

# How to Configure Microsoft Windows 7 to use TLS Version 1.2

[Overview](#)

[Create registry keys](#)

[Install Windows update](#)

[Add a registry key for Windows HTTP services](#)

[Add a registry key for the TLS directories](#)

[Apply the settings.](#)

[Installation scripts](#)

[Additional documentation](#)

## Overview

This document explains how to configure your Microsoft Windows® 7 workstation and Microsoft Outlook® 2010 email clients to use Transport Layer Security (TLS) protocol [version 1.2](#).



### Important:

- As of cPanel & WHM version 68, we **only** support Transport Layer Security (TLS) protocol [version 1.2](#), and we enable [TLSv1.2](#) by default.
  - We will **only** support applications that use [TLSv1.2](#) and **strongly** recommend that you enable TLSv1.2 on your server.
- The instructions in this document **only** pertain to servers that run the Windows 7 operating system.
- We **strongly** recommend that you do **not** adjust the cipher and protocol settings for the [Exim](#) and [Dovecot](#) services on Windows 7. Servers on this operating system fail PCI compliance scans because of unpatched security vulnerabilities that exist in the following email clients:
  - Outlook 2007.
  - Outlook 2010.

## Create registry keys

1

### Install Windows update

You **must** download and install the KB3140245 Windows update from the [Microsoft Update Catalog](#). This update will create the registry key paths in which you will create new registry keys. These registry keys will allow you to enable TLSv1.2 on your server.

After you download and install the update, you **must** restart your computer for the changes to take effect.

2

### Add a registry key for Windows HTTP services

To add a registry key for Windows HTTP services, perform the following steps:

1. From the Windows *Start* menu, enter *regedit.exe* in the *Search* text box.
2. Click *regedit.exe* to open the *Registry Editor*.
3. Navigate to the following registry path:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings
```

4. Select the `winHttp` key.

- From the *Menu* bar, click *Edit*, select *New*, and click *DWORD (32-bit) Value*.

**Note:**

On 64-bit systems, click *QWORD (64-bit) Value*.

- Enter `DefaultSecureProtocols` as the *DWORD* value's name.
- Right-click the file and select *Modify* from the *Context* menu.
- Enter `00` in the *Value Data* text box and click *OK*.

**Important:**

If your workstation runs on a 64-bit system, you **must also** perform steps 5-8 for the following key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Internet Settings\WinHttp
```

# 3

## Add a registry key for the TLS directories

To add registry keys for TLS versions 1.1 and 1.2, perform the following steps:

- Navigate to the following registry path:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.1
```

- Select the *Client* key.
- From the *Menu* bar, click *Edit*, select *New*, and click *DWORD (32-bit) Value*.

**Reminder:**

On 64-bit systems, click *QWORD (64-bit) Value*.

- Enter `DisabledByDefault` as the *DWORD* value's name.
- Right-click the file and select *Modify* from the *Context* menu.
- Enter `0` in the *Value Data* text box and click *OK*.
- Navigate to the `TLS1.2` registry path and open the *Client* key.
- Repeat steps 2-6 and click *OK*.

# 4

## Apply the settings.

After you modify your registry keys, you **must** restart your workstation to apply the registry settings. When your workstation restarts, create a test email account in Microsoft Outlook and configure the following settings in the *Advanced* section of Microsoft Outlook's *Internet E-Mail Settings* interface:

- Enter `993` in the *Incoming Server (IMAP)* text box or `995` in the *Incoming Server (POP3)* text box.
- Enter `465` in the *Outgoing Server (SMTP)* text box.

After you finish, click *OK*. Your Microsoft Outlook account will now successfully connect to your cPanel server's mail services.



## Installation scripts

We created two scripts that will automatically perform the actions that this document describes. To use these scripts, perform the following steps:

1. Open the Windows *PowerShell* application.
2. Navigate to the directory of your choice.
3. Create the `install-kb.ps1` and `tls-reg-edit.ps1` files.
4. Open the `install-kb.ps1` file with a text editor and add the following information:



### Note:

This script downloads and installs the KB3140245 Windows update.

```
Import-Module BitsTransfer

$arch=(Get-WmiObject -Class Win32_operatingsystem).Osarchitecture

If ($arch -eq "32-bit") {
    $kbUrl132 = "http://download.windowsupdate.com/c/msdownload/update/software/updt/2016/04/windows6.1-kb3140245-x86_cdafb409afbe28db07e2254f40047774a0654f18.msu"
    $kb32 = "windows6.1-kb3140245-x86_cdafb409afbe28db07e2254f40047774a0654f18.msu"
    Start-BitsTransfer -source $kbUrl132
    wusa $kb32 /log:install.log
}
Else {
    $kbUrl164 = "http://download.windowsupdate.com/c/msdownload/update/software/updt/2016/04/windows6.1-kb3140245-x64_5b067ffb69a94a6e5f9da89ce88c658e52a0dec0.msu"
    $kb64 = "windows6.1-kb3140245-x64_5b067ffb69a94a6e5f9da89ce88c658e52a0dec0.msu"
    Start-BitsTransfer -source $kbUrl164
    wusa $kb64 /log:install.log
}
```

5. Open the `tls-reg-edit.ps1` file with a text editor and add the following information:



### Note:

This script creates registry keys in the following files:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\WinHttp
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Internet
Settings\WinHttp
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS
1.1
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS
1.2
```

```

$arch=(Get-WmiObject -Class Win32_operatingsystem).Osarchitecture
$reg32bWinHttp = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Internet Settings\WinHttp"
$reg64bWinHttp = "HKLM:\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Internet
Settings\WinHttp"
$regWinHttpDefault = "DefaultSecureProtocols"
$regWinHttpValue = "0x00000a00"
$regTLS11 = "HKLM:\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.1
\Client"
$regTLS12 = "HKLM:\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2
\Client"
$regTLSDefault = "DisabledByDefault"
$regTLSValue = "0x00000000"

Clear-Host
Write-Output "Creating Registry Keys...`n"
Write-Output "Creating registry key $reg32bWinHttp\$regWinHttpDefault with value $regWinHttpValue"

IF(!(Test-Path $reg32bWinHttp)) {
    New-Item -Path $reg32bWinHttp -Force | Out-Null
    New-ItemProperty -Path $reg32bWinHttp -Name $regWinHttpDefault -Value $regWinHttpValue -
PropertyType DWORD -Force | Out-Null
}
ELSE {
    New-ItemProperty -Path $reg32bWinHttp -Name $regWinHttpDefault -Value $regWinHttpValue -
PropertyType DWORD -Force | Out-Null
}

IF($arch -eq "64-bit") {
    Write-Output "Creating registry key $reg64bWinHttp\$regWinHttpDefault with value $regWinHttpValue"
    IF(!(Test-Path $reg64bWinHttp)) {
        New-Item -Path $reg64bWinHttp -Force | Out-Null
        New-ItemProperty -Path $reg64bWinHttp -Name $regWinHttpDefault -Value $regWinHttpValue -
PropertyType DWORD -Force | Out-Null
    }
    ELSE {
        New-ItemProperty -Path $reg64bWinHttp -Name $regWinHttpDefault -Value $regWinHttpValue -
PropertyType DWORD -Force | Out-Null
    }
}

Write-Output "Creating registry key $regTLS11\$regTLSDefault with value $regTLSValue"

IF(!(Test-Path $regTLS11)) {
    New-Item -Path $regTLS11 -Force | Out-Null
    New-ItemProperty -Path $regTLS11 -Name $regTLSDefault -Value $regTLSValue -PropertyType DWORD -
Force | Out-Null
}
ELSE {
    New-ItemProperty -Path $regTLS11 -Name $regTLSDefault -Value $regTLSValue -PropertyType DWORD -
Force | Out-Null
}

Write-Output "Creating registry key $regTLS12\$regTLSDefault with value $regTLSValue"

IF(!(Test-Path $regTLS12)) {
    New-Item -Path $regTLS12 -Force | Out-Null
    New-ItemProperty -Path $regTLS12 -Name $regTLSDefault -Value $regTLSValue -PropertyType DWORD -
Force | Out-Null
}
ELSE {
    New-ItemProperty -Path $regTLS12 -Name $regTLSDefault -Value $regTLSValue -PropertyType DWORD -
Force | Out-Null
}

Write-Output "`nComplete!"

```

6. Run the scripts from the directory in which you saved the files, for example:

```
Set-ExecutionPolicy Bypass -Scope Process ; .\install-kb.ps1  
Set-ExecutionPolicy Bypass -Scope Process ; .\tls-reg-edit.ps1
```

7. Restart your workstation for the changes to take effect.

## Additional documentation

- [How to Authenticate your Server for cPanel Technical Support](#)
- [cPanel Migration Services and Guides](#)
- [How to Keep your Email Out of the Spam Folder](#)
- [Technical Support Services](#)
- [Feedback for Tickets](#)