

NETL Citrix User Guide



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U.S. DEPARTMENT OF
ENERGY

**NATIONAL ENERGY
TECHNOLOGY LABORATORY**

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General Notices

Software Installation Requirements

The use of Citrix requires the installation of the Citrix Workspace client. NETL issued laptops will have the Citrix client pre-installed. Systems that do not have the client installed should be prompted to install it during the login process.

Operating System Requirements

For best performance, it is recommended that Citrix is accessed from a machine running Windows 10 or newer Windows operating system. Versions of Windows including Vista and earlier are not supported. Other modern operating systems such as Android, iOS, MacOS, and Linux may function properly but are not covered in this document.

Web Browser Compatibility

Microsoft Edge is the recommended web browser for Citrix access. Other browsers may experience issues with the Citrix client detection.

PIV/Yubikey Smart Card Login Instructions




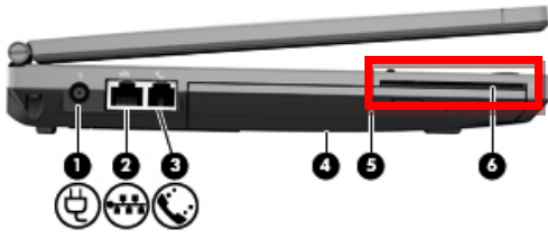

Operating System Requirements

Web Browser Compatibility

Microsoft Edge is the only supported web browser for PIV/Yubikey smart card login to the NETL Citrix environment. **Chrome, Firefox, and Opera browsers are not supported.**

Hardware and Software Requirements

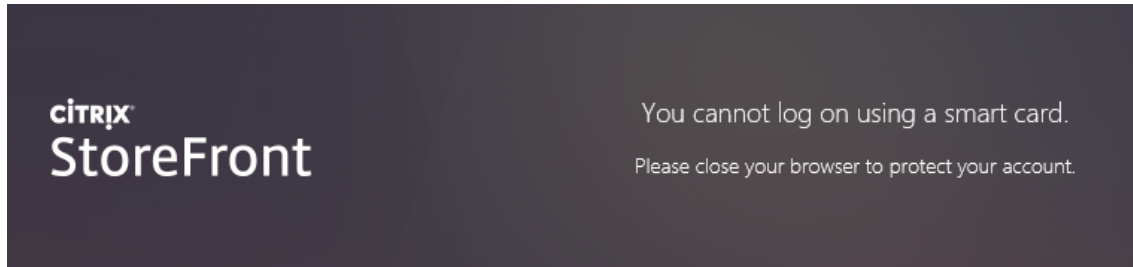
A smart card reader, smart card driver software, and the Citrix Workspace client are needed in order to access the NETL Citrix environment using the PIV/Yubikey. Administrative workstations furnished by NETL will already have the necessary hardware and software installed. Some NETL laptops and keyboards have card readers built in while other readers are external and connect to the computer's USB port. The various types of smart card readers in use at NETL are shown below.

 <p>SCR3310 Desktop Reader</p> <p>The SCR3310 is the standard external smart card reader used for desktops and laptop docking stations.</p>	 <p>Keyboard Reader</p> <p>Some keyboards have built-in readers that would be used in place of the standard SCR3310 unit.</p>
<p>SCR3500 Foldout Reader</p> <p>The SCR3500 is a portable external smart card reader used for laptops that do not have a built-in reader.</p> 	<p>Built-In Laptop Reader</p> <p>Some laptop computers have smart card readers built-in. Item #6 on the image below is the built-in smart card reader on the HP Elitebook 2570p laptop.</p> 
<p>Yubikey Series 5 FIPS</p> <p>The Yubikey device must be issued by NETL the ITSS Service Desk and contain a certificate issued by the NETL Admin certification authority. Sci-Lan issued certificates are not supported for Citrix logon.</p> 	

If you are using a system not provided by NETL, you will need to obtain a smart card reader from the Service Desk (x4636) and have the necessary rights on the workstation to install the reader and accompanying software.

Before You Begin

Always close out of all Edge browser sessions and tabs before attempting to login to Citrix using a PIV/Yubikey smart card. Even if a previous session was successful but timed out, a “clean” Edge session must be established for smart card login to function properly. Failure to establish a clean browser session may result in an error message like the one below. If this error message is presented, all browser windows and tabs should be closed, and the login process should be started from the beginning.



The requirement to use a clean browser session is due to how the Windows operating system middleware handles smart card authentication and is not a limitation of the Citrix system.

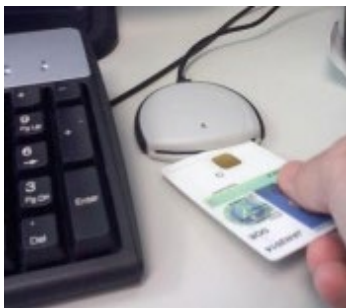
STEP 1: Connect the Smart Card Reader

Users of NETL furnished laptops with built-in card readers or a Yubikey may skip directly to STEP 2. Connect the smart card reader to the USB port of the computer. It may take a few minutes for Windows to detect and install the driver software for the smart card reader. Please wait until any new hardware prompts disappear from the screen.



STEP 2a (Badge): Insert the HSPD-12 PIV Credential

Insert the PIV into the smart card reader. The gold chip should be faced up before inserting it into the reader.

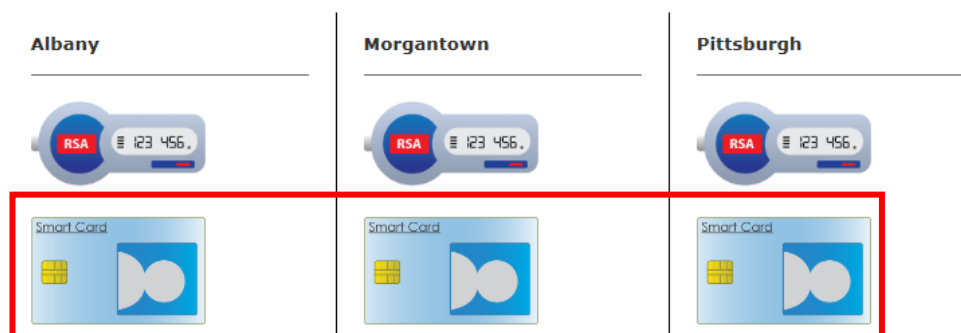


STEP 2b (Yubikey):

If you are using a Yubikey device to access Citrix, insert it into a USB port with the gold Yubikey emblem facing up. Ensure the emblem lights up briefly when the device is connected.

STEP 3: Browse to the Citrix Access Portal

Close all existing instances and tabs of Edge. Launch a new Edge session and navigate to <https://www.netl.doe.gov/home/citrix> Click on the smart card icon under your home site.

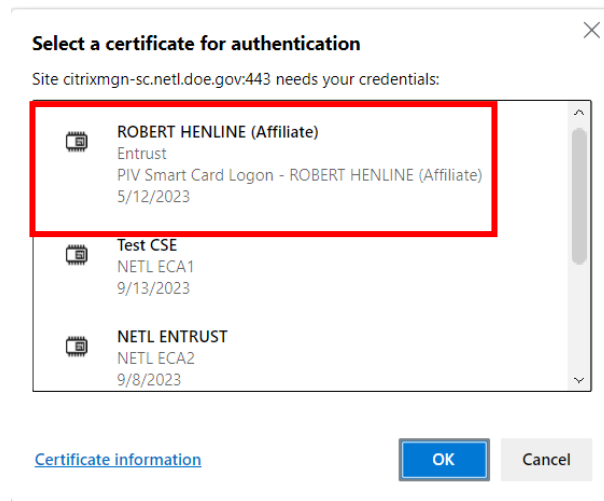


STEP 4: Select Your Smart Card Logon Certificate

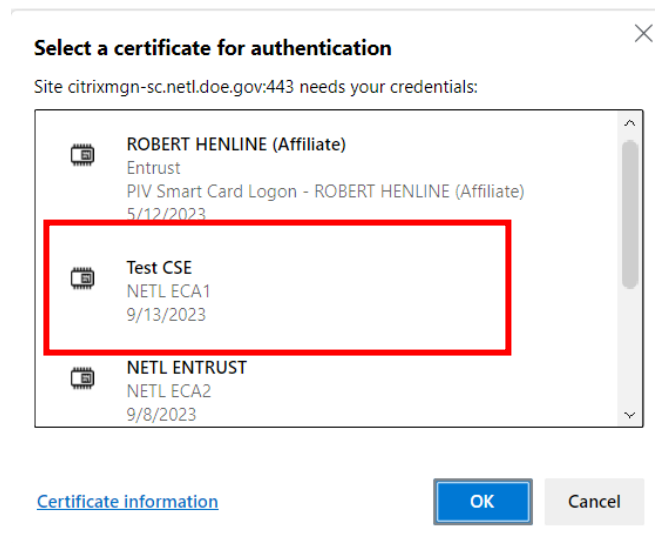
Since your smart card credential contains more than one certificate on it, you must select the appropriate

certificate for smart card logon from the Windows certificate picker. If you are using a NETL-issued workstation, the certificates are prefixed so that “PIV Smart Card Logon” will appear before your first name. Select this certificate, and click OK to continue.

PIV (Badge):

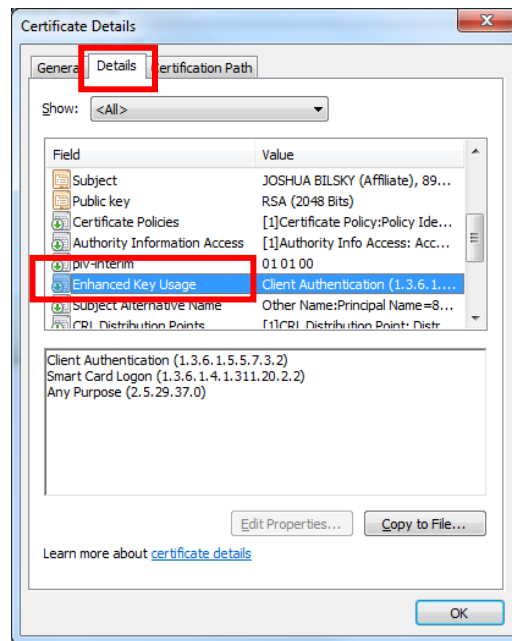


Yubikey:



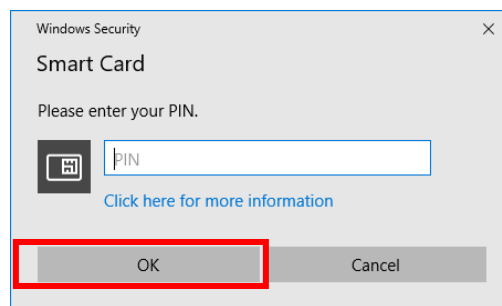
If you are using a computer not provided by NETL, the certificate picker will show the certificates in their default state without any prefix in front of them. Typically, the correct certificate to select for a PIV badge is the one with the 14-digit “8900” number followed by “@FEDIDCARD.GOV”. Yubikey devices will display a certificate issued by NETL ECA1 or NETL ECA2. Select the certificate and click the “Certificate Information” link to view the details on the certificate before proceeding with the login process.

Click the Details tab and scroll down verify the Enhanced Key Usage field is present. If Enhanced Key Usage is present, this means the certificate is the proper one for smart card login. If enhanced Key Usage is not present, then this is the incorrect certificate for smart card login and the other certificate should be selected to proceed with login. Click OK once the proper certificate is selected.

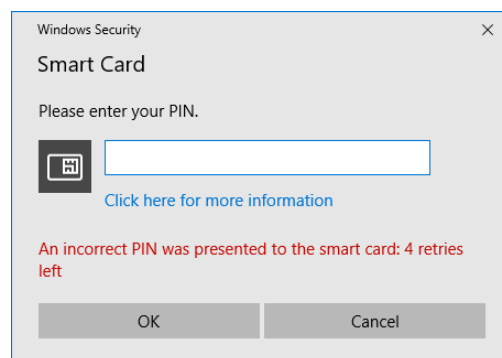


STEP 5: Enter Your PIN

Enter your six to eight digit PIN at the Windows PIN prompt. Click OK.



The login process will continue. If you enter your PIN incorrectly you will be presented with an error message and a prompt to re-enter the PIN.

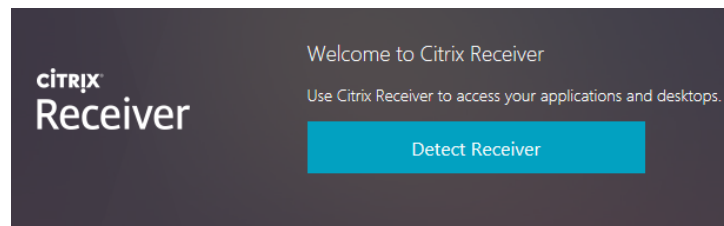


If you are presented with the following error message after entering your PIN **“You are not allowed to login. Please contact your administrator.”** this means that you selected the incorrect certificate for smart card login. You must completely close Edge and launch a new browser session. Then continue from STEP 3.

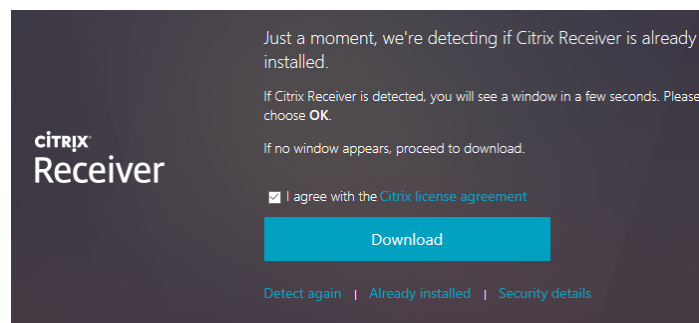
STEP 5: Citrix Receiver Detection

You may get presented with the Detect Receiver prompt.

Click the Detect Receiver button to continue with the login process.

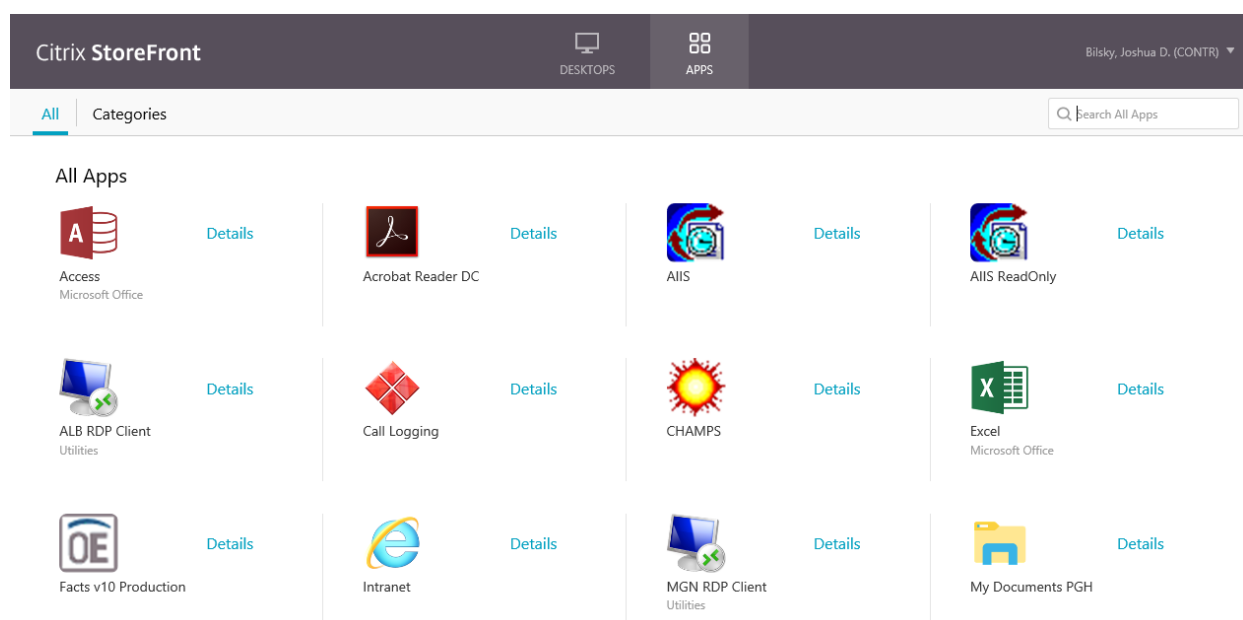


If you know that you already have Receiver or Workspace installed. You can click the “Already Installed” link. If you are accessing Citrix for the first time from a personal machine, you most likely will not have the Citrix client installed. Check the license agreement box and click the Download button. Follow the prompts to install the Citrix client.

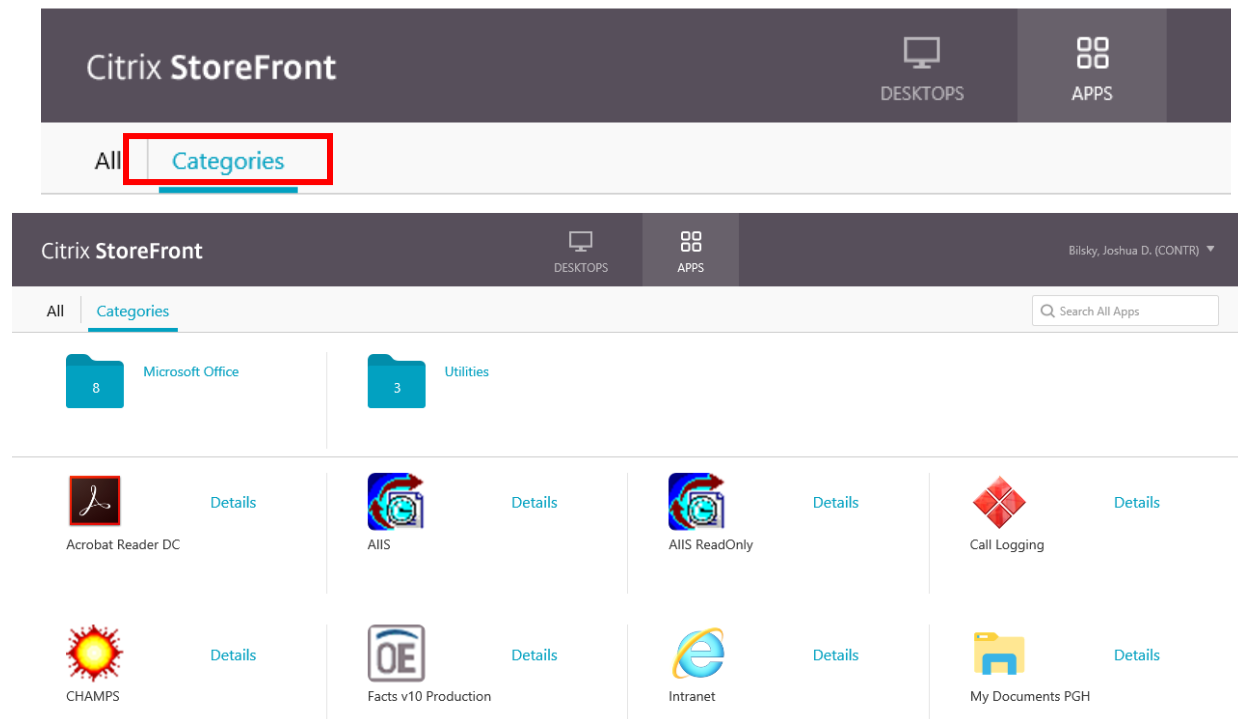


STEP 6: View Citrix Desktops and Applications

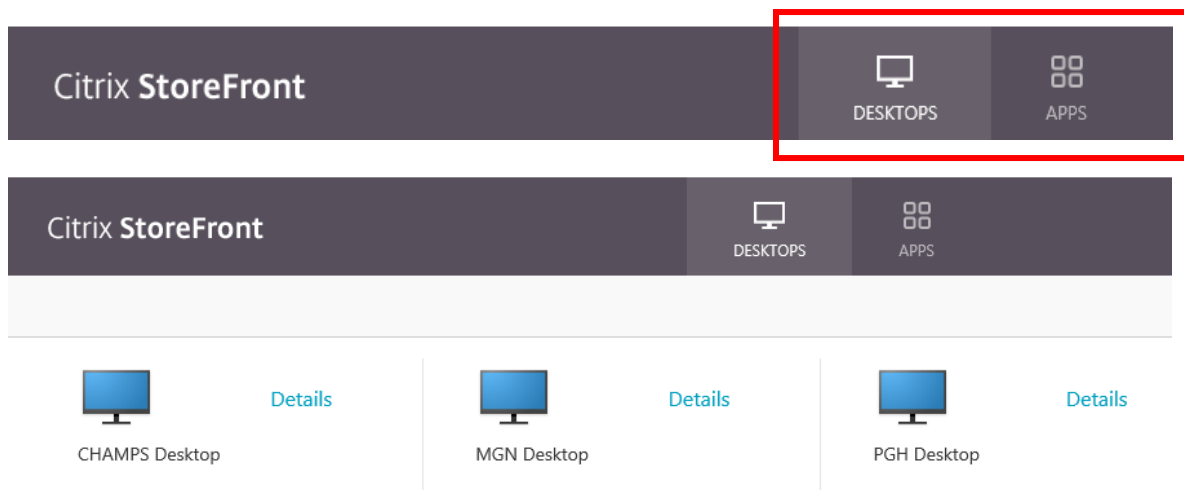
Once your login is successful, you will be presented with a gray and white Citrix StoreFront interface from where you can view and launch your desktops and applications. The default view is the APPS view and all applications are shown individually.



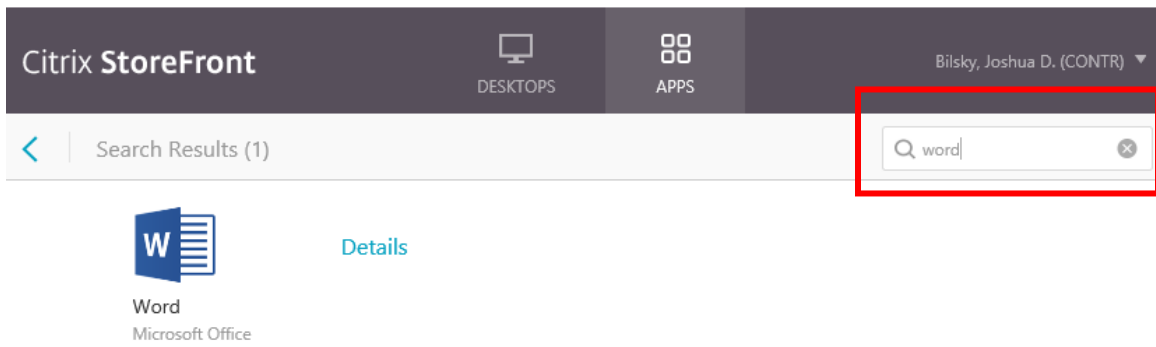
Clicking the Categories button while in the APPS view will consolidate the applications into their respective folders.



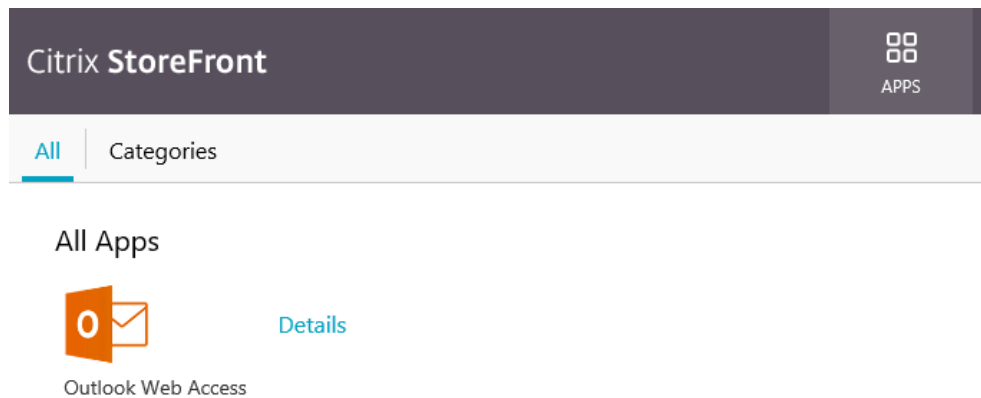
You can use the APPS and DESKTOPS buttons at the top of the screen to toggle between individual published applications and published desktops.



You can search for specific applications and desktops by using the search bar in the top right corner of the screen.

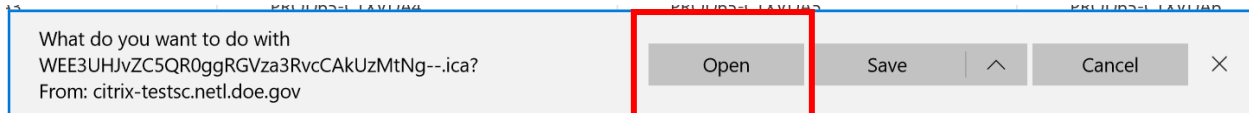


Office 365 Web Access customers only have access to OWA and will not see published desktops or any other published applications within the Citrix web interface.



STEP 7: Launch Citrix Desktops and Applications

You can launch an application or desktop by clicking on its icon. If you have the Citrix Receiver or Workspace client installed, the application or desktop should load automatically using the client. You may be prompted to open or run the .ica file.



RSA Token Login Instructions

About Your RSA Token

Citrix users who have not been issued a smart card (PIV or Yubikey) may be enrolled in RSA for access. RSA provides multifactor authentication by requiring the user to enter a password and a passcode. The passcode is comprised of a PIN set by the user and a unique code provided by the SecurID authenticator smart phone app. This one-time-passcode is only valid for 60 seconds.

How It Works

Your token works like an ATM card in that you must have your PIN (assigned by you) in addition to the six digit code that is displayed on your SecurID app. While the token code changes every 60 seconds, your

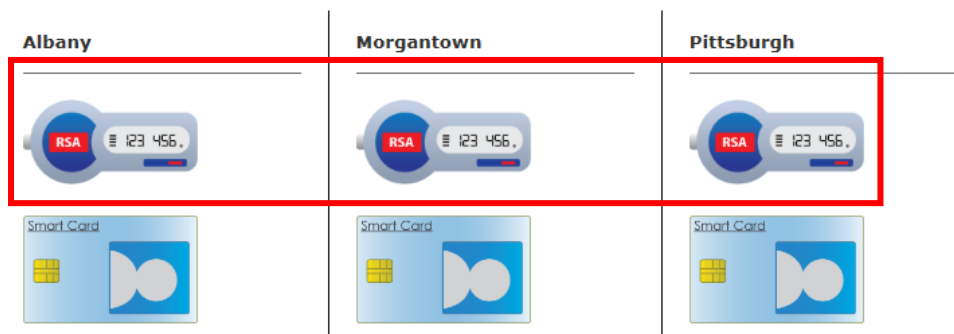
PIN does not. The combination of your PIN + the six digit token code (in that order) is referred to as your Passcode. Since you will not have a PIN set when you are enrolled, you will use the six digit code from your SecurID app as the Passcode for your first login. After you log in, you will be asked to create a PIN for your device. Once you have assigned a PIN, you simply use your PIN + the six digit code displayed in the SecurID app as the Passcode for future logins.

Proper Usage Guidelines

- ▶ Do not forget your PIN. Choose a PIN that you can easily remember. Do not write it down.
- ▶ Your PIN must be a number eight digits in length. Do not use letters or special characters in your PIN.
- ▶ Enter your Passcode carefully. You have a limited number of chances to successfully enter your Passcode before your RSA account will be locked out.
- ▶ If your RSA account gets locked out, you must contact the Service Desk to have your account reset.

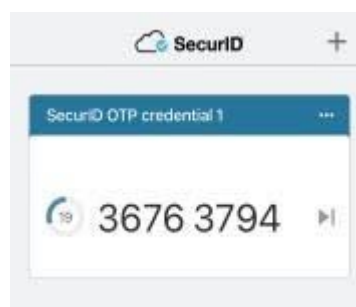
STEP 1: Browse to the Citrix Access Portal

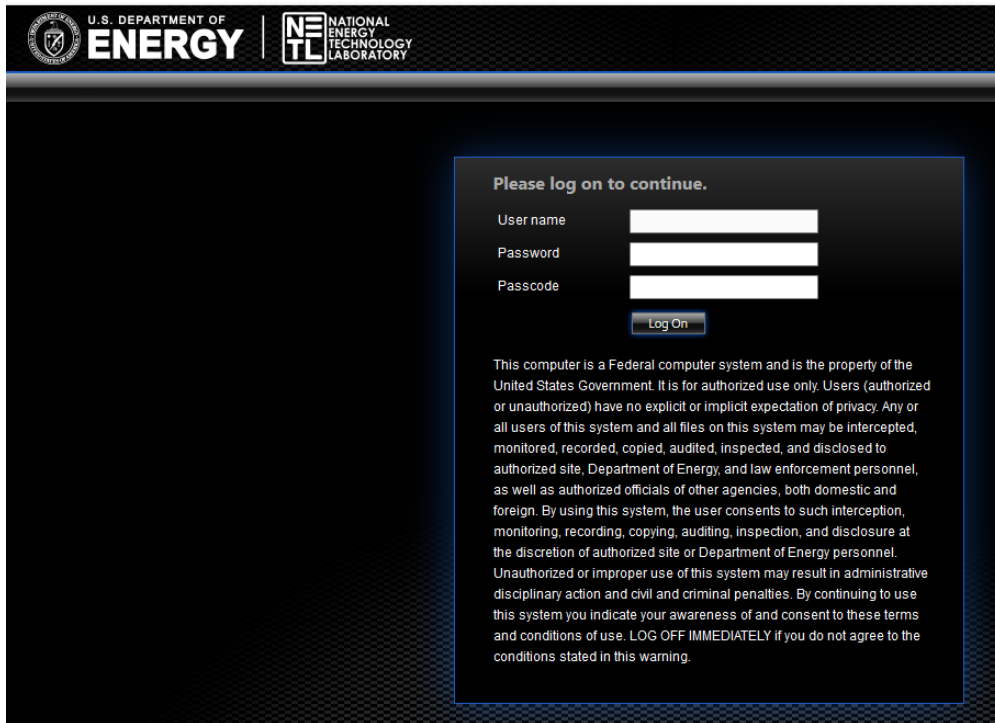
Launch Microsoft Edge and navigate to <https://www.netl.doe.gov/home/citrix> and click on the RSA token icon under your home site.



STEP 2: Enter your credentials

At the login screen, enter your Active Directory username, password, and RSA passcode. The RSA passcode is your eight digit PIN plus the code displayed on the SecurID app. Click Log On to continue.





Please refer to pages 8, 9, 10 for the remaining steps to view and launch applications/desktops as the process will be the same.

Microsoft Outlook

There are two options for accessing NETL email through Citrix: the full Outlook client (blue icon) and Outlook Web Access (OWA) (orange icon). Both are published as individual applications as well as shortcuts on the Citrix desktops. **Office 365 Web Access customers only have access to OWA and will not see the blue Outlook client option in Citrix web interface.**



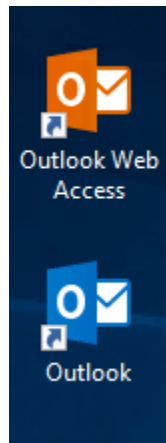
[Details](#)



Outlook Web Access

[Details](#)

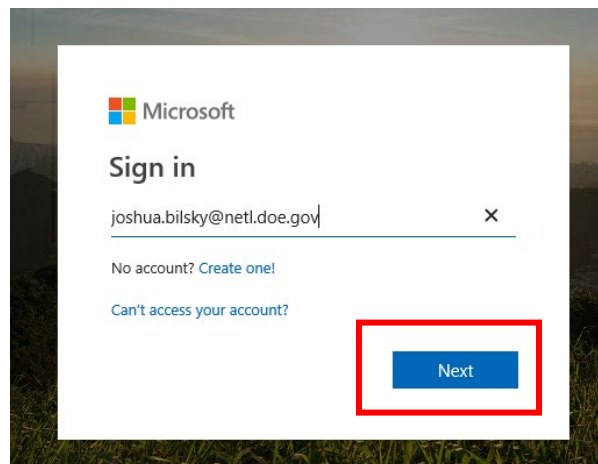
Outlook and OWA published applications



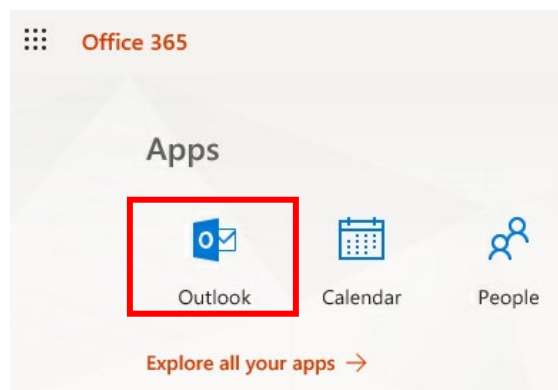
Outlook and OWA shortcuts on the Citrix published desktop

How to Use Outlook Web Access (OWA)

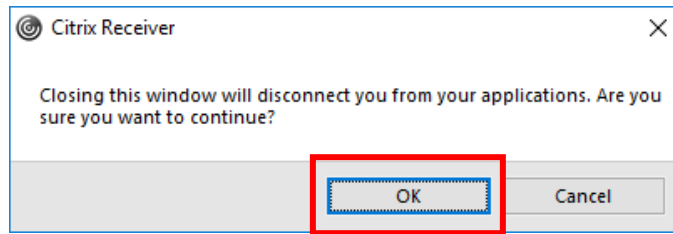
Since OWA is browser-based, no additional setup or configuration is required. Simply launch the OWA (orange icon) published application or double-click the shortcut on the Citrix desktop. Enter your NETL email address, and click Next to continue.



Click the Outlook icon to continue to your inbox.



The Outlook Web Access published application runs in full screen mode. To disconnect from the application, press the **Shift + F3** keys simultaneously. Then click OK at the confirmation screen.



How to Use Outlook Client

WARNING: The Outlook Full Client on Citrix uses a roaming cache file located on your N: drive. Do not launch more than one instance of the Outlook full client simultaneously in Citrix (i.e. do not launch the Outlook client on the Citrix desktop at the same time as the published application). Only use one instance of Outlook on Citrix at any given time otherwise corruption to the roaming cache file can occur. Having the Outlook client open locally on PCs while launching a single instance on Citrix is acceptable because the PCs use a local copy of the cache file.

The Outlook Client works similarly to how it does on NETL Windows 10 computers with a few exceptions:

- ▶ The amount of cached email in the inbox is limited to 3 days on Citrix instead of the 30 days that is set by default on the PCs. Email older than 3 days will still show up in search results and can be viewed by clicking the "view more on Microsoft Exchange" link. Opening older messages may be slower due to the client having to connect to the cloud.
- ▶ Citrix is a non-persistent, multi-user environment so customizations to the Outlook client or other applications are not preserved. Signatures created within Outlook client on Citrix are roamed from session to session, but the setting to include the signature in new email messages by default is not roamed. The My Documents and Favorites folders are still redirected to the N: drive in the same manner as the Windows 10 workstations.
- ▶ Shared email boxes are not cached in the roaming cache file. Any messages being viewed in shared mailboxes must download directly from the Office 365 cloud which may take an extra few seconds to occur. The Outlook client may appear to be unresponsive until this process completes.
- ▶ The Outlook roaming cache file is stored on your N: drive in N:\anadmin\outlook instead of locally on the computer. **Do not delete this path or its contents!**

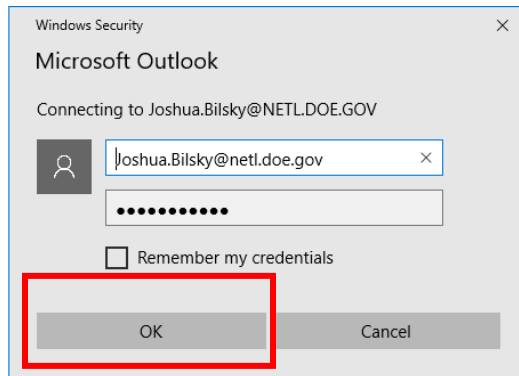
The initial setup of the Outlook client on Citrix is like the process you followed on your NETL PC. Launch Outlook client (blue icon) from the Citrix desktop OR published application to begin. Your NETL email address should be pre-populated. If it is not, enter your NETL email address and click Connect.

Welcome to Outlook

Enter an email address to add your account.

A screenshot of the Outlook "Welcome to Outlook" setup screen. It features a text input field containing the email address "Joshua.Bilsky@NETL.DOE.GOV". Below the input field is a link that says "Advanced options" with a downward arrow. At the bottom of the screen, there is a blue button with the word "Connect" in white text. This button is highlighted with a red rectangular border.

When prompted, enter your Active Directory password at the Windows Security prompt. Click OK.

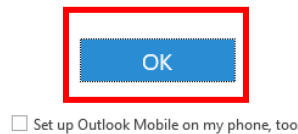


You may see the “getting things ready” notice below while the connection to the Office 365 cloud is established

Adding Joshua.Bilsky@NETL.DOE.GOV
We're getting things ready

Once the account setup portion of the process is complete. Click OK. **Do not check the box to setup Outlook Mobile.**

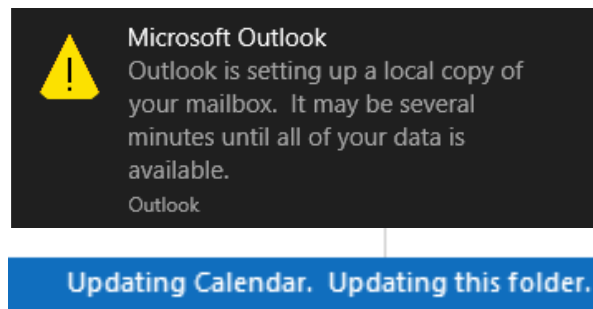
Adding Joshua.Bilsky@NETL.DOE.GOV
Account setup is complete



Outlook will continue to launch.



The inbox will present itself, but it can take a few minutes before mail begins to populate in the inbox. This is normal as Outlook is building your roaming cache file on your N: drive. Please be patient and allow the profile to fully build. During the profile build process, you may see notifications in the Windows task tray or the Outlook status bar like the ones below.



Outlook will go through each folder and synchronize it with the roaming cache file. Once this process completes, you will see the following notification in the Outlook status bar.

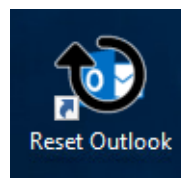


Now that the roaming cache file is built, subsequent logins to the Outlook client through Citrix should be faster. However, if you have not used the Outlook client on Citrix in a while, it may take some extra time to synchronize the updates to the cache file. You may see old messages showing in the inbox and the Outlook client may appear to be unresponsive until the sync process completes.

In order to limit storage for quicker cache file generation, the amount of cached email in the inbox is limited to 3 days on Citrix instead of the 30 days that is set by default on NETL PCs. Email older than 3 days will continue to show up in search results and can be viewed by clicking the "view more on Microsoft Exchange" link. Opening older messages may be slower due to the client having to connect to the cloud.

There are more items in this folder on the server
[Click here to view more on Microsoft Exchange](#)

The Outlook Reset Tool is a shortcut on the Citrix desktop. This tool is used to reset Outlook in the event the roaming cache file becomes corrupt. **Do not attempt to run this tool unless you are instructed to do so by IT support personnel.**

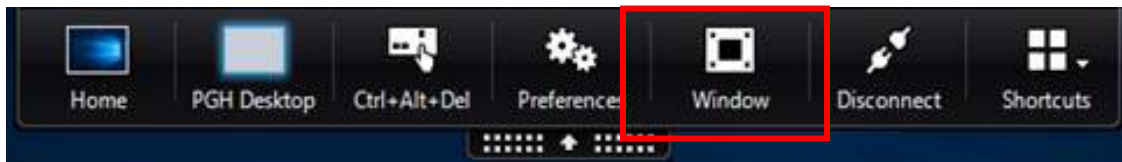


Dual Monitor Support

Citrix supports dual monitors in published desktops. While in the desktop session, click the down arrow at the top middle of the screen.



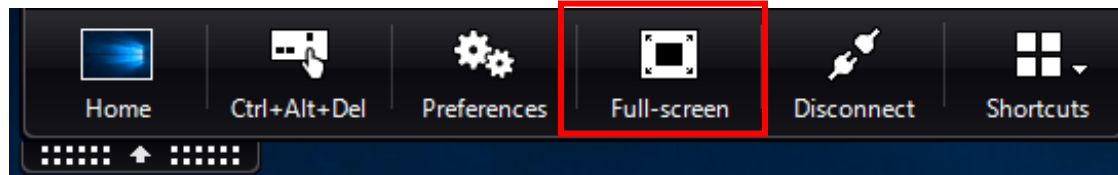
This will expose the Receiver options. Then click the Window icon. This will take Receiver out of full screen mode and put it in Windowed mode.



Once in Windowed mode, you can drag the Receiver window by the title bar so that it shows on both displays.



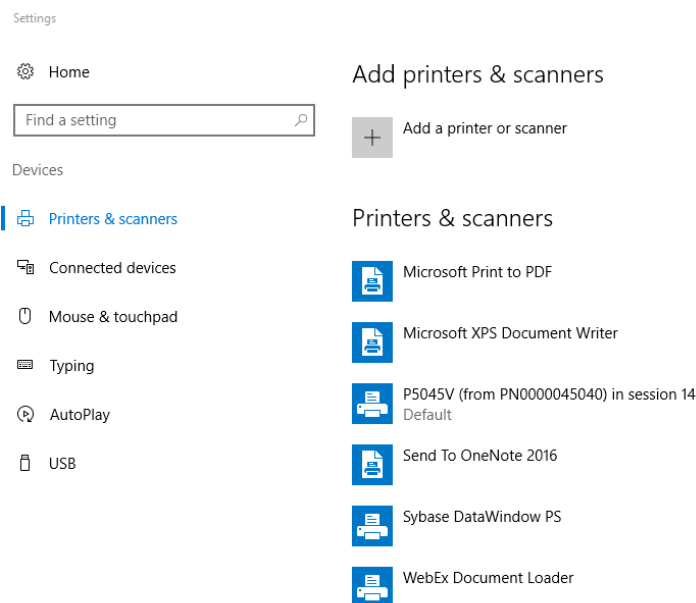
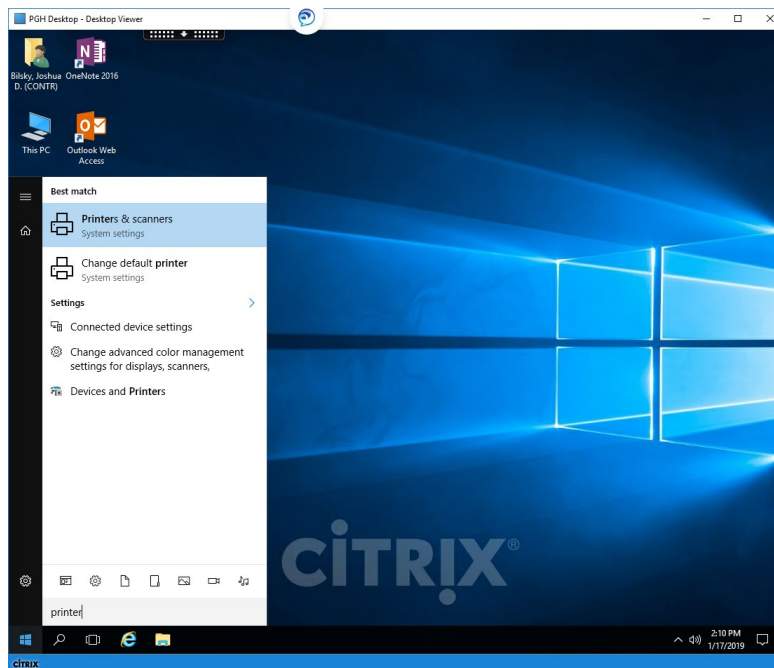
Then click the Full-screen button to maximize the window across both screens.



Printing

Printing in Citrix is limited to approved users only. If you require printing through your Citrix session, contact the Service Desk to submit a request to be added to the Citrix_Allow_Printing user group. Citrix only maps the local computer's default printer in published applications and desktops. If your printer is not available while in a Citrix session, and you are a member of the necessary group, ensure that the default printer set on your local computer is the printer you wish to use while in Citrix. You will have to log completely out of Citrix and reestablish your session before a new default printer will be mapped.

You can view all the printers available in the Citrix desktop by clicking the Start button and typing "printers". Then click Printers & Scanners.



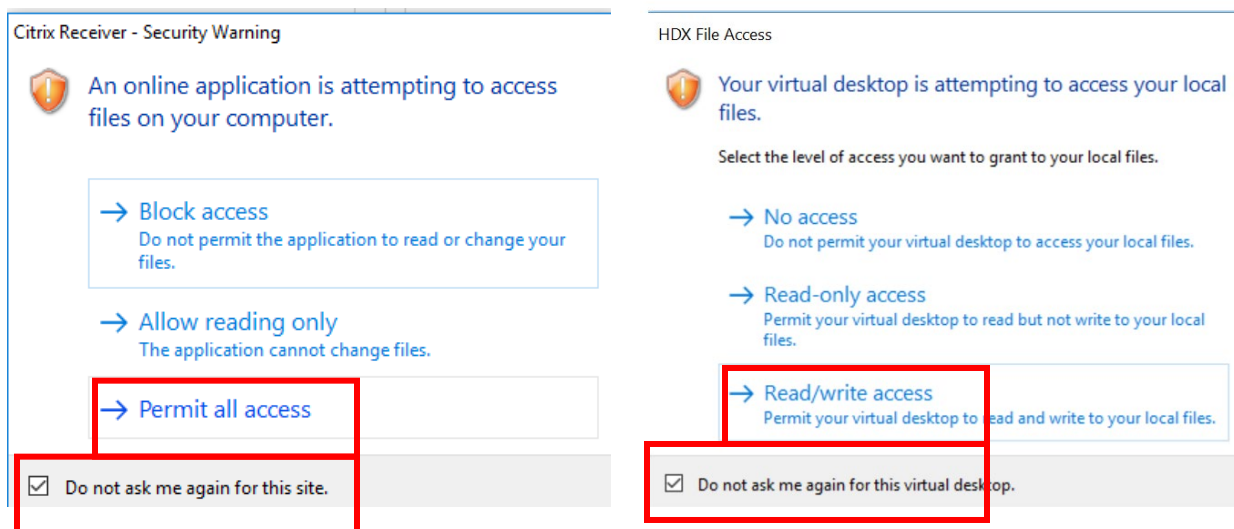
Citrix uses a universal driver to direct output to your local printer. Some of your printer's features may not be available with the universal driver. In certain cases, the universal driver may not support your printer model. If your default printer is not available in Citrix, a workaround is to print to the Microsoft PDF printer and then save the file to print it locally from your PC.

Saving and Accessing Files

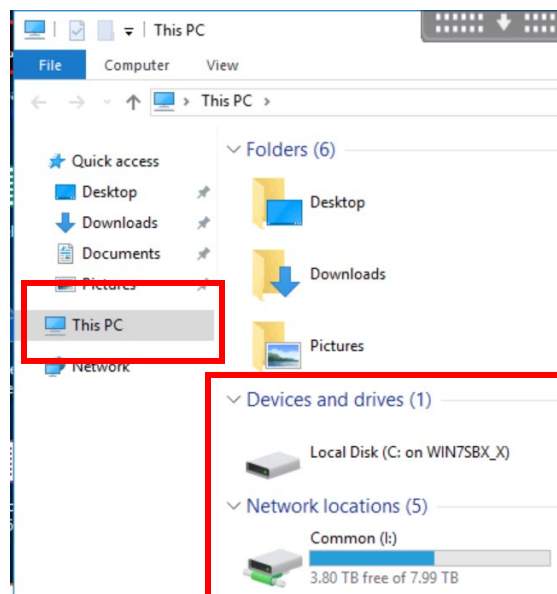
- ▶ When you log into Citrix, the drives of your local PC are mapped through Citrix and are identified as "Local Disk" in Windows Explorer. This makes it very easy to transfer files between your PC and Citrix. No manual configuration is required.
- ▶ You have the option to save and open files on your local PC. You may also choose to save and open files from a network location such as your N: drive.
- ▶ You will not be able to view the drive of the Citrix server. If you wish to save files, you must save them to the network or to your local system.
- ▶ To save to a specific location, perform a "save as" function from within the Citrix application you are

working in. Then select the location from the list.

When you first attempt to save or open a file from your local PC, you may get presented with one of the following warnings. Check the “Do not ask me again” box and click “Permit all access or Read/write access” to continue.



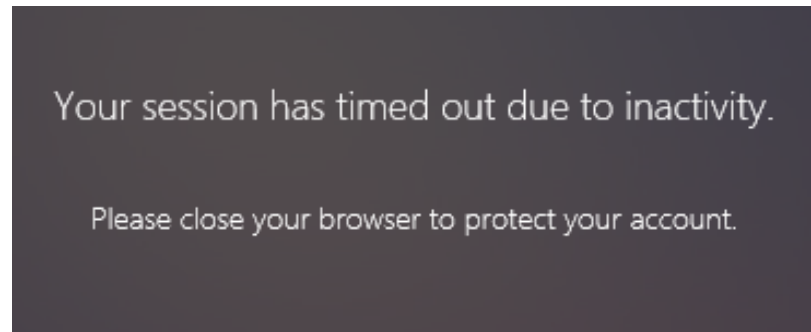
Be sure to select the appropriate drive to save to. Click on “This PC”, and the client’s local drive will be marked as a “Local Disk” and appear under the Devices and Drives section of Windows Explorer. Network drives will appear under the Network locations section.



Inactivity Timeouts

Web Portal Timeout

There are two inactivity timeouts in the Citrix. The first is a 30-minute timeout on the RSA and smart card web portals. If an application or desktop is not launched from the web portal within a 30-minute period, the web portal will timeout and log the user off. The following message will be presented in the browser.



If the RSA web portal session times out, the user can use the same web browser session to log back in. If the smart card web portal session times out, all instances of the web browser must be closed, and a new browser session must be established for smart card login to be successful.

Application/Desktop Timeout

The second inactivity timeout is the application/desktop timeout which is also 30 minutes. If an application or published desktop is idle with no user interaction for 30 minutes, the Citrix idle timer will close the session. Users that login to Citrix to launch multiple published applications may find that launching a single published desktop and using all the applications within the desktop session will decrease the likelihood of an idle session timeout.