U.S. DEPARTMENT OF
ENERGY

Office of the Chief
Information Officer

User Guide
Remote Access to VDI/Workplace Using PIV

Innovation & Engineering Office (IM-64)
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1   Overview

As mandated by the Homeland Security Presidential Directive 12 (HSPD-12), Office of Management and Budget (OMB) M 11-11, and Department of Energy (DOE) O 206.2, the Office of the Chief Information Office (OCIO) Energy IT Services (EITS) has deployed hardware, software, and configuration changes that enable EITS customers to log on to their computers with their HSPD-12 credentials.

The HSPD-12 directive also covers the implementation of virtual desktops. Personal identity verification (PIV) authentication is integrated in the virtual desktop infrastructure (VDI) design and implementation. VDI is accessible from DOE-provided trusted EITS zero-clients, laptops, and conventional desktops provisioned by EITS. VDI can also be securely accessed from external clients, such as personal computers, over the Internet, which is one of the great benefits of VDI technology.

As a remote VDI user, you must authenticate your identity with your PIV card per the HSPD-12 directive. In certain cases when you cannot use your PIV card, you can use your RSA token to log on.

2   Smart Card Readers and Installation

The three types of smart card readers used in the DOE environment are displayed below. To learn more about card readers, see https://powerpedia.energy.gov/wiki/Smart_card_reader.

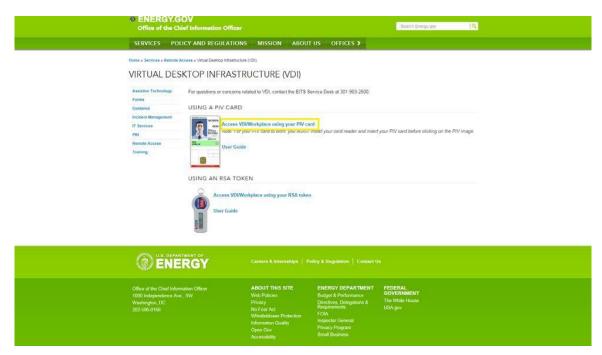| 1. Internal Card Reader	2. Portable Card Reader	3. Standard Card Reader

3   Install the External Reader on a PC

To install the external card reader, connect the card reader to your workstation. The card reader self-installs. To view the status of the installed card reader, go to the lower left of the Windows screen. Select **Start➔ Devices and Printers**.
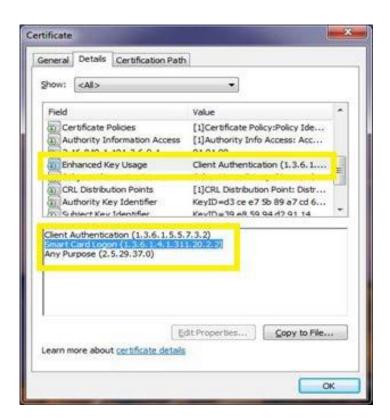

4   ⊞ Access from an EITS-provisioned Laptop

1. Once the card reader has been installed, insert your PIV card into the reader.
2. Open web browser, type https://mydesktop.doe.gov and press **Enter**.
3. Select **Access VDI/Workplace using your PIV card**.
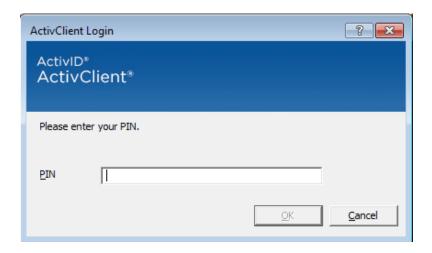
4. A certificate box displays.

5. To determine the correct certificate is being used, select **Click here to view certificate properties**. Select the **Detail** tab.

   a. Click on the **"Show:"** tab and select **"All"**. Scroll down and select **Enhanced Key Usage** and look for Smart Card Logon as shown below.

b. After verifying the certificate, select **OK**.

   Note: The desktop may not ask for your PIN because it was cached after you logged onto the laptop.

6. If you only have one desktop, it auto-launches. If you have more than one desktop, select the desktop you wish to open. Select **OK** on the DOE Security Banner screen.
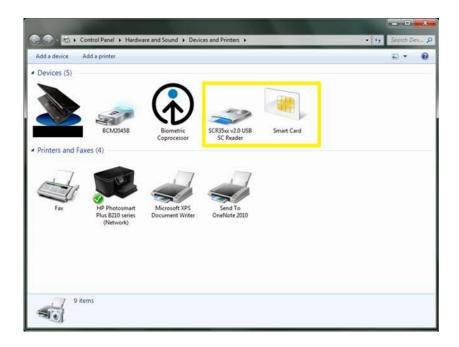
7. Type your PIN at the desktop and press **Enter**.

   Note: If you see the username and password fields, select the **Other Credentials** *button. Select the PIV card, type your PIN, and press* **Enter**.

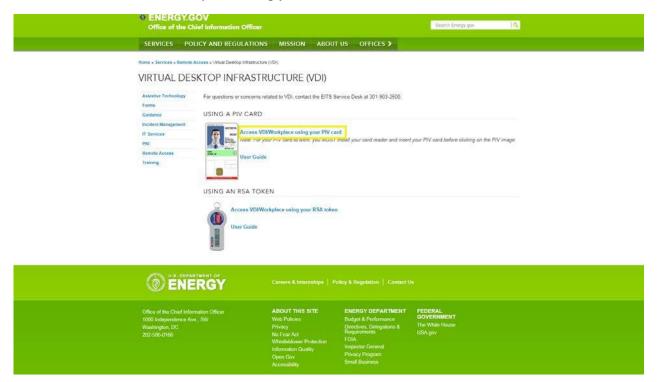8. You are now connected to a remote desktop session.

5 ⊞ Access from a Home Personal Computer

1. Download and install the latest EITS supported Citrix Receiver LTSR for Windows: https://www.citrix.com/downloads/citrix-receiver/legacy-receiver-for-windows-ltsr/receiver-for-windows-ltsr-_4_9_4000_.html.

2. Insert a card reader if necessary. The card reader self-installs. To view the status of the installed card reader, go to the lower left of the Windows screen. Select **Start➔ Devices and Printers**.
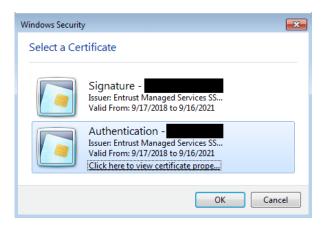

3. Once the card reader has been installed, insert your PIV card into the reader.
4. Open web browser, type in https://mydesktop.doe.gov and press **Enter**.

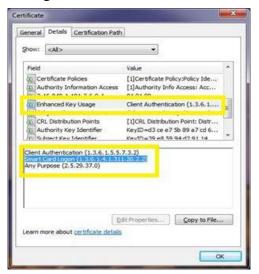5. Select **Access VDI/Workplace using your PIV card**.

6. A certificate box displays.

7. To determine the correct certificate is being used, select **Click here to view certificate properties**. Select the **Detail** tab.

a. Click on the **"Show:"** tab and select **"All"**. Scroll down and select **Enhanced Key Usage** and look for Smart Card Logon as shown below.

b. After verifying the certificate, select **OK**.
c. The PIN prompt box displays.

8. Type your PIN and select **OK**. If you do not see the PIN prompt box, check to make sure it did not pop up behind another window.
9. If you only have one desktop, it auto-launches. If you have more than one desktop, select the desktop you wish to open. Select **OK** on the DOE Security Banner screen.
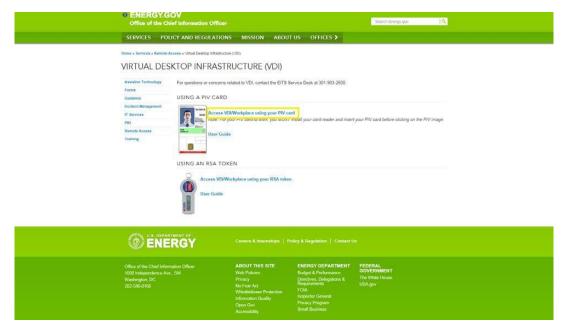10. Type your PIN at the desktop prompt and press **Enter**.

> *Note: If you see the username and password fields, select the* **Other Credentials** *button. Select the PIV card and type your PIN.*

11. You are now connected to a remote desktop session.

Note: If you connect using the "Light Version aka HTML5", **which has limited desktop functionality**, *please see* **appendix c** *for steps to connect using the full version of Citrix Receiver. (Light Version will appear as a "Browser Tab" within your browser instead of a separate Citrix Receiver Window)*
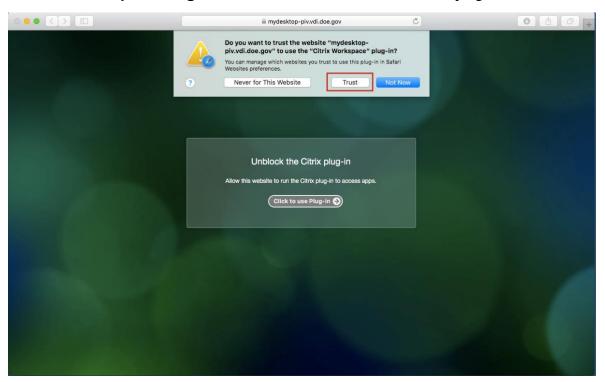
6 Access from an EITS-provisioned Mac Laptop

1. Insert a card reader and your PIV card.
2. Log on to your Mac using your PIV credential.
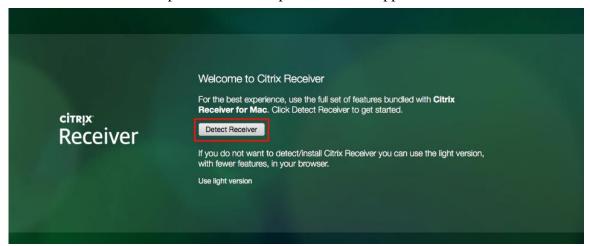3. Open Safari or Chrome.
4. Go to https://mydesktop.doe.gov.

5. Select **Access VDI/Workplace using your PIV card**.
6. You are prompted to select a certificate. Select the first certificate and verify that it's the correct certificate by selecting the "**Show Certificate"** button and scroll down to **Purpose #2 Smartcard Logon**.
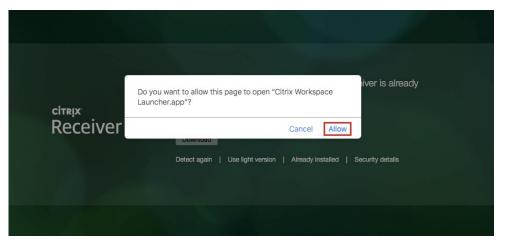
7. After verifying the certificate, select **Continue.**
8. You may not be required to enter your PIN because it was cached during logon to your Mac.
9. At the prompt **Do you want to trust the website "mydesktop-piv.vdi.doe.gov" to use "Citrix Workspace Plug-in?"**, select **Trust** to unblock the Citrix plug-in.

10. For **Safari 12** and above, if this is the first time you have attempted to login, Safari will ask you to detect Citrix Workplace". Click "Detect Receiver", then click "Allow" to allow the browser to open Citrix Workspace Launcher.app.

11. Your desktop displays.
    a. If you have a single desktop, it auto-launches.
    b. If you have more than one desktop, select the preferred desktop to launch.

12. After the desktop has launched, the DOE Security Banner screen appears. Select **OK** to continue.
13. The desktop displays the message **Reading smart card…**
14. At the prompt, type your PIN and press **Enter**.
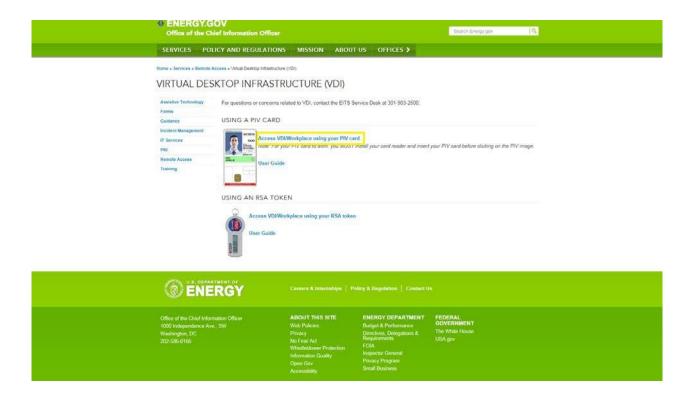15. You are now connected to a remote desktop session.

*Note: If you connect using the "Light Version aka HTML5", **which has limited desktop functionality**, please see **appendix c** for steps to connect using the full version of Citrix Receiver. (Light Version will appear as a "Browser Tab" within your browser instead of a separate Citrix Receiver Window)*

7 Access from a Home Personal Mac

If you are a Mac user and want to access VDI/Workplace using your PIV card, you should have the supported operating systems, 10.13.6 or higher.
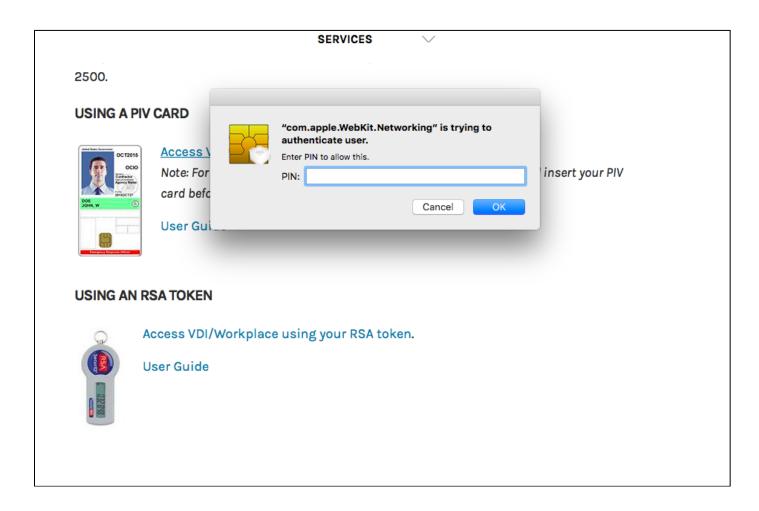
Download and install the latest Citrix Workspace from https://www.citrix.com/downloads/workspace-app.

1. Insert the card reader.
2. Insert your PIV card.
3. Open Safari and type https://mydesktop.doe.gov.
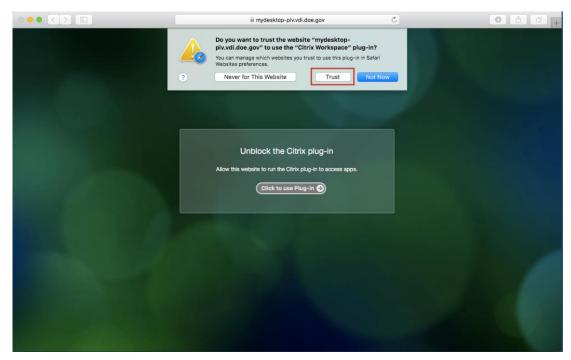4. Select **Access VDI/Workplace using your PIV card**.

5. You are prompted to select a certificate. Select the first certificate and verify that it's the correct certificate by selecting the "**Show Certificate**" button and scroll down to **Purpose #2 Smartcard Logon**. If **Purpose #2 Smartcard Logon** is not showing, select **"Hide Certificate"** and choose another certificate.
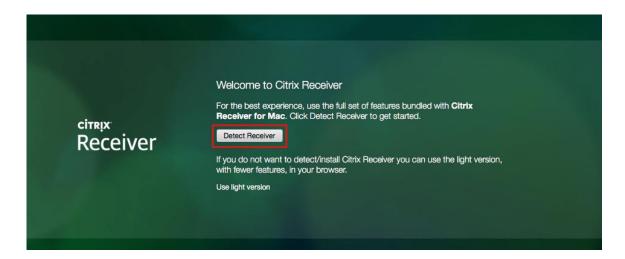
6. After verifying the certificate, select **Continue**.
   a. If you accidentally select the wrong certificate, see **appendix A** for the steps to remove the certificate from the keychain application.
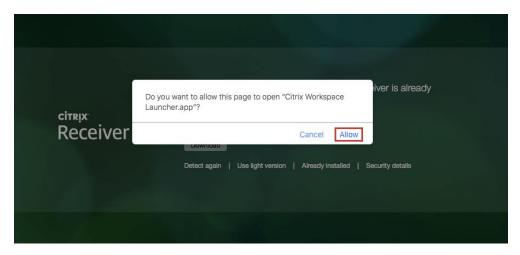7. At the next prompt, type your PIV card PIN. Select **OK**.

8. At the prompt **Do you want to trust the website "mydesktop-piv.vdi.doe.gov" to use "Citrix Workspace Plug-in?"**, select **Trust** to unblock the Citrix plug-in.

9. For **Safari 12** and above, if this is the first time you have attempted to login, Safari will ask you to detect Citrix Workplace". Click "Detect Receiver", then click "Allow" to allow the browser to open Citrix Workspace Launcher.app.

Your desktop displays.

     a. If you have a single desktop, it auto-launches.
     b. If you have more than one desktop, select the preferred desktop to launch.

10. After the desktop has launched, the DOE Security Banner screen appears. Select **OK** to continue.
11. The desktop displays the message **Reading smart card…**
12. At the prompt, type your PIN and press **Enter**.
13. You are now connected to a remote desktop session.

Note: If you connect using the "Light Version aka HTML5", **which has limited desktop functionality**, *please see* **appendix c** *for steps to connect using the full version of Citrix Receiver. (Light Version will appear as a "Browser Tab" within your browser instead of a separate Citrix Receiver Window)*

Appendix A: Remove an Incorrect Certificate from Mac

If you select the wrong certificate in Safari, you must remove it from the Keychain Access.app so that you will be prompted to select a certificate again.
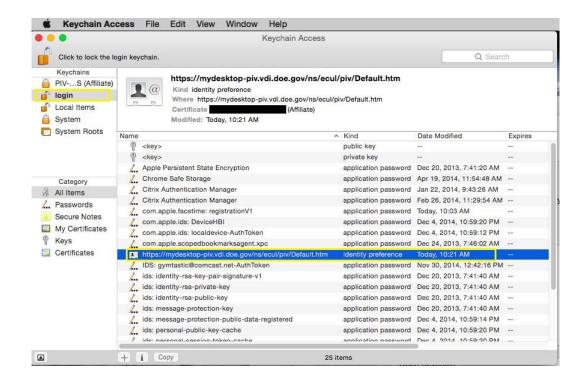
1. If the certificate did not show **Purpose #2 Smartcard Logon**, you have selected the wrong certificate.

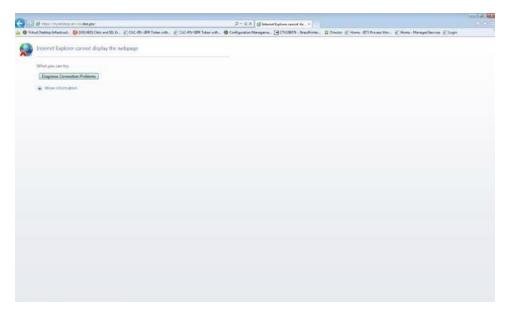2. Open **Launchpad,** click on the "Other" folder, and open **Keychain Access**.

3. On the left, under **Keychains** select **login,** then under **Category** select **All Items**.
4. On the right, select the identity preference entry, that reads mydesktop.doe.gov, and select **Delete**.

5. Go back to section 6, *Access from a Home Personal Mac*. Go to step 6 to log on again. The system will now prompt you to select the certificate.

Appendix B: Selecting Incorrect Certificate

If you select the wrong certificate after entering your PIN, an error message states the page cannot be displayed. Follow these troubleshooting steps to select the correct certificate.

1. Close the browser.
2. Remove your PIV card from the reader, then re-insert it.
3. Open the browser again.
4. Go back to the logon instructions to select the correct certificate.
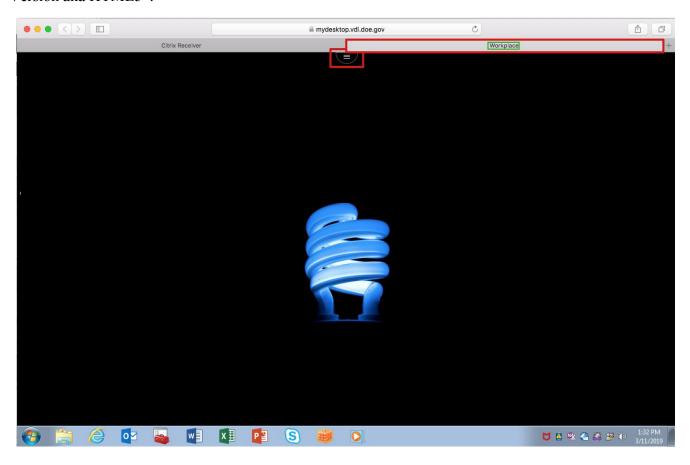
If the wrong certificate was chosen in Safari, first follow the steps in Appendix A, *Remove an Incorrect Certificate*, then follow the instructions.

Appendix C: Switching from Light Version to Citrix Receiver

Citrix "Light Version aka HTML5", is a Citrix plug-in that allows DOE users to access Citrix Desktops. This version is a "fail safe" version for computers that fail to successfully launch Citrix Receiver. This "Light Version aka HTML5", is very limited in desktop functionality. Functions such as: Local printing, PIV card access from within the Citrix Desktop, Camera and Microphone access, and other functions will not work properly using the "Light Version aka HTML5".
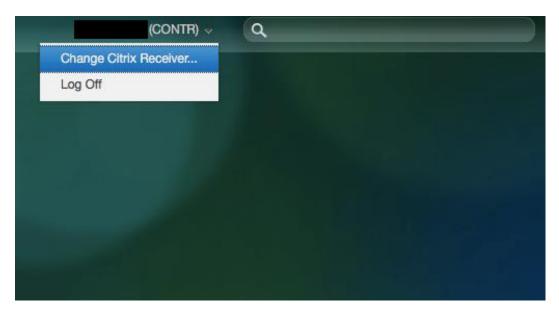
*Note: The Microsoft Internet Browser EDGE is not supported and the steps below will not work. If you wish to use a Microsoft browser, please use **Microsoft Internet Explorer** instead of **Microsoft Edge** for all "mydesktop.doe.gov" connections.*

Below is a snapshot of an Internet Browser connected to DOE Citrix Workplace using the Citrix "Light Version aka HTML5".
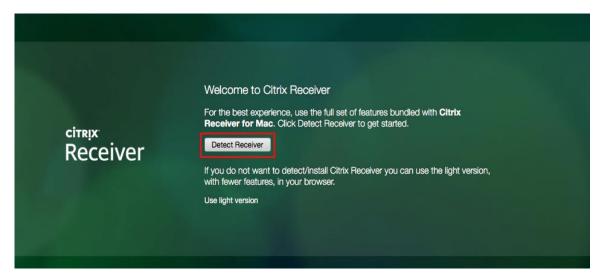

Initially, customers may not realize that the computer is connected using the "Light Version aka HTML5". The best way to identify is to check the current internet browser that was used to connect to mydesktop.doe.gov. The "Light Version aka HTML5" will appear as a "Browser Tab" within your browser instead of a separate Citrix Receiver Window. If this is the case, follow the below steps to have your browser "detect" Citrix Receiver.
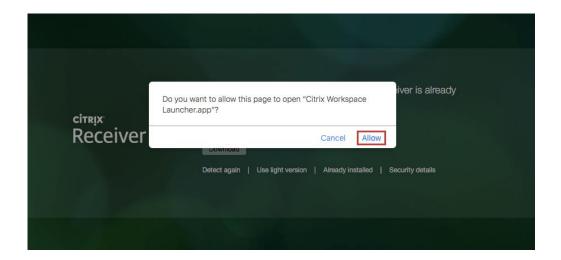
1. Log out of your desktop that is connected using the "Light Version aka HTML5"
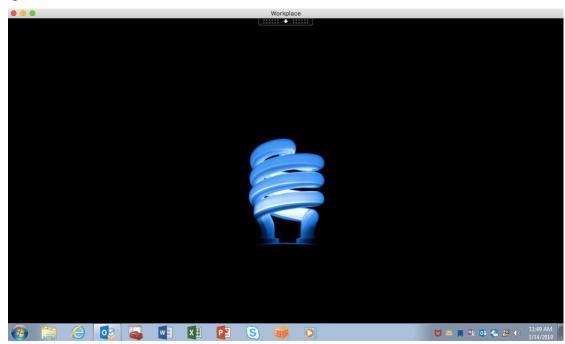2. At the top right click on your name and select "Change Citrix Receiver"

3. On the next screen select "Detect Receiver" and wait for the browser to detect. It may take a few seconds.

4. Depending on the browser you are using, you may see an additional pop-up window asking if you would like your browser to open this page using Citrix. Click "Allow".

5. Your desktop icon(s) should now be present. Launch your desktop and verify that you are no longer using the "Light Version aka HTML5" and your desktop session has now launched in a separate Citrix widow.

6. If you are still experiencing issue changing your Citrix connection from the "Light Version aka HTML5" to the full Citrix Receiver or Citrix Workspace (Mac) please call the EITS Service desk: 310-903-2500.