

Patching S-CORE Against WannaCry Ransomware

User Guide

Notices

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1 INTRODUCTION

This document describes the procedure for patching S-CORE test equipment against the WannaCry ransomware attack.

1.1 Scope

This document is intended to be read by both Customer Services, and by customers who have any variant of an S-CORE test system.

The patching process described in this document should only be undertaken by engineers with experience of administering Windows PCs.

2 PATCHING THE S-CORE TEST EQUIPMENT

2.1 Overview

S-CORE test equipment has demonstrated years of virus free operation. However, some of these systems are susceptible to the recently discovered weakness in the Windows Server Message Block 1 communication protocol, SMB1. Viruses such as WannaCry can infect these test systems.

If an S-CORE unit becomes infected with the WannaCry virus, it will continue to operate normally until it is rebooted. Upon reboot, the S-CORE unit will be non-operational and require the hard disk to be rebuilt.

To protect S-CORE test equipment from this virus and others, Keysight recommend installing a patch that disables the SMB1 protocol. The updated test system disables the SMB1 port and will be immune to viruses utilizing the weakness in the SMB1 protocol.

Note: There is no impact on the test system's functionality after the patch. The SMB1 protocol is not used by the S-CORE test equipment.

2.2 Procedure for patching S-CORE

The steps to patch S-CORE test equipment are:

1. Using a local PC that is connected to the internet, download the patch from Keysight Software Manager, available through [myKeysight](#). The patch name is:

S-COREServiceSWPatch.zip

2. Copy the patch to a USB2 memory stick (Windows XP does not support USB3), and Virus check the memory stick to ensure it has not inadvertently become infected.
3. Ensure that there is no connection between the GUI PC or S-CORE Connect test equipment and the corporate network.
4. Insert the memory stick into the GUI PC connected to the S-CORE test equipment, unzip the patch and save it to the GUI PC.
5. Open a browser window on the GUI PC and enter the S-CORE IP Address:

10.23.203.xx

where **xx** is the last two digits of the S-CORE Connect serial number marked on the back panel.

6. Navigate to **Admin->Admin tool** and note the **OS version**:

The screenshot shows a web browser window with the URL <http://10.23.203.61/litepoint/#>. The page has an orange header with the IQxact logo and navigation tabs: Technology, Admin, Tools, File, and a Session Active indicator. Below the header is a grey bar with tabs: System Info, Network, License Info, and Support. The main content area is titled 'System Information' and contains several tables of system data. The 'System Info' table includes fields for Product Name (S-CORE), Serial Number (IQXS1961), Hardware Version (1.0.1), Cal. Date (01-NOV-2015), MAC Address (F4:6D:04:49:D1:43), OS Version (11.3.7), Firmware Version (1.4.1), Config Version (062713D0), Driver Version (78.1.14.130529), GUI SW Version (1.4.1.93698), Web Srv Version (1.4.1.87871), and BIOS Version (0006). The 'Lower Instrument Slot' table includes Serial Number (MD300655), Hardware Version (1.1.3), Cal. Date (30-OCT-2015), Driver Version (1.0.0.2016), and Config Version (032813A4, 021513B0). The 'Upper Instrument Slot' table includes Serial Number (MD300610), Hardware Version (1.1.3), Cal. Date (01-NOV-2015), Driver Version (1.0.0.2016), and Config Version (032813A4, 021513B0). The 'Signaling Slot' table includes Serial Number (MD400516), Hardware Version (1.0.0), Cal. Date (n/a), Driver Version (1.0.0.3115), and Config Version (050813E0). A red box highlights the 'OS Version' field (11.3.7) in the System Info table. Another red box highlights an 'Upgrade' button at the bottom right of the System Information section.

System Info		
Product Name	S-CORE	MAC Address
Serial Number	IQXS1961	OS Version
Hardware Version	1.0.1	Firmware Version
Cal. Date	01-NOV-2015	Config Version

Lower Instrument Slot	
Serial Number	MD300655
Hardware Version	1.1.3
Cal. Date	30-OCT-2015
Driver Version	1.0.0.2016
Config Version	032813A4 021513B0

Upper Instrument Slot	
Serial Number	MD300610
Hardware Version	1.1.3
Cal. Date	01-NOV-2015
Driver Version	1.0.0.2016
Config Version	032813A4 021513B0

Signaling Slot	
Serial Number	MD400516
Hardware Version	1.0.0
Cal. Date	n/a
Driver Version	1.0.0.3115
Config Version	050813E0

Upgrade

- Click the **Upgrade** button on the Admin Tool page to navigate to the **Instrument Upgrade** page:



- Click the **Browse** button, and navigate to the **disable_smb1.exe** package. Select the package, and click **Start Install**.

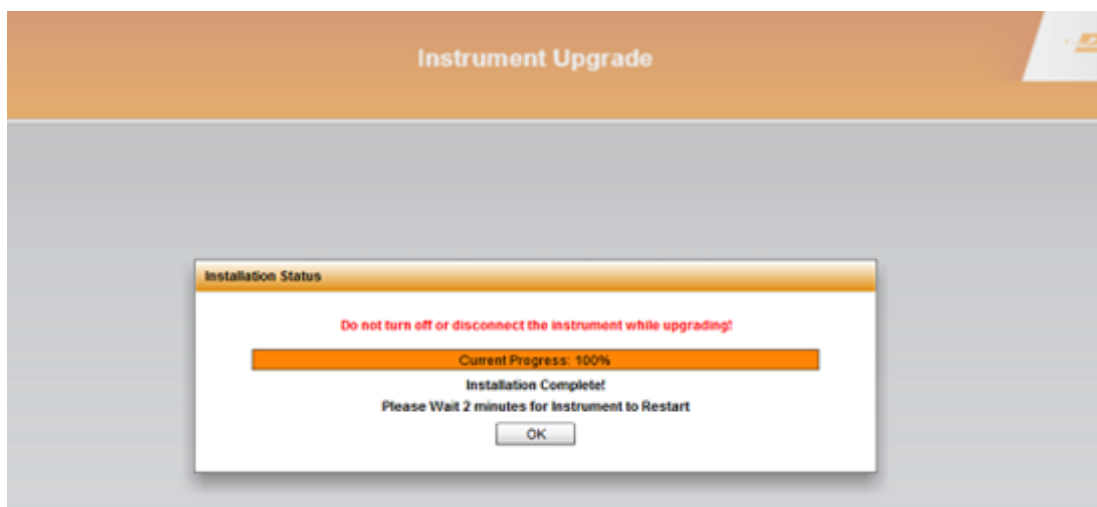


The installation takes a few seconds to complete, and on completion displays the message:

Installation Complete

The S-CORE unit will now reboot.

- When the S-CORE unit has rebooted, click **OK**.



10. Once the S-CORE unit has finished booting up, on the GUI PC navigate to **Admin->Admin tool** and check that the **OS Version** now has a **W** suffix (for example 11.3.7W) added to the OS version (as shown below).

The screenshot shows the iQxact Admin Tool web interface. The browser address bar displays 'http://10.23.203.61/litepoint/#'. The interface has a top navigation bar with 'Technology', 'Admin', 'Tools', and 'File' tabs, and a 'Session Active' indicator. Below this is a 'System Info' tab. The main content area is titled 'System Information' and contains three sections: 'System Info', 'Lower Instrument Slot', and 'Upper Instrument Slot'. The 'System Info' section has a red box around the 'OS Version' field, which contains the text '11.3.7W'. Other fields in this section include 'Product Name' (S-CORE), 'Serial Number' (IQXS1961), 'Hardware Version' (1.0.1), 'Cal. Date' (01-NOV-2015), 'MAC Address' (F4:6D:04:49:D1:43), 'Driver Version' (78.1.14.130529), 'GUI SW Version' (1.4.1.93698), 'Web Srv Version' (1.4.1.87871), 'Firmware Version' (1.4.1), 'Config Version' (062713D0), and 'BIOS Version' (0006). The 'Lower Instrument Slot' section includes 'Serial Number' (MD300655), 'Hardware Version' (1.1.3), 'Cal. Date' (30-OCT-2015), 'Driver Version' (1.0.0.2016), and 'Config Version' (032813A4, 021513B0). The 'Upper Instrument Slot' section includes 'Serial Number' (MD300610), 'Hardware Version' (1.1.3), 'Cal. Date' (01-NOV-2015), 'Driver Version' (1.0.0.2016), and 'Config Version' (032813A4, 021513B0). The 'Signalling Slot' section includes 'Serial Number' (MD400516), 'Hardware Version' (1.0.0), 'Cal. Date' (n/a), 'Driver Version' (1.0.0.3115), and 'Config Version' (050813E0). An 'Upgrade' button is located at the bottom right of the 'System Information' window.

System Info	
Product Name	S-CORE
Serial Number	IQXS1961
Hardware Version	1.0.1
Cal. Date	01-NOV-2015
MAC Address	F4:6D:04:49:D1:43
OS Version	11.3.7W
Firmware Version	1.4.1
Config Version	062713D0
Driver Version	78.1.14.130529
GUI SW Version	1.4.1.93698
Web Srv Version	1.4.1.87871
BIOS Version	0006

Lower Instrument Slot	
Serial Number	MD300655
Hardware Version	1.1.3
Cal. Date	30-OCT-2015
Driver Version	1.0.0.2016
Config Version	032813A4 021513B0

Upper Instrument Slot	
Serial Number	MD300610
Hardware Version	1.1.3
Cal. Date	01-NOV-2015
Driver Version	1.0.0.2016
Config Version	032813A4 021513B0

Signalling Slot	
Serial Number	MD400516
Hardware Version	1.0.0
Cal. Date	n/a
Driver Version	1.0.0.3115
Config Version	050813E0

Upgrade