

# Ensuring Accuracy in Healthcare

The healthcare industry constantly faces various challenges, and it's crucial that germs are minimized in the environment. Doctors and nurses have a great responsibility of holding patients' lives in their hands. Even though they have heavy workloads and long working hours, human errors are unacceptable. In addition, counterfeit medicines are becoming an increasingly serious problem. It is challenging to keep medical records up-to-date and maintained at all times. Any wrong data can have serious consequences for the patient – patients can easily be given fake drugs or repeated dosages of medicine.

Addressing these challenges in the healthcare environment, CipherLab antimicrobial protection series has antimicrobial technology built into the product itself; it is an intrinsic part of the device that will not wear off during its lifetime. The antimicrobial treatment minimizes the presence of microbes by interrupting the lifecycle and stopping the reproduction of bacteria. In addition to the antimicrobial treatment, these devices also come with a disinfectant-friendly white housing that allows the antimicrobial treated surface to withstand repeated alcohol cleaning.

In addition to the antimicrobial series, all CipherLab scanners and mobile computers can help minimize medical errors by eliminating paperwork that can suffer from mistakes and easily get misplaced. Furthermore, eliminating paperwork also eases the workload for caregivers. To address the issue of counterfeit medicines, AIDC devices help by allowing rapid identification and reporting suspicious counterfeit drugs. With CipherLab handheld scanners and mobile computers, caregivers can rest assured that the information they have is correct.

CipherLab is committed to providing excellent AIDC products that address the needs of the healthcare industry. With the implementation of CipherLab devices in the healthcare setting, productivity and efficiency are improved, and the best care is assured.





#### **Patient Identification**

When patients arrive at the hospital, the check-in counter or in a consulting room, they receive a barcode with their personal information that is entered in the hospital information system (HIS). The patient information in the system is essential in identifying the patient and matching them with their treatment, medication, or even operation. As patients move through the hospital system, mobile computers and handheld scanners, linked to the HIS, reduce the time spent on paperwork and also improve the accuracy and efficiency.



#### **CP30 Mobile Computer**

CipherLab CP30 runs with the most updated Windows® Mobile 6.5. The familiar Windows® user interface allows staffs to access applications with little training. Combining wireless functionalities of *Bluetooth*® and IEEE 802.11 b/g, medical staff can carry it around and transfer data back to system. Along with built-in 3.2 megapixel camera, the option of laser and 2D imager, as well as 3.2" QVGA with LED backlight, CipherLab CP30 makes it easy for staffs to accomplish the job of patient identification.





#### **Test Result Tracking**

For specimen collection at the bedside, nurses need to scan the barcode on the patient's wristband to verify the patient's personal information. A barcode is then attached to the tube, which allows lab technicians to scan the barcode and make sure the information on the tube matches with the check-up sheet. Then the analysis report is updated to the HIS. Handheld scanners and mobile computers help eliminate errors from manual data entry and accelerate record management.



#### 1500 Handheld Scanner

CipherLab 1500 series provides a wide range of options: You can choose linear imager, laser, 2D imager, and between the choice of the corded and cordless design. Able to work continuously up to 24 hours, CipherLab 1500 series allows all-day data collection and optimal productivity from staff. The scanner also offers *Bluetooth®* communication up to 90 m, enabling instant data transmission to the back-end system, and buffer memory holding up to 256 scans when staff is out of working range. Meanwhile, the optional accessory, communication stand for *Bluetooth®* scanner, provides *Bluetooth®* communication for up to 7 scanners simultaneously.

#### **Dispensing Medications**

When patients come into the clinic, nurses can pull up complete medical histories of them by scanning the barcodes on their medical records. Doctors can easily update diagnoses and prescribe medication in the system. After the doctor has seen the patient, the patient is given a medication slip to take to the pharmacy. Staff in the hospital pharmacy can immediately see this real-time information, allowing them to scan the relevant medication package with a 2D reader to dispense medicines. This ensures that the correct medication is given to the right patient exactly as the doctor prescribed.



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#### 8200 Mobile Computer

Light, compact, and easy to use, CipherLab 8200 series comfortably fits in your staffs' palms as well as their pockets. It allows staffs to complete data collection wherever they are and transmit data through built-in *Bluetooth®* and IEEE 802.11 b/g communication. CipherLab 8200 comes with long working hour to ensure uninterrupted productivity, and optional accessory, 4-slot battery charger extends working hours even longer. For any customized applications, the CipherLab software development kit enables easy configuration for 8200 series with a variety of applications and tools to satisfy healthcare operation needs.



#### **Point of Care**

Keeping up-to-date patient records regarding symptoms, medication, and progress is important to ensure the patient gets the best and appropriate care. Especially during peak seasons, there are many temporary and substitute nursing staff who are not familiar with the patients' conditions. A medical cart with a *Bluetooth®* scanner or a mobile computer gives them instant access to patients' records at the bedsides – physician notes and medication orders appear instantly as needed.

#### 1600 Pocket-sized Bluetooth® Scanner

CipherLab 1600 series is pocket-sized, extreme lightweight, and has <code>Bluetooth®</code> communication providing maximum mobility for caregivers who need to do rounds in big hospitals. Through 3610 <code>Bluetooth®</code> transponder, CipherLab 1600 can instantly pair with other <code>Bluetooth®</code> devices, such as a laptop or tablet, and the working range is up to 20 m. It also provides 1D or 2D readers for different application needs and a lithium-ion battery that lasts for up to 40 hours.

#### **Medical Supplies Inventory**

Traditionally, the method to keep track of medical supplies is through paper tracking. With thousands of items in a care facility, this task can be daunting. A mobile computer with WLAN can provide instant inventory status. By efficiently managing hospitals' inventory and tracking best-before dates on medications, healthcare facilities can control the stocks more efficiently.



#### 9600 Mobile Computer

CipherLab 9600 is built with the Cisco® CCX V4 certified Summit WLAN module to provide stable wireless communications, keeping healthcare workers connected at all times. When no wireless connection is present, 1 GB flash memory is available for staffs to store data. Come with 1D, 2D, RFID, and camera, 9600 lets staffs document more and maintain patient records in a wide range of formats. Rugged, designed to survive a 1.5 m drop test and IP64 rating, and with a 3.5" QVGA display, the 9600 provides maximum productivity, shift and shift.







## **Keeping Costs Down and Saving Time**



After the Czech Republic made the transition to a capitalist economy, nursing homes in the Czech Republic billed patients by recording charges on hand-written forms and spreadsheet-based systems. This took time and often resulted in human error. After implementing the CipherLab 8001 mobile computer to scan barcodes on medical records and wristbands, patient information is now correctly documented with just a single scan. Time spent on billing has been greatly reduced and human errors have been minimized, which has resulted on cost reduction for the nursing home.

# **Ensuring Patient Safety and Streamlining Inventory Management**



CHC Healthcare Group, a Taiwan-based market leader in medical devices, was looking to improve its inventory management. In the past, they could only manually document, which was time consuming and mistakes were easily made. With the implementation of the 9671, the system gives reminders 180 days prior to the expiration date, which allows for easy management of the intraocular lenses. WLAN allows inventory checks to be instantly updated into the system and now they can see the inventory information right away. As a result, not only has the whole process been streamlined, but patient safety has been safeguarded and inventory cost has been greatly reduced.

#### **Extend Your Applications**

for Effective Data Capture, Transmission and Management

The CipherLab software development kit enables easy customization with a variety of applications and tools to satisfy your unique day-to-day operation needs.



FORGE
Application Generator

Easily customize applications for your needs



#### MIRROR Terminal Emulator

Extend complex mainframe applications to CipherLab devices to save time and development effort



#### **BLAZE**C and BASIC Compilers

Enable quick development and deployment of custom business applications



#### CipherConnect

CipherConnect is a COM-to-key software to connect CipherLab Bluetooth® scanners to smart devices with the platform of Android, BlackBerry, Windows® Mobile, and hence fulfill barcode input.





### **8000 Mobile Computer**

- Pocked-sized and lightweight.
- 1.2 m/ 4 ft. drop resistance.
- 100 hours of operation in batch mode, and 36 hours of operation under Bluetooth® communication.
- Option of AAA battery or rechargeable Li-ion battery.

### **Antimicrobial Protection Series**

In an industry where hygiene is vital, the importance of preventing the growth of microbes is escalating. CipherLab addresses the needs in a healthcare environment with its antimicrobial protection series to resist the growth of bacteria which causes odor and stain.

- Antimicrobial treatment helps reduce microbial growth
- Disinfectant-friendly housing for a clean and hygienic surface
- The models include 8200H, 8000H, 1500H, and 1600H series









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