

Windows Embedded operating system add-ons and security updates

Release Notes



Notes, cautions, and warnings

 | **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 | **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 | **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Overview

Dell Wyse thin clients running Windows Embedded Standard operating system provide access to applications, files, and network resources.

Locally installed software permits remote administration of the thin clients and provides local maintenance functions. More add-ons are available that support a wide range of specialty peripherals and features for environments that require a secure user interface.

Support matrix

Table 1. Support matrix

| Add-on name | Supported operating system | Release date | Release notes |
|--|--|----------------|--|
| BIOS Add-on with AMD Microcode to fix Side Channel Vulnerability for Wyse 5020 and 7020 Thin Clients running Windows Embedded Operating System | <ul style="list-style-type: none"> Windows 10 IoT Enterprise Windows Embedded Standard 7P Windows Embedded Standard 7 | July 2019 | BIOS Add-on with AMD Microcode to fix Side Channel Vulnerability for Wyse 5020 and 7020 Thin Clients running Windows Embedded Operating System |
| BIOS Add-on with AMD microcode to fix Side Channel Vulnerability for Windows Embedded Operating System | <ul style="list-style-type: none"> Windows 10 IoT Enterprise Windows Embedded Standard 7P | May 2019 | BIOS Add-on with AMD microcode to fix Side Channel Vulnerability for Windows Embedded Operating System |
| Intel Bluetooth Pairing Vulnerability Fixes Add-on | <ul style="list-style-type: none"> Windows 10 IoT Enterprise Windows Embedded Standard 7P | December 2018 | Intel Bluetooth Pairing Vulnerability Fixes Add-on |
| OSComponentCleanup Add-on for Windows 10 IoT Enterprise Redstone 1 | Windows 10 IoT Enterprise RedStone 1 | November 2018 | OSComponentCleanup Add-on for Windows 10 IoT Enterprise Redstone 1 |
| Language Control Add-on Version 2.1 for Windows Embedded Standard with Multi-lingual User Interface | <ul style="list-style-type: none"> Windows 10 IoT Enterprise Windows Embedded Standard 7P Windows Embedded Standard 7 | October 2018 | Language Control Add-on Version 2.1 for Windows Embedded Standard with Multi-lingual User Interface |
| CADMAP updates for Dell Wyse 5060 thin client and Wyse 5070 thin client with Windows 10 IoT Enterprise | Windows 10 IoT Enterprise | September 2018 | CADMAP updates for Dell Wyse 5060 thin client and Wyse 5070 thin client with Windows 10 IoT Enterprise |
| Language Control Application version 1.0.0 Add-on | <ul style="list-style-type: none"> Windows 10 IoT Enterprise Windows Embedded Standard 7P Windows Embedded Standard 7 | August 2018 | Language Control Application version 1.0.0 Add-on |
| Write Filter update for Windows Embedded Standard 7 Operating System | <ul style="list-style-type: none"> Windows Embedded Standard 7P Windows Embedded Standard 7 | March 2018 | Write Filter update for Windows Embedded Standard 7 Operating System |
| Unified Write Filter RAMDisk Size add-on for Microsoft Windows 10 IoT Enterprise | <ul style="list-style-type: none"> Windows 10 IoT Enterprise RedStone 1 Windows 10 IoT Enterprise Threshold | March 2018 | Unified Write Filter RAMDisk Size add-on for Microsoft Windows 10 IoT Enterprise |
| Custom Field Thin Client Application add-on for | <ul style="list-style-type: none"> Windows 10 IoT Enterprise RedStone 1 | March 2018 | Custom Field Thin Client Application add-on for |

| Add-on name | Supported operating system | Release date | Release notes |
|---|--|----------------|---|
| Microsoft Windows 10 IoT Enterprise | <ul style="list-style-type: none"> • Windows 10 IoT Enterprise Threshold | | Microsoft Windows 10 IoT Enterprise |
| Write Filter update for Windows 10 IoT Enterprise Threshold and Redstone Operating System | <ul style="list-style-type: none"> • Windows 10 IoT Enterprise RedStone 1 • Windows 10 IoT Enterprise Threshold | February 2018 | Write Filter update for Windows 10 IoT Enterprise Threshold and Redstone Operating System |
| Windows Embedded Standard Security Update to Mitigate Meltdown and Spectre Vulnerability | <ul style="list-style-type: none"> • Windows 10 IoT Enterprise • Windows Embedded Standard 8 • Windows Embedded Standard 7P • Windows Embedded Standard 7 | January 2018 | Windows Embedded Standard Security Update to Mitigate Meltdown and Spectre Vulnerability |
| WPA2 Security Vulnerability Add-on | <ul style="list-style-type: none"> • Windows 10 IoT Enterprise RedStone 1 • Windows 10 IoT Enterprise Threshold • Windows Embedded Standard 7P • Windows Embedded Standard 7 | December 2017 | WPA2 Security Vulnerability Add-on |
| Windows security updates | <ul style="list-style-type: none"> • Windows 10 IoT Enterprise RedStone 1 • Windows 10 IoT Enterprise Threshold • Windows Embedded Standard 7P • Windows Embedded Standard 7 | September 2017 | Windows security updates for Microsoft Bluetooth driver spoofing vulnerability |
| Dell Wyse 5060 Thin Client with WES7P for Tier 3 Language support | Windows Embedded Standard 7 | January 2017 | Dell Wyse 5060 Thin Client with WES7P for Tier 3 Language support |

BIOS Add-on with AMD Microcode to fix Side Channel Vulnerability for Wyse 5020 and 7020 Thin Clients running Windows Embedded Operating System

Release summary

The scope of this release is to update BIOS with AMD Microcode to address the Side Channel security vulnerability for Wyse 5020 Thin Client and Wyse 7020 Thin Client running the Windows Embedded operating system.

Version

2.0G

Release date

July 2019

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Enter the title of your concept here

Replace this text with your content.

Supported platforms

Table 2. Supported platforms

| Platform name | Operating system | Build number | Memory configuration | |
|----------------------------|-----------------------------|--------------------|----------------------|----------|
| | | | Flash size | RAM size |
| Dell Wyse 5020 Thin Client | Windows Embedded Standard 7 | BOB0_7092_16GB.exe | 16 GB | 4 GB |

| Platform name | Operating system | Build number | Memory configuration | |
|---|------------------------------|--------------------|----------------------|-----------|
| | | | Flash size | RAM size |
| <ul style="list-style-type: none"> Dell Wyse 7020 Thin Client | | | | |
| <ul style="list-style-type: none"> Dell Wyse 5020 Thin Client | Windows Embedded Standard 7P | BOB0_7091_16GB.exe | 16 GB | 4 GB |
| <ul style="list-style-type: none"> Dell Wyse 7020 Thin Client Dell Wyse 7020 Accelerated Graphics Thin Client | Windows 10 IoT Enterprise | GOG0_0A79_32GB.exe | 32 GB | 4 GB/8 GB |

Previous version

2.0F

Add-on details

- File name—WES_5020_7020_BIOS_20G.zip
- File size—7 MB

The zip file contains the following three add-ons:

- WES7P_5020_7020_BIOS_20G.exe
- WIE10_5020_7020_BIOS_20G.exe
- WES7_5020_7020_BIOS_20G.exe

NOTE: The file size of the add-ons is 2.4 MB.

Tested management servers and USB Imaging Tool version

Table 3. Management Servers and USB Imaging Tool Version

| Management Server | Version |
|-----------------------|---------|
| Wyse Management Suite | 1.4 |
| Wyse Device Manager | 5.7.3 |
| USB Imaging Tool | 3.1.0 |

- Wyse Device Agent must be upgraded to the latest version before deploying the BIOS add-on.
- Extract the add-on from the zipped folder and copy the .exe file to the Wyse Management Suite repository.
- Extract the add-on from the zipped folder and register the .exe file to the RSP file when you deploy the package using WDM.
- The client automatically reboots after you push the add-on.
- The BIOS file is displayed under OS image repository in Wyse Management Suite and under Images in Wyse Device Manager.

Known issues

Table 4. Known issues

| Issue ID | Description | Workaround |
|----------|---|---|
| WIN-1148 | Unable to register BIOS version 2.0G pulled from the Wyse 5020 Thin Client and Wyse 7020 Thin Client running Windows 10 IoT Enterprise operating system using USB Imaging Tool version 3.1.0. | <ol style="list-style-type: none">1 Configure the USB Imaging tool for the image pull operation.2 Extract the BIOS add-on WES_5020_7020_BIOS_20G.exe from the zipped folder.3 Extract the WIE10_5020_7020_BIOS_20G.exe from the WIE10 folder.4 Copy the file to the USB drive that is prepared for the image pull operation. |
| WIN-1152 | The operating system type is displayed as WES instead of WES7P in the RSP file when you pull the BIOS using the USB Imaging Tool. | There is no workaround in this release. |
| WIN-1157 | Occasionally, there is no display on Wyse 7020 Accelerated Graphics Thin Client when you boot to BIOS. | There is no workaround in this release. |

Installing the add-on

Install the add-on using Wyse Management Suite

This section describes the steps to install the add-on using Wyse Management Suite.

- 1 Register the device to the Wyse Management Suite server, and add the device to the respective groups.
- 2 Copy the **.exe** file to the Wyse Management Suite server repository, **C:\WMS\LocalRepo\repository\osimages\zipped**.
- 3 Log in to Wyse Management Suite.
- 4 Click **Portal Administration**, and then click **File Repository** under **Console Settings**.
- 5 Select the **Local Repository** check box.
- 6 Click **Sync Files**.
Wait for the synchronization process to complete. The synchronization process copies the package from the repository to **Apps and Data**.
- 7 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 8 Go to **OS Image Repository > WES/ThinLinux** and verify the copied package in the applications list.
- 9 To create a group in the Wyse Management Suite server, click **Groups & Configs**.
The **Groups & Configs** page is displayed.
- 10 Click the **Plus sign (+)** button and enter the required details to register your client in the same group.
- 11 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 12 Click **WES/ThinLinux** under **OS Image Policies**.
- 13 Click **Add Policy** to add the policy to the required group.
- 14 Update the required fields and click **Save**.
- 15 Click **Yes** to schedule the job immediately.
- 16 Go to the **Image Policy** job, and enter the description.
- 17 From the **Run** drop-down menu, select **Immediately**.
- 18 Click **Preview** and then click **Schedule**.

The package deployment takes a few minutes to complete.

 **NOTE: System reboots once during the package deployment.**

Install the add-on using Wyse Device Manager

This section describes the steps to install the add-on using Wyse Device Manager.

- 1 Extract the BIOS add-on from the **WES_5020_7020_BIOS_20G.zip** file to the WDM server
WES_5020_7020_BIOS_20G folder with **WES7**, **WES7P**, and **WIE10** sub folders are created
- 2 Extract **WES7P_5020_7020_BIOS_20G.exe** from **WES7P**, **WES7_5020_7020_BIOS_20G** from **WES7** and **WIE10_5020_7020_BIOS_20G.exe** from **WIE10** folder.
WES7_5020_7020_BIOS_20G.rsp, **WES7P_5020_7020_BIOS_20G.rsp**, and **WIE10_5020_7020_BIOS_20G.rsp** are created.
- 3 Log in to the WDM server.
- 4 Click **Applications** in the Dell Wyse Device Manager dashboard page.
The options **Images**, **Other Packages**, **Agent Update**, **Device Configuration**, and **PCoIP Device Configuration** are displayed.
- 5 Select **Images**.
- 6 Click **Create Package Plus (+)**.
The application prompts to download the Package Register utility.
- 7 Click **Allow**.
The **Create Package** window is displayed.
- 8 Download the **.exe** file on your local repository.
- 9 Navigate to the folder, and run the **Package Register** utility file.
The **WDM Package Registration Utility** window is displayed.
- 10 Enter WDM server address and user credentials in the respective fields.
- 11 Select the respective RSP file, and click **Browse**.
- 12 Select the add-on path.
The list of selected packages is displayed.
- 13 Select the appropriate operating system.
- 14 Click **Upload**.
The status is displayed as **Success**, and the package is displayed under **Images**.
- 15 Go to **Devices** and select the target client.
- 16 Click **Update**.
- 17 Go to **Select Package > Images**, and select the add-on package.
- 18 Click **Save**.
A pop-up is displayed on the target device.
- 19 Click **Update Now** on the target device.
System reboots and the BIOS is updated.

After the BIOS is updated, the thin client boots to the operating system.

Install the BIOS add-on using the USB Imaging tool

- 1 Download the Dell Wyse USB Imaging tool from downloads.dell.com/wyse.
- 2 Install the tool on the supported operating system.
- 3 Launch the USB Imaging tool.
The tool displays the **Image Pull** screen by default.
- 4 Click **Image Push** to display the **Image Push** screen.
- 5 Plug in the USB drive to the system running the USB Imaging Tool.

- 6 Click the **Refresh** button to populate the USB drives.
- 7 Select the USB drive from the **Available drives** drop-down list.
If your USB drive contains images, these images are displayed on the screen.
- 8 Select the operating system architecture that you want to push to the target device. Select one of the following:
 - **32 bit**—Select this option to push the 32-bit architecture-based operating system to the target device.
 - **64 bit**—Select this option to push the 64-bit architecture-based operating system to the target device.
- 9 To add a new local image on the USB drive, click the **Local** tab, and add the BIOS file.
Ensure that only the BIOS check box is selected.
- 10 Click **Configure USB Drive**.
- 11 Click **Update** (Recommended).
The status is displayed in the progress bar.
- 12 Remove the USB drive.
- 13 Ensure that the target thin client is configured to boot from the USB drive.
- 14 Connect the USB drive to the thin client, and enable **Boot from USB** in the BIOS menu.

NOTE: Select the boot mode settings as UEFI for Windows 10 IoT Enterprise, and Legacy for Windows Embedded Standard 7 and Windows Embedded Standard 7P.

- 15 During boot, press and hold the key **P** on your keyboard until the **Boot menu** is displayed.
- 16 Select your USB drive and press **Enter**.
The device reboots from the USB drive, and the BIOS that needs to be pushed to the device is displayed.
- 17 In the **Choose image to push to this device** section, select the local BIOS from the list, and click **OK**.
The BIOS push operation starts, and the overall status is displayed in the progress bar.
- 18 After the BIOS push operation is complete, remove the USB drive from the target device.
The thin client restarts automatically after BIOS push operation is complete.

BIOS add-on with AMD microcode to fix Side Channel vulnerability for Windows Embedded operating system

Release summary

The scope of this release is to update BIOS with AMD Microcode to address the Side Channel security vulnerability on Dell Wyse 5060 thin clients running the Windows Embedded Standard 7P and Windows 10 IoT Enterprise operating system.

Version

1.0K

Release date

May 2019

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Enter the title of your concept here

Replace this text with your content.

Supported platforms

Table 5. Supported platforms

| Platform name | Operating system | Memory configuration | |
|----------------------------|------------------------------|----------------------|-----------|
| | | Flash size | RAM size |
| Dell Wyse 5060 thin client | Windows Embedded Standard 7P | 32 GB | 4 GB/8 GB |
| | Windows 10 IoT Enterprise | 32 GB | 4 GB/8 GB |

Previous version

- 1.0J—Windows Embedded Standard 7P
- 1.0H—Windows 10 IoT Enterprise

Add-on details

- File name—**WES_5060_BIOS_10K.zip**
- File size—6.23 MB (6,542,594 bytes)

The zip file contains the following two add-ons:

- **WES7P_5060_BIOS_10K.exe**—file size 33,54,218 bytes
- **WIE10_5060_BIOS_10K.exe**—file size 33,59,674 bytes

Tested management servers and USB Imaging Tool version

Table 6. Management Servers and USB Imaging Tool Version

| Management Server | Version |
|-----------------------|---------|
| Wyse Device Manager | 5.7.3 |
| Wyse Management Suite | 1.4 |
| USB Imaging Tool | 3.1.0 |

- Wyse Device Agent must be upgraded to the latest version before deploying the BIOS add-on.
- Extract the add-on from the zipped folder and copy the .exe file to the Wyse Management Suite repository.
- Extract the add-on from the zipped folder and register the .exe file to the RSP file.
- To deploy the add-on using USB Imaging Tool to the thin clients running Windows 10 IoT Enterprise, you must change the Boot mode settings to **Both**.
- The client automatically reboots after you push the add-on.
- The BIOS file is displayed under OS image repository in Wyse Management Suite and under Images in Wyse Device Manager.

Known issue

Table 7. Known issue

| Issue ID | Issue description | Workaround |
|----------|--|--|
| WC-1058 | You cannot register the BIOS file that is unzipped for Windows Embedded Standard 7P to the USB Imaging tool. | There is no workaround for this issue. |

Installing the add-on

Install the add-on using Wyse Management Suite

This section describes the steps to install the add-on using Wyse Management Suite.

- 1 Register the device to the Wyse Management Suite server, and add the device to the respective groups.
- 2 Copy the **.exe** file to the Wyse Management Suite server repository, **C:\WMS\LocalRepo\repository\osimages\zipped**.
- 3 Log in to Wyse Management Suite.
- 4 Click **Portal Administration**, and then click **File Repository** under **Console Settings**.
- 5 Select the **Local Repository** check box.
- 6 Click **Sync Files**.
Wait for the synchronization process to complete. The synchronization process copies the package from the repository to **Apps and Data**.
- 7 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 8 Go to **OS Image Repository > WES/ThinLinux** and verify the copied package in the applications list.
- 9 To create a group in the Wyse Management Suite server, click **Groups & Configs**.
The **Groups & Configs** page is displayed.
- 10 Click the **Plus sign (+)** button and enter the required details to register your client in the same group.
- 11 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 12 Click **WES/ThinLinux** under **OS Image Policies**.
- 13 Click **Add Policy** to add the policy to the required group.
- 14 Update the required fields and click **Save**.
- 15 Click **Yes** to schedule the job immediately.
- 16 Go to the **Image Policy** job, and enter the description.
- 17 From the **Run** drop-down menu, select **Immediately**.
- 18 Click **Preview** and then click **Schedule**.
The package deployment takes a few minutes to complete.

 **NOTE:** System reboots once during the package deployment.

Install the add-on using Wyse Device Manager

This section describes the steps to install the add-on using Wyse Device Manager.

- 1 Copy the respective **.exe** file to the WDM server.
- 2 Launch Wyse Device Manager and login using valid credentials.
- 3 Click **Applications** in the Dell Wyse Device Manager dashboard page.
The options **Images**, **Other Packages**, **Agent Update**, **Device Configuration**, and **PCoIP Device Configuration** are displayed.
- 4 Select **Images**.
- 5 Click **Create Package Plus (+)**.
The application prompts to download the Package Register utility.
- 6 Click **Allow**.
The **Create Package** window is displayed.
- 7 Download the **.exe** file on your local repository.

- 8 Navigate to the folder, and run the **Package Register** utility file.
The **WDM Package Registration Utility** window is displayed.
- 9 Enter WDM server address and user credentials in the respective fields.
- 10 Select **EXE** to register, and click **Browse**.
The **WDM Package Uploader** window is displayed with the progress status bar.
- 11 Click **Open**.
The list of selected packages is displayed.
- 12 Select the appropriate operating system package.
- 13 Click **Upload**.
The status is displayed as **Success**, and the package is displayed under **Images**.
- 14 Go to **Devices** and select the target client.
- 15 Click **Update**.
- 16 Go to **Select Package > Images**, and select the add-on package.
- 17 Click **Save**.
A pop-up is displayed on the target device.
- 18 Click **Update Now** on the target device.
C:\Temp folder is created. You must edit the **.rsp** script manually to delete the temp folder using the command `DT C: \Temp`.

NOTE: System reboots once during the package deployment.

Install the BIOS add-on using the USB firmware tool

- 1 Download the Dell Wyse USB Imaging tool from downloads.dell.com/wyse.
- 2 Install the tool on the supported operating system.
- 3 Launch the USB firmware tool.
The tool displays the **Image Pull** screen by default.
- 4 Click **Image Push** to display the **Image Push** screen.
- 5 Plug in the USB drive to the system running the USB Imaging Tool.
- 6 Click the **Refresh** button to populate the USB drives.

NOTE: You can have multiple USB drives that are plugged in to your system.

- 7 Select the USB drive from the **Available drives** drop-down list.
If your USB drive contains images, these images are displayed on the screen.
- 8 Select the operating system architecture that you want to push to the target device. Select one of the following:
 - **32 bit**—Select this option to push the 32-bit architecture-based operating system to the target device.
 - **64 bit**—Select this option to push the 64-bit architecture-based operating system to the target device.
- 9 To add a new local image on the USB drive, click the **Local** tab, and add the BIOS file.
Ensure that only the BIOS check box is selected.
- 10 Click **Configure USB Drive**.
- 11 Click **Update** (Recommended).
The status is displayed in the progress bar.
- 12 Remove the USB drive.
- 13 Ensure that the target thin client is configured to boot from the USB drive.

NOTE: For thin clients running Windows 10 IoT Enterprise operating system, you must set the Boot mode to BOTH to boot from USB.

- 14 Connect the USB drive to the thin client.
- 15 During boot, press and hold the key **P** on your keyboard until the **Boot menu** is displayed.
- 16 Select your USB drive and press **Enter**.
The device reboots from the USB drive, and the BIOS that needs to be pushed to the device is displayed.

- 17 In the **Choose image to push to this device** section, select the local BIOS from the list, and click **OK**.
The BIOS push operation starts, and the overall status is displayed in the progress bar.
- 18 After the BIOS push operation is complete, remove the USB drive from the target device.
The Wyse 5060 thin client restarts automatically after BIOS push operation is complete.

Intel Bluetooth Pairing Vulnerability Fixes Add-on

Release type and definition

This release notes contains information about the Intel bluetooth add-on for Wyse 5060 thin client, Latitude E7270 mobile thin client, Latitude 3460 mobile thin client, and Latitude 5280 mobile thin client.

This add-on addresses the security vulnerability issue **Bluetooth Pairing (INTEL-SA-00128)**.

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Support matrix

Table 8. Support matrix

| Platform | Operating system | Flash/SSD Size | RAM Size | Build number |
|-----------------------------------|------------------------------|----------------|------------|------------------|
| Wyse 5060 thin client | Windows 10 IoT Enterprise | 32 GB /64 GB | 4 GB /8 GB | 5060_0A71_32GB |
| Latitude 5280 mobile thin client | Windows 10 IoT Enterprise | 128 GB SSD | 8 GB | 5280_0A73_32GB |
| Wyse 5060 thin client | Windows Embedded Standard 7P | 32 GB /64 GB | 4 GB /8 GB | 5060_7067_32GB |
| Latitude 3460 mobile thin client | Windows Embedded Standard 7P | 128 GB SSD | 8 GB | 3460_7065_128GB |
| Latitude E7270 mobile thin client | Windows Embedded Standard 7P | 128 GB SSD | 8 GB | E7270_7065_128GB |

Table 9. Management Server details

| Management Server | Version |
|---|---|
| Wyse Device Manager | 5.7.3 |
| Wyse Management Suite | 1.3 |
| Microsoft System Center Configuration Manager | Microsoft System Center Configuration Manager 2016 Version 1606 Console Version—5.0.8412.1313 Site version—5.0.8412.1000 |

Version information and components name

Table 10. Version information

| Locations | Old driver version | | | | New driver version | |
|---------------------------------------|---------------------------|-----------|------------------------------|----------------|---------------------------|------------------------------|
| | Windows 10 IoT Enterprise | | Windows Embedded Standard 7P | | Windows 10 IoT Enterprise | Windows Embedded Standard 7P |
| | 5060 | 5280 | E7270/3460 | 5060 | 5060/5280 | E7270/3460/5060 |
| Dell Thin Client - Installed Products | 20.40.0 | 19.60.0 | 19.0.1603.0650 | 19.0.1601.0594 | 20.70.2 | 20.60.0 |
| Device Manager | 20.40.0.3 | 19.60.0.3 | 19.0.1603.630 | 9.0.1601.582 | 20.70.0.4 | 20.60.0.4 |
| Control Panel - Programs and Features | 20.40.0 | 19.60.0 | 19.0.1603.0650 | 19.0.1601.0594 | 20.70.2 | 20.60.0 |

Table 11. Component name under various locations

| Locations | Windows 10 IoT Enterprise and Windows Embedded Standard 7P |
|---------------------------------------|--|
| Dell Thin Client - Installed Products | Intel Wireless Bluetooth |
| Dell Thin Client - WDM Packages | IntelBluetoothDriver |
| Device Manager | Intel Wireless Bluetooth |
| Control Panel - Programs and Features | Intel Wireless Bluetooth |

ENERGY STAR specifications

The product meets the ENERGY STAR requirement.

On thin client running Windows 10 IoT Enterprise operating system, the following values are set by default in control panel applet of Power options:

- Supports WOL power off states.
- Supports idle state wake.
- Screen off timer set to 10 minutes in Balanced mode, five minutes in Power saver mode, and 15 minutes in High Performance mode.
- Sleep timer set to 15 minutes in Balanced mode, 15 minutes in Power saver mode, and **Never** in High Performance mode.

On thin client running Windows Embedded Standard 7 operating system, the following values are set by default in control panel applet of Power options:

- Supports WOL power off states.
- Supports idle state wake.
- Screen off timer set to 10 minutes in Balanced mode, five minutes in Power saver mode, and 15 minutes in High Performance mode.
- Sleep timer set to 15 minutes in Balanced mode, **Never** in Power saver mode, and **Never** in High Performance mode.

Known issues

Table 12. Known issues

| Issue ID | Issue description | Workaround |
|----------|---|---|
| WS-2263 | When you are installing or uninstalling the add-on Interactive services detection crash message window is displayed occasionally. | There is no impact to functionality. |
| WS-2246 | A yellow exclamation mark is observed on Bluetooth peripheral devices in Device Manager after you connect a mobile Bluetooth device to the client. | <ol style="list-style-type: none">1 Go to Control Panel > Devices & Printers > Devices and select the device.2 Go to Properties > Services and clear the respective Bluetooth services. |
| WS-2244 | Occasionally, uninstallation of Bluetooth add-on does not clean up, even after successful job completion from management servers. | There is no impact to functionality. |
| WS-2376 | When you pair two Bluetooth devices, Windows explorer has stopped working error message is displayed. This issue is also observed when you transfer the files using Bluetooth. | There is no impact to functionality. |

OSComponentCleanup Add-on for Windows 10 IoT Enterprise Redstone 1

Release type and definition

This release contains information about the **OSComponentCleanup** add-on for Windows 10 IoT Enterprise Redstone 1. This add-on increases free space by optimizing the disk space on thin clients that run Windows 10 IoT Enterprise. This OSComponentCleanup add-on is supported on the thin clients with 32 GB or a higher disk configuration.

The **OSComponentCleanup** add-on clears all the overridden operating system components that are accumulated during the installation of Microsoft security updates.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Support matrix

Table 13. Supported platforms

| Platform | Memory configuration | Build number |
|------------------------------|---|-------------------|
| Wyse 5060 thin client | 500 GB/128 GB/256 GB, 8 GB/4 GB RAM | 0A60/0A71 |
| Wyse 5070 thin client | 128 GB/64 GB SSD/32GB eMMC, 8 GB/4 GB RAM | 10.03.06.05.18.01 |
| Wyse 5280 mobile thin client | 128-GB M2 SSD, 8-GB RAM | 0A73 |
| Wyse 3480 mobile thin client | 128-GB M2 SSD, 8-GB RAM | 0A72 |

Table 14. Add-on details

| OSComponentCleanup add-on | |
|---------------------------|------------------------|
| File name | OSComponentCleanup.msi |
| File size | 679,424 bytes |

Installing add-on manually

Follow these steps to install the add-on manually:

- 1 Go to support.dell.com.
- 2 Click **Product Support**, enter the *Service Tag* of your thin client, and then click **Submit**.

① | **NOTE: If you do not have Service Tag, manually browse for your thin client model.**

- 3 Click **Drivers and Downloads**.
- 4 From the **Operating system** drop-down menu, select the appropriate operating system.
- 5 Scroll down the page and download the `OSComponentCleanup.msi` file.
- 6 Log in as an administrator and disable UWF.
- 7 Copy the downloaded `OSComponentCleanup.msi` file to `C:\Temp` folder.
- 8 Double-click the `OSComponentCleanup.msi` file and follow the on-screen instructions.
- 9 Click **Finish** and enable UWF.

Known issues

Table 15. Known issues

| Issue number | Issue description | Workaround |
|--------------|--|---|
| WS-852 | Installation progress bar displays Completed before running the DISM command. | There is no workaround in this release. |

Important notes

- When you install the `OSComponentCleanup` add-on for the first time, it may take 1-3 hours to finish the component clean-up. However, it may take 30-60 minutes to complete the component clean-up process when you again install the `OSComponentCleanup` add-on.
- The `OSComponentCleanup` add-on can be used by the Wyse Management Suite administrator with Pro license to trigger the clean-up process after every monthly cumulative update as part of the **Post install** option in **Advanced App Policy**.
- Recurring schedule for clean-up process can be created in Wyse Management Suite to avoid manual intervention by the Wyse Management Suite administrator.

Language Control Add-on Version 2.1 for Windows Embedded Standard with Multi-lingual User Interface

Release type and definition

This release note contains information for deploying the unified multilingual user interface image on top of non-unified image with language meta data in the merlin partition. Imaging the client brings up the unit in the same multilingual user interface language present in merlin.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

Table 16. Supported platforms

| Operating system | Platform |
|--|---|
| Windows 10 IoT Enterprise | Latitude 3460 mobile thin client |
| | Wyse 5020 thin client |
| | Wyse 5060 thin client |
| | Latitude 5280 mobile thin client |
| | Wyse 7020 thin client |
| | Wyse 7020 accelerated graphics thin client |
| | Wyse 7040 thin client |
| Windows Embedded Standard 7 Professional | Latitude 3460 mobile thin client |
| | Wyse 5020 thin client |
| | Wyse 5060 thin client |
| | Wyse 7020 thin client |
| | Wyse 7020 thin client with accelerated graphics |
| | Wyse 7040 thin client |
| | Latitude E7270 mobile thin client |
| Windows Embedded Standard 7 | Wyse 3030 thin client |
| | Wyse 5010 thin client |

| Operating system | Platform |
|------------------|--|
| | Wyse 5020 thin client |
| | Wyse 7010 extended chassis thin client |
| | Wyse 7010 thin client |
| | Wyse 7020 thin client |

New feature

The new feature in this release is:

LanguageControl_2.1.exe—It writes language meta data to the merlin partition. Following are the language meta data for different languages:

- En-US (English-United States)
- De-DE (German-Germany)
- Fr-CA (French-Canada)
- Ja-JP (Japanese-Japan)
- Es-ES (Spanish-Spain)
- Fr-FR (French-France)
- It-IT (Italian-Italy)
- Ko-KR (Korean-Korea)
- Zh-CN (Chinese-Simplified)
- Zh-TW (Chinese-Traditional)
- Pt-BR (Portuguese-Brazil)

You should uncomment by removing the semicolon at the beginning of an EX command in the WDM rsp script. For example, write de-DE (German-Germany) to merlin partition, uncomment de-DE and comment the other EX commands in rsp script.

```
EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language de-DE" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language en-US" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language es-ES" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language fr-CA" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language fr-FR" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language it-IT" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language ja-JP" "+"
```

```

; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language ko-KR" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language zh-CN" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language zh-TW" "+"
; EX "C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe"
"C:\Windows\Setup\Tools\MUI\LanguageConfig.ps1 -Language pt-BR" "+"

```

NOTE: You must uncomment only one EX command before deploying the package

Add-on details

Table 17. Add-on details

| Add-on name | Size in bytes |
|-------------------------|---------------|
| LanguageControl_2.1.exe | 122,880 |

Add-on package details

- This package writes the language meta data to the merlin partition.
- This package deploys Windows Embedded Standard builds.
- The system restarts twice while deploying the package.
- Minimum free space required to install the package is 5 MB.

Energy Star test

Thin client meets the ENERGY STAR version 6.0 requirements.

Following are the values that are displayed in control panel applet of power options:

- Supports WOL power off states.
- Supports idle state wake.
- Screen off timer is set to 10 minutes.
- Sleep timer is set to 15 minutes.

CADMAP updates for Dell Wyse 5060 thin client and Wyse 5070 thin client with Windows 10 IoT Enterprise

Release type and definition

This release note contains information about the CADMAP tool update for Wyse 5060 thin client and Wyse 5070 thin client with Windows 10 IoT Enterprise Redstone 1 image. These add-ons enable Win+L and Ctrl+Alt+Delete key to function in the remote session such as Remote Desktop, Citrix, and VMware sessions.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Support matrix

Table 18. Support matrix

| Platform name | Operating system | Add-on file name | Add-on file size | RAM size | Flash size | Build number |
|-----------------------|---------------------------|-----------------------------|------------------|-----------|-----------------------------|-------------------|
| Wyse 5060 thin client | Windows 10 IoT Enterprise | CAD_MAP_VDI_WIE10_64bit.msi | 5,127,680 bytes | 4 GB/8 GB | 32 GB/64 GB | 0A60/0A71 |
| Wyse 5070 thin client | | | | 4 GB/8 GB | 128 GB/64 GB SSD/32 GB eMMC | 10.03.06.05.18.01 |

Table 19. Management server details

| Management Server | Version |
|---|---|
| Wyse Device Manager | 5.7.3 |
| Wyse Management Suite | 1.2 |
| Microsoft System Center Configuration Manager | Microsoft System Center Configuration Manager 2016 Version 1606 Console Version-5.0.8412.1313 Site version-5.0.8412.1000 |

Known issues

Table 20. Known issues

| Issue number | Known issues | Workaround |
|--------------|---|---------------------------------------|
| WC-739 | Win+L key is not working inside the VMware session when connected with RDP protocol in Window mode. | There is no workaround for the issue. |
| WC-816 | Temp folder is not deleted after you push the CAD_MAP_VDI_WIE10_64bit.msi add-on using WDM. | There is no workaround for the issue. |

Language Control Application version 1.0.0 Add-on

Release type and definition

Intel Bluetooth 8265 and Intel Wireless 8265 add-on package for thin clients that run Windows 10 IoT Enterprise Windows Embedded Standard 7P, and Windows 10 IoT Enterprise operating system. You can install this package by using Wyse Device Manager, Wyse Management Suite, and System Center Configuration Manager.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

Table 21. Windows 10 IoT Enterprise

| Platforms | Flash size | RAM size | Build number |
|---|------------|----------|--------------------|
| Dell Wyse 5020 thin client | 32 GB | 4 GB | GOG0_0A79_32GB.exe |
| Dell Wyse 7020 thin client | 32 GB | 4 GB | GOG0_0A79_32GB.exe |
| Dell Wyse 7020 accelerated graphics thin client | 32 GB | 4 GB | GOG0_0A79_32GB.exe |

Table 22. Windows Embedded Standard 7P

| Platforms | Flash size | RAM size | Build number |
|---|------------|----------|--|
| Dell Wyse 5020 thin client | 16 GB | 4 GB | BOB0_7066_16GB.exe BOB0_7065_16GB.exe |
| Dell Wyse 7020 thin client | 16 GB | 4 GB | BOB0_7066_16GB.exe BOB0_7065_16GB.exe |
| Dell Wyse 7020 accelerated graphics thin client | 16 GB | 4 GB | BOB0_7066_16GB.exe BOB0_7065_16GB.exe |
| Dell Wyse 7010 thin client | 16 GB | 4 GB | BZB0_0896_16GB.exe |

Table 23. Windows Embedded Standard 7

| Platforms | Flash size | RAM size | Build number |
|--------------------------------|------------|----------|--------------------|
| Dell Wyse 3030 thin client | 16 GB | 4 GB | BEBO_7077_16GB.exe |
| Dell Wyse 5010 thin client | 16 GB | 4 GB | BDBO_7064_16GB.exe |
| Dell Wyse 5020 thin client | 16 GB | 4 GB | BOBO_7064_16GB.exe |
| Dell Wyse 7010 thin client | 16 GB | 4 GB | BZBO_7064_16GB.exe |
| Wyse 7010 Extended thin client | 16 GB | 4 GB | BZBO_7064_16GB.exe |
| Dell Wyse 7020 thin client | 16 GB | 4 GB | BOBO_7064_16GB.exe |

Supported management software

Table 24. Supported management software

| Management software | Version |
|-------------------------------------|--|
| Wyse Device Manager | 5.7.3 |
| Wyse Management Suite | 1.3 |
| System Center Configuration Manager | 2016 Microsoft System Center Configuration Manager Version 1606 Console Version—5.0.8412.1313 Site version—5.0.8412.1000 |

Add-on package details

- Package name: **Intel_Bluetooth_8265.exe**
 - This package installs **Intel_Bluetooth_8265** on Windows 10 IoT Enterprise, Windows Embedded Standard 7P, and Windows Embedded Standard 7 builds.
 - The system restarts twice during the installation.
 - Minimum free disk space required to install this package is 2 GB.
- Package name: **Intel_Wireless_8265.exe**
 - This package installs **Intel_Wireless_8265** on Windows 10 IoT Enterprise, Windows Embedded Standard 7P, and Windows Embedded Standard 7 builds.
 - The system restarts twice during the installation.
 - Minimum free disk space required to install this package is 2 GB.

Write Filter update for Windows Embedded Standard 7 Operating System

Release type and definition

This release note contains information about the Windows Writefilter_Update add-on for Windows Embedded Standard 7E and Windows Embedded Standard 7P images. This update addresses the following CIRs:

- CIR92178
- CIR92116

CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client. Any operation of a Dell Wyse Windows Embedded Thin Client with the write filter turned off during regular use and/or with the Windows Page file enabled will prematurely wear out your Flash/SSD storage, decrease performance and decrease the lifespan of the product. Dell is not responsible for, and will not, warrant, support, repair or replace any thin client device or component that fails to operate properly due to a failure to follow these instructions.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

Table 25. Supported Platforms

| Platform | Build number | Language |
|---|--------------|----------|
| Wyse 3030 thin client with WES7E | 7077 | en-US |
| Wyse 5010 thin client with WES7E | 7064 | en-US |
| Wyse 5020 thin client with WES7E | 7064 | en-US |
| Wyse 5020 thin client with WES7P | 7066 | en-US |
| Wyse 7010 thin client with WES7E | 7064 | en-US |
| Wyse 7010 thin client with WES7—Extended | 7064 | en-US |
| Wyse 7020 thin client with WES7E | 7064 | en-US |
| Wyse 7020 thin client with WES7P | 7066 | en-US |
| Wyse 7020 thin client with WES7P—Extended | 7066 | en-US |
| Wyse 7040 thin client with WES7P | 7065 | en-US |

| Platform | Build number | Language |
|----------------------------------|--------------|----------|
| Wyse 5060 thin client with WES7P | 7067 | en-US |

Installing the add-on manually

You can install the add-on manually.

- 1 Log into the thin client as administrator and disable the File-Based Write Filter option.
- 2 Copy the WriteFilter_UpdateWES7E.msi or WriteFilter_UpdateWES7P.msi add-on to **C:\Temp folder**.
- 3 Double-click the WriteFilter_UpdateWES7E.msi or WriteFilter_UpdateWES7P.msi file and follow the instructions displayed on the screen.
- 4 Click **Finish**.
The add-on is installed on the thin client.

Known issues

Table 26. Known issues

| Summary | Workaround |
|--|---|
| The UWF icon in the taskbar should be red in color when the caution message is displayed. | There is no workaround for the issue in this release. |
| When UWF is disabled using the shortcut icon on the desktop, the legal message is not displayed. | There is no workaround for the issue in this release. |

Build information

Table 27. Windows Embedded Standard 7E

| Build filename | Version | Build size |
|-----------------------------|---------|------------|
| WriteFilter_UpdateWES7E.msi | 1.0.2.4 | 2.75 MB |

Table 28. Windows Embedded Standard 7P

| Build filename | Version | Build size |
|-----------------------------|---------|------------|
| WriteFilter_UpdateWES7P.msi | 1.0.2.4 | 2.75 MB |

NOTE: Note: WriteFilter_UpdateWES7E.msi can not be installed on Windows Embedded Standard 7P hardware.

Important notes

This add-on displays a warning message when you disable the write filter using the write filter system tray. It also provides reminder to users with a pop-up that the write filter is disabled.

Unified Write Filter RAMDisk Size add-on for Microsoft Windows 10 IoT Enterprise

Release type and definition

This release note contains information about the UWF RAMDisk Size add-on for Windows 10 IoT Enterprise Threshold and Red stone images.

NOTE: The UWF RAMDisk Size application sets the UWF cache size and RAMDisk size.

CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client. Any operation of a Dell Wyse Windows Embedded Thin Client with the write filter turned off during regular use and/or with the Windows Page file enabled will prematurely wear out your Flash/SSD storage, decrease performance and decrease the lifespan of the product. Dell is not responsible for, and will not, warrant, support, repair or replace any thin client device or component that fails to operate properly due to a failure to follow these instructions.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Support matrix

Table 29. Supported platforms

| Platform | Ram size | Flash size | Build number |
|------------------------------|-------------------|------------------------|--------------|
| Wyse 3480 mobile thin client | 8 GB | 500 GB/ 128 GB/ 256 GB | 0A63 |
| Wyse 5280 mobile thin client | 8 GB | 500 GB/ 128 GB/ 256 GB | 0A64 |
| Wyse 5060 thin client | 4 GB/ 8 GB | 500 GB/ 128 GB/ 256 GB | 0A60 |
| Wyse 7040 thin client | 4 GB/ 8 GB/ 16 GB | 500 GB/ 128 GB/ 256 GB | 0A62 |

Build information

Table 30. Build information

| Build file name | Build Size |
|----------------------|-----------------|
| UWF_RAMDisk_Size.msi | 3,406,336 bytes |

Installing add-on manually

- 1 Log in as an administrator and disable the write filter.
- 2 Create a temp folder in <drive C>.
- 3 Copy the `UWF_RAMDisk_Size.msi` file to the temp folder.
- 4 Double-click the `UWF_RAMDisk_Size.msi` file, and follow the on-screen instructions.
- 5 Click **Finish** to exit the installer.
- 6 Reboot the thin client.

Important notes

When the write filter is enabled,

- UWF cache size for thin clients with 8 GB RAM is set to 2 GB, and RAMDisk size is set to 512 MB.
- UWF cache size for thin clients with 4 GB RAM is set to 1 GB, and RAMDisk size is set to 100 MB.

ⓘ | NOTE: When write filter is disabled, RAMDisk size is set to 512 MB for both 8 GB and 4 GB RAM thin clients.

Custom Field Thin Client Application add-on for Microsoft Windows 10 IoT Enterprise

Release type and definition

This release note contains information about the **Custom_Field_Thin_Client_Application** add-on for Windows 10 IoT Enterprise Threshold and Redstone 1 images.

CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client. Any operation of a Dell Wyse Windows Embedded Thin Client with the write filter turned off during regular use and/or with the Windows Page file enabled will prematurely wear out your Flash/SSD storage, decrease performance and decrease the lifespan of the product. Dell is not responsible for, and will not, warrant, support, repair or replace any thin client device or component that fails to operate properly due to a failure to follow these instructions.

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Support matrix

Table 31. Supported platforms

| Platform | RAM size | Memory size | Build number |
|------------------------------|-----------------|--|--------------|
| Wyse 3480 mobile thin client | 8 GB | 128 GB/256 GB—SSD | 0A63 |
| Wyse 5280 mobile thin client | 8 GB | 128 GB/256 GB—SSD | 0A64 |
| Wyse 5060 thin client | 4 GB/8 GB | 32 GB/64 GB—SSD | 0A60 |
| Wyse 7040 thin client | 4 GB/8 GB/16 GB | 128 GB—SSD 256 GB—SED 500 GB—HDD | 0A62 |

Build information

Table 32. Build information

| Component | Description |
|----------------|--|
| Build filename | Custom_Field_Thin_Client_Application.msi |
| Version | 10.0.0.14 |
| Build size | 4,287,488 bytes |

License information

This section contains the license information for **Newtonsoft.Json.dll 6.0.3.17227** component.

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Write Filter update for Windows 10 IoT Enterprise Threshold and Redstone Operating System

Release type and definition

This release note contains information about the Windows Writefilter_Update add-on for Windows 10 IoT Enterprise Threshold and Redstone images. This update addresses the following CIRs:

- CIR92178
- CIR92116

△ CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client. Any operation of a Dell Wyse Windows Embedded Thin Client with the write filter turned off during regular use and/or with the Windows Page file enabled will prematurely wear out your Flash/SSD storage, decrease performance and decrease the lifespan of the product. Dell is not responsible for, and will not, warrant, support, repair or replace any thin client device or component that fails to operate properly due to a failure to follow these instructions.

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Supported platforms

Table 33. Supported platforms

| Platform name | Memory configuration (RAM/flash) | Build number |
|---|--------------------------------------|--------------|
| Latitude 3480 mobile thin client | 500 GB/128 GB/256 GB/8 GB | 0A63 |
| Latitude 5280 mobile thin client | 500 GB/128 GB/256 GB/8 GB | 0A64 |
| Wyse 7020 thin client with Win10 IoT—Z90Q10 | 32 GB/4 GB | 0A62 |
| Wyse 5020 thin client with Win10 IoT—D90Q10 | 32 GB/4 GB | 0A62 |
| Wyse 5060 thin client with Win10 IoT | 500 GB/128 GB/256 GB/16 GB/8 GB/4 GB | 0A60 |
| Wyse 7040 thin client with Win10 IoT | 500 GB/128 GB/256 GB/16 GB/8 GB/4 GB | 0A62 |
| Wyse 7020 thin client Win10 IoT—Z90QQ10 | 32 GB/4 GB | 0A62 |

Build information

Table 34. WriteFilter_Update.msi

| Build file name | Version | Build size |
|------------------------|----------|-----------------|
| WriteFilter_Update.msi | 1.0.4.11 | 3,180,544 bytes |

Known issues

Table 35. Known issues

| Known issues | Workaround |
|--|---|
| The UWF icon in the taskbar should be red in color when the caution message is displayed. | There is no workaround for the issue in this release. |
| When UWF is disabled using the shortcut icon on the desktop, the legal message is not displayed. | There is no workaround for the issue in this release. |

Fixed issues

- After installing the add-on manually, the UWF icon is not displayed in the systray.
- Text in legal message window is cropped in monitor model-U2515H in all the screen resolutions.
- In the installer window, a message pertaining to current version of the add-on installed on thin client is not displayed.
- The add-on is digitally not signed.

Windows Embedded Standard Security Update to Mitigate Meltdown and Spectre Vulnerability

Release type and definition

This release note contains information about the Windows Embedded Standard security updates to mitigate meltdown and spectre vulnerabilities on the following operating systems:

- Windows Embedded Standard 7
- Windows Embedded Standard 7P
- Windows Embedded Standard 8
- Windows 10 IoT Enterprise

Speculative execution of meltdown and spectre vulnerabilities can be used to read the memory across a trusted boundary. There are multiple vectors by which an attacker can trigger the vulnerabilities depending upon your configuration.

This security update is to mitigate the meltdown and spectre vulnerability which prevent attackers from triggering a weakness in the CPU and access the content stored in memory.

For more information, see knowledge base article *Meltdown and Spectre Vulnerabilities* at www.dell.com

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

What is new in this release

- **KB4056897_WES7**— This file installs January 2018 security quality update for Windows Embedded Standard 7 on a 32-bit system. Your system reboots three times during the installation and requires 150 MB of free space. For more information, see KB article no 4056897 at support.dell.com
- **IE11_KB4056568_WES7**—This file installs January 2018 cumulative security update for Internet Explorer 11 for Windows Embedded Standard 7 on a 32-bit system. Your system reboots three times during the installation and requires 140 MB of free space. For more information, see KB article no 4056568 at support.microsoft.com
- **KB4056897_WES7P**—This file installs January 2018 security quality update for Windows Embedded Standard 7 on a 64-bit systems. Your system reboots three times during the installation and requires 335 MB of free space. For more information, see KB article no 4056897 at support.microsoft.com
- **IE11_KB4056568_WES7P**—This file installs January 2018 cumulative security update for Internet Explorer 11 for Windows Embedded Standard 7 on a 64-bit system. Your system reboots three times during the installation and requires 335 MB of free space. For more information, see KB article no 4056568 at support.microsoft.com
- **KB4056899_WES8**—This file installs January 2018 security quality update for Windows Embedded 8 Standard on a 64-bit systems. Your system reboots three times during the installation and requires 100 MB of free space. For more information, see KB article no 4056899 at support.microsoft.com
- **KB4056893_WIE10**—This file installs January 2018 cumulative update for Windows 10 IoT Enterprise version 1507 on a 64-bit systems. Your system reboots three times during the installation and requires 4.5 GB of free space. For more information, see KB article no 4056893 at support.microsoft.com
- **KB4056890_WIE10_1607**—This file installs January 2018 cumulative update for Windows 10 IoT Enterprise version 1607 on a 64-bit systems. Your system reboots three times during the installation and requires 6 GB of free space. For more information, see KB article no 4056890 at support.microsoft.com

Test environment

Table 36. Supported Windows Embedded Standard 7 platforms

| Platform name | Memory configuration | Build number |
|--------------------------------|----------------------|-----------------|
| Wyse 3030 thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |
| Wyse 5010 thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |
| Wyse 5020 thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |
| Wyse 7010 thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |
| Wyse 7010 Extended thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |
| Wyse 7020 thin client | 16 GB flash/4 GB RAM | 9.09 build 7064 |

Table 37. Supported Windows Embedded Standard 7P platforms

| Platform name | Memory configuration | Build number |
|--------------------------------|----------------------|----------------------|
| Wyse 5020 thin client | 16 GB flash/4 GB RAM | 9.09 build 7065/7066 |
| Wyse 7020 thin client | 16 GB flash/4 GB RAM | 9.09 build 7065/7066 |
| Wyse 7020 Extended thin client | 16 GB flash/4 GB RAM | 9.09 build 7065/7066 |

Table 38. Supported Windows Embedded Standard 7P platforms

| Platform name | Memory configuration | Build number |
|-----------------------------------|---------------------------|-----------------|
| Latitude 3460 mobile thin client | 128 GB SSD flash/8 GB RAM | 9.09 build 7065 |
| Wyse 5060 thin client | 64 GB SSD flash/8 GB RAM | 9.09 build 7067 |
| Wyse 7040 thin client | 128 GB SSD flash/8 GB RAM | 9.09 build 7065 |
| Latitude E7270 mobile thin client | 128 GB SSD flash/8 GB RAM | 9.09 build 7065 |

Table 39. Supported Windows Embedded 8 Standard platforms

| Platform name | Memory configuration | Build number |
|-----------------------|----------------------|-----------------|
| Wyse 5010 thin client | 16 GB flash/4 GB RAM | 10.03 build 924 |
| Wyse 5020 thin client | 16 GB flash/4 GB RAM | 10.03 build 924 |
| Wyse 7010 thin client | 16 GB flash/4 GB RAM | 10.03 build 924 |
| Wyse 7020 thin client | 16 GB flash/4 GB RAM | 10.03 build 924 |

Table 40. Supported Windows 10 IoT Enterprise platforms (1607 Redstone)

| Platform name | Memory configuration | Build number |
|----------------------------------|-----------------------|------------------|
| Wyse 5060 thin client | 64 GB flash/4 GB RAM | 12.00 build 0A60 |
| Latitude 3480 mobile thin client | 128 GB flash/8 GB RAM | 12.01 build 0A64 |
| Latitude 5280 mobile thin client | 128 GB flash/8 GB RAM | 12.01 build 0A63 |

Table 41. Supported Windows 10 IoT Enterprise platforms (1507 Threshold)

| Platform name | Memory configuration | Build number |
|--------------------------------|----------------------|------------------|
| Wyse 5020 thin client | 32 GB flash/4 GB RAM | 11.03 build 0A62 |
| Wyse 7020 thin client | 32 GB flash/4 GB RAM | 11.03 build 0A62 |
| Wyse 7020 Extended thin client | 32 GB flash/4 GB RAM | 11.03 build 0A62 |
| Wyse 7040 thin client | 256 GB SSD/4 GB RAM | 11.03 build 0A62 |

Dependencies

Ensure that you update Wyse Device Agent or HAgent to the latest version on the client before you proceed with the security updates through Wyse Device Manager version 5.7.2 or Wyse Management Suite version 1.1.

Security update details

Table 42. Security update details

| File name | File size in bytes |
|--------------------------|--------------------|
| KB4056897_WES7.exe | 38,043,648 |
| IE11_KB4056568_WES7.exe | 30,212,096 |
| KB4056897_WES7P.exe | 70,340,608 |
| IE11_KB4056568_WES7P.exe | 55,209,984 |
| KB4056899_WE8S.exe | 20,717,568 |
| KB4056893_WIE10.exe | 938,627,072 |
| KB4056890_WIE10_1607.exe | 1,261,240,320 |

Energy Star test

The following values are displayed by default in the control panel applet of Power Options:

- Supports WOL Power off states.
- Supports Idle State wake.
- Screen off timer is set to 15 minutes.
- Sleep timer is set to 20 minutes.

WPA2 Security Vulnerability Add-on

Release type and definition

This release signifies WPA2 Security Vulnerability for the Windows-based thin clients. For information about the supported platforms, see [Supported platforms](#)

As with any technology, robust security research that pre-emptively identifies potential vulnerabilities is critical in providing strong protection. This issue can be resolved through simple software updates. In the Wi-Fi industry, you can expect all your Wi-Fi devices to continue to work together by deploying WPA2 add-on to all the Wi-Fi supported devices.

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Supported platforms

Table 43. Windows Embedded Standard 7

| Platform name | Build | Add-on name |
|---------------------------------------|--------------------|---------------------|
| Wyse 3030 thin client-3290 | BEB0_7064_16GB.exe | IntelWiFiDriver.exe |
| Wyse 5010 thin client with WES7-D90D7 | BDB0_7064_16GB.exe | IntelWiFiDriver.exe |
| Wyse 7010 thin client with WES7-Z90D7 | BZB0_7064_16GB.exe | IntelWiFiDriver.exe |
| Wyse 5020 thin client with WES7-D90Q7 | BOB0_7064_16GB.exe | IntelWiFiDriver.exe |
| Wyse 7020 thin client with WES7-Z90Q7 | BOB0_7064_16GB.exe | IntelWiFiDriver.exe |

Table 44. Windows Embedded Standard 7 Professional

| Platform name | Build | Add-on name |
|---|------------------------------------|---------------------|
| Wyse 5020 thin Client with WES7P-D90Q7P | BOB0_7065_16GB.exe, European Build | IntelWiFiDriver.exe |
| Wyse 7020 thin Client with WES7P-Z90Q7P | BOB0_7065_16GB.exe, European Build | IntelWiFiDriver.exe |
| Wyse 7020 Accelerated Graphics thin client with WES7P-Z90QQ7P | BOB0_7065_16GB.exe, European Build | IntelWiFiDriver.exe |
| Wyse 5020 thin client with WES7P-D90Q7P | BOB0_7066_16GB.exe, Asian Build | IntelWiFiDriver.exe |
| Wyse 7020 thin client with WES7P-Z90Q7P | BOB0_7066_16GB.exe, Asian Build | IntelWiFiDriver.exe |
| Wyse 7020 Accelerated Graphics thin client with WES7P-Z90QQ7P | BOB0_7066_16GB.exe, Asian Build | IntelWiFiDriver.exe |

| Platform name | Build | Add-on name |
|--|----------------------|--------------------------------|
| D90D7P | BDB0_0896_16GB.exe | IntelWiFiDriver.exe |
| Z90D7P | BZB0_0896_16GB.exe | IntelWiFiDriver.exe |
| Wyse 5060 thin client with WES7P | 5060_7067_32GB.exe | IntelWiFiDriver_5060.exe |
| Latitude E7270 mobile thin client with WES7P | E7270_7065_128GB.exe | IntelWiFiDriver_E7270_3460.exe |
| Latitude 3460 mobile thin client with WES7P | 3460_7065_128GB.exe | IntelWiFiDriver_E7270_3460.exe |

Table 45. Windows 10 IoT Enterprise Threshold

| Platform name | Build | Add-on name |
|---|--------------------|---------------------|
| Wyse 7020 thin client with Win10 IoT-Z90Q10 | GOG0_0A62_32GB.exe | IntelWiFiDriver.exe |
| Wyse 7020 Accelerated Graphics thin client with Win10 IoT-Z90QQ10 | GOG0_0A62_32GB.exe | IntelWiFiDriver.exe |
| Wyse 5020 thin client with Win10 IoT-D90Q10 | GOG0_0A62_32GB.exe | IntelWiFiDriver.exe |

Table 46. Windows 10 IoT Enterprise RedStone

| Platform name | Build | Add-on name |
|---|--------------------|-----------------------------|
| Wyse 5060 thin client with Win10 IoT | 5060_0A60_32GB.exe | IntelWiFiDriver_5060.exe |
| Latitude 5280 mobile thin client with Win10 IoT | 5280_0A64_32GB.exe | IntelWiFiDriver_5280.exe |
| Latitude 3480 mobile thin client with Win10 IoT | 3480_0A63_32GB.exe | QualcommWiFiDriver_3480.exe |

Table 47. Management server

| Management server | Version | Operating System |
|--|---|---|
| Wyse Device Manager (WDM) | 5.7.2 | Windows Server 2012 R2 |
| Wyse Management Suite (WMS) | 1.1 | Windows Server 2012 R2 |
| System Center Configuration Manager (SCCM) | 2016 Microsoft System Center Configuration Manager Version 1606 Console version: 5.0.8412.1313 Site version: 5.0.8412.1000 | Windows Server 2016 version 1607- Operating systems build 14393.1715 |

Current version

Table 48. Current version

| Sl.no | Add-ons | Driver version |
|-------|--------------------------------|----------------|
| 1 | IntelWiFiDriver.exe | 18.33.9.3 |
| 2 | IntelWiFiDriver_5060.exe | 19.10.9.2 |
| 3 | IntelWiFiDriver_E7270_3460.exe | 19.10.10.2 |

| Sl.no | Add-ons | Driver version |
|-------|-----------------------------|----------------|
| 4 | IntelWiFiDriver_5280.exe | 20.10.1.3 |
| 5 | QualcommWiFiDriver_3480.exe | 12.0.0.448 |

Known issues

Table 49. Known issues

| Known issues | Workaround |
|--|--|
| Wireless connection is disconnected. SSID is removed from the saved wireless list in the thin client when you try to unregister the thin client from the WMS server. | NA |
| Wyse Device Manager: C:\Temp is not deleted, and the lock screen is not available when you push from Wyse Device Manager. | Edit the .rsp manually in the server side with DT command to delete C:\Temp and enable lock screen with LU and EL. |
| SCCM: C:\Temp is not deleted. | NA |
| Intel WiFi Driver add-on deployment from the SCCM server fails while deploying the add-on using task sequence. | Deploy the add-on without task sequence. Note : An error on the server side is present. |

Network adapter details

Table 50. Network adapter

| Add-on name | Network adapter | Driver version |
|--------------------------------|---|----------------|
| IntelWiFiDriver.exe | Intel Dual Band Wireless-AC 7260 driver | 18.33.9.3 |
| IntelWiFiDriver_5060.exe | Intel Dual Band Wireless-AC 7265 driver | 19.10.9.2 |
| IntelWiFiDriver_E7270_3460.exe | Intel Dual Band Wireless-AC 3165 driver | 19.10.10.2 |
| IntelWiFiDriver_5280.exe | Intel Dual Band Wireless-AC 8265 driver | 20.10.1.3 |
| QualcommWiFiDriver_3480.exe | Qualcomm QCA61x4A 802.11ac wireless Adapter | 12.0.0.448 |

Parameters to install WPA2 driver add-on

Table 51. Parameters

| Platforms | .exe file | Command parameters |
|---|--------------------------------|--------------------|
| Latitude E7270 mobile thin client with WES7P Latitude 3460 mobile thin client with WES7P | IntelWiFiDriver_E7270_3460.EXE | /s |
| Latitude 5280 mobile thin client with Win10 IoT | IntelWiFiDriver_5280.EXE | /s |
| Wyse 5060 thin client | IntelWiFiDriver_5060.EXE | --silent |
| Latitude 3480 mobile thin client Win10 IoT | QualcommWiFiDriver_3480.exe | /s |
| Other platforms | IntelWiFiDriver.exe | --silent |

Add-on information

Table 52. Add-on information

| Components | Support information |
|-----------------------|--|
| Platforms | <p>Wyse 3030 thin client—3290</p> <p>Wyse 5010 thin client with WES7—D90D7</p> <p>Wyse 5020 thin client with WES7—D90Q7</p> <p>Wyse 7010 thin client with WES7—Z90D7</p> <p>Wyse 7020 thin client with WES7—Z90Q7</p> <p>Wyse 5020 thin client with WES7P—D90Q7P (European Build)</p> <p>Wyse 7020 thin client with WES7P—Z90Q7P (European Build)</p> <p>Wyse 7020 Accelerated Graphics thin client with WES7P—Z90QQ7P (European Build)</p> <p>Wyse 5020 thin client with WES7P—D90Q7P (Asian Build)</p> <p>Wyse 7020 thin client with WES7P—Z90Q7P (Asian Build)</p> <p>Wyse 7020 Accelerated Graphics thin client with WES7P—Z90QQ7P (Asian Build)</p> <p>D90D7P</p> <p>Z90D7P</p> <p>Wyse 5020 thin client with Win10 IoT—D90Q10</p> <p>Wyse 7020 thin client with Win10 IoT—Z90Q10</p> <p>Wyse 7020 thin client with Accelerated Graphics with Win10 IoT—Z90QQ10</p> |
| Add-on name | IntelWiFiDriver.exe |
| Type of file | Application (.exe) |
| Size | 216 MB-2273,30,296 bytes |
| Driver version | 18.33.9.3 |
| Language | English-United States |

Table 53. Add-on information for Wyse 5060 thin client

| Components | Support information |
|---------------------|---|
| Platforms | <p>Wyse 5060 thin client with WES7P</p> <p>Wyse 5060 thin client with Win10 IoT</p> |
| Add-on name | IntelWiFiDriver_5060.exe |
| Type of file | Application (.exe) |
| Size | 216 MB-2273,47,672 bytes |

| Components | Support information |
|----------------|-----------------------|
| Driver version | 19.10.9.2 |
| Language | English-United States |

Table 54. Add-on information for Latitude E7270 mobile thin client and Latitude 3460 mobile thin client

| Components | Support information |
|----------------|---|
| Platforms | Latitude E7270 mobile thin client with WES7P Latitude 3460 mobile thin client with WES7P |
| Add-on Name | IntelWiFiDriver_E7270_3460.exe |
| Type of file | Application (.exe) |
| Size | 149 MB-1572,77,576 bytes |
| Driver version | 19.10.10.2 |
| Language | English-United States |

Table 55. Add-on information for Latitude 5280 mobile thin client

| Components | Support information |
|----------------|---|
| Platforms | Latitude 5280 mobile thin client with Win10 IoT |
| Add-on Name | IntelWiFiDriver_5280.exe |
| Type of file | Application (.exe) |
| Size | 149 MB-1572,74,016 bytes |
| Driver version | 20.10.1.3 |
| Language | English-United States |

Important notes

Table 56. Additional information

| Sl.no | Platform | Information |
|-------|--|--|
| 1 | Wyse 3030 thin client-3290 | Thin client restarts twice after you push the add-on with write filter that is enabled. Minimum space that is required is 1.3 GB. |
| 2 | Wyse 5010 thin client with WES7-D90D7 | |
| 3 | Wyse 7010 thin client with WES7-Z90D7 | |
| 4 | Wyse 5020 thin client with WES7-D90Q7 | |
| 5 | Wyse 7020 thin client with WES7-Z90Q7 | |
| 6 | Wyse 5020 thin client with WES7P-D90Q7P (European build) | |
| 7 | Wyse 7020 thin client with WES7P-Z90Q7P (European build) | |

| Sl.no | Platform | Information |
|-------|--|-------------|
| 8 | Wyse 7020 Accelerated Graphics thin client with WES7P-Z90QQ7P (European build) | |
| 9 | Wyse 5020 thin client with WES7P-D90Q7P (Asian build) | |
| 10 | Wyse 7020 thin client with WES7P-Z90Q7P (Asian build) | |
| 11 | Wyse 7020 Accelerated Graphics thin client with WES7P-Z90QQ7P (Asian build) | |
| 12 | D90D7P | |
| 13 | Z90D7P | |
| 14 | Wyse 7020 thin client with Win10 IoT-Z90Q10 | |
| 15 | Wyse 7020 Accelerated Graphics thin client with Win10 IoT-Z90QQ10 | |
| 16 | Wyse 5020 thin client with Win10 IoT-D90Q10 | |
| 17 | Wyse 5060 thin client with WES7P | |
| 18 | Wyse 5060 thin client with Win10 IoT | |
| 19 | Latitude E7270 mobile thin client with WES7P | |
| 20 | Latitude 3460 mobile thin client with WES7P | |
| 21 | Latitude 5280 mobile thin client with Win10 IoT | |
| 22 | Latitude 3480 mobile thin client with Win10 IoT | |

Windows Security Updates

Release type and definition

This release includes information about Windows Embedded security updates for Microsoft Bluetooth driver spoofing vulnerability for Dell Wyse thin client platforms.

This release includes information about Windows Embedded security updates for Microsoft Bluetooth driver spoofing vulnerability for Dell Wyse thin client platforms.

A spoofing vulnerability exists in the Bluetooth stack. An attacker can successfully exploit this vulnerability and perform a man-in-the-middle attack. This attack unknowingly routes traffic from your computer to an attacker-computer. The attacker can then monitor and read the traffic before sending it to the intended recipient. It is recommended to update the applicable Windows Embedded security updates as the severity of this threat is high.

Priority and recommendations

Urgent: Dell highly recommends applying this update as soon as possible. The update contains changes to improve the reliability and availability of your Dell system.

Supported platforms

Table 57. Supported platforms for Windows Embedded Standard 7

| Platform name | Memory configuration (RAM/flash) | WES7SP1 builds |
|--|----------------------------------|-----------------|
| Wyse 5010 thin client | 16 GB flash and 4 GB RAM | 1 09 build 7064 |
| Wyse 3030 thin client | 16 GB flash and 4 GB RAM | 1 09 build 7064 |
| Wyse 7010 thin client | 16 GB flash and 4 GB RAM | 1 09 build 7064 |
| Wyse 7010 Extended Chassis thin client | 16 GB flash and 4 GB RAM | 1 09 build 7064 |
| Wyse 7020 thin client/ Wyse 5020 thin client | 16 GB flash and 4 GB RAM | 1 09 build 7064 |

Table 58. Supported platforms for Windows Embedded Standard 7P

| Platform name | Memory configuration (RAM/flash) | WES7PSP1 builds |
|--|----------------------------------|-----------------|
| Z90D7P | 8 GB flash and 4 GB RAM | 1 04 build 896 |
| Wyse 7010 Extended Chassis thin client | 8 GB flash and 4 GB RAM | 1 04 build 896 |
| D90D7P | 16 GB flash and 4 GB RAM | 1 04 build 896 |

| Platform name | Memory configuration (RAM/flash) | WES7PSP1 builds |
|---|----------------------------------|-----------------|
| Wyse 5060 thin client | 32 GB flash and 4 GB RAM | 1 07 build 7067 |
| Latitude E7270 mobile thin client | 128 GB SSD and 8 GB RAM | 1 08 build 7065 |
| Latitude 3460mobile thin client | 128 GB SSD and 8 GB RAM | 1 08 build 7065 |
| Wyse 7020 thin client and Wyse 5020 thin client | 16 GB flash and 4 GB RAM | 1 08 build 7066 |

Table 59. Supported platforms for Windows 10 IoT Enterprise TH

| Platform name | Memory configuration (RAM/flash) | WIE10 TH builds |
|--|----------------------------------|-----------------|
| Wyse 5020 thin client | 32 GB flash and 4 GB RAM | 1 02 build 0A38 |
| Wyse 7020 thin client | 32 GB flash and 4 GB RAM | 1 02 build 0A38 |
| Wyse 7020 accelerated graphics thin client | 32 GB flash and 4 GB RAM | 1 02 build 0A38 |

Table 60. Supported platforms for Windows 10 IoT Enterprise RS

| Platform name | Memory configuration (RAM/flash) | WIE10 RS builds |
|----------------------------------|----------------------------------|------------------------|
| Latitude 3480 mobile thin client | 128 GB SSD and 8 GB RAM | 12.01 build 0A40.128GB |
| Latitude 5280 mobile thin client | 128 GB SSD and 8 GB RAM | 12.0 build 0A59.128GB |
| Wyse 5060 thin client | 32 GB flash and 4 GB RAM | 12.0 build 0A60.32 GB |

General features

The security update package details are as follows:

KB4038777_WES7

- This package installs 2017-09 security monthly quality rollup for Windows Embedded Standard 7 x86-based systems. For more information about KB4038777, see support.microsoft.com
- This package is pushed only on Windows Embedded Standard 7 builds.
- Minimum free space required to install this package is 365 MB.

KB4038779_WES7

- This package installs 2017-09 security only quality update for Windows Embedded Standard 7 x86-based systems. For more information about KB4038779, see support.microsoft.com
- This package is pushed only on WES7 builds.
- Minimum free space required to install this package is 76 MB.

KB4038777_WES7P

- This package installs 2017-09 security monthly quality rollup for Windows Embedded Standard 7 x64-based systems. For more information about KB4038777, see support.microsoft.com
- This package is pushed only on WES7P builds.
- Minimum free space required to install this package is 595 MB.

KB4038779_WES7P

- This package installs 2017-09 security only quality update for Windows Embedded Standard 7 x64-based systems. For more information about KB4038779, see support.microsoft.com
- This package is pushed only on WES7P builds.
- Minimum free space required to install this package is 126 MB.

KB4038781_WIE10

- This package installs 2017-09 cumulative update for Windows 10 version 1507 for x64-based systems. For more information about KB4038781, see support.microsoft.com
- This package is pushed only on WIE10 version 1507 builds.
- Minimum free space required to install this package is 2618 MB.

KB4038782_WIE10_1607

- This package installs 2017-09 cumulative update for Windows 10 version 1607 for x64-based systems. For more information about KB4038782, see support.microsoft.com
- This package is pushed only on WIE10 version 1607 builds.
- Minimum free space required to install this package is 3531 MB.

Build information

The platform-specific build details are as follows:

Table 61. KB4038777_WES7

| Build file name | Build size (Bytes) |
|--------------------|--------------------|
| KB4038777_WES7.exe | 127,393,792 bytes |

Table 62. KB4038779_WES7

| Build file name | Build size (bytes) |
|--------------------|--------------------|
| KB4038779_WES7.exe | 263,98,720 bytes |

Table 63. KB4038777_WES7P

| Build file name | Build size (bytes) |
|---------------------|--------------------|
| KB4038777_WES7P.exe | 208,035,840 bytes |

Table 64. KB4038779_WES7P

| Build file name | Build size (bytes) |
|---------------------|--------------------|
| KB4038779_WES7P.exe | 43,921,408 bytes |

Table 65. KB4038781_WIE10

| Build file name | Build size (bytes) |
|---------------------|--------------------|
| KB4038781_WIE10.exe | 914,878,464 bytes |

Table 66. KB4038782_WIE10_1607

| Build file name | Build size (bytes) |
|--------------------------|---------------------------|
| KB4038782_WIE10_1607.exe | 1,233,981,440 bytes |

Dependencies and recommendations

Update to the latest WDA or HAagent on the client side before updating the security updates through WDM v5.5, v5.7, v5.7.1, and v5.7.2.

Energy star test

- Supports WOL Power off states
- Supports Idle State wake
- Screen off timer is set to 15 minutes
- Sleep timer is set to 20 minutes only if the sleep timer is supported

Dell Wyse 5060 Thin Client with WES7P for Tier 3 Language support

Release type and definition

This release supports Windows Embedded Standard 7P — WES7P 64-bit that supports Dell Wyse 5060 thin client for the Ransomware WannaCrypt susceptibility. WannaCrypt, also known as WannaCry, targets out-of-date Windows systems. This release build contains valid WES7P security updates—KB4012212 to protect your system from the ransomware WannaCrypt susceptibility.

This build can be pushed on 64 GB flash and above, in combination with a 4 GB or 8 GB RAM.

The WES7P v9.07 unified build 7067 supports English (en-US) and the following ten languages:

- German (de-DE)
- French France (fr-FR)
- French Canada (fr-CA)
- Italian (it-IT)
- Spanish (es-ES)
- Japanese (ja-JP)
- Korean (ko-KR)
- Chinese Simplified (zh-CN)
- Chinese traditional (zh-TW)
- Brazilian Portuguese (pt-BR)

Priority and recommendations

Recommended: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Build details

Table 67. General build details

| Component | Build details |
|---------------|---|
| Platform | Dell Wyse 5060 thin client with WES7P |
| Product | WES7P |
| Build version | 9.07 |
| Build number | 7067 |
| Localization | English, French France, German, Italian, French Canada, Spanish, Japanese, Chinese Simplified, Chinese traditional, Korean, Portuguese Brazil |
| WSI | 5.0.4 |

| Component | Build details |
|------------------|---------------|
| WDM | 5.7.2 |
| BA version | 3.4.2 |
| USB Imaging tool | 2.1.3 |

Table 68. Platform specific build details—WDM package

| Component | Build details |
|------------------------|---|
| Version | 9.07 |
| Build number | 7067 |
| Build WSI Package Name | 5060_7067_32GB.exe |
| Build size (Bytes) | 17.0 GB (18,272,322,441 bytes) |
| Localization | English, French France, German, Italian, French Canada, Spanish, Japanese, Chinese Simplified, Chinese traditional, Korean, Portuguese Brazil |

Table 69. BIOS details

| Component | BIOS details |
|-----------|---------------------------------------|
| Platform | Dell Wyse 5060 thin client with WES7P |
| Version | 1.0F |

New features

The new features delivered in this release are:

Imaging procedure from WDM\USB environment

Imaging the units from WDM\USB have the following two scenarios on top of which the unified MUI build can be pushed:

- Four language unified WES7P build number 7025
- 11 language unified WES7P build number 7038

Unified build

This build supports English (en-US) and ten MUI languages (fr-FR, es-ES, de-DE, it-IT, fr-CA, ja-JP, ko-KR, zh-CN, zh-TW, pt-BR).

Unified MUI build

As the unified MUI build has the language metadata in the Merlin partition, imaging the unified MUI build brings up the unit in the same MUI language present in Merlin.

Threat defense

Dell Data Protection | Threat Defense (powered by Cylance) detects and blocks malware before it can affect your computer. Cylance uses a mathematical approach for malware identification, using machine learning techniques instead of reactive signatures, trust-based systems,

or sandboxes. Cylance's approach renders new malware, viruses, bots, and future variants useless. Dell Data Protection | Threat Defense (Threat Defense) analyzes potential file executions for malware in the operating system.

General features

This section contains general features of Wyse 5060 thin client running WES7P OS.

Hardware support information

- Rich 4K display capability
- Option for wireless AC 7265
- AMD GX-424CC SOC with Radeon (TM) RSE Graphics 2.40 GHz CPU
- Support for video adapters (DP to DVI, DP to VGA) in APOS manner
- Dynamic Throttling for higher performance

Menu driven Custom/ConfigMgr Sysprep

- Supports Menu driven Custom / ConfigMgr Sysprep where you can select the particular option.
- Shrinking of disk information available during Sysprep that reduces the image pull or push time in larger disks.

New versions of connection brokers

- VMware Horizon Client: 4.1.0.1487
- Citrix Receiver: 14.4.0.8014

Out of Box driver install

All the respective device drivers have been pre-installed in the OS as compared to the legacy approach wherein there are pre-staged drivers.

Newer Dell wallpapers

Wyse wallpapers and themes are replaced with the Dell wallpapers and themes.

XML driven PowerShell scripts

Customization scripts are ported to the PowerShell scripts and based on XML file input.

Logging support

Logging support added for customization scripts.

Flash.sys

Hostname Calculation and Preservation – This option allows you to enable and disable the Hostname Calculation in flash.sys.

- You can disable or enable the Hostname Calculation.
- You must ensure that altering the MAC ID for a client does not perform a Host name Calculation.
- Rest of the logic and flow remains the same as older flash.sys implementation.
- If you require a host name calculation to perform after a change in MAC ID (NIC card change), then you must use MINWITHNET.

Event Viewer log preservation

This feature allows you to enable or disable Event Viewer log saving while File Based Write Filter (FBWF) is on. This feature enables you to collect event logs if they are required for debugging or analysis purposes.

Dell Thin Client Application

- Dell Client Application is a replacement for Client Information Application with a new User Interface (UI).
- This application contains additional fields for accessing and configuring Custom Fields, RAM Disk, Auto Logon, C-A-D Map Tool, and System Shortcuts.
- By default, the RAM disk size is set to 512 MB.

WES7P 7067 build behavior

Internet Explorer 11

- **Performance enhancements:** IE 11 is the quickest version of the browser yet. Microsoft has included support for web standards like CSS animations, HTML5 spell checking, and improved JavaScript performance.
- **Security enhancements:** The main security addition to IE 11 is **Enhanced Protected Mode**, which locks down parts of the Windows operating system, preventing the browser from accessing the OS.

IE Customizations:

- 1 First run customizations are disabled.
- 2 IE 11 enhanced protection mode is enabled.
- 3 Start page and default page set to www.dell.com/wyse.
- 4 IE Cookies and Cache are redirected to z : .
- 5 Cache content to 250 MB.
- 6 Clears browsing history on IE exit.

Citrix Receiver

USB redirection always works for all users of the client machine with all the published XenDesktops, irrespective of the setting **Simplify device connections for me** in the XenDesktop connection preferences UI.

Energy Star specification

This product meets the ENERGY STAR version 6.0 of the thin client requirement.

The following are the values by default, set in the **Control Panel** applet of the Power options:

- Power Option when plugged-in:
 - Supports WOL Power off states.
 - Supports Idle State wake.
 - Screen off timer is set to 10 minutes.
 - Sleep timer is set to 15 minutes.

Microsoft SCCM 2012 R2 information

- SCCM information is not present in Programs and features and client information because of the Microsoft design.
- Only Configuration Manager Control Panel Applet and SMS Agent Host Service are present.
- **SMSCFG.ini**, **clientstate.dat**, **wedmtrace.log**, **Ccmstore.sdf**, **InventoryStore.sdf**, **StateMessageStore.sdf** files, and the **ServiceData** folder are included in FBWF Exclusion list.
- For more details, see Dell SCCM Administrators Guide.

vWorkspace

After installation of vWorkspace, install .txt file is created in **C:**.

CAD tool

By default the build contains CAD tool, but in a disabled state.

To enable the CAD tool, do the following:

- 1 Log in to the system using Admin account.
- 2 Disable the Write Filter.
- 3 Launch command prompt in elevated mode.
- 4 Run `cd c:\windows\system32`.
- 5 Run `DWKBFilterMon.exe -enable` and reboot.

Fixed issues

None

Known issues

The following table lists the known defects in this release:

Table 70. Known issues

| Sl. no. | Issue description | Work around—if any |
|---------|--|--|
| 1 | Multiple bluetooth device icons are displayed in the system tray—Periodic issue. | The functionality is not affected and restarting the client removes the icons. |
| 2 | While running WES7P_CustomSysprep4man.bat , Low Disk space message appears at system tray. | The functionality is not affected. |
| 3 | Dell Wyse 5060 thin client with WES7P—de-DE and fr-FR Run Time Commands are not localized in respective language. | The functionality is not affected. |
| 4 | Video BIOS information does not show in advanced graphics settings. | No work-around |
| 5 | Send and Receive option not present for Bluetooth while accessing from system tray. | From the Start button, select All Programs . Select bluetooth file transfer and a pop-up window opens which gives two options to send or receive files. |
| 6 | Citrix receiver icon is missing in system tray. | Launch the Citrix Receiver icon from the desktop for the Citrix Receiver icon to appear in the system tray. |
| 7 | Occasionally, WDM pull fails for Dell Wyse 5060 thin client devices. | Reschedule the pull. |
| 8 | The scheduled packages are still present in the WDM console after image deployment is successful—occasionally. | The functionality is not affected. Only Server console status is not updated. |
| 9 | Unable to play back the saved YouTube videos on the desktop. | This issue is specific to the YouTube videos. Videos from other websites, such as MSN work properly. |
| 10 | Junk MAC IDs are appearing in the Client application. | The functionality is not affected. |
| 11 | Internet Explorer crashes with multiple video playbacks for extended times. | Restart the Internet Explorer. |
| 12 | BitLocker protection is turned off instead of suspend when custom sysprep is executed. | The option to suspend is not available anymore. The BitLocker protection must be turned off. |
| 13 | Dell Open Printer driver is not working with Dell MFP e515dn printer. | Install the ODM driver. |
| 14 | You cannot run the Deletefreespace application, if the folder Deletefreespace is already present under C: | Delete the folder. |
| 15 | Server Connection Retry Attempts is exceeding 24 attempts during the discovery process. | The functionality is not affected. |
| 16 | Custom Sysprep script (Build Master) execution may terminate abruptly while checking for TPM status in TPM and BitLocker enabled systems. | Disable BitLocker and TPM before sysprep. |
| 17 | Some installed modules are not listed in the client info. The modules are as follows: RDP, FBWF, Windows Media Player, Internet Explorer, Ericom, Wyse client information, HAgent versions. | The functionality is not affected. |
| 18 | Occasionally bash command prompt displays can't access tty: Job control turned off , while pulling image through WDM Merlin non-pxe. | Try pulling image again. |
| 19 | Citrix Receiver USB redirection always works for all users of the client machine with all published Xendesktops, irrespective of the setting Simplify device connections for me in the xen desktop connection preferences UI. | No work-around |

| Sl. no. | Issue description | Work around—if any |
|---------|---|--------------------|
| 20 | Copyright Information for Flash.sys, Wyse RAM Disk is showing as Wyse/Wyse technology. | No work-around |
| 21 | KB2880890 is displayed twice in View installed updates section. | No work-around |
| 22 | Dell Wyse 5060 thin client (WES7P) – BSOD (Error Code – 0x000000B8) occurred when logged in to Admin Mode from User Mode | Restart the client |
| 23 | Phoenix Platform key avail in BIOS instead Dell PK. | No work-around |
| 24 | Occasionally check disk is running during system restart. | Restart the client |
| 25 | The System Tray is showing multiple Bluetooth Devices Icons (May be issue) | Restart the client |
| 26 | Client boots through PXE LAN if F12 key is pressed in Dell BIOS Splash screen | No work-around |
| 28 | Boot Menu and Bypass Splash screen hotkey's not displayed during the BIOS boot up (New Feature Request) | No work-around |
| 27 | Citrix Receiver options are not localized for Italian | No work-around |
| 28 | Vmware Client options are not localized for Italian | No work-around |
| 29 | Disk cleanup shortcut need to be removed from start menu if support is not there. | No work-around |
| 30 | All installed modules are not listing in the client information. | No work-around |
| 31 | Service Control Manager Error has occurred in Event Viewer with event ID 7023. | No work-around |
| 32 | Dell logo is missing in User contact path c:\Users\User\Contacts. | No work-around |
| 33 | Occasionally after downloading the image from USB, client displays a message Remove the USB and press enter to reboot after removing the USB Pen drive (While pushing the pulled image). | No work-around |

SCCM2012 R2 Information:

- SCCM Information is not present in Programs and features and client information because of Microsoft design.
- Only Configuration Manager Control Panel Applet and SMS Agent Host Service are present.
- SMSCFG.ini, clientstate.dat, wedmtrace.log, Ccmstore.sdf, InventoryStore.sdf, StateMessageStore.sdf files and Service Data folder will be included in FBWF Exclusion list.

Tested peripherals

Table 71. Tested peripherals

| Product |
|--|
| Dell Pro Stereo Headset UC300 |
| Dell USB Sound bar AC511 |
| Dell 2.0 Speaker System AE215 |
| Jabra Pro 935 MS Wireless headset (Mono) |

| Product |
|--|
| Jabra Pro 930 MS Wireless headset |
| Logitech B525HD webcam |
| Dell Tray Load CD/DVD player(DW316) |
| Dell USB Wired Keyboard - KB216 |
| Dell USB Wired Optical Mouse - MS116 |
| Dell USB Wired Keyboard with Smart Card reader - KB813 |
| Dell Wireless Mouse - WM326 |
| Dell 24 Monitor - E2417H |
| Dell 23 Monitor- E2316H |
| Dell 22 Monitor - E2216H |
| Dell 20 Monitor - E2016H |
| Dell 20 Monitor - E2016 |
| Dell 19 Monitor - E1916H |
| Dell 19 Monitor - E1916HV |
| Dell 27 Monitor - P2717H |
| Dell 24 Monitor - P2417H with stand |
| Dell 24 Monitor - P2417H without stand |
| Dell 23 Monitor - P2317H |
| Dell 22 Monitor - P2217H with stand |
| Dell 22 Monitor - P2217H without stand |
| Dell 22 Monitor - P2217 |
| Dell 22 Monitor - P2217 without stand |
| Dell 20 Monitor - P2016 |
| Dell 19 Monitor - P1917S |
| Dell 24 Monitor - U2415 |
| Dell 25 Monitor- U2515H |
| Dell 27 Monitor - U2717D |
| Dell 27 Monitor - U2717DA |
| Dell 43 Monitor - P4317Q |
| Dell 24 Monitor - MR2416 |
| Dell 27 monitor - P2715Q 4K2K (UHD) monitor |
| Dell 24 Monitor - P2415Q 4K2K (UHD) monitor |
| Dell 30 Monitor – UP3017 |
| Power adapter + 3 foot power cord |
| Dell Mono Unmanaged Printer - E515dn |
| Dell Color Unmanaged Printer - E525w |
| Dell Color Managed Printer - S5840cdn |

| Product |
|----------------------|
| DP to HDMI converter |
| DP to DVI converter |
| DP to VGA converter |

Used and free space details

Table 72. Used and free space details

| Platform | Flash size | Used Space (C: Drive) | Free space |
|-----------------------|------------|-----------------------|------------|
| Wyse 5060 thin client | 64 GB | 14.2 GB | 44.6 GB |

OS Components

Table 73. Driver details

| Component | Version |
|--|----------------|
| VGA | 15.201.2401.0 |
| Ethernet/ SFP Adapter | 7.101.714.2016 |
| Realtek HD Audio | 6.0.1.7541 |
| AMD Hi Def Audio Device | 7.12.0.7723 |
| USB xHCI driver | 1.1.0.185 |
| Wyse RAM Disk Driver | 5.0.2183.4 |
| flash.sys | 1.0.7.0 |
| Dell Open Print Drivers | 1.91.7882.0 |
| Bluetooth (as seen in add/remove programs) | 19.0.1601.0594 |
| WiFi | 18.11.0.8 |

Common application/Features/Files

Table 74. Common application/Features/Files

| Applications/Features/Files | Version—If applicable |
|-----------------------------------|--|
| RDC | 6.3.9600 (RDP 8.1 supported) |
| Citrix Receiver (Standard) | 4.4.0.8014 (In Citrix About) |
| Citrix Online Plug-in | 14.4.0.8014 (In Client Information, Programs and Features) |
| Citrix HDX Real Time Media Engine | 2.0.0.417 |
| Windows Media Player | 12.0.7601.18741 |
| Internet Explorer | 11.0.9600.18376 |
| Power Term InterConnect | 10.2.0.0.20140813.1 |
| Ericom PowerTerm WebConnect | 5.8.0.0 |

| Applications/Features/Files | Version—If applicable |
|--|---|
| VMware Horizon View Client | 4.1.0.1487 |
| vWorkspace Connector for windows | 8.6.309.4062 |
| Configuration Manager Client | 5.00.7958.1000 |
| Adobe Flash player - ActiveX Adobe Flash player – Plug-in | 20.0.0.270 20.0.0.267 |
| Tight VNC | 2.6.4.0 |
| Microsoft Lync VDI 2013 | 15.0.4420.1017 |
| .NET Framework | 4.6.01055 |
| WSUS | Supported |
| Microsoft Management Console | Management Console 3.0 Version 6.1 (Build 7601: SP1) |
| Microsoft Silverlight | 5.1.30514.0 |
| Bit locker with TPM | Supported |
| Windows Multi-touch | Supported |
| Background Intelligent Transfer Service (BITS) | Supported |
| Windows Defender Definition | 1.227.441.0 dated 8/23/2016 |
| MSXML | Supported |
| XML Paper Specification (XPS) | Supported |
| Network Access Protection | Supported |
| Credential Roaming | Supported |
| WPA2 | Supported |
| CredSSP | Supported |
| ConfigMgr 2012 SP1 Client | Supported |
| Wyse Wallpaper on All Users | Supported |
| Registry Filter | Supported |
| Windows Time Service | Supported |
| DirectX | 11 |
| File-Based Write Filter Manager – fbwfmgr.exe | 1.0.299.0 |
| Ntoskrnl.exe | 6.1.7601.18741 |
| ArchiveInfo.exe | 1.0.0.4 |
| ClientInformation.exe | 10.0.0.9 |
| Disk_Size.exe | 3.0.0.5 |
| C-A-D Map Tool | 2.2.0.0 |
| DWKbFilter.sys | 2.2.0.4 |
| DWKbFilterMon.exe | 2.2.0.4 |

| Applications/Features/Files | Version—If applicable |
|--|-----------------------|
| DWkbFilterWatchdog.exe | |
| FBWF Service – FBWFSvc.exe | 1.0.2.2 |
| FBWF System Tray UI - FBWFTray.exe | 1.0.2.2 |
| HAgent.exe | 12.1.1.25 |
| HAgent_UI.exe | 12.1.1.25 |
| Wyse Device Agent (WDA) | 2.1.1 |
| NetXClean.exe | 3.0.0.7 |
| NumLock_Toggle.exe | 1.0.0.4 |
| NumLockTrigger.exe | 1.0.0.5 |
| TimeZonePreservation.exe | 1.0.0.4 |
| Wfacss.exe | 1.0.1.3 |
| WindowsEmbeddedTest.exe (equivalent to WES7Test.exe) | Not applicable |
| Winlog.exe | Part of Client Info |
| WinPing.exe | Not applicable |
| Winterm.dll | 2.0.0.9 |
| Xwfile.exe | 1.0.0.5 |
| Sysprep4man scripts | Build_Master.cmd |

QFEs added in the release

Table 75. QFEs added in the release

| QFEs added in the release | | |
|---------------------------|-----------|-----------|
| KB2841134 | KB2840631 | KB3092601 |
| KB2841134 | KB2843630 | KB3092627 |
| KB2841134 | KB2847927 | KB3093513 |
| KB2841134 | KB2852386 | KB3097989 |
| KB2841134 | KB2853952 | KB3101722 |
| KB2841134 | KB2857650 | KB3102429 |
| KB2841134 | KB2859502 | KB3102810 |
| KB2841134 | KB2861698 | KB3107998 |
| KB2841134 | KB2862152 | KB3108371 |
| KB2841134 | KB2862335 | KB3108381 |
| KB2670838 | KB2862973 | KB3108664 |

| QFEs added in the release | | |
|----------------------------------|-----------|-----------|
| KB2830477 | KB2864202 | KB3108670 |
| KB2592687 | KB2868038 | KB3109094 |
| KB2819745 | KB2868116 | KB3109103 |
| KB2479943 | KB2871997 | KB3109560 |
| KB2487305 | KB2872035 | KB3110329 |
| KB2492386 | KB2882822 | KB3112343 |
| KB2496898 | KB2884256 | KB3118401 |
| KB2502664 | KB2891804 | KB3121255 |
| KB2506212 | KB2892074 | KB3121461 |
| KB2509553 | KB2893294 | KB3122648 |
| KB2511455 | KB2893519 | KB3123479 |
| KB2515325 | KB2894844 | KB3124275 |
| KB2526967 | KB2898785 | KB3124280 |
| KB2534366 | KB2900986 | KB3126587 |
| KB2544893 | KB2908783 | KB3127220 |
| KB2545698 | KB2911501 | KB3133977 |
| KB2547666 | KB2913431 | KB3134814 |
| KB2552343 | KB2913751 | KB3135445 |
| KB2556532 | KB2918077 | KB3135983 |
| KB2560656 | KB2919469 | KB3137061 |
| KB2563227 | KB2929733 | KB3138378 |
| KB2564958 | KB2931356 | KB3138612 |
| KB2570814 | KB2937610 | KB3138901 |
| KB2574819 | KB2943357 | KB3138910 |
| KB2579686 | KB2957189 | KB3138962 |
| KB2585542 | KB2965788 | KB3139914 |
| KB2598845 | KB2968294 | KB3139923 |

| QFEs added in the release | | |
|----------------------------------|-----------|-----------|
| KB2604115 | KB2970228 | KB3139929 |
| KB2620704 | KB2972100 | KB3139940 |
| KB2621440 | KB2972211 | KB3141092 |
| KB2631813 | KB2973112 | KB3142024 |
| KB2639308 | KB2973201 | KB3142042 |
| KB2640148 | KB2973351 | KB3145739 |
| KB2644615 | KB2977292 | KB3146706 |
| KB2647753 | KB2978120 | KB3146963 |
| KB2654428 | KB2978742 | KB3147071 |
| KB2660075 | KB2980245 | KB3148198 |
| KB2661254 | KB2984972 | KB3148851 |
| KB2667402 | KB2985461 | KB3149090 |
| KB2676562 | KB2992611 | KB3150220 |
| KB2679255 | KB2999226 | KB3153171 |
| KB2685747 | KB3000483 | KB3153199 |
| KB2685811 | KB3003743 | KB3153731 |
| KB2685813 | KB3004361 | KB3154070 |
| KB2690533 | KB3006121 | KB3155178 |
| KB2698365 | KB3006137 | KB3156013 |
| KB2705219 | KB3010788 | KB3156016 |
| KB2706045 | KB3011780 | KB3156017 |
| KB2709715 | KB3021674 | KB3156019 |
| KB2716513 | KB3021917 | KB3156417 |
| KB2718704 | KB3022777 | KB3159398 |
| KB2719033 | KB3023215 | KB3160005 |
| KB2719857 | KB3030377 | KB3161561 |
| KB2724197 | KB3033889 | KB3161664 |

| QFEs added in the release | | |
|----------------------------------|-----------|-----------|
| KB2726535 | KB3033929 | KB3161949 |
| KB2727528 | KB3035126 | KB3161958 |
| KB2729094 | KB3037574 | KB3162835 |
| KB2732487 | KB3040272 | KB3163245 |
| KB2736422 | KB3042553 | KB3164033 |
| KB2742599 | KB3045685 | KB3164035 |
| KB2750841 | KB3046017 | KB3168965 |
| KB2761217 | KB3046269 | KB3170106 |
| KB2763523 | KB3054476 | KB3170455 |
| KB2770660 | KB3055642 | KB3170735 |
| KB2786081 | KB3059317 | KB4012204 |
| KB2791765 | KB3067903 | KB4012212 |
| KB2799494 | KB3072305 | KB4012864 |
| KB2799926 | KB3074543 | KB4014661 |
| KB2800095 | KB3075851 | KB4015193 |
| KB2807986 | KB3076949 | KB4015546 |
| KB2808679 | KB3078601 | KB4016446 |
| KB2813170 | KB3078667 | KB947821 |
| KB2813347 | KB3083324 | KB976902 |
| KB2813430 | KB3083710 | KB976932 |
| KB2818604 | KB3084135 | KB4015549 |
| KB2834140 | KB3086255 | KB3139398 |

Installing the add-on

Download the add-on package

This section describes the steps to download the add-on from Dell support site.

- 1 Go to www.dell.com/support.
- 2 In the **Enter a Service Tag, Serial Number, Service Request, Model, or Keyword** field, type the Service Tag or the model number of your device, and press Enter or click the search icon.
- 3 On the product support page, click **Drivers & downloads**.
- 4 Select the appropriate operating system.
- 5 From the list, locate the add-on entry and click the download icon.

Install the add-on using Wyse Management Suite

This section describes the steps to install the add-on using Wyse Management Suite.

- 1 Register the device to the Wyse Management Suite server, and add the device to the respective groups.
- 2 Copy the **.exe** file to the Wyse Management Suite server repository.
- 3 Log in to Wyse Management Suite.
- 4 Click **Portal Administration**, and then click **File Repository** under **Console Settings**.
- 5 Select the **Local Repository** check box.
- 6 Click **Sync Files**.
Wait for the synchronization process to complete. The synchronization process copies the package from the repository to **Apps and Data**.
- 7 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 8 Verify the copied package in the applications list.
- 9 To create a group in the Wyse Management Suite server, click **Groups & Configs**.
The **Groups & Configs** page is displayed.
- 10 Click the **Plus sign (+)** button and enter the required details to register your client in the same group.
- 11 Click **Apps and Data**.
The **Apps and Data** page is displayed.
- 12 Click **Thin Clients** under **App Policies**.
- 13 Click **Add Policy** to add the policy to the required group.
- 14 Update the required fields and click **Save**.

NOTE: For the **.exe** file installation, the silent installation parameter is `--silent`. For repair, the silent parameter is `--silent --repair`, and for uninstallation, the silent parameter is `--silent --uninstall`
- 15 Click **Yes** to schedule the job immediately.
- 16 Go to the **App Policy** job, and enter the description.
- 17 From the **Run** drop-down menu, select **Immediately**.
- 18 Click **Preview** and then click **Schedule**.
The package deployment takes a few minutes to complete.

NOTE:

- The lock screen is displayed during the package installation process on all the thin clients.
- System reboots two times during the package deployment.

Install the add-on using Wyse Device Manager

This section describes the steps to install the add-on using Wyse Device Manager.

- 1 Copy the respective **.exe** file to the WDM server.
- 2 Launch Wyse Device Manager and login using valid credentials.
- 3 Click **Applications** in the Dell Wyse Device Manager dashboard page.
The options **Images**, **Other Packages**, **Agent Update**, **Device Configuration**, and **PCoIP Device Configuration** are displayed.
- 4 Select **Other Packages**.
- 5 Click **Create Package Plus (+)**.
The application prompts to download the Package Register utility.
- 6 Click **Allow**.
The **Create Package** window is displayed.
- 7 Download the **.exe** file on your local repository.
- 8 Navigate to the folder, and run the **Package Register** utility file.
The **WDM Package Registration Utility** window is displayed.
- 9 Enter WDM server address and user credentials in the respective fields.
- 10 Select **EXE** to register, and click **Browse**.
The **WDM Package Uploader** window is displayed with the progress status bar.
- 11 Click **Open**.
The list of selected packages is displayed.
- 12 Select the appropriate operating system package and provide the command line parameter as `--silent` for installation. For repair, provide the command line parameter as `--silent --repair`, and for uninstallation provide the command line parameter as `--silent --uninstall`.
- 13 Click **Upload**.
The status is displayed as **Success**, and the package is displayed under **Other Packages**.
- 14 Go to **Devices** and select the target client.
- 15 Click **Update**.
- 16 Go to **Select Package > Other Package**, and select the add-on package.
- 17 Click **Save**.
A pop-up is displayed on the target device.
- 18 Click **Update Now** on the target device.
C:\Temp folder is created. You must edit the **.rsp** script manually to delete the temp folder using the command `DT C:\Temp`.

NOTE:

- The lock screen is not displayed during the package installation process on all the thin clients.
- System reboots two times during the package deployment.

Install the add-on using System Center Configuration Manager 2016—SCCM

Prerequisites:

- 1 Disable the write filter.
- 2 Add the thin client to the SCCM server domain and restart.
- 3 Log in to the thin client with valid SCCM domain credentials.

- 4 Change the time zone and time (HH:MM:SS) according to the SCCM server.
- 5 Go to **Control Panel > Configuration Manager > Site > Configuration Settings**.
- 6 In the **Configuration Manager service location** section, enter the site code.
- 7 In the **Actions** tab, select each action, and click **Run Now**.

A system tray message is displayed, and the new software is available for installation.

Add a device to the new device collection

This section describes the steps to add a thin client to the new device collection list.

- 1 Go to **Assets and Compliance > Device Collections**.
- 2 In the **Devices** list, right-click a device, and go to **Add Selected Items > Add Selected Items to New Device collection**.
- 3 In the **Device Collections** window, enter the new device collection details, such as name and limiting collection, and click **OK**.
- 4 In the **Assets and Compliance** section, click **Device Collections**, and verify whether the device is added.

Add a device to the existing device collection

This section describes the steps to add a thin client to the existing device collection list.

- 1 Go to **Assets and Compliance > Device Collections**.
- 2 In the **Devices** list, right-click a device, and go to **Add Selected Items > Add Selected Items to Existing Device collection**.
- 3 In the **Device Collections** window, select the device collection group to which you need to add the device, and click **OK**.
- 4 In the **Assets and Compliance** section, click **Device Collections**, and verify whether the device is added.

Package deployment

After the thin client is added to the device collection list, use any of the following methods to deploy the add-on:

- Create and distribute a package.
- Create and deploy a task sequence.

Create and distribute a package

This section describes the steps to create and distribute a package.

- 1 Copy the **.exe** file to a shared folder.
- 2 Expand **Software Library > Overview > Application management > Packages**.
- 3 Right-click **Packages**, and click **Create Package**.
- 4 Enter the package name, description, manufacturer name, language, and version.
- 5 Click **Next**.
- 6 Browse to the source folder where you have copied the add-on files.
- 7 Click **Next**.
The newly created packages are listed in the **Application Management** under **Package**.
- 8 Select the **Standard Program** option as the program type.
The **Standard Program** page is displayed.
- 9 Enter the required details, and click **Browse** to go to the file location.
- 10 Select the **.exe** or **.msi** file, and enter `--silent` for silent installation, `--silent --repair` for repair, and `--silent --uninstall` for uninstallation.

- 11 Click **Next**.
- 12 Click **Next** until the window with the **Close** button is displayed.
- 13 Click **Close**.
- 14 Select the package, right-click, and click **Distribute Content** .
- 15 From the **Add** drop-down list, select **Distribution Point**.
- 16 Select an option to schedule job at a specified time, and click **Next**.
- 17 Verify the information that you have provided on the summary page, and click **Next**.
- 18 Click **Close**.
- 19 Right-click on the created package, and click **Deploy**.
- 20 Click **Collection**, and browse to the device collection list.
- 21 Select the device, and click **Next**.
- 22 From the **Add** drop-down list, select **Distribution Point**.
- 23 Select the available distribution points, and click **OK**.
- 24 Click **Next** to complete the deployment process.
- 25 Click **Close**.

The content status is displayed in green. It may take a few minutes to complete the distribution process.

Create and deploy a task sequence

This section describes the steps to create and deploy a task sequence.

- 1 Copy the **.exe** file to a shared folder.
- 2 Expand **Software Library > Overview > Operating System**.
- 3 Right-click **Task Sequence**, and click **Create Task Sequence**.
- 4 In the **New Task Sequence** wizard, select **Create Custom Task Sequence**, and click **Next**.
- 5 Click **Close**.
- 6 Right-click the created task sequence, and click **Edit**.
- 7 From the **Add** drop-down list, go to **Software > Install Package**.
- 8 Select the created package, and click **Apply**.
- 9 Click **OK**.
- 10 Go to **Start > All Programs > Microsoft System Center > Configuration Manager Console**.
The **System Center Configuration Manger** window is displayed.
- 11 Click **Software Library**.
- 12 Right-click the created the task sequence and deploy it to the required device collection.

Resources and support

Accessing documents using the product search

- 1 Go to www.dell.com/support.
- 2 In the **Enter a Service Tag, Serial Number, Service Request, Model, or Keyword** search box, type the product name. For example, `Wyse 3040 thin client` or `Wyse ThinOS`.
A list of matching products is displayed.
- 3 Select your product and click the search icon or press Enter.
- 4 Click **Manuals & documents**.

Accessing documents using product selector

You can also access documents by selecting your product.

- 1 Go to www.dell.com/support.
- 2 Click **Browse all products**.
- 3 Click **Thin Clients**.
- 4 Click the desired category, either **Wyse Hardware** or **Wyse Software**.
- 5 Click the desired product.
- 6 Click **Manuals & documents**.

Contacting Dell

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for technical support or customer service issues, see www.dell.com/contactdell.

If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or the product catalog.