



Union Hospital uses Motorola Enterprise Mobility Solutions to improve patient safety and clinician efficiency



Company Overview

Established in 1994, Union Hospital, is the only private hospital in Hong Kong's Eastern New Territories. It is a progressive hospital service provider, fully accredited by a variety of local and international institutions. Union Hospital is committed to delivering quality healthcare in the community and beyond, and has developed a reputation for patient-centric services, state-of-the-art technology and premium facilities.

The Challenge: Ensuring safe and timely treatment for patients

As a modern, private-sector healthcare services provider, Union Hospital faced a two-fold challenge. On the one hand, there was the need to provide state-of-the-art care to every patient, making sure that safe and timely treatment was the norm every step of the way. On the other, it had a duty to help its talented and committed healthcare staff to do their jobs efficiently, without burning out due to pressure of work, complex procedures or the burden of responsibility.

"We began exploring new ways to streamline processes and boost patient care and safety early in 2009, starting with an in-depth look at what other hospitals in the region had achieved. A visit to the Hangzhou First People's Hospital in China's Zhejiang province was a revelation," said Dr. Anthony Lee, chief hospital manager and medical director of Union Hospital.

The Hangzhou First People's Hospital had recently faced challenges at least as significant as Union Hospital, especially in handling the arduous task of outpatient infusion management. The combination of a heavy workload, countless procedures and endless operational details was hard enough. However, the risk that any error might pose to human safety and the high volume of human traffic through the infusion department – including patients and family members – was a tremendous burden on the nursing staff.

When Union Hospital's visiting administrative officers saw how Hangzhou First People's Hospital had dealt so effectively with these problems by using advanced handheld devices from Motorola, they realized that the technology might also hold the answer for their own institution in Hong Kong. Following an evaluation period of just a few months, the deployment of MC55 Enterprise Digital Assistants got underway in September 2009.

"We began with three trial applications – Identification, Observation and Medication. After these proved successful, additional applications were added, including Blood Tests, Patient Scheduling, Paperless Documentation and Bed Allocation," said Dr Lee.

Customer Profile



Company

Union Hospital

Location

Hong Kong, China

Industry

Healthcare

Motorola Products

Motorola MC55 EDA

Partner

Ewell Hong Kong Limited

Application(s)

Mobile Clinical Solutions (developed by Ewell)

Benefits

- Reduce medical errors leading to increased patient safety
- Significant improvement in clinician efficiency
- Streamlined doctor and nursing staff workload, more time available for actual patient care



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Dr. Anthony Lee
chief hospital manager and medical director, Union Hospital

The Solution: Motorola MC55 EDAs coupled with Ewell’s Mobile Clinical Solution empowers healthcare workers, providing them with a powerful patient care package in their pockets

Today there are more than 100 units of MC55 EDAs being used by doctors and nurses at Union Hospital. The MC55 EDAs power the Mobile Clinical Solutions developed by Motorola partner Ewell Hong Kong Limited with hospital staff, and are giving Union Hospital a good return of their investments. They have simplified everything from fundamentals such as accurately identifying a patient when they are admitted or discharged, to critical patient safety issues such as ensuring that the correct medication or treatment is given to the right patient at the right time and in the right dosage.

Patient identification

As part of a front-line patient safety programme, all new admissions are assigned a wrist-tag, complete with a bar code. Now, with the advent of the MC55 EDAs, hospital staff can scan the bar code and immediately check the patient’s name. They can even pull up a photo to double confirm the patient’s identity.

“If the photo and bar code do not match, the doctor or nurse can instantly flag the discrepancy before any treatment or medication is given or tests carried out. This ensures efficiency and protects patient safety,” said Dr Lee.

Instant data access and input

The switch from a manual system to a state-of-the-art wireless digital information network offers Union Hospital tremendous advantages. Doctors and nurses can access patient records from their MC55 EDAs and enter updates any time they like. Moreover, an alert function automatically notifies nurses of any special needs patients might have. The move has dramatically cut the amount of paper used in patient care applications as well as simplifying the task involved in processing

it. Whereas in the past a doctor might write a prescription, and hand it to a nurse for input, now the prescription order goes straight into the system from the doctor’s MC55 EDA. The same applies to other records such as temperature charts, which are now entered via MC55 EDA and automatically recorded in the patient’s central file.

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Accurate testing

Investigative tests constitute a large part of any patient treatment regime. Managing the process is a major organizational challenge for healthcare workers. The new Motorola MC55 EDAs have streamlined this aspect of Union Hospital’s daily activities as well.

Scheduling is handled by the central system and the handheld units provide nursing staff with a list of patients who need to take particular tests, when and where. Again, the MC55 EDAs reduce the potential for error.

“When a blood test is carried out, the nurse or technician scans the bar code on the patient’s wrist-tag to confirm their identity before drawing blood. They can print a label and stick it on the blood sample right away to ensure speedy processing and complete accuracy,” said Dr Lee.

Information security

The MC55 EDA based-system is also more secure than previous processes. No information is stored on the devices – everything is kept on a central server and synchronized in real-time.

“Healthcare workers log on to the system by scanning the bar code on their staff identity card via the MC55. This approach grants different levels of access and authority, and providing each nurse or doctor with information on their patients, thus protecting overall confidentiality,” said Dr Lee.



“With the Motorola MC55 in hand, healthcare workers can act as efficiently and effectively as possible, no matter where they may be – at a patient’s bedside, in the hallway, between buildings in a campus environment, out to lunch or even at home.”

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The Benefits: Error-proofing processes and improved productivity

A long-standing Motorola partner, Ewell Hong Kong Limited, carried out the deployment. Ewell and Motorola worked very closely with Union Hospital to understand the needs and requirements of its users. The results have been spectacular.

The hospital’s doctors and nurses now enjoy the power of a desktop computer, a mobile phone, a camera, a bar code scanner and a walkie-talkie – all in a single pocketable and sturdy mobile device.

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The power to access clinical data and other critical patient related information in real time helps Union Hospital’s doctors and nurses streamline their day-to-day tasks. This has helped reduce their workload and free up time that can be spent at the patient’s bedside.

“The data capture and wireless access capability has helped us in error-proofing our processes which has, in turn, improved patient safety, productivity and the quality of care we provide,” Dr Lee said.

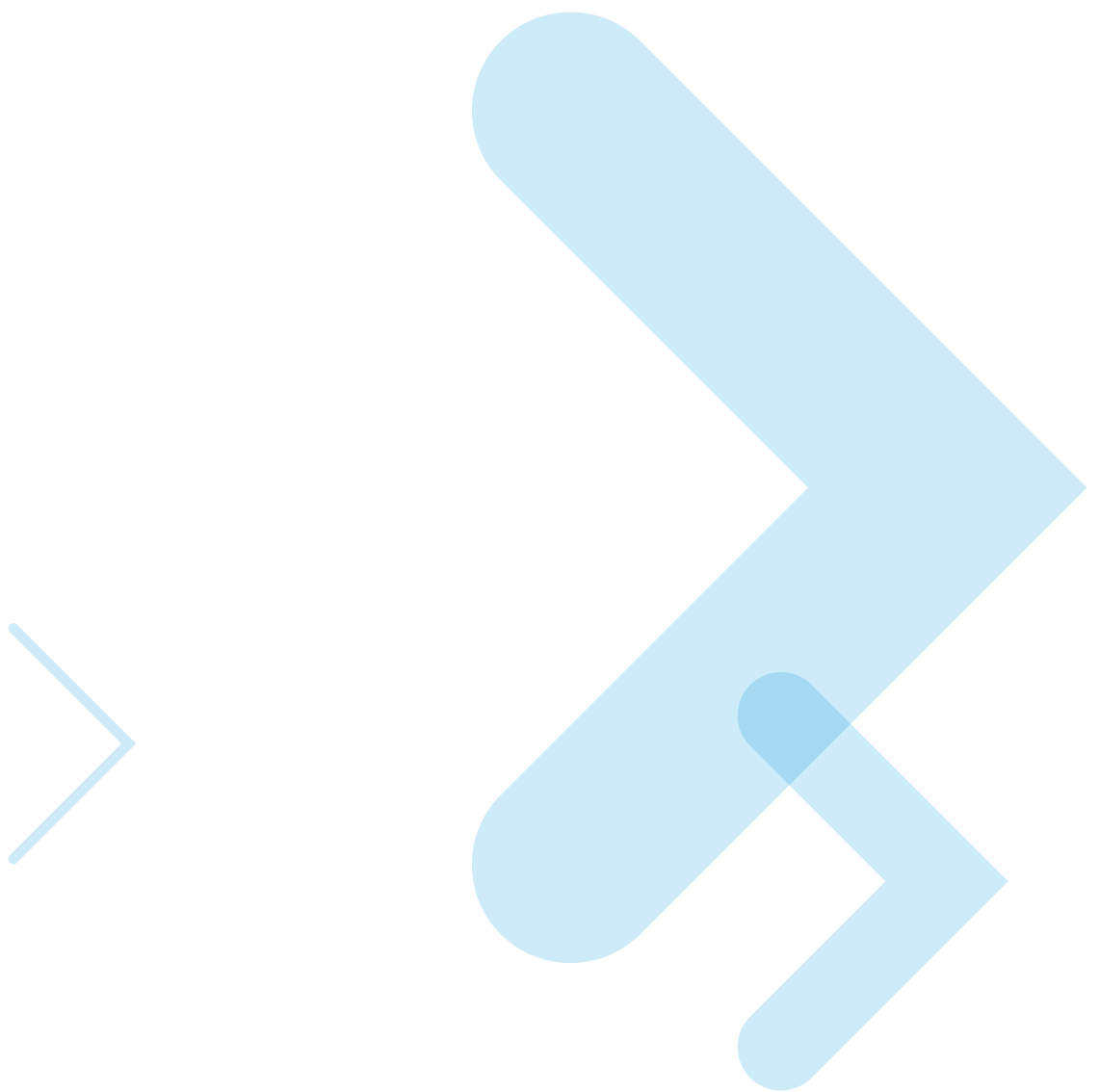
Mobile voice and text messaging via a virtual private network means hospital staff can respond to any emergency situation in seconds. They can also initiate medical intervention based on the most current information about a patient’s condition viewed instantly on their MC55 EDA.

Used in concert with the Mobile Clinical Solutions developed by Ewell, the devices support a variety of medical databases and hospital applications. And the advanced data capture capabilities, such as bar code scanning, help automate data input.

“Unlike desktop computers, compact mobile computers do not require the costly installation of network cables, support peripherals, power outlets and free up a lot of physical set-up space,” said Dr Lee.

They also offer outstanding return on investment due to special rugged features to help withstand harsh environments or fluid spills, which gives the devices a very long life.

“Motorola MC55 offers a perfect blend of form and function. Providing a single device for voice and data significantly reduces capital and operational costs, boosts staff efficiency and improves patient care and safety. It’s a tiny package, but the results it delivers are much, much bigger,” said Dr Lee.



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