RUCKUS
COMMSCOPE

FRANKELANDGROEP
Wi-Fi is revolutionizing healthcare

The Frankelandgroep offers an extensive range of care and wellbeing facilities and solutions for elderly people in the Schiedam-Vlaardingen region, at home or in one of their five healthcare institutions. Frankeland cares for an average of 800 elderly people with about 1,200 in staff. Looking to switch from paper to Elektronische Cliënten Dossiers (Electronic Client Files), they were in need of a reliable network solution.

Frankelandgroep

Client
Frankelandgroep

Country
The Netherlands

Requirements

- Fast and reliable network to give staff access to the new Elektronische Cliënten Dossier (ECD - Electronic Client File)
- Seamless roaming in all locations and in every apartment
- A single network across all five healthcare institutions
- Sufficient capacity to provide staff and visitors with Wi-Fi
- A future-proof network

Solution

- 328 RUCKUS access points across the five branches
- 2 RUCKUS SmartZone WLAN controllers

Benefits

- A network with 100% coverage, with strong signal strength and high reliability
- A future-proof network to grow as the needs of the Frankelandgroep grows
- Improved central management and security

Improving clinical workflow with reliable internet solution

Dutch healthcare professionals spend a quarter of their time on administrative tasks, according to the Berenschot agency. Most of their time is wasted on creating and maintaining client files.

All details about accommodation, supervision, personal care, nursing, and treatment must be carefully kept in records, which, according to nine in ten healthcare professionals, comes at the expense of the direct care for residents and clients. Therefore, for healthcare institutions, there is an incentive to work with reliable solutions that are immediately available, wherever and whenever.

The challenge

The Frankelandgroep, consisting of a homecare division and five locations for long-term care of the elderly in the Schiedam / Vlaardingen region in the Netherlands, has decided to reduce

> "Due to the RUCKUS BeamFlex technology, we now have an excellent and reliable signal throughout the group. Our staff can now quickly access the ECD anywhere if necessary right from someone's bedside. That is definitely a huge advantage."
>
> **Adrie Kagchelland**
> **ICT Coordinator, Frankelandgroep**

the impact of working with the files by switching from paper to Elektronische Cliënten Dossiers (ECDs or Electronic Client Files). This makes management easier and ensures that every file can be quickly available anywhere in the organization. An important condition is that the reliability and accessibility of the electronic solution is at least equal to that of the paper version. This places high demands on the wireless network used for this solution.

The Frankelandgroep uses PlanCare, an ECD solution from De Heer Software. The most important requirement of the Frankelandgroep was that this ECD of all 800 residents should always be accessible anywhere within the five locations, in a safe and reliable way, without outages or delays, irrespective of the utilization of the network. "Until then, we only had Wi-Fi in the auditorium," said Adrie Kagchelland, ICT coordinator at the Frankelandgroep, "And this immediately became overloaded as soon as the room filled up."

In addition to access to the ECD in all apartments and workspaces, the Frankeland group also wanted to be able to offer public Wi-Fi access at designated locations in the five branches. "By request only, in the living rooms of the apartments where residents usually spend most of their time and also receive visitors, we wanted to make internet access available to residents and visitors everywhere."

The solution

A private contract was launched for the project, in which solutions from HP, Juniper and Huawei were taken into consideration. In the end, it was decided to award the project

to ICT service provider Oaktree, which preferred RUCKUS' network equipment. "Oaktree helped us a lot before, with the installation of our ethernet network. In addition, the RUCKUS equipment immediately yielded good results," stated Kagchelland.

Together with experts from RUCKUS, the five branches were pre-measured to determine the best places for the installation of the required access points (APs). "Our goal was to achieve multiple coverage in every corridor within the complex," said Kagchelland. "We first ran a test for a month and a half, in just two departments, distributed between three locations." The team soon discovered that the RUCKUS equipment clearly had a larger range than other tested APs. "We were picking up the signal on the higher floors," commented Kagchelland. In order to be able to guarantee optimal signal quality under higher loads and also to achieve the desired redundancy, it was decided to continue with the original coverage plan. "It's very important to us that our employees can always continue to work and provide the best possible care," said Kagchelland. In total, 328 RUCKUS APs were installed.

The new Wi-Fi network had to be set up in such a way that the use and management had minimal impact on both employees and the 4 FTE strong ICT team of the Frankelandgroep. For this reason, a Virtual Local Area Network (VLAN) was chosen, which was made available under a single Switched Virtual Interface (SVI) in each of the five locations. By using Certificate-based EAP-TLS, the employees of the Frankelandgroep will have direct access to the ECD anywhere within the network via a secure connection, without having to log in repeatedly.

The network uses two redundant SmartZone WLAN controllers, which are set up in one of the locations but are deliberately separated geographically as much as possible to ensure continuity in the event of a calamity. What Kagchelland noticed, was that the controller is considerably easier to operate than that of competing solutions. "Of course, you still need to have solid knowledge to be able to set everything up properly, but Oaktree has once again helped us."

The wireless connections, in addition to Certificate-based EAP-TLS, are protected via WPA2-E, for which the most recent updates are being implemented continuously. "Obviously, securing the privacy-sensitive data is very important to us," stated Kagchelland. A comprehensive risk analysis was carried out in advance. Data, Wi-Fi, and equipment such as the employees' laptops, were mapped and classified. "Oaktree and RUCKUS use proven standards. For our residents and ourselves, it's good to know that this means we meet all the requirements," commented Kagchelland.

The result

"We are more than satisfied with the final result," said Kagchelland. "With RUCKUS' BeamFlex technology, we notice that we have an excellent signal everywhere within the group – actually significantly better than we had expected based on the original design and experiences with other test equipment. The capacity of the network did not let us down, even during busy events," stated Kagchelland. BeamFlex is a smart antenna technology that was designed by RUCKUS to actively adapt and target the AP's Wi-Fi-signal for specific situations in order to optimize signal quality.

Kagchelland is also very pleased with the course of the project. "It has been a remarkably smooth process. Due to good preparation, the project was completed in nine weeks after the test phase." The staff at the healthcare institutions are also very pleased with the new features. "Previously, there was a limited number of workspaces. Now they can access the ECD anywhere, if necessary right at someone's bedside. This is definitely a huge advantage."

When asked if he has any tips for colleagues who are considering similar projects, Kagchelland commented, "It's very wise to carefully define in advance which services you want to offer. Make sure you think carefully about security within your project beforehand." On another note, Kagchelland stresses the importance of good documentation. "That's often skipped, but it is essential. Without documentation, you'll really run into problems if you want to roll out new applications later on. Fortunately, we have all been on top of it, and we're still reaping the benefits from that."

The next step for Kagchelland and his team is to identify which other possible applications can be utilized using the new network. "Currently, the organization is still occupied with switching from paper to the ECD, but we've already noticed that there are questions coming in about possible new services." These requests are seriously taken into consideration, depending on the need and available capacity within the organization. "In any case, it will no longer depend on the capabilities of the network," concluded Kagchelland.

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.

RUCKUS®
COMMSCOPE