

# Managing Healthcare Devices – Even when the System is Down

## A USE CASE FEATURING ZEBRA'S PROFILE MANAGER ENTERPRISE

When there was a recent ransomware event concerning a hospital located in the Northeast of the country, the healthcare facility had to transfer aspects of their device management system from their primary network, to a secondary system. The devices that were being managed were a critical aspect to the hospital's mobile specimen collection process. Ransomware is computer malware that installs covertly on a victim's device (e.g., computer, smartphone, wearable device) and that either mounts the crypto-viral extortion attack from crypto-virology that holds the victim's data hostage, or mounts a crypto-virology leak-ware attack that threatens to publish the victim's data, until a ransom is paid. Simple ransomware may lock the system in a way which is not difficult for a knowledgeable person to reverse, and display a message requesting payment to unlock it. More advanced malware encrypts the victim's files, making them inaccessible, and demands a ransom payment to decrypt them.

In the case of this hospital, they were forced to have to go and reset the security code in every device in the hospital and do so with speed. Not only was the hospital's IT department already managing criminal activity threatening peoples' privacy, but they also needed to marshal their IT organization to keep all of their devices.

This hospital utilized Zebra's QLn220-HC mobile printing devices to output labels, at the bedside, to ensure that the ID on the sample would match the patient, thus avoiding any negative outcomes due to misidentified specimens. Because the hospital equipped most phlebotomists with their own printers, there were over 550 devices in use at the time of the ransomware. To prevent the ransomware from affecting these printers, all of them needed to be reset – hundreds of hours of work entailing teams of IT personnel, equipped with cables and PCs, moving out to update the printers. Even then, not all of the locations for each device were readily available to the IT department so that there would have been some wasted time hunting for printers.

### Link OS Profile Manager Enterprise

Fortunately for this Northeastern based acute care center, the QLn220-HC mobile printers are Link-OS enabled. Link-OS is an enterprise printer operating system found in Zebra's latest line of printers. Featuring advanced connectivity capabilities, extensive device management and advanced privacy controls, Link-OS printers can deliver intelligence and innovation. Printers running Link-OS are supported by a suite of powerful Applications, Utilities and Developer Tools, making it simple to create robust, adaptable and intelligent print solutions.

Profile Manager is a Link-OS feature that enables hospital IT departments to run their printer devices from just one screen. There's no need to switch between applications and healthcare providers can manage their printers from remote locations. Profile Manager can edit and manage one printer, batches of printers or all Link-OS printers across the network. Quickly send profiles to many printers at once with the Profile feature. The Connectivity Wizard feature lets you do fast configurations of complex Wi-Fi® settings and the Profile Wizard feature makes it a snap to provision individual or groups of printers.





It is this last set of features that was so critical to solving the issue of resetting the security features on all 550 printers. Not only could the IT department set up their own exclusive, secure, cloud based system outside of the compromised system, but with profile manager they could see all of those printers. The security settings could then be sent to all of the printers getting the mobile sample collection up and running fast. How fast? The hospital contacted Zebra on a Friday. Over the weekend Zebra worked with the hospital to build an application for reset of the security code.

Then using Profile Manager Enterprise the application was loaded in the cloud on Monday, within a few minutes, and information could now be efficiently and securely sent to the printers. By the middle of the week every device had been located, touched, and updated with the security codes. The IT team also performed maintenance tasks that made the printers even more efficient than they were prior to the attack.

Profile Manager Enterprise was chosen specifically for this work because of its easy to use interface, speed, multiple user capabilities and its ability to scale, especially on a job involving over 500 units. Additionally, this was a case where IT not only needed to control who was logging on but possess the ability to look at who was logging in. Profile Manager Enterprise's easier search management enabled this process and several other key aspects of getting the fleet active.



A critical part of this process was to have a secure cloud-based connection, and not a location based install, to avoid the malware situation existing in the primary system. Profile Manager Enterprise has Cloud Connect which enables Link-OS printers to interact with the Cloud, forwarding data from any port. The hospital connected the QLn220-HC printers securely and directly to Cloud-based apps via standard WebSockets technology – for printer management, printing or as part of a powerful data collection platform. Security and the cloud can be problematic partners. Since the solution was cloud based it was a concern but having a track record with Zebra's proven solution, the hospital supported the cloud based fix.

The hospital was very excited that amidst a serious issue that could have compromised their ability to accurately identify patient specimens was quickly and efficiently managed. Patient safety was ensured but staff productivity, especially that of IT, was not a victim of this attack.



**NA and Corporate Headquarters**  
+1 800 423 0442  
inquiry4@zebra.com

**Asia-Pacific Headquarters**  
+65 6858 0722  
contact.apac@zebra.com

**EMEA Headquarters**  
zebra.com/locations  
mseurope@zebra.com

**Latin America Headquarters**  
+1 847 955 2283  
la.contactme@zebra.com