Verifone and TLS 1.2

Verifone Systems has announced that as of 9/20/2016 they will move from TLS version 1.0 to TLS version 1.2. They have created new URLs for secure communication that require a higher level of encryption provided by TLS version 1.2.

What is TLS?

TLS is an abbreviation for "Transport Level Security" and refers to the level of encrypted communication. The move from version TLS 1.0 to TLS 1.2 means that a higher (more complex) level of encryption will be required. This new level is only supported by certain versions of the Microsoft .NET Framework and Windows Operating Systems.

How does this affect me?

First, this only affects companies who do integrated card processing (Verifone PAYware Connect or Verifone Point) and who are not hosted by ECI Spruce. If your company is hosted by ECi Spruce or doesn't use integrated card processing, you can stop reading.

If you do have integrated card processing, you may not able to process card transactions after 9/20/2016 in the following cases:

- On client PCs that don't have a Microsoft .NET Framework of 4.5.2 or higher installed or are not using an operating system that supports TLS 1.2 (XP, Vista).
- Your company operates a Remote Desktop (Terminal Services) Server not running Windows Server 2008 R2 or higher (Server 2003, Server 2005, Server 2008 SP1 or SP2).

Why are we changing this now?

It's important to understand that this is not a requirement originating with ECi Spruce. We are reacting to processors who are mandating these changes.

How do I know what version of the framework I am using?

It varies with the level of windows you are running. With Windows 7 you can use Control Panel and Programs and Features and it will show the levels of framework that you have installed. With Windows 8/8.1 and 10, you may need to go into the registry to accurately determine the highest level of the framework installed.

https://msdn.microsoft.com/en-us/library/hh925568(v=vs.110).aspx

As an alternative to this, you can run a stand-alone program we have provided. This requires .NET Framework 4.5.2 and will install the framework if it is not already installed (as long as the client or server supports it). To download and run the program, do the following:

1. Click the link below to download the ZIP to a location you can identify (downloads, documents, desktop, etc.) on the computer you want to check. Once download has completed, open the location where the ZIP was saved (usually downloads), do not choose the "Open" button (if offered).

https://support.ecisolutions.com/doc-spruce/Server/ECiFrameworkCheck.zip

2. Next, right-click on the file to **extract** the contents of the ZIP. Choose "extract all" or "extract here," for example. Do **not** attempt to run the MSI (Microsoft Installer) directly from the ZIP archive.
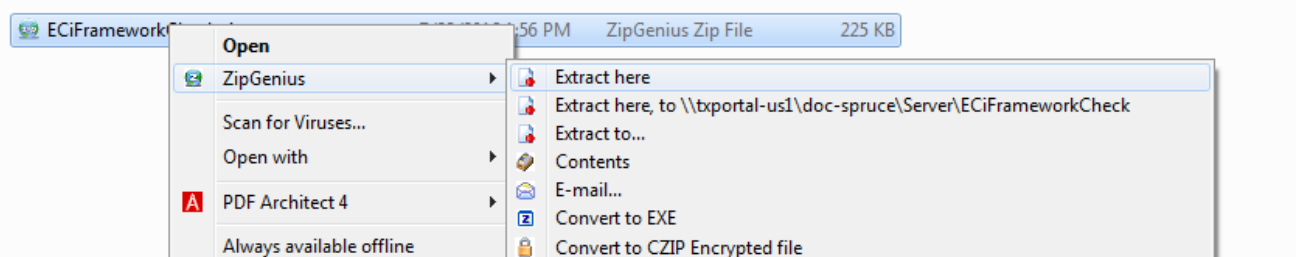

3. Double click the installer (MSI) that was **extracted** and run the installer.
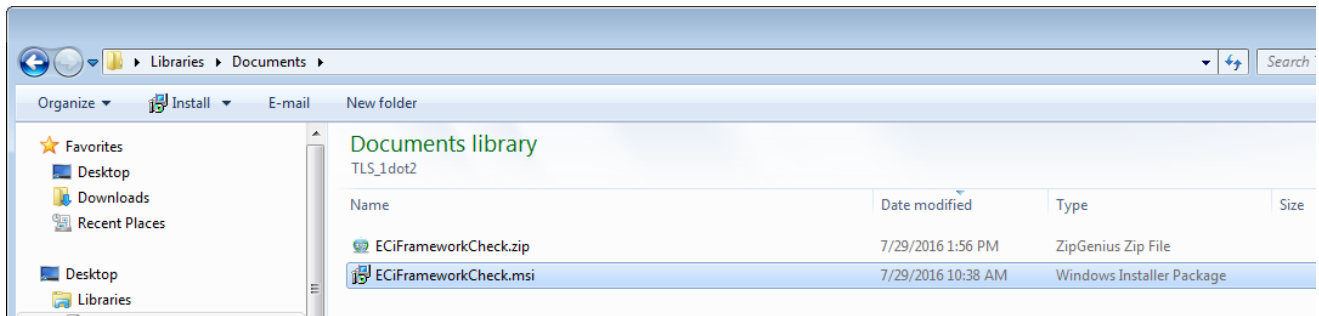

4. Respond "Yes" to any security prompts and then click "Next" until the installer completes and respond affirmatively (yes) to any prompts you receive.
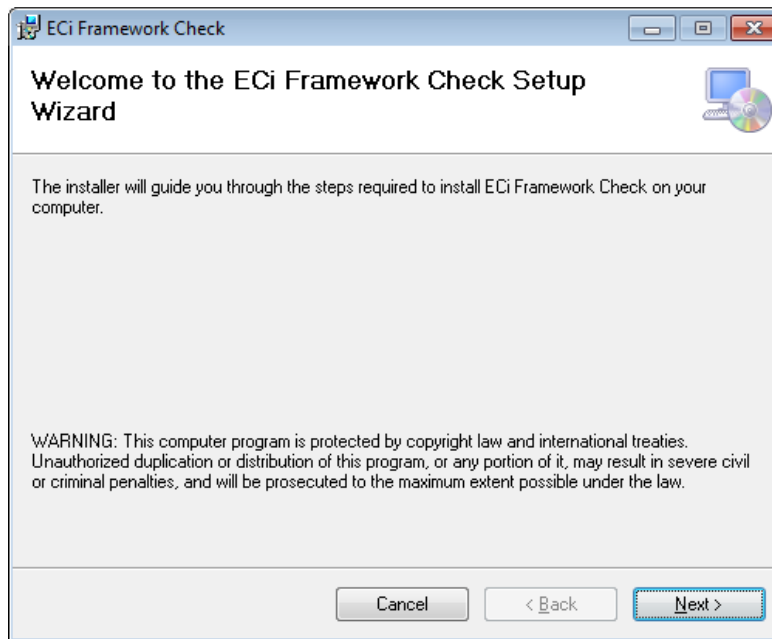
5. If the program installed correctly, the dialog will say "Installation Complete." Click "close" to exit the installer. Please note: the installer is not running the program just installing it!
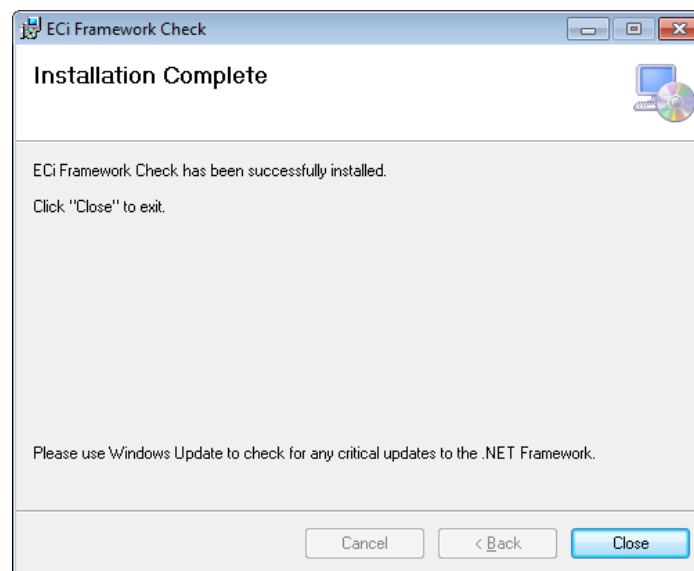
6. The installer creates a shortcut on your desktop. Run the program using the shortcut.

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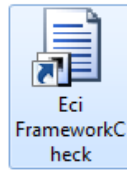
7. The program requires .NET Framework 4.5.2 and will install the necessary .NET Framework as needed. If the program installs and runs, it has done this. If it connects successfully, it has updated your client or server to TLS 1.2.

How real is this date?

This is the date that was communicated to us and we are relaying this to you and making the necessary software changes to work with the new requirements. Whether this date gets pushed or not is not in any way controlled or influenced by us.

If we do hear of a date change, we will notify users promptly.

What is the problem with Vista, XP and Server 2008 SP2 and lower?

XP and Server 2003 are unsupported operating systems which don't have any more updates from Microsoft. According to MSDN the highest .NET Framework level is 4.0 for Server 2003 and 3.5 for XP. This change requires a minimum .NET Framework of 4.5.2.

Windows Vista and Server operating systems below Windows Server 2008 SP2 don't support TLS 1.2 even though the .NET framework can support it.

Please visit the link below to view the requirements for .NET Framework version 4.5.2.

https://msdn.microsoft.com/en-us/library/bb822049(v=vs.110).aspx

What do we need to do if we are affected?

The easiest way to know if your company is affected and to fix the problem is to download and install the "framework" check program using the link in this document. This will install the framework and verify that the new Verifone URLs (utilizing the TLS 1.2 security) are accessible when possible. This will not work in the following situations:

- If you have any clients running Windows XP or Windows Vista that do credit card processing, those clients cannot install the required .NET Framework and won't support TLS 1.2.
- If you have a Remote Desktop (Terminal Services) Servers running Server 2003, Server 2005, or Server 2008 SP1 or SP2, either the .NET Framework isn't supported or TLS 1.2 is not supported by the Operating System.

As an alternative to the "framework check" program, there are other ways to install updates to the client or server's framework assuming the operating system supports it (and TLS 1.2). Please use the Microsoft Knowledge Base article links below for additional information:

Version 4.5.2 (Windows 8.1, Windows RT 8.1, and Windows Server 2012 R2)

https://support.microsoft.com/en-us/kb/2934520

Version 4.6 (Windows Vista SP2, Windows 7 SP1, Windows 8, Windows 8.1, Windows Server 2008 R2 SP2, Windows Server 2008 R2 SP1, Windows Server 2012, and Windows Server 2012 R2)

https://support.microsoft.com/en-us/kb/3045560

For client computers running Windows XP or Windows Vista or older servers such as Server 2003, 2005, or 2008 SP2 or below, you will need to upgrade the Windows version.

Please note, installing the Microsoft .NET Framework doesn't enable TLS 1.2 automatically. You still will need to run the "framework" check program or install SpruceWare.NET version 11.7.4 or higher.

With SpruceWare.NET version 11.7.4 or higher, when the client software (SpruceWare.NET) runs and attempts card processing, the software will check whether the highest .NET Framework meets the minimum requirement of "4.5.2" and if so, it will set the framework to use TLS 1.2. This only works if both the framework and the Windows operating system support TLS 1.2.

What if my computer/server doesn't support the Framework or TLS 1.2?

For client PCs, this means upgrading to Windows 7 or higher (if possible) or more likely replace the computer with one running at least Windows 7 (that has the minimum .NET Framework installed). Please note that SpruceWare.NET fully supports Microsoft Windows 10 which would likely be the OS (operating system) version of a newly purchased client computer.[1]

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[1] It is possible that very old peripheral devices that work on 32-bit Operating Systems such as Windows XP may no longer function or have 64-bit drivers available. This can include older software as well.

For servers, you must install a minimum server version of Microsoft Server 2008 R2. The highest version of Microsoft Server we have tested is 2014.

When is release 11.7.4 coming out?

That release should be available for production sites to download the first week of August. We wanted to make you aware of the changes as quickly as possible well in advance of the September 20th deadline and not wait until the release was available. Any release after 11.7.4 will also contain all the changes to accommodate the shift.