CASE STUDY | SUPPORTING PATIENT CARE WITH A NURSE-APPROVED SOLUTION

! Challenge

A large metropolitan hospital system needed to update its population of mobile computers. The nursing staff was using the devices to scan barcodes on patient ID bands and then record patient care information (details like patient vitals, medication administration, specimen collection, and so on) through the Epic Rover electronic health records app, efficiently and accurately associating patient IDs with treatment details.

Their existing units were rugged, Windows Mobile-based MC75s. But with the Windows Mobile operating system facing end-of-life by 2020, they were looking for a newer option with a more modern user interface and an operating system with a stable roadmap. This transition also gave them an opportunity to address one of the key issues they had with their current devices: the bulky MC75s with their keypad/stylus interfaces were not popular with the nursing staff, and excessive wear and tear on the older design connection between the devices and charging cradles was significantly reducing productivity of the devices -- which further soured attitudes toward the handhelds.

Some on staff were interested in exploring devices running on the iOS operating system, with their familiar, user-friendly interface and compact form factor. As well, Epic had already released its iOS version of the Rover mobile app, increasing the Apple devices' appeal.

Industry

➜ Healthcare

Key Solution Components

➜ MC40-HC Healthcare Mobile Computers
➜ Golden Image Creation
➜ Device Staging
➜ Stage Now Server
➜ Ongoing Training and Support

Software Application/ Environment

➜ Epic Rover mobile patient care app

✔ Solution

We worked closely with the staff to identify all of their device-related pain points and challenges. Given our knowledge of both their needs and other customers' experiences, we knew that iOS devices had some important limitations that made Apple devices a less-than-perfect fit for this customer. Critical among these shortfalls, iOS-based consumer devices' lack of an integrated scanner meant that they would need to pair their devices with an external, scan-enabling sled -- eliminating the sleek form factor they were after and adding another hardware component to keep up with. Almost as critical: iOS devices couldn't offer the rugged durability that enterprise devices have -- something that, based on the wear-and-tear of their existing devices, they clearly needed. While device options were being explored, Epic rolled out an Android version its app, opening the door to enterprise-hardened Android devices as an option.

We showed them the Android-based Zebra MC40-HC healthcare mobile computer, and were able to demonstrate that it could deliver not only the user-friendly, familiar interface they liked, but also offered more features that made it well suited for healthcare. When the nurses and IT staff tested the MC40s head-to-head against iOS devices, the MC40s emerged as the clear winner.

We performed bulk on-site staging at each of the client's four locations, followed by hands-on device training for the nursing staff, supported with how-to videos and Q&A sessions. Additionally, we built and packaged their Golden Image using Zebra's Stage Now tool. Their Golden Image specified configurations for everything from APK installation to device settings, scan settings, and network settings. By deploying a Stage Now server, we gave this customer the ability to perform their own staging for any small batches of devices they may purchase in the future.

📈 Result

As of March 2017, we have rolled out a total of 1,040 Zebra MC40-HCs for this customer. The hospital staff is excited to have devices that are durable, easy to use, and don't require a separate scanning sled. They like the consumer-styled form factor, and they appreciate the all-touch screens. In addition, the MC40's removable battery led them to implement an easy-to-use battery maintenance program that ensures all nurses begin their shifts with a fresh battery -- no more dead devices hampering patient care. With the enhanced security features and a rugged form factor that can withstand repeated drops and strict sanitation standards, the MC40-HC should serve this customer well for several years to come.

Customer Benefits

- ➜ Healthcare-specific, sanitizable devices, with FIPS 140-2 validation and certification for ensuring patient data security, while also complying with HIPAA, Veterans Administration, and other healthcare security regulations
- ➜ Hot-swappable batteries reduce device downtime/resource scarcity
- ➜ Integrated barcode scanner and touch-only screen eliminate need for add-on hardware accessories like sleds and styluses
- ➜ Enterprise Android OS offers a stable, reliable technology path
- ➜ Stage Now server for as-needed updates

Experiencing something similar to the challenge in this case study?

Contact Strategic Systems today - we're here to help.