Honeywell and TCG Provide VA Medical Centers with Secure, Wireless Bar Code Scanning

Background:

The Department of Veterans Affairs (VA) administers the largest single medical system in the United States, including 153 medical centers, 909 ambulatory care and community-based outpatient clinics, and many other medical facilities and programs around the country. Almost 5.5 million people received care in VA healthcare facilities in 2008. The system employs more than 247,000 people, and dispenses over 600,000 medications each day.

With such a massive system covering a wide variety of situations, patients, staff and medications, keeping track of patient information in an efficient manner is critical.

The VA is one of the first medical systems in the country to implement bar code medication administration (BCMA), a system that aims to reduce human errors in administering medication. A healthcare provider uses a bar code scanner at the point-of-care to electronically validate medications for patients by scanning the worker's badge, the patient's bracelet, and the appropriate drug. This ensures what is known as the "Five Patient Rights"—the right patient, right drug, right dose, right route, and right time.

After years of using bar coding for medication administration, in early 2000, the VA was faced with a new government regulation titled the Federal Information Processing Standard (FIPS) 140-2. This made it mandatory for all wirelessly transmitted patient data to be encrypted for extra security, meaning the VA had to replace the current bar code scanning system with a solution that was FIPS-compliant. Since the requirement was so new, there were no compliant scanners available on the market at the time. Therefore, the government placed a temporary waiver on the mandate until a compliant solution could be found.

Small bar codes are common in hospitals, due to the small size of many medications. Healthcare providers at VA medical centers often experienced difficulty when attempting to scan these high-density bar codes.

Overview:

Industry: Healthcare

Application: Medication administration

Product Solutions: Honeywell 4820HC-FIPS

Partner: TCG

Meanwhile, TCG, the VA's value added reseller, was experiencing a number of bar code scanner returns from the VA due to cracks in the units' housings. It turned out that the harsh disinfectants used to clean the units at the healthcare facilities were corroding the standard plastic casings, increasing the risk of a technology failure, as well as causing health and safety issues.

The Business Challenge:

The challenge was to find the best bar code scanning solution that would address the three main concerns of the VA: security, durability and scanning.

The scanning solution needed to support encrypted communication that met the government's FIPS 140-2 regulation for wirelessly transmitted data.

The scanners also needed to be durable to withstand the constant use of healthcare-grade disinfectants, including regular applications of alcohol, bleach, and other chemicals that would weaken standard plastics.

Finally, the scanners needed to have the capability to read a wide variety of bar code types and sizes. From the standard bar codes found on medical forms and patient ID bracelets to complex 2D codes or high-density codes found on medical supplies, the scanner needed to be flexible for use anywhere, at any time.

The Solution:

Working with TCG and the VA, Honeywell created the 4820HC-FIPS, a custom-made solution that meets all of the VA's scanning requirements. The hand-held wireless scanner is the only unit on the market to have passed FIPS 140-2 certification for encrypted wireless transmissions. The unit is equipped with disinfectant-ready housing that is able to withstand repeated applications of cleaning products found in healthcare facilities. Finally, the scanner reads all standard 1D and 2D bar codes, including high-density bar codes found on many pharmaceuticals.

As an added benefit, the unit is smaller and lighter than previous scanners used at the VA. It also supports omnidirectional scanning, ensuring that bar codes can be read, regardless of the orientation of the scanner.

The Benefits:

The benefits of using the 4820HC-FIPS were realized by the VA immediately. Healthcare workers could use the system to adhere to the "Five Patient Rights" in a manner that was compliant with the federal government mandate. Because of the disinfectant-ready housing, the 4820HC-FIPS could be used in germ-sensitive environments found in healthcare facilities, eliminating the need to send units back for technical failures resulting from cracked housings.

"Out of thousands of older units that were shipped, we used to receive quite a few back with cracked cases. Those had to be repaired as a non-warranty issue. Now with the 4820HC-FIPS, we've not received a single broken unit," said Brian Czawlytko, Government Sales Manager, TCG. "Honeywell took the initiative

to implement FIPS into a cordless scanner, which has enabled the VA to continue its use of bar code scanning for patient safety, while preserving the privacy of patients."

"FIPS encryption, while presently required by several U.S. government agencies, is valuable to any business or organization where data is transmitted wirelessly and there is a need for enhanced security," said Taylor Smith, Senior Manager for Scanner Products Marketing, Honeywell Scanning & Mobility. "The encryption module also guarantees that it can pass the strictest audit of HIPPA regulations, an increasing concern amongst healthcare facilities today."

As the only scanner that conforms to government specifications for encryption, 4820HC-FIPS units have been confidently deployed across all of the VA's facilities. In addition to the 4820HC-FIPS, the VA is now using 4600g corded units in areas such as desks at a blood bank and other administrative locations where a wireless solution may not be required.

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