Windows 10 ED-20-02 Security Patch

Applies to: ClearVote versions 1.5, 2.0, and 2.1

Clear Ballot is distributing these instructions to mitigate known vulnerabilities in the Windows 10 operating system that is used in several components of ClearVote. See https://cyber.dhs.gov/ed/20-02/.

ClearVote systems are deployed in an air-gapped environment, which is a strong security control that mitigates much of the risk posed by these vulnerabilities. Consistent with the recommendations of the U.S. Elections Assistance Commission (EAC), Clear Ballot advises that you patch your systems as soon as possible. You can follow the instructions in this document to install this patch on your own. If you have any questions, contact Clear Ballot Customer Success by going to https://clearballot.odoo.com/.

The instructions in this document apply to all ClearVote products that run the Windows 10 operating system. These products can be any of the following that are included in the configuration of your jurisdiction:

- ClearDesign: DesignStations
- ClearAccess units
- ClearCount: ScanStations and election administration stations

Downloading the installation files from ShareFile

To download the installation files for the patch:

1. Log in to your customer ShareFile directory folder.

2. Navigate to the ED-20-02 patch folder and download the file Windows Updates Disk.zip to a USB drive.

   The Windows Updates Disk.zip file contains:

   - A servicing stack update (SSU) file named:

     Windows10.0-KB4556940-x64.msu

   - A Windows Standalone Installer file named:

     windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu

3. If you do not see the ED-20-02 patch folder containing the Windows Updates Disk.zip file, contact the Clear Ballot Customer Success team at: https://clearballot.odoo.com/.

The remainder of this document describes how to install these security updates on each of the individual ClearVote products that run ClearVote versions 1.5, 2.0, or 2.1.

ClearAccess

To install the patch on ClearAccess units:

1. To update each ClearAccess unit, follow these steps to enable the Windows Update Service. These steps are similar to those that you followed to disable this service after the previous installation.

   a. Log in as the administrator

   b. Click the **Start** button on the taskbar at the bottom of the screen and type **services**.

   Windows displays the Services application.

   c. On the **Standard** tab of the Services application, scroll to and double-click **Windows Update**.

   The Services application displays the Windows Update Properties (Local Computer) dialog.

   d. From the **Startup type** drop-down list, select **Manual**.

   e. Click **Apply** to enable the **Start** button

   f. Click **Start**.

2. Disable all startup applications.

   If you have installed ClearAccess and hardened your system without disabling startup applications, you may see warning message shown in Figure 1 after installing the patch and logging in as the system administrator.
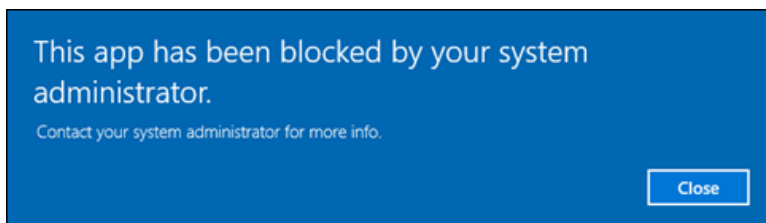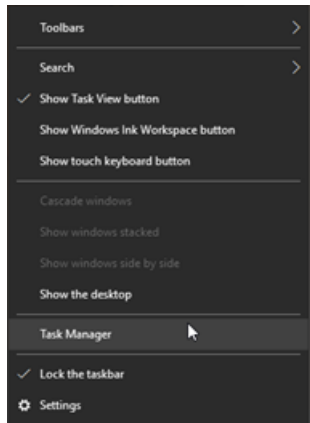

Figure 1. Application-blocked warning message

You may see several of the warning messages shown in Figure 1 depending on the number of startup applications.

Follow these steps to disable startup applications and prevent these warning messages:

   a. Right-click the Windows taskbar.

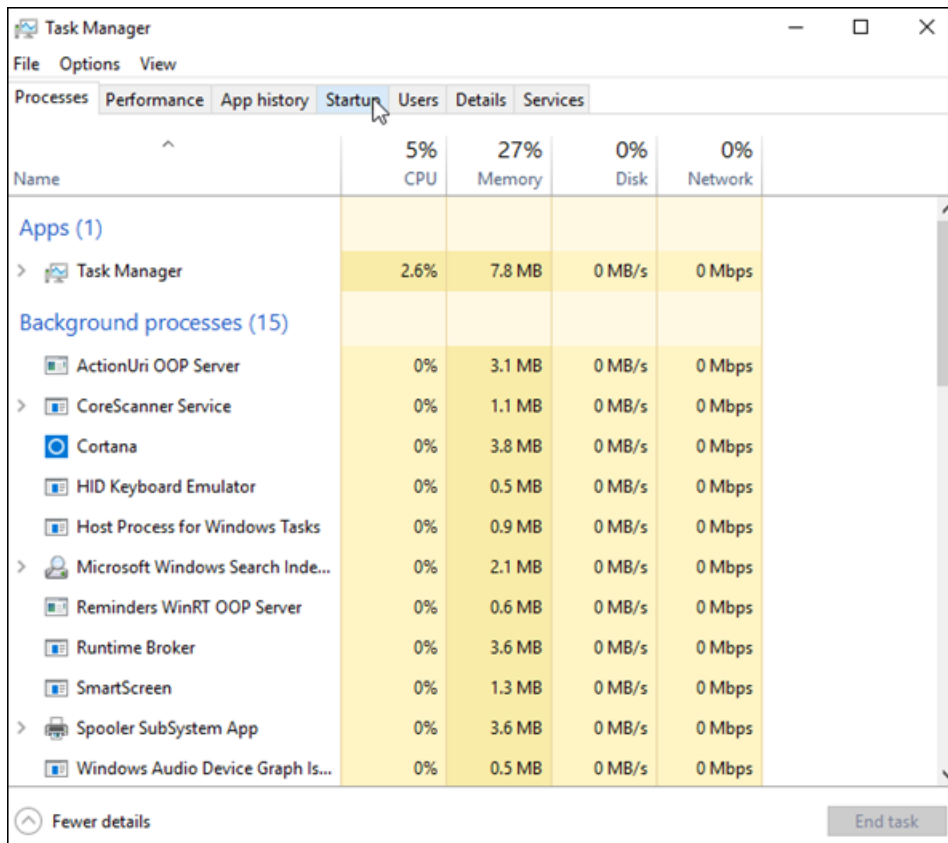   b. When Windows displays a pop-up menu, select **Task Manager** (Figure 2).

Figure 2. Selecting Task Manager from the pop-up menu

Windows displays the User Account Control (UAC) prompt.

c. Click **Yes** on the User Account Control (UAC) prompt to allow the Task Manager to make changes to your device.
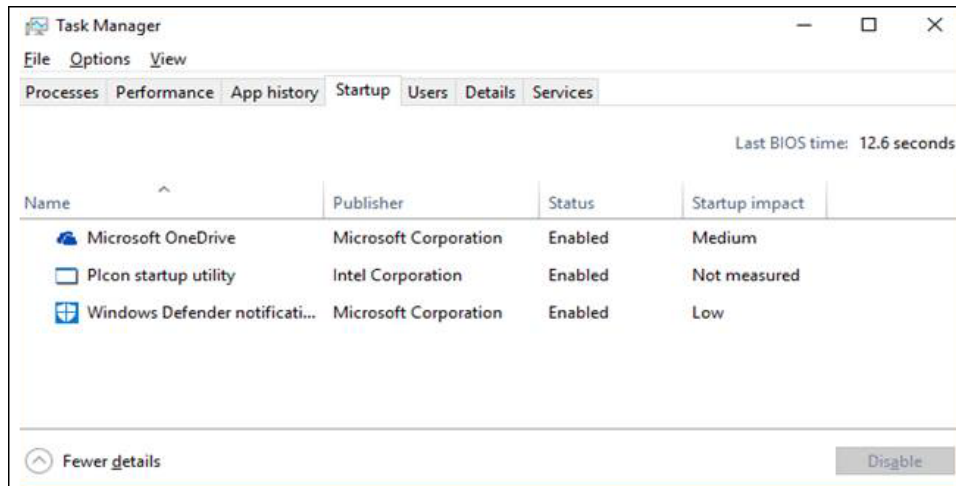
Windows displays the Task Manager (Figure 3).

Figure 3. Windows Task Manager

d. On the Task Manager, click **More details** at the bottom of the window, if necessary.

e. On the Task Manager, click the **Startup** tab.

Windows displays the **Startup** tab of the Task Manager (Figure 4).

Figure 4. Startup tab—Windows Task Manager

f. On the Startup tab of the Windows Task Manager, select each application and click **Disable**.

g. Close the Windows Task Manager.

3. Install the patch.

Follow the steps in "Installing the patch from a USB drive" on page 7. The steps in this section are the same for all products.

> **Note**: After you follow the steps in "Installing the patch from a USB drive" on page 7, return to step 4 below.

4. Reboot the ClearAccess unit.

After logging in, make sure that no warning messages appear. For an example of a warning message, see Figure 1 on page 2.

ClearDesign: DesignStations

To install the patch on each DesignStation, follow these steps:

1. Disable startup applications as follows:

a. Log in to the DesignStation as an administrator.

b. Open the Windows Task Manger, click the **Startup** tab.

c. Select the **Windows Defender notification icon** application and click **Disable** (Figure 4).

d. If the following applications appear on the **Startup** tab of the Windows Task Manager, select them and click **Disable**:

- **Microsoft OneDrive**
- **PIcon startup utility**

2. Install the patch.

Follow the steps in "Installing the patch from a USB drive" on page 7. The steps in this section are the same for all products.

> **Note**: After you follow the steps in "Installing the patch from a USB drive" on page 7, return to step 3 below.

3. Reboot the DesignStation.

After logging in, make sure that no warning messages appear. For an example of a warning message, see Figure 1 on page 2.

ClearCount: election administration stations

To install the patch on each election administration station, follow these steps:

1. Disable startup applications as follows:

a. Log in to the election administration station as an administrator.

b. Open the Windows Task Manger and click the **Startup** tab.

c. Select the **Windows Defender notification icon** application and click **Disable** (Figure 4 on page 4).

d. If the following applications appear on the **Startup** tab of the Windows Task Manager, select them and click **Disable**:

- **Microsoft OneDrive**
- **PIcon startup utility**

2. Install the patch.

Follow the steps in "Installing the patch from a USB drive" on page 7. The steps in this section are the same for all products.

> **Note**: After you follow the step in "Installing the patch from a USB drive" on page 7, return to step 3 below.

3. Reboot the election administration station.

    After logging in, make sure that no warning messages appear. For an example of a warning message, see Figure 1 on page 2.

ClearCount: ScanStations

To install the patch on ScanStations, follow these steps:

1. Disable startup applications for the administrator as follows:

    a. Log in to the ScanStation computer as an administrator.

    b. Open the Windows Task Manger and click the **Startup** tab.

    c. Select the **Windows Defender notification icon** application and click **Disable** (Figure 4 on page 4).

    d. If the following applications appear on the **Startup** tab of the Windows Task Manager, select them and click **Disable**:

        - **Microsoft OneDrive**

        - **PIcon startup utility**

        > **Note**:   Do *not* disable any startup applications related to ScandAll Pro or scanner software.

2. Disable the startup applications for each ScannerOperator as follows:

    a. Log in as each ScannerOperator.

    b. Open the Windows Task Manger and click the **Startup** tab.

    c. If the following applications appear on the **Startup** tab of the Windows Task Manager, select them and click **Disable**:

        - **Windows Defender notification icon**

        - **Microsoft OneDrive**

        - **PIcon startup utility**

3. Install the patch.

    Follow the steps in "Installing the patch from a USB drive" on the next page. The steps in this section are the same for all products.

    > **Note**:   After you follow the steps in "Installing the patch from a USB drive" on the next page, return to step 3 below.

4. Reboot the ScanStation.

    Test both the administrator and all scanner operator accounts.

    After logging in, make sure that no warning messages appear. For an example of a warning message, see Figure 1 on page 2.

Installing the patch from a USB drive

To install the patch from a USB drive:

1. Copy the following files from the USB drive to the desktop:

    - Windows10.0-KB4556940-x64.msu

    - windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu

2. Eject and physically remove the USB drive from the computer.

3. Install the SSU file.

    a. Double-click the file:

        Windows10.0-KB4556940-x64.msu

    b. When the Window Update Standalone Installer for the SSU file displays the confirmation prompt shown in Figure 5, click **Yes**.
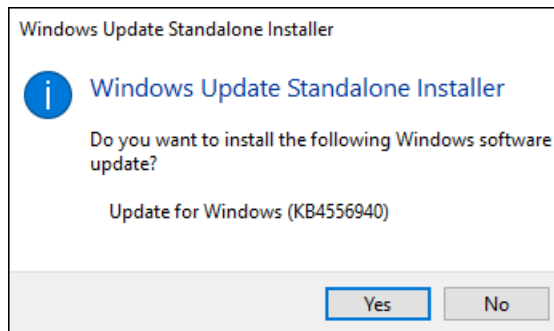
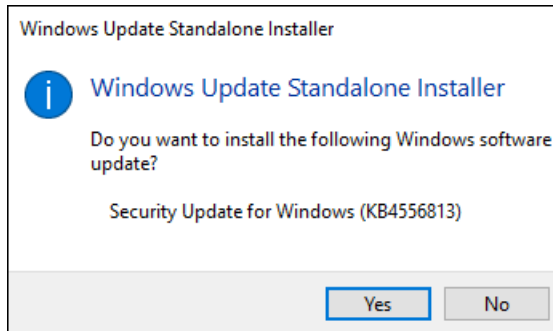**Figure 5. Confirmation prompt for running the SSU file—Windows Update Standalone installer**

The installer for the SSU file takes a few minute to run.

c. When the installer displays the Installation Complete dialog, click **Close** (Figure 6)
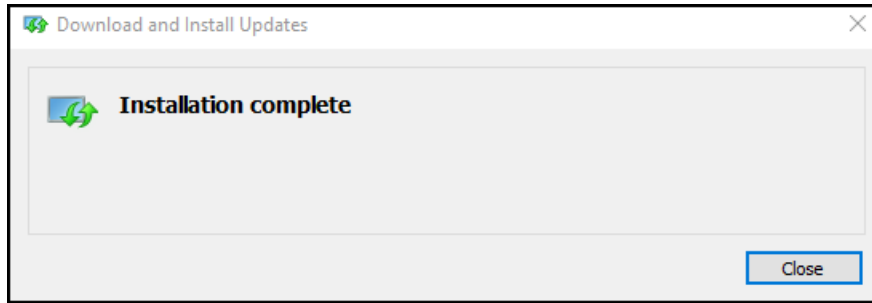
Figure 6. Installation complete prompt for the SSU file

4. Install the security update.

    a. Double-click the file:

        windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu

    b. When the Windows Update Standalone Installer displays the confirmation prompt for the security update, click **Yes** (Figure 7).

Figure 7. Confirmation prompt for running the security update—Windows Update Standalone Installer

    The installation of the security update takes approximately 30 minutes to run.

5. After the security update completes, restart the computer.

    It takes approximately 30 minutes for the computer to finish the updates and restart.

6. Confirm that you have installed the updates.

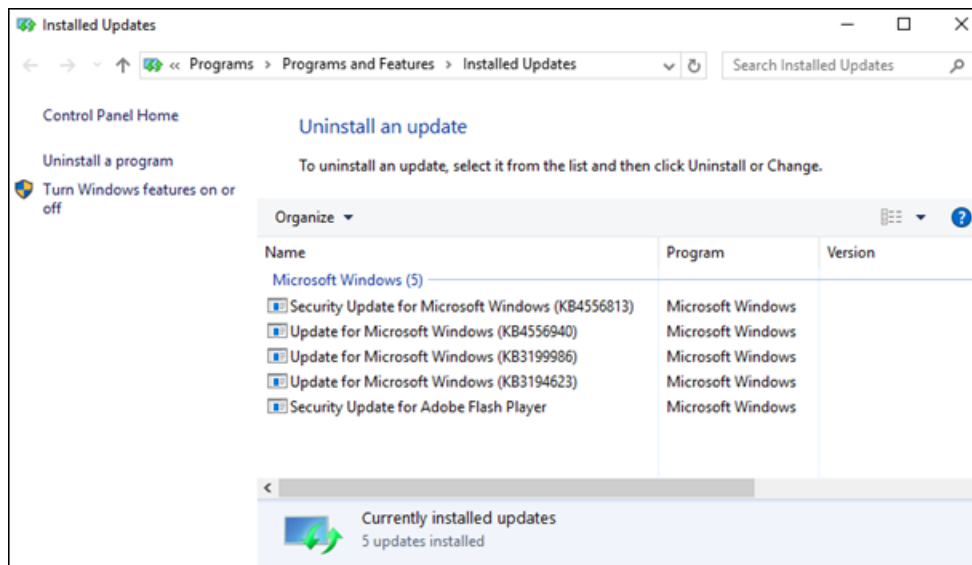   a. Click Start in the taskbar and type **view installed updates**.

   Windows displays a pop-up menu (Figure 8).
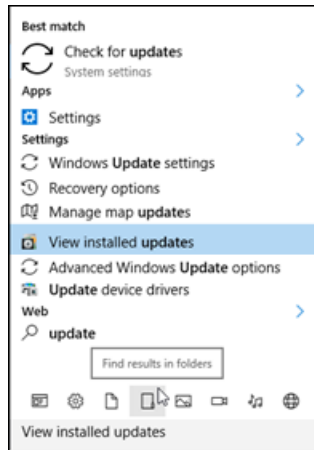
Figure 8. Pop-up menu containing the View installed updates selection

   b. In the pop-up menu, click **View installed updates**.

   Windows displays the Installed Updates dialog (Figure 9).

Figure 9. Installed Updates dialog

   c. Confirm that KB4556940 and KB4556813 appear in the Installed Updates dialog.

7. Remove the installation files.

    a. When the installation is complete, delete these files from the desktop:

       Windows10.0-KB4556940-x64.msu

       windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu

    b. Empty the computer's recycling bin to ensure that the files are deleted.

8. Return to the next step in the procedure for the product that you are updating.

    - ClearAccess unit: Step 4, "Reboot the ClearAccess unit." on page 4

    - ClearDesign DesignStation: Step 3, "Reboot the DesignStation." on page 5

    - ClearCount election administration station: Step 3, "Reboot the election administration station." on page 6

    - ClearCount ScanStation: Step 3, "Reboot the ScanStation." on page 7

Final steps

Use the same USB drive to patch all ClearVote products that run Windows 10.

After all updates are complete on all computers, make sure to:

1. Delete all copies of these files from the desktops of all computers that you have updated:

    - Windows10.0-KB4556940-x64.msu

    - windows10.0-kb4556813-x64_074956aa9f895643ea0768d516375d4a1cd732a2.msu

2. Delete all the files on the USB drive.

    It is illegal to use or distribute these files for any computers other than those used for ClearVote.

3. Notify your Customer Success representative after you have applied the patch to all ClearVote computers.

If you have any questions or issues when applying the patch, contact Clear Ballot by going to http://clearballot.odoo.com/.