

TECHNICAL BULLETIN

Certificate Update for Hypercom L4xxx Terminals

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This information is from Equinox and provided here at Equinox' request.

To provide a secure payment architecture and comply with PCI SSC requirements, the design of old Hypercom L4100, L4150 and L4250 series products¹ use a cryptographic certificate structure to manage device and software authenticity. When these cryptographic certificates are created, an expiration date is set for them, and it appears that Hypercom initially set the lifetime of some certificates to ten (10) years. That period appears to have expired over the weekend of December 6/7 2014.

The terminal boot process checks the certificate's expiration date against the hardware real-time clock, and the boot will halt if the expiration date has passed. The main application will not load, and some of these devices will beep to indicate the failure.

To address an expired certificate, we are re-signing the application software with a new certificate that provides an extended expiration date. The new certificates will not expire until the year 2029 – well beyond any expected sunset dates from PCI.

The appropriate version of the re-signed application must be loaded into the affected device – there are several versions provided to cover the necessary variety of terminal model releases and versions in the field. This must be done with the device physically present – the terminals cannot enable remote updates with an expired certificate.

Please note: Most FPEs have either 8MB or 16MB versions, and most clients typically use the 8MB version. All L4250s need to use the 8MB versions of FPE.

RESOLUTION STEPS

1. To update L4150 and L4250 units in the field, a Windows XP machine with RS-232 port and cable are required. **Note! The L4100 units cannot be field-updated and must be returned to Equinox for updating (see instructions below).**

If running Windows 7, Equinox will provide a program that acts as a Windows XP emulator running via a virtual machine on the Window 7 device. Check the Equinox FTP site in the VMWARE folder (the approximate size of this program is 3 Gigabytes).

2. All updates are provided via the Equinox FTP site (see credentials below). The site provides downloads of updated FPE applications with updated certificates as well as the Window 7 virtual machine program.

¹ The Equinox L5200 and L5300 models are not affected by the certificate expiration issue.

3. Software loading instructions are on the site in the folder named INSTRUCTIONS. The file name is Hypercom Software Loading v*.pdf.
4. To get the software, go to the Equinox FTP site and use the following authentications:
<https://ftp1.equinoxpayments.com/human.aspx?r=2095005669&Arg12=filelist&Arg06=151923178>
Username: epmluser
Password: Eqx2014\$ftp

Users can also request an RMA for Equinox to update the device or send the unit to an authorized repair facility. This service will be provided at no cost beyond shipping cost to and from the facility. POSDATA has also offered to update these devices, and POSDATA's turnaround may be faster in these circumstances. Please contact POSDATA directly.

To return a unit to Equinox for updating:

1. Request RMA number at: RMAREQUESTS@EQUINOXPAYMENTS.COM.
2. Turnaround time is estimated to be five business days from date of receipt.

QUESTIONS AND ANSWERS

What types of the Equinox/Hypercom PIN pads are affected? – Only L4xxx and some T41xx models are affected. The L5XXX and the T42XX are not affected by this certificate issue.

Is the above fix available for the L4100 and T4100s? – Equinox is working to find a solution for the L4100s. Note however that PCI mandates removal of L4100s and T4100s by the end of 2014 and must be replaced. Equinox is also attempting various resolutions for the T4100s and hope to provide further information shortly – check the site above.

Where can I get the updated applications? – Equinox has set up an FTP site to provide the updated FPE files along with the Window 7 solution to emulate the XP environment required to load the terminals. See above for the specifics on accessing the files and information.

I don't know what version of FPE is loaded, and the device will not boot to tell me that information. What are my options? – The best course is to install the most recent version, which is FPE 5.P.138. We *do* strongly suggest that you test this method on a few sample units to verify validity before proceeding with entire population. If this resolution does not work, the unit will need to go to Equinox, POSDATA or one of our other Authorized Repair Facilities for updating.

What about our forms and debit keys? – Thus far, forms appear to be remaining intact on L4150 and L4250 devices. The previously loaded financial keys in these units should not be affected when loading the new re-signed versions with the updated certificates.

Can you verify what is included in the main.app files you are providing? Is it just FPE or do they also contain the SCAT code? And if they do have SCAT, what versions are included? Are they all the same or is the SCAT version dependent on the FPE version? – The SCAT version number is dependent on FPE version number: just add 300 to the FEP number to get the SCAT version number (for example, SCAT 438 = FPE 5.p.138). The FTP files contain only the FPE/SCAT code. Neither the OS nor the Boot Code is included.