SmartMesh™ wireless meshing technology that dynamically creates self-forming, self-healing mesh networks.

To manage the switches and APs, ALGORT recommended SmartZone network controllers and RUCKUS Cloud as a high-performance, cost-effective, unified wired and wireless access solution. This sophisticated converged management was easy to use and worked seamlessly with ICX switches and RUCKUS APs.

Receiving a clean bill of health

Following the deployment of a suite of RUCKUS solutions, Artemis Hospitals and the IT department were ecstatic. The new high-performance, secure and reliable data and wireless network not only improved user satisfaction, but it also boosts staff effectiveness and efficiency.

"We wanted a vendor who put the customer at the heart of everything they do," said Tyagi. "And fortunately, we found this with the combination of RUCKUS and their Elite Partner, ALGORT Technosolutions. The RUCKUS deployment greatly enhanced our users' experience—for both our patients and our staff as well as our IT team in managing the network operations," stated Tyagi.

In addition, Artemis is now able to easily deploy and integrate new medical infrastructure developments—enabling greater quality of medical care and information sharing. By working with BMA-Viettel, Artemis was able to acquire new software solutions that provide seamless integration with external systems, hence providing a complete solution meeting all the requirements

of a connected hospital with future scalability taken into consideration.

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In the end, the deployment of Artemis's refreshed network proved itself to be everything the hospitals' administration had wanted without impeding hospital functions. "Thanks to RUCKUS and ALGORT Technosolutions," said Tyagi, "we had a significantly cleaner process with overhauling the existing data and wireless infrastructure. Plus, we were able to lay the foundation for an IoT-ready network as we evolve to become the smart hospitals of the future."

Given this success, Artemis now has plans to deploy to the rest of their hospital buildings using RUCKUS in order to further bolster network systems and utilize the IoT solution to address the future needs of the hospitals.

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.

www.ruckusnetworks.com

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