Ruby Hall Clinic transforms patient care experience with HP Networking

Wired and wireless HP infrastructure saves time for medical staff

Industry
Healthcare

Objective
Put in place a reliable network infrastructure for a new hospital

Approach
Compared solutions from multiple vendors to find the best solution, including HP, Cisco and Huawei

IT matters
• Ensured 24x7 availability of clinical systems with zero downtime, thanks to reliable HP system

• Resolved problems quickly, thanks to HP's fast, expert support, with 30 minute response time

• Reduced overall costs, thanks to HP lifetime warranty

• Unified network and user policy management, from the device to the data centre

• Integrated security with network access control and Bring Your Own Device (BYOD)

Business matters
• Time saved for medical staff with easy access to healthcare systems and lab reports on iPads® and Android tablets

• Improved patient care thanks to fast access to scans and reports

• Enriched the patient experience with BYOD policy allowing them to use their own devices to access the internet

Grant Medical Foundation
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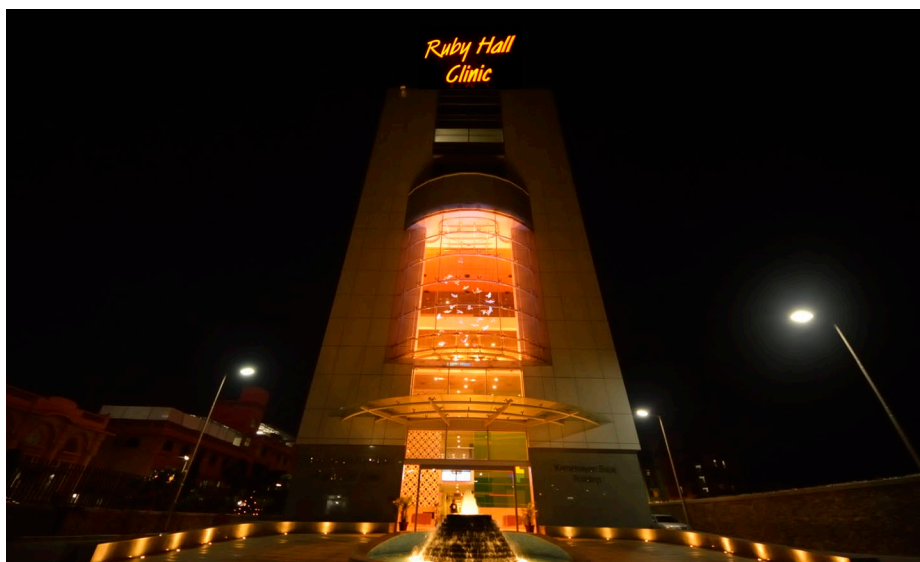
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– Anand Patil, general manager – IT, Ruby Hall Clinic

Mobile access to hospital systems

Ruby Hall Clinic needed a reliable network for a newly-built hospital. It chose HP switches and wireless equipment due to their lifetime warranty and its previous good experience of HP support. The network enables medical staff to quickly and conveniently access hospital systems and clinical information on tablets, saving time and improving patient care.

Challenge

Reliable network to support medical systems

As the first nationally accredited hospital in the Indian city of Pune, Ruby Hall Clinic has come a long way since it was founded in 1959. It was the first hospital in Pune to carry out a kidney transplant, to introduce an intensive care unit and to deliver a test tube baby. Today, the clinic has 550 beds, with staff comprising 150 consultants, 500 panel doctors and 1,400 paramedical staff.

Recently, Ruby Hall Clinic decided to build a new hospital to better serve its patients. The new building is around 10 kilometres from its existing main site, and has about 600 medical and support staff. At full capacity, it will cater for 120 patients.

Ruby Hall Clinic needed a dependable network for the new hospital, including both wired and wireless capabilities. The infrastructure needed to be reliable to support the clinic's Hospital Management System (HMS) and to help provide 24-hour patient care.

In order to select a network, the clinic looked at the options from various suppliers, as Anand Patil, general manager of IT at Ruby Hall Clinic explains, "We evaluated products from multiple vendors, including HP, Cisco, Siemens and Huawei.

"We chose HP because of its lifetime warranty on the switches and other products," says Patil. "Another factor was the high quality support from HP – we have used HP servers, storage and switches over many years at our main site, and the support has consistently been good."

Solution

Infrastructure for clinicians and patients

The network infrastructure at the new hospital is based around a total of 17 HP switches, including the 2510, 2520, 2910 al and 5400 zl switch series, and the system includes an HP ProLiant DL180 server. Wireless access is provided by an HP MSM720 access controller and 25 HP MSM430 access points. All of the HP equipment is provided with a lifetime warranty.

The network is used by around 100 doctors and paramedical staff as well as patients at the new hospital. Patil explains, "Our HMS, a clinical management system and other systems are all integrated and are all accessed across the network."

Today the hospital is working on the final blueprint for implementing clinical pathways and clinical research. After the implementation of Radiology Information System / Picture Archiving and Communications System (RIS / PACS), the patient volumes have significantly increased. This has sped up diagnosis and reporting. With critical patient information like lab results, radiology images, medications available online, there has been a significant reduction of file movements and this has helped the doctors to make decisions on time. It enables them to provide single window service for all patient related activities. They are able to get disease / mortality information in just a few clicks.

As well as accessing the HMS, doctors and other medical staff use the network to record patient data and to view clinical images, including X-rays, which helps them to provide care at the bedside. They use an application on iPads and Android tablets to collect clinical information about patients and upload it to a central system.

BYOD and mobile app improve access

"When required, our Bring Your Own Device (BYOD) policy means that medical staff can also use their own devices to access the network," says Patil. "Ruby Hall Clinic announced the launch of its new mobile application (app) both for Android and iPhone® platforms, providing patients and families with a one-stop mobile information hub for navigating the Ruby Hall Clinic's patient experience. This also provides a connected cloud and mobility based platform for doctors, patients and hospitals. In the future we expect this to develop and for the staff to use their own smartphones and tablets more and more.

"The staff say the new network is fast, although this depends on the application being used," says Patil. "Configuration of the network is very simple, and adding new devices is easy."

This new app addresses the growing need for immediate access to healthcare information. Additional features include contact information for and directions to the hospitals, maintaining your care team, finding the services offered by the hospital including various specialty specific clinical services and doctors associated with them.

It offers details on patient guide for taking care, diagnostic and auxiliary services, along with contact information and ability to request an appointment at your finger tips. It also provides feedback for the continual improvement of patient care. Key focus on International Patients, with details about areas surrounding Ruby's locations - including restaurants, accommodation, places to visit, comparison of services, embassy and travel related information, and listings of local activities are also accessible to assist patients and families make better health decisions.

Ruby Hall Clinic was awarded with Innovative Technology of the Year for adopting Praxify's cloud-based EMR platform at eMaharashtra 2013 summit co–organised by the government of Maharashtra.

Patients can use the hospital's mobile app to make appointments, or they can simply use Wi-Fi to connect to the public internet. Wireless access for patients is free of charge and Ruby Hall Clinic provides iPads to patients to access the internet, to view entertainment, and to use the hospital's feedback system.

The hospital's BYOD policy also means patients can use their own laptops, tablets or smartphones with no restrictions. They can easily and securely log onto the network with a user ID and password provided by the clinic.

Customer solution at a glance

Applications
Hospital Management System (HMS)

Mobile booking app for patients

Hardware
- HP 2510 switch series
- HP 2520 PoE switch series
- HP 2910 al switch series
- HP 5400 zl switch series
- HP ProLiant DL180 server
- HP MSM720 access controller
- HP MSM430 access point

Software
- HP Intelligent Management Center (IMC)

Benefits

Reliability and availability
Ruby Hall Clinic has an IT team of seven, of whom one person is based at the new hospital. With limited resources, it means that the hospital depends on its suppliers to provide fast, reliable support to resolve any issues. Patil comments, "If anything happened, it would impact on the care of our patients.

"Because we are a hospital, we require a 24-hour service from our IT partners, with zero downtime," says Patil. "We get that from HP - we have had no downtime, and the equipment is very reliable.

"At one point, a switch failed due to a power fluctuation," continues Patil. "HP responded fast, and had someone at the hospital within less than 30 minutes who was able to solve our problem."

Time savings and improved patient care
"Doctors and paramedical staff can now get online information about patients, such as lab reports or X-rays," says Patil. "With these online reports, it is very easy to plan treatment for patients and monitor their progress on an iPad or other tablet. This means patients can get treatment faster, and we have been able to improve the quality of care we offer them.

"The wireless network and the mobility provided by tablets save a lot of time for clinical staff. If a patient has a lab test, the report is now available across the network as soon as the results are verified by a technician."

– Anand Patil, general manager – IT, Ruby Hall Clinic

"The wireless network and the mobility provided by tablets now save a lot of time for clinical staff," says Patil. "For example, if a patient has a lab test, the report is available across the network as soon as the results have been verified by a technician. Previously, it took a long time to carry a physical document from one place to another, and the report needed to be sent from the existing hospital to the new hospital, which would have taken between 45 minutes to one hour," says Patil. "Now it is seamless; as soon as the report is ready, the doctor can read it on their tablet."

The clinic has a video conferencing centre with the video traffic carried by the HP network. It uses this to enable medical staff at both sites to talk to each other, saving travel time between the two hospitals.

Centralised management
For the future, Ruby Hall Clinic is planning to use HP Intelligent Management Center (IMC) software, which provides a single, central management console for the entire network including HP equipment and hardware, for example firewalls from third-party vendors.

"We plan to centralise the management of our networks in one location, with everything controlled from our main site," says Bomi Bhote, chief executive officer. "We are going to build another two hospitals in Pune, and we will use IMC to centralise everything from a single dashboard. IMC will save time for our IT staff and will enable us to provide a prompt service to patients."

The hospital is also planning to add remote patient monitoring, which will use the HP infrastructure that is already in place. The reliability and performance of the network means it will be able to scale to handle the additional requirements of patient monitoring.

"I would definitely recommend the HP network to any other hospitals if they asked me," concludes Patil. "This is for two main reasons: the lifetime warranty, and the excellent support from HP."

Learn more at
hp.com/go/networking