

CTSU

Cancer Trials Support Unit

Enabling TLS 1.1 and 1.2 on IE

Revision 1.0

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Revision Information for the Enabling TLS 1.1 and 1.2 on IE

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1. Introduction

In order to increase the security around CTSU applications, and to comply with applicable security recommendations and federal mandates, CTSU will be making updates to CTSU application on the 17th of December, 2016. This update will remove support for Transport Layer Security (TLS) v1.0 and limit supported TLS versions to v1.1 & v1.2.

After this change, you should not notice any difference unless they are still running older operating systems or web browsers. Recent versions of Firefox, Chrome, or Safari and recent versions of Internet Explorer (IE) on Windows Vista, 7, or newer will be compatible. Some users will need configuration changes to access CTSU applications successfully after the update. In some cases, you may need help from your IT department to get these configuration changes done.

If you are using Internet Explorer to access CTSU, this guide can help you achieve compatibility with TLS 1.1 and TLS 1.2. CTSU recommends using Microsoft Internet Explorer 11 to achieve compatibility. If that is not possible for your organization, or if both TLS 1.1 and TLS 1.2 are disabled in your configuration, follow the instructions in this article to achieve compatibility. The latest versions of Google Chrome and Mozilla Firefox are both fully compatible with the CTSU websites.

1.1 IE versions

This section shows you what need to do for each OS and browser configuration

- Windows 10
 - Internet Explorer 11 No changes required.
 - Microsoft Edge No changes required.
- Windows 8.1
 - Internet Explorer 11 No changes required.
- Windows 8.0
 - Internet Explorer 11 Enable Support for Internet Explorer 10.
- Windows 7.0
 - Internet Explorer 11 No changes required
 - Internet Explorer 10 Enable Support for Internet Explorer 10.
 - Internet Explorer 9 Enable Support for Internet Explorer 9.
 - Internet Explorer 8 Enable Support for Internet Explorer 8.
- Windows XP
 - \circ $\:$ Users must use Mozilla Firefox to access CTSU Websites moving forward



2. Enable Support for Internet Explorer 10

This version does not enable TLS 1.1 and TLS 1.2 by default. To achieve compatibility with TLS 1.1 and TLS 1.2, proceed with one of the following options:

- Upgrade to Internet Explorer 11 (preferred).
- Enable TLS 1.1 and TLS 1.2 for Internet Explorer 10.
- Use the newest version of Google Chrome or Mozilla Firefox.

2.1 Enable TLS 1.1 and TLS 1.2 in the Internet Options of IE 10

In the Tools menu, which is displayed by clicking on the gear icon near the top-right corner of an Internet Explorer 10 window, select the "Internet options" menu item, as depicted below:

•		= 🗆 🗙
(く) ② / https:/ ター C / ② This page can't be displayed	×	
		Print File Zoom (100%) Safety File Fi
• Make sure the web address https://tls1test.salesforce.com is correct.		Add site to Start Screen View downloads Ctrl+J Manage add-ons F12 developer tools Go to pinned sites
 Look for the page with your search engine. 		Internet options
 Refresh the page in a few minutes. 		About Internet Explorer
 Make sure TLS and SSL protocols are enabled. Go to Tools > Internet > Security 	Optic	ons > Advanced > Settings
Fix connection problems		

Figure 1: IE 10 Internet Options



In the Internet Options window that appears,

- Click on the "Advanced" tab at the top of the window.
- Scroll down to the end of the list and click the square check boxes next to "Use TLS 1.1" and "Use TLS 1.2" if they don't already have a check mark in them.
- For additional security, click the square check box next to "Use SSL 3.0" if it has a check mark in it, to remove the check mark.

When complete, the screen should resemble the following, where "Use TLS 1.0", "Use TLS 1.1", and "Use TLS 1.2" are all checked, while "Use SSL 2.0" and "Use SSL 3.0" are unchecked.

		I	nternet	Optic	ons		?	x	
General	Security	Privacy	Content	Conne	ections	Programs	Adva	anced	
Setting	s							- 1	
	 Enable Integrated Windows Authentication* Enable memory protection to help mitigate online attacks* Enable native XMLHTTP support Enable SmartScreen Filter Enable Strict P3P Validation* Use SSL 2.0 Use SSL 3.0 Use TLS 1.0 Use TLS 1.1 Use TLS 1.2 Warn about certificate address mismatch* Warn if changing between secure and not secure mode Warn if POST submittal is redirected to a zone that does not secure mode 								
<	<								
*Ta	kes effect a	after you	restart you	ur comp	uter				
					Restore a	dvanced s	etting	s	
Reset I	Internet Ex	plorer set	tings						
Resets Internet Explorer's settings to their default Reset									
You should only use this if your browser is in an unusable state.									
			Oł	<	Can	cel	Ap	ply	

Figure 2: IE 10 TLS Configuration

Press the OK button to save this change.



3. Enable Support for Internet Explorer 9

This version does not enable TLS 1.1 and TLS 1.2 by default. To achieve compatibility with TLS 1.1 and TLS 1.2, proceed with one of the following options.

- Upgrade to Internet Explorer 11 (preferred)
- Enable TLS 1.1 and TLS 1.2 for Internet Explorer 9
- Use the newest version of Google Chrome or Mozilla Firefox

3.1 Enable TLS 1.1 and TLS 1.2 in the Internet Options of IE 9

In the Tools menu, which is displayed by clicking on the gear icon near the top-right corner of an Internet Explorer 9 window, select the "Internet options" menu item, as depicted below:

D https:// D + C X D Internet Evplorer cannot die X	
Internet Explorer cannot display the webpage	Print File Zoom (100%) Safety
What you can try: Diagnose Connection Problems	View downloads Ctrl+3 Manage add-ons F12 developer tools
More information	Go to pinned sites
This problem can be caused by a variety of issues, including:	Internet options
 The website is temporarily unavailable. The Domain Name Server (DNS) is not reachable. The Domain Name Server (DNS) does not have a listing for the There might be a typing error in the address. If this is an HTTPS (secure) address, click Tools, click Internet OJ sure the SSL and TLS protocols are enabled under the security sure the SSL and TLS protocols are enabled under the security. 	website's domain. otions, click Advanced, and check to be section.
For offline users	
For offline users You can still view subscribed feeds and some recently viewed webpag To view subscribed feeds:	es.
For offline users You can still view subscribed feeds and some recently viewed webpag To view subscribed feeds: 1. Click the Favorites button 🔅, click Feeds, and then click the fee	es. ed you want to view.
For offline users You can still view subscribed feeds and some recently viewed webpag To view subscribed feeds: 1. Click the Favorites button dia, click Feeds, and then click the fee To view recently visited webpages (might not work on all pages):	es. ed you want to view.

Figure 3: IE 9 Internet Options





In the Internet Options window that appears,

- Click on the "Advanced" tab at the top of the window.
- Scroll down to the end of the list and click the square check boxes next to "Use TLS 1.1" and "Use TLS 1.2" if they don't already have a check mark in them.
- For additional security, click the square check box next to "Use SSL 3.0" if it has a check mark in it, to remove the check mark.

When complete, the screen should resemble the following, where "Use TLS 1.0", "Use TLS 1.1", and "Use TLS 1.2" are all checked, while "Use SSL 2.0" and "Use SSL 3.0" are unchecked.

Internet Options	×						
General Security Privacy Content Connections Programs Advanced	٦.						
Settings							
 Empty Temporary Internet Files folder when browser is dc Enable DOM Storage Enable Integrated Windows Authentication* Enable native XMLHTTP support Enable SmartScreen Filter Use SSL 2.0 Use SSL 3.0 Use TLS 1.0 Use TLS 1.1 Use TLS 1.1 Use TLS 1.2 Warn about certificate address mismatch* Warn if changing between secure and not secure mode Warn if POST submittal is redirected to a zone that does n 							
۲ الا الا الا الا الا الا الا الا الا ال							
*Takes effect after you restart Internet Explorer							
Restore advanced settings							
Reset Internet Explorer settings							
Resets Internet Explorer's settings to their default Reset							
You should only use this if your browser is in an unusable state.							
OK Cancel Apply							

Figure 4: IE 9 TLS Configuration

Press the OK button to save this change.



4. Enable Support for Internet Explorer 8

This version does not enable TLS 1.1 and TLS 1.2 by default. To achieve compatibility with TLS 1.1 and TLS 1.2, proceed with one of the following options.

- Upgrade to Internet Explorer 11 (preferred)
- Enable TLS 1.1 and TLS 1.2 for Internet Explorer 8
- Use the newest version of Google Chrome or Mozilla Firefox to access CTSU websites

4.1 Enable TLS 1.1 and TLS 1.2 in the Internet Options of IE 8

In the Tools menu, which is displayed by clicking on the Tools button near the top-right corner of an Internet Explorer 8 window, select the "Internet Options" menu item, as depicted below:

Operative control copy of weappy - minutes sherine oppore Operative - ++ >	<	Bing	Q
Favorites 🕒 Internet Explorer cannot display the we	3 -	🖃 🚔 + Page + Saf	ety 🕶 Tools 🕶 👩
Internet Explorer cannot display the webpage What you can try: Diagnose Connection Problems Image: More information This problem can be caused by a variety of issues, including: Internet connectivity has been lost. The website is temporarily unavailable. The Domain Name Server (DNS) is not reachable. The Domain Name Server (DNS) does not have a listin There might be a typing error in the address. If this is an HTTPS (secure) address, click Tools, click if 		Diagnose Connection Proble Reopen Last Browsing Session Pop-up Blocker Manage Add-ons Work Offline Compatibility View Compatibility View Full Screen Toolbars Explorer Bars Developer Tools Suggested Sites	F11 , F12
For offline users	2	Internet Options	N
You can still view subscribed feeds and some recently viewed To view subscribed feeds 1. Click the Favorites Center button 😭, click Feeds, and t To view recently visited webpages (might not work on all pag 1. Click Tools 🔍, and then click Work Offline. 2. Click the Favorites Center button 😭, click History, and	l webp hen cl jes) then	pages. lick the feed you want to vie click the page you want to v	w.
e 🚇 Internet i Prot	ected	Mode On 4	· · · · · · · ·

Figure 5: IE 8 Internet Options





In the Internet Options window that appears,

- Click on the "Advanced" tab at the top of the window.
- Scroll down to the end of the list and click the square check boxes next to "Use TLS 1.1" and "Use TLS 1.2" if they don't already have a check mark in them.
- For additional security, click the square check box next to "Use SSL 3.0" if it has a check mark in it, to remove the check mark.

When complete, the screen should resemble the following, where "Use TLS 1.0", "Use TLS 1.1", and "Use TLS 1.2" are all checked, while "Use SSL 2.0" and "Use SSL 3.0" are unchecked.

Internet O	ptions					? 🗙		
General	Security	Privacy	Content	Connections	Programs	Advanced		
Setting	s]		
	 Empty Temporary Internet Files folder when browser is dc Enable DOM Storage Enable Integrated Windows Authentication* Enable native XMLHTTP support Enable SmartScreen Filter Use SSL 2.0 Use SSL 3.0 Use TLS 1.0 Use TLS 1.1 Use TLS 1.1 Use TLS 1.2 Warn about certificate address mismatch* Warn if changing between secure and not secure mode Warn if POCT submittal is redirected to a zone that does not secure mode 							
•						P.		
*Tal	kes effect a	after you	restart Inte	ernet Explorer				
				Restore	advanced s	ettings		
Reset I	nternet Ex	plorer set	tings —					
Resets Internet Explorer's settings to their default Reset								
You should only use this if your browser is in an unusable state.								
OK Cancel Apply								

Figure 6: IE 8 TLS Configuration

Press the OK button to save this change.



5. Conclusion

After enabling TLS 1.1 and TLS 1.2, accessing CTSU applications is expected to be successful with Internet Explorer 10 on Windows 8 and Windows 7, Internet Explorer 9 on Windows 7 or Internet Explorer 8 on Windows 7.