

Eliminating Human Errors for Health Care Solutions



SOFTWARE

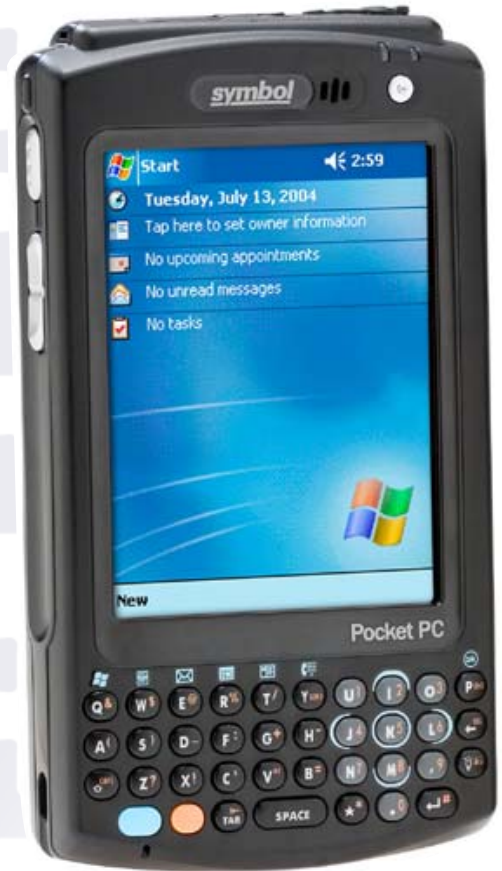
CONSULTING

IMPLEMENTATION

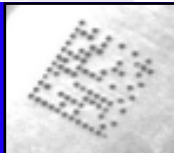
HARDWARE

*InfoDot*<sup>TM</sup>

# Traceability for Medical Healthcare Solutions



- Mobile Computer
- Specimen Collection
- Patient Management
- Medication Administration
- Mobile Rounding
- Wireless Patient Monitoring



**Medical Error Proofing Systems**  
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## Healthcare Mobility Solutions

Medical errors have a profound impact on the global healthcare industry. Patient care and safety are compromised, and the additional costs to ensure successful patient outcomes are enormous.

Achieving compliance with federal regulations, like the Health Insurance Portability and Accountability Act of 1996 (HIPAA) in the United States, in addition to following the guidelines of organizations such as the Leapfrog Group and the Healthcare Information and Management Systems Society (HIMSS) provides the extra impetus for hospitals and healthcare providers to automate many processes to reduce errors.



For hospitals, there's a compelling value proposition for fixing any business process where the cost of a mistake—in dollars, time and patient suffering or even death—is unacceptably high yet easily preventable. Some of these activities include positive patient identification, medication administration, specimen collection and remote patient monitoring. Enterprise mobility enables healthcare providers to capture, move and manage patient information in real time from the point of care or activity to the point of decision. The use of ruggedized, sealed personalized digital assistants (PDAs), integrated bar code scanning and wireless local area network (WLAN) infrastructure serve as part of the foundation of enterprise mobility reference architecture.

### Mobile Computer

Nurses and doctors require a rugged, high-performance handheld computer that is far more durable and reliable than typical consumer devices. The MC50 is powerful enough to execute mission-critical healthcare applications, yet small and light enough to be carried in a pocket or on the hip. Combined with advanced data capture, wireless networks and application-specific software, the rugged MC50 enables doctors and nurses to capture, move and manage information in real time from the point of activity to the point of decision in a variety of healthcare applications.

### Specimen Collection

Specimen collection systems using the MC50 mobile computer with advanced data capture and wireless communications ensure that the right specimen is collected from the right patient in the right quantity and container at the right time so that the right lab tests are performed and the right results are collected. Nurses, phlebotomists and other clinicians are able to perform timely, accurate specimen collection with a reduced risk of error and less patient inconvenience. And the information collected in this process is critical for quality control measures required for certification and accreditation by the JCAHO and the College of American Pathologists (CAP).

### Benefits Summary:

- Eliminate specimen collection errors at the point of care
- Improve patient safety and treatment
- Reduce costs associated with errors



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## Patient Management

The MC50 and application-specific software facilitates accurate patient in-flows and outflows that are conducted both professionally and expeditiously. With wireless LAN capabilities, the admission, discharge and transfer of patients are conducted in real time. Using the MC50, admissions and clerical personnel ensure that the needed resources are available quickly and efficiently, enhancing patient care, comfort and satisfaction.

### Benefits Summary:

- Increase productivity and efficiency

## Mobile Rounding

Enterprise mobility solutions that include the MC50 make doctors' and nurses' rounds more efficient. Mobile rounding applications help prioritize patients and also assist with vitals/documentation capture, lab report viewing, order entry and charge capture. The MC50 delivers a comfortable, convenient device for doctors and nurses to use without being tethered to a desktop, having to carry around a tablet PC or push a



heavy cart.

### Benefits Summary:

- Increase productivity for doctors and nurses
- Improve profitability with real-time patient care
- Improve patient safety and treatment
- Reduce costs associated with errors

## Medication Administration

Medication administration and verification systems using the rugged MC50 mobile computer and wireless communications enable hospitals and clinics to provide the right medication to the right patient at the right time via the right route at the right dose. Nurses equipped with MC50 mobile computers featuring advanced bar code and screen-based data capture ensure that patients receive more timely, accurate medication administration with a reduced risk of error. Patient information is captured, recorded and documented in real time. Staff productivity also improves, because nurses are able to care for more patients, more efficiently.

### Benefits Summary:

- Eliminate medication administration errors
- Increase patient safety and treatment
- Reduce costs associated with errors

## Wireless Patient Monitoring

In wireless patient monitoring applications, nurses and doctors are un-tethered to a single location to monitor patients' vitals and can also remotely program patient monitors and infusion pumps. Using the MC50 with wireless LAN connectivity, healthcare workers become more productive with an increased ability to handle multiple activities and duties without impacting the quality of patient care. It enables doctors and nurses to be contacted in real time and instantly alerted to changes in condition, medication mismatches and other critical information.

### Benefits Summary:

- Increase productivity for doctors and nurses



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## Wireless mobility trial - the mWard

After some initial research, CHSOM decided to trial wireless communication devices for mobile health workers to see how they could help improve information flow in hospitals.

“Some healthcare quality studies have shown that adverse events in hospitals are related to information management. By speeding up the flow of information and increasing accuracy, we can eliminate the errors, delays and double handling that can occur when information is not readily available,” said Dr Heslop. “We believe that, by giving doctors, nurses and other caregivers access to correct, up-to-the-minute information wirelessly, hospitals can work more efficiently and virtually eliminate potential mistakes like administering the wrong treatment to patients.”

In May 2003 CHSOM launched a research project called mWard to measure the business impact and technology suitability of wireless and mobility applications in health care.

The mWard project involves a wireless ward at Monash Medical Centre. Ward staff use handheld devices and mobile equipment to deliver patient care in the neurology, neurosurgery and stroke areas at Monash Medical Centre. The project’s aims included:

- Demonstrate the benefit to the workflow of doctors and nurses (and ultimately patient care) from wireless communications.
- Establish appropriate wireless infrastructure.
- Improve the use of existing applications and decision support systems.
- Enhance exchange of point-of-care information.

