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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.

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<tr>
<td><img src="https://example.com/image1.png" alt="Image 1" /></td>
<td><img src="https://example.com/image2.png" alt="Image 2" /></td>
<td><img src="https://example.com/image3.png" alt="Image 3" /></td>
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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**.

![Image of devices and printers](image)

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](https://mydesktop.doe.gov) and press **Enter**.
3. Select **Access VDI/Workplace using your PIV card**.

![Image of virtual desktop infrastructure](image)
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**.

8. You are now connected to a remote desktop session.
5 🖥 Access from a Home Personal Computer


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.

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

6. A certificate box displays.

   ![Certificate Box](image)

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

   ![Certificate Details](image)
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.

![Certificate Details](image1.png)

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

![PIN Prompt Box](image2.png)

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.
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.

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.
7 Apple 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, 10.12 or higher and Centrify Express for Smartcard installed.


3. Select Download The Software
4. Please select the correct download file for your Macintosh Operating System.

5. **Install** Centrify Express for Smartcard and restart your Mac.

6. To verify that Centrify Express for Smartcard is installed, select the **Launchpad**. Find the **Smart Card Assistant**.

7. Insert the card reader.

8. Insert your PIV card.
10. Select **Access VDI/Workplace using your PIV card**.

11. 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.
12. After verifying the certificate, select **Continue**.
   a. Centrify Express for Smartcard stores this option within **keychain.app**, and you are not prompted to select the certificate again.
   b. If you accidentally select the wrong certificate, see **appendix A** for the steps to remove the certificate from the Centrify Express for Smartcard keychain.
13. At the next prompt, type your PIV card PIN. Select **OK**.
14. 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.

![Image of trust confirmation prompt]

15. 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.

![Image of Citrix Receiver detection dialog box]
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.

16. After the desktop has launched, the DOE Security Banner screen appears. Select OK to continue.
17. The desktop displays the message **Reading smart card…**
18. At the prompt, type your PIN and press Enter.
19. You are now connected to a remote desktop session.
Appendix A: 🍎 Remove an Incorrect Certificate from Mac

If you select the wrong certificate in Safari, you must remove it from the Keychain.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** and open **Smart Card Assistant**.
3. Select **Diagnostics**, then press the **Open Keychain** button.

4. On the left, under **Keychains** select **login**, then under **Category** select **All Items**.

5. On the right, select the identity preference entry and select **Delete**.

6. 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.