LAYTEC
Knowledge is key

Technical Note (critical)

Windows Security Update renders EpiNet 2 partly unfunctional
July 2020

1 Summary

A Windows Security Update placed in July 2020 changes the XML deserialization method. This renders functions based on XML code in all versions of EpiNet 2 unfunctional. Most important functions are analyses and analyses result generation. Data acquisition seems not to be impaired.

The Windows Security Update will be installed automatically on all systems connected with the Internet while Windows Automatic Update functionality is enabled (Windows 7 and 10). Systems without Internet access (a requirement by LayTec) are not affected.

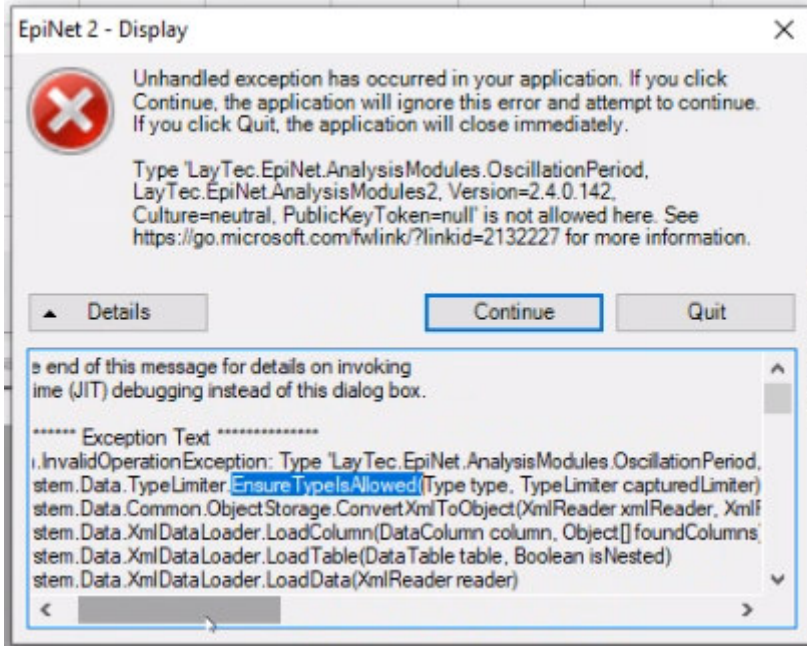Affected Windows versions: All versions of Windows 7 and Windows 10

Affected EpiNet 2 versions: All versions below EpiNet 2020 v2.4.2

Possible solutions

1. If the update was not applied yet – disconnect from the Internet.

2. Update EpiNet 2 to a known functional version (EpiNet 2020 v2.4.2 and above – update costs may apply as errors from Internet access and automatic Windows Updates are not covered by LayTec).

3. Disable the specific functionality via a Windows Registry change.

LayTec AG | Seesener Str. 10-13 | 10709 Berlin, Germany | Tel.: +49 (0)30 89 00 55-0 | Fax: +49 (0)30 89 00 55-180 | Email: info@laytec.de | Web: laytec.de

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2 How to identify if the Windows Update is affecting EpiNet 2

When you try to open an Analyses Recipe the following error message is displayed:

3 How to check if the Windows Update was installed

On Windows 10 v1909 package KB4565633 is responsible for this specific behavior. Other Windows versions may have different responsible packages. An explanation and a list of relevant updates can be found here:

https://portal.msrc.microsoft.com/en-us/security-guidance/advisory/CVE-2020-1147

You can check the recently installed update packages via the "Windows Update History".

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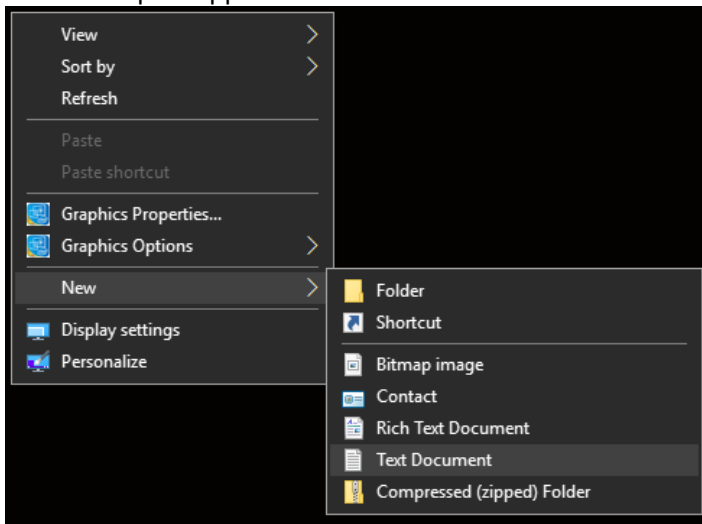
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4 Solutions

4.1 Possible solutions

If disconnecting from the Internet is not possible, or the update was already installed, two possible solutions are known:

1. Update to an EpiNet 2 version equal or newer than v2.4.2

2. Disable the specific Windows functionality via a Windows Registry change.

4.2 Hotfix via change of Windows Registry

This Registry hotfix will work for Windows 7 and Windows 10.

1. Make sure that you have administrative access (our standard configuration).

2. Close all open applications in Windows and create a new text file on your Windows Desktop.

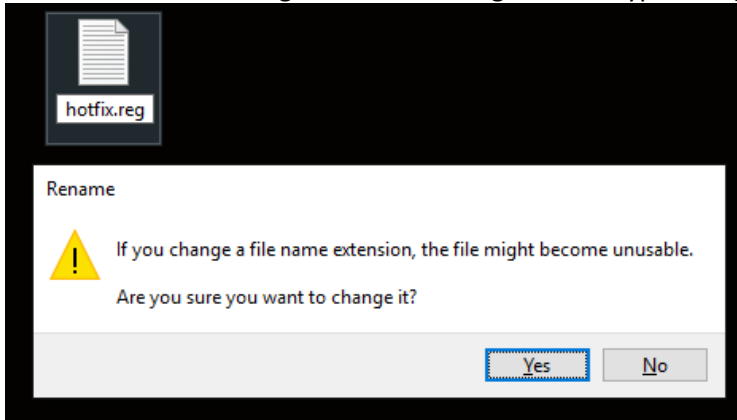3. Open the text file and copy and paste the following text into it.

```
Windows Registry Editor Version 5.00


[HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Microsoft\.NETFramework\AppContext]

"Switch.System.Data.AllowArbitraryDataSetTypeInstantiation"="true"
```
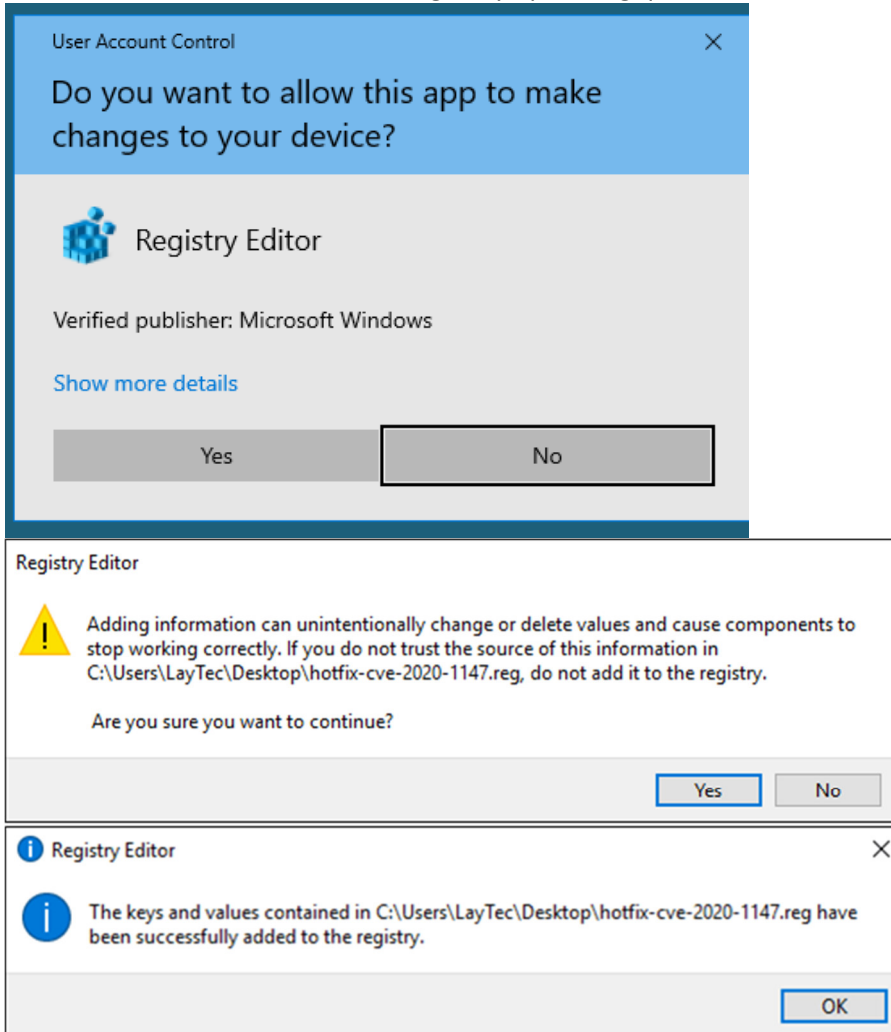
4. Save and close the text file.

5. Rename it to "hotfix.reg" and acknowledge the file type change with "Yes".

6. Double click this file and acknowledge any upcoming questions with "Yes" or "Ok".

7. Restart the computer.

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5 Critical Note

Reason of Security Update: Microsoft states that a vulnerability exists in all .NET Frameworks and related tools. This vulnerability could be used to run malicious code. The Windows Security Updates closes this hole by disabling the functionality to pass XML content via processes. While formerly addressed as a functionality, in recent Windows versions other possibilities were introduced. EpiNet 2 is still using this functionality since early development.

Please keep in mind when using the registry hotfix, you will open the full functionality for all processes – undoing these XML content changes introduced by the Windows Security Update. Therefore, we recommend an update to Windows 10 including the newest version of EpiNet 2.

6 Conclusion

While the Windows Security Update has severe consequences on EpiNet 2, fixes are available.

Please keep in mind that LayTec recommends not connecting the measurement PC to the Internet or using the automatic Windows Update feature! Errors resulting from these requirements will result in loss of warranty.

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