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CASE STUDY

NETHERLANDS

HEALTHCARE

HEALTHCARE GROUP ACCELERATES ITS DIGITAL TRANSFORMATION, UNIFYING ITS NETWORK ACROSS THREE HOSPITALS

Treant ZORGGROEP

Consolidation of wired and wireless network across three hospitals to strengthen security, elevate the user experience and accelerate digital healthcare plans.

Treant Zorggroep was formed through the coming together of three hospitals in the north east of the Netherlands. The move was an obvious consolidation opportunity.

"Three sites, three different networks, three different vendors," says Richard Funke, Head of ICT Infrastructure, Treant Zorggroep. "Creating a unified network, with a single pane of management, was always our intention."

CONSOLIDATION AS A MEANS TO ACCELERATE TRANSFORMATION

The coming together of these three entities offered a framework for accelerating the digital transformation of the workplace and the hospital's processes. Treant wanted to simplify the use of mobile devices and applications, as well as encourage remote working and new IoT ideas.

"We wanted to create a resilient and securely operating workplace where staff can use technology anywhere to deliver the best care experiences," says Dr Franke Volbeda, CMIO, Treant Zorggroep Hospital. "Modern healthcare requires the use of new technologies, invariably digital and connected. We cannot afford to be hindered by poor or insecure connectivity."

For this to happen it needed a network that was high-performance, reliable and secure.

"Security was our number one priority," says Albert Klumpje, Project Manager, Treant Zorggroep, "Network reliability was a close second. You will never encourage confidence in the network, or digital applications, if the connectivity experience is poor."

REQUIREMENTS

- Centrally manage and secure high-performance Wi-Fi across three hospitals
- Support the testing and implementation of new digital ways of working
- Strengthen security to support increase in connected devices and users

SOLUTION

- AP-515 series Wi-Fi 6 Indoor APs
- Aruba 7000 Series Controllers
- Mobility Conductor
- Aruba CX 8400 Series Core Switches
- Aruba CX 8320 Series Distribution Switches
- Aruba 2930M Series Access Switches
- Aruba User Experience Insight (UXI)
- Aruba AirWave for network management
- Aruba ClearPass for network access control

OUTCOMES

- Simplifies network management with one console providing visibility across the entire estate
- Generates momentum around digital transformation, enabling greater use of video, asset tracking and new applications
- Establishes device or role-based access to the network, strengthening security
- Delivers resilient, future-ready infrastructure with the intelligence, scalability and intuitive toolsets to meet emerging needs
- Lays the foundation for implementing asset tagging throughout the hospital

ESTABLISHING MODERN NETWORK MANAGEMENT

Treant also provides ICT services to Ommelander Zorggroep (OZG), a new hospital that opened in 2018. This site already has an end-to-end Aruba network infrastructure, providing the best example of a modern approach to network management.

"Aruba is very close to its customers. It has proved to have a good understanding of the healthcare sector," says Funke. "Its unified architecture and zero-trust approach was the ideal proposition."

> One of the benefits of the new design is that we can do live updates without any disruption. We recently upgraded the Wi-Fi network over one weekend with no impact on users. We hand access off to one Aruba controller and update the other. In a hospital environment, network downtime is unacceptable.

RICHARD FUNKE
Head of ICT Infrastructure, Treant Zorggroep

In addition to ClearPass at the heart of the zero-trust approach to network access control, the unified Aruba infrastructure is built on Aruba CX 8400 Core and Aruba 2930M Access Switches, Wi-Fi 6 wireless access, all managed and supervised via AirWave Network Management. Aruba partner Zetacom provides full support services for the entire platform.

"Zetacom also brings a wealth of experience in IP telephony. The company knows Aruba and it knows IQ Messenger, both of which were important factors for us," Funke explains.

UNIFYING THREE HOSPITALS AND 17 CARE CENTRES

By unifying its network based on an Aruba architecture, Treant Zorggroep has delivered on its first objective: strengthened security. ClearPass Policy Manager enables Treant to define role- and user-based network access policies. There is clear visibility of what is connected to, and who is using, the network with seamless control and automation.

"ClearPass recognises the device and user and automatically associates it with a specific set of access rights and network segment. This immediately strengthens our security," says Funke. "We now have a guest environment entirely separated from our work environment.

"One of the benefits of the new design is that we can do live updates without any disruption. We recently upgraded the Wi-Fi network over one weekend with no impact on users. We hand access control over to one Aruba controller while updating the other. We can do the same with APs. While an AP is updated and rebooted, all the clients connected to it are handed over to adjacent APs and nobody notices any interruption. In a hospital environment, network downtime is unacceptable."

Aruba now provides a consistent network experience, wired and wireless, across the three Treant Zorggroep hospitals. The next phase is for Treant's 17 local care centres to come under central management, all connected to two data centres; two locations are already onboard and more are planned through 2022.

"We have one console from which to manage the network. If there is an issue we notice far more quickly, usually before it impacts a user," says Klumpje. "A unified platform saves us a great deal of time. We're more proactive – we have to be. There are more connections on the network and greater expectations."

ENABLING REMOTE WORKING TO ACCOMMODATE COVID RESTRICTIONS

The project coincided with the arrival of Covid-19. This presented challenges during the implementation, with restricted access to site, but helped accelerate new ways of working. Time saved on network management has helped redirect IT resources into new more urgent projects.

Treant has been able to create 'clean' zones in its hospitals, with secure access only for approved visitors and equipment. More importantly, the use of remote access points (RAP) means teams have been able to work remotely.

"We can send test results to diagnostic teams working off site, or diabetes consultants can take appointments via video conference," says Funke. "It means less travel for patients and staff, more appointments in a shorter space of time and

we can keep people safe. The use of RAPs means there is no difference between the home and the office."

How this will play out in the long term remains up for debate but Funke says the trend is towards more flexible workstyles and that sustainability pressures will force organisations to examine travel times: "A hybrid workstyle seems obvious."

FINDING NEW WAYS TO ENHANCE THE PATIENT EXPERIENCE

Clinical users are the priority but both Klumpje and Funke say the patient and visitor experience is important. Patient recovery improves when patients are happier and less stressed. The new network enables visitors to connect their own device and access their favourite applications.

"Patients and visitors don't care who provides the network but they do care that their connection is quick and simple. A good network creates a good impression," says Funke. "With Aruba we have the network infrastructure on which to build new services. We want patients to be comfortable here. We'd like to create a home-from-home experience."

BUILDING CONFIDENCE IN A PROGRESSIVE WORKPLACE

To Klumpje's point, the network experience has also transformed immensely. Connectivity is consistent with seamless roaming for users around the sites. They are recognised and authenticated through ClearPass and connected to the resources they are entitled to. Application performance has improved with granular control and prioritisation capabilities. This gives confidence in trying new ideas. The team is increasingly deploying Aruba User Experience Insight (UXI) sensors around the hospital as a cloud-based application performance monitoring solution that validates network health and troubleshoots problems that affect user experience.

"This is the backbone of digital transformation. Users need to be confident in the network. If you have constant outages, no one will exploit the opportunity," he says. "We recognise that

not everyone embraces change at the same speed but we're working with early adopters to test new applications, and educating and reassuring those that follow."

The use of video conferencing has rocketed. Users can make calls via IP (enabling Treant to strip out all DECT phones) and updated electronic patient records can be accessed via a user's choice of device at the bedside. The health of ICU patients is tracked via Philips telemetry, all connected to the Wi-Fi network, wherever they are on site. It is easier to send large files, including patient scans, between users.

The next phase will include wayfinding for visitors and asset tracking of critical equipment. There are also plans to create an app to allow employees to use their smartphone to make calls on the Treant network. Emergency calls to staff will be integrated with personal phones. Extending the use of RAPs to the patient's home, in instances where a patient needs to be regularly monitored, is also being explored.

"It is possible that the new network may help to attract the best clinical talent to Treant, but we're confident that we have created an environment where good people can do great work," says Funke. "We have a modern, progressive work environment."

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