

How to Apply MS17-10 to prevent WannaCrypt Attacks

V2.40 Document date: 05.08.2017

This document describes the procedure how to apply the Microsoft patches to R&S devices running Windows XP or Win7 operating systems in order to prevent WannaCrypt Attacks.

Please refer to the Microsoft article “Customer Guidance for WannaCrypt attacks” (<https://blogs.technet.microsoft.com/msrc/2017/05/12/customer-guidance-for-wannacrypt-attacks/>) for more details.

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1 Check Applicable Instruments

The following table shows an overview of applicable instruments and the possible operating systems.

Device	Windows XP SP3	Windows XP Embedded SP3	Windows Embedded 7 32-bit	Windows Embedded 7 64-bit	Windows 10 32-bit
ESCI	X	X			
ESL	X	X			
ESPI	X	X			
ESR	X	X	X		X
ESRP	X	X	X		X
ESU	X	X	X		
ESW				X	
FPS				X	
FSL	X	X			
FSMR	X	X			
FSP	X	X			
FSU	X	X			
FSUP	X	X			
FSQ	X	X			
FSV	X	X	X		X
FSVA			X		X
FSVR	X	X	X		
FSW				X	
FSWT				X	
FSWP				X	

If the device has an Operating system Windows XP below SP3 please contact the R&S Service Center if an image update is available.

No action is required if under the list of installed updates (see also final verifications in Chapter 5):

- Windows XP devices list the KB4012598
- Windows 7 devices list the KB4012212 or KB4019264 or KB4022719
- Windows 10 devices list the KB4013429,

The KB-Number can only be found, if you use the patches delivered along with this paper. If the Windows Update Service is running, the Wannycry Patch can be part of a different Cumulative Patches

If you do not find the KB Numbers above, please check the File Version of “%systemroot%\system32\drivers\srvc.sys”. This should be in most case “C:\Windows\system32\drivers\srvc.sys”

Right Click the File, select Properties and select Details – File Version.

OS	Minimum Version of Srv.sys
Windows XP	5.1.2600.7208
Windows 7	6.1.7601.23689
Windows 10 v1507	10.0.10240.17319
Windows 10 v1511	10.0.10586.839
Windows 10 v1607	10.0.14393.953

2 Windows 10

2.1 Prepare Memory Stick

Download the File MS17_010_Patch_Win10_FSV_FSVA.zip from the R&S webpage and extract it **INCLUDING** the subfolders on a USB memory stick.

The folder structure should look like this:

 InstallPatch.cmd	02.08.2017 11:51
 windows10.0-kb4013429-x86_8b376e3d0bff862d803404902c4191587afb065.msu	01.08.2017 15:46

2.2 Boot your device with administrator privileges

Now boot your R&S device in an account with administrator privileges. Please refer to the manual of the device for details.

3 Windows 7 and Windows XP

3.1 Prepare Memory Stick

Download the File MS17_010_Patch_WinXP_Win7.zip from the R&S webpage and extract it **INCLUDING** the subfolders on a USB memory stick.

The folder structure should look like this:

 Windows Embedded Standard 7 32 bit	16.05.2017 10:15
 Windows Embedded Standard 7 64 bit	16.05.2017 10:15
 Windows XP Embedded SP3 x86	16.05.2017 10:15
 Windows XP SP3 x86	16.05.2017 10:15

Each folder includes a specific patch for a specific operating system.

3.2 Boot your device with administrator privileges

Now boot your R&S device in an account with administrator privileges. Please refer to the manual of the device for details.

3.3 Determine the operating system

During startup of the instrument, it shows "Windows XP" or "Windows Embedded Standard 7".

For Windows 7 it is further necessary to check if a 32 or 64 Bit version is used. This can be checked under "Control Panel"-> "System and Security" -> "System"

The following image shows an example for Windows 7 with 64-bit.

System

Rating:	System rating is not available
Processor:	Intel(R) Core(TM)2 Duo CPU T9400 @ 2.53GHz 2.53 GHz
Installed memory (RAM):	7.93 GB
System type:	64-bit Operating System
Pen and Touch:	No Pen or Touch Input is available for this Display

4 Apply the correct patch:

4.1 Windows 10:

Please go to the folder on your USB memory stick which corresponds to Windows 10. Double Click on the File "InstallPatch.cmd"



Windows will open a command box. Please wait, the process can take some time. A successful installation will then look like this:

```
C:\Windows\system32\cmd.exe
Adding c:\Temp\WSUSSCAN.cab to Extraction Queue
Adding c:\Temp\Windows10.0-KB4013429-x86.cab to Extraction Queue
Adding c:\Temp\Windows10.0-KB4013429-x86-pkgProperties.txt to Extraction Queue
Adding c:\Temp\Windows10.0-KB4013429-x86.xml to Extraction Queue

Expanding Files ...
Progress: 1 out of 4 files
Expanding Files Complete ...
4 files total.

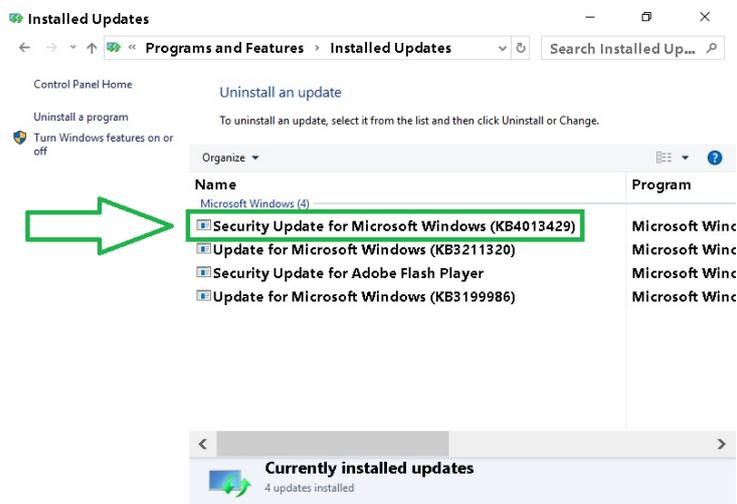
D:\MS17_010_Patch_win10_FSV_FSVA>call dism /online /add-package /packagepath:c:\Temp\windows10.0-kb4013429-x86.cab /norestart

Deployment Image Servicing and Management tool
Version: 10.0.14393.0
Image Version: 10.0.14393.0

Processing 1 of 1 - Adding package Package_for_RollupFix~31bf3856ad364e35~x86~14393.053.1.2
[=====100.0%=====]
The operation completed successfully.
D:\MS17_010_Patch_win10_FSV_FSVA>del c:\Temp\windows10.0-kb4013429-x86.cab
D:\MS17_010_Patch_win10_FSV_FSVA>del c:\Temp\windows10.0-kb4013429-x86.xml
D:\MS17_010_Patch_win10_FSV_FSVA>del c:\Temp\windows10.0-kb4013429-x86-pkgProperties.txt
D:\MS17_010_Patch_win10_FSV_FSVA>del c:\Temp\WSUSSCAN.cab
Press any key to continue . . .
```

After pressing any key, the device will automatically restart and will perform the update. Please wait until the update and further reboots are done.

A final verification is possible within the Installed Updates Dialog in Windows. "Control Panel"-> "Programs and features" -> "Installed Updates"



4.2 Windows 7:

Please go to the folder on you USB memory stick which corresponds to you version of Windows 7.

- 64-bit: MS17_010_Patch_WinXP_Win7\Windows Embedded Standard 7 64 bit\
- 32-bit: MS17_010_Patch_WinXP_Win7\Windows Embedded Standard 7 32 bit\

Double Click on the File "InstallPatch.cmd"



Windows will open a command box. Please wait, the process can take some time. A successful installation will then look like this:

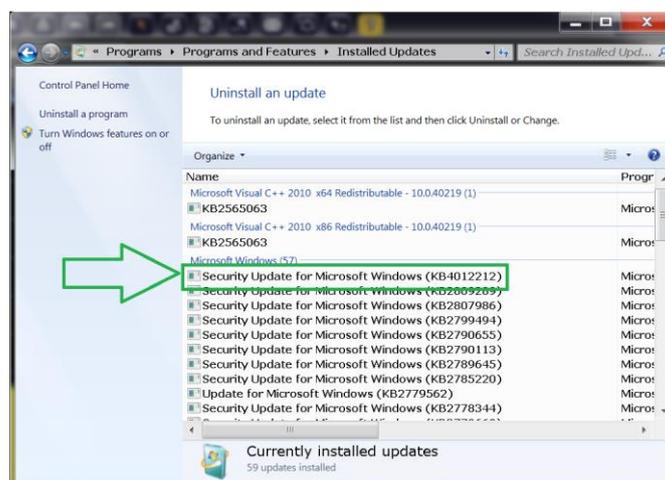
```
C:\Windows\system32\cmd.exe
D:\FSW\DontWannaCry\Windows Embedded Standard 7 32 bit>call dism /online /add-package /packagepath:c:\Temp\Windows6.1-KB4012212-x86.cab /norestart
Deployment Image Servicing and Management tool
Version: 6.1.7600.16385
Image Version: 6.1.7601.17514
Processing 1 of 1 - Adding package Package_for_KB4012212~31bf3856ad364e35~x86~~6.1.1.0
[=====100.0%=====]
The operation completed successfully.
D:\FSW\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB4012212-x86.cab
D:\FSW\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB4012212-x86.xml
D:\FSW\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB4012212-x86-pkgProperties.txt
D:\FSW\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\WSUSSCAN.cab
Press any key to continue . . .
```

After pressing any key, the device will automatically restart and will perform the update. Please wait until the update and further reboots are done.

A final verification is possible within the Installed Updates Dialog in Windows.

"Control Panel"-> "Programs and features" -> "Installed Updates". Check if one of the following patches is installed:

- KB4012212 or KB4019264 or KB4022719



4.3 Windows XP:

Our instruments exist with two variations of windows XP.

You will have to try both patches in order to ensure that the fix is applied correctly.

The patches for windows XP can be found on your USB memory stick in the following two folders:

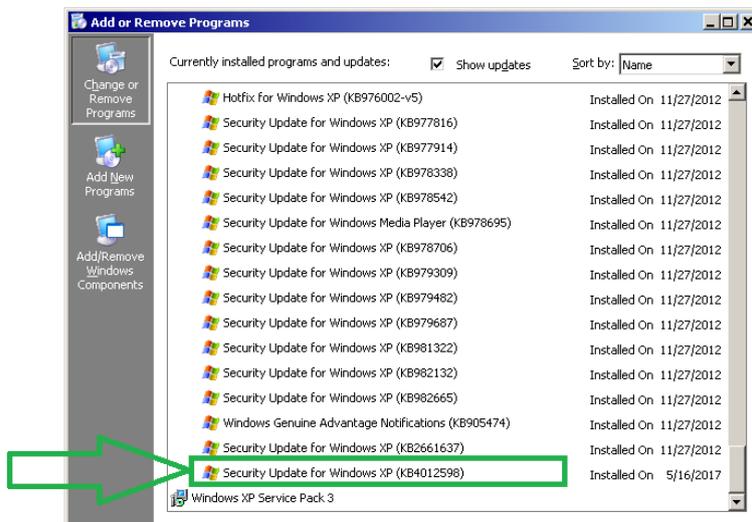
- MS17_010_Patch_WinXP_Win7\Windows XP Embedded SP3 x86\
- MS17_010_Patch_WinXP_Win7\Windows XP SP3 x86\

Please go into each folder and double click on the File “InstallPatch.cmd”



Windows will open a command box. Please wait, the process can take some time.

You can check if the update was applied correctly within the “Add or Remove Programs” dialog of windows XP.



4.4 Possible error messages during installation of the Patch

- Installation of the wrong Windows 7 patch. For example the 32-bit package on the 64-bit Windows 7

```
C:\Windows\system32\cmd.exe

Image Version: 6.1.7600.16385

Processing 1 of 1 - Adding package Package_for_KB4012212~31bf3856ad364e35~x86~6
.1.1.0

Error: 0x800f081e

The specified package is not applicable to this image.

The DISM log file can be found at C:\Windows\Logs\DISM\dism.log

D:\FSM\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB
4012212-x86.cab

D:\FSM\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB
4012212-x86.xml

D:\FSM\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\Windows6.1-KB
4012212-x86-pkgProperties.txt

D:\FSM\DontWannaCry\Windows Embedded Standard 7 32 bit>del c:\Temp\WSUSSCAN.cab

Press any key to continue . . .
```

- Installation of the Windows XP patch on windows 7



5 Customer Support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz equipment, contact one of our Customer Support Centers. A team of highly qualified engineers provides telephone support and will work with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz equipment.

Up-to-date information and upgrades

To keep your instrument up-to-date and to be informed about new application notes related to your instrument, please send an e-mail to the Customer Support Center stating your instrument and your wish. We will take care that you will get the right information.

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