# Dell Wyse ThinLinux Version 2.2

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.**

# Contents

# Release summary

This release includes new features and resolved issues for ThinLinux 2.2-based platforms.

## Version

ThinLinux 2.2

## Release date

April 2019

## 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).

# Compatibility

## Supported platforms

**Table 1. Supported platforms**

| Platforms | Memory configuration (eMMC/RAM) | UEFI BIOS |
|---|---|---|
| Wyse 5070 thin client with Celeron processor | 16 GB/4 GB | 1.1.4 and later |
| Wyse 5070 thin client with Pentium processor | 16 GB/4 GB | 1.1.4 and later |
| Wyse 5070 Extended thin client with Pentium processor | 16 GB/4 GB | 1.1.4 and later |
| Wyse 3040 thin client | 16 GB/2 GB | 1.2.5 and later |

## Previous version

ThinLinux 2.1

## Wyse App details

**Table 2. Wyse App Details**

| Package name | Size (Bytes) |
|---|---|
| all-addons_TL-2.2.0.00-Wyse.tgz | 333,914,016 |

## Supported imaging solution

**Table 3. Supported imaging solution**

| Imaging solution | Version |
|---|---|
| USB Imaging Tool | 3.1.0 |
| Wyse Management Suite | 1.3 and later |

# New and enhanced features

## Domain join using Active Directory

ThinLinux 2.2 supports domain join and domain login using Active Directory credentials. Active Directory allows an administrator to enable or disable the user authentication to specific domains. You can either join the terminal to the domain, or use the INI parameter to authenticate the user from Active Directory without joining the terminal.

To join your thin client to a domain, enter the following details on the **Active Directory** page:

- Active Directory Domain Name
- Organizational Unit for Thin Client (OU)
- Administrator Name
- Administrator Password

After the thin client is added to the domain, disable the **Autologon** option, and restart the thin client. The domain name is displayed on the ThinLinux login screen. You must enter the domain username and password to log in to the ThinLinux desktop. An error message is displayed if the thin client fails to join the domain.

> (i) **NOTE:** On successful login, you can view the Domain Name and Domain IP in the System information dialog box. Add user should disable the Auto login and need restart the device then able to login domain user

**INI parameters**

**Table 4. Domain join parameters**

| INI parameter | Description |
| --- | --- |
| Domainjoin.name={yes, no} | This parameter enables users to connect the thin client to a domain. Default selection is no. |
| Domainjoin.username=<string> | This parameter specifies the name of the user who has the relevant permission to add a computer account to the active directory. |
| Domainjoin.password=<string> | This parameter specifies the password for the domain. |
| Domainjoin.enable={true, false} | This parameter allows an administrator to enable or disable authentication against a domain, to require the thin client to formally join the domain, and configure other domain parameters, such as the name of the administrator group. Default selection is false. |
| Domain.ou=<string> | It specifies the organization unit within Active Directory to which an administrator can assign Group Policy settings. |

## Preserve User Settings

The **Preserve User Settings** feature enables you to retain the configured user settings when you upgrade from ThinLinux 2.2. However, before you upgrade from ThinLinux 2.2, the Preserve User Settings feature needs to be enabled.

When imaging is performed using the USB Imaging tool, use the **Execute Preserve User Settings** option available on the ThinLinux UI to retain the previous settings after upgrade. If you are using the INI parameters to perform an image upgrade, use the `MerlinUpdate.Preserve_User_Setting` parameter to retain the previous settings.

> (i) **NOTE:** Imaging using Wyse Management Suite is not supported by the current Wyse Management Suite release.

**INI parameters**

| INI parameter | Description |
|---|---|
| MerlinUpdate.URL=<string> | This parameter specifies the URL of the directory where the ThinLinux image is uploaded. |
| MerlinUpdate.Username=<string> | This parameter specifies the name of the user who has logged in to the server. |
| MerlinUpdate.Password=<string> | The password is used to log in to the server. Default selection is base-64 encryption. |
| MerlinUpdate.Preserve_User_Setting={yes, no} | This parameter enables you to retain any previously configured user settings in the ThinLinux build after you perform an image upgrade using INI parameters. Default selection is no. |

# Quick Start

Quick Start is software that provides an overview of different features and hardware specifications of the thin client. The Quick Start v2.0 wizard runs only for the first time when you start a new thin client, or the first time after performing a factory reset on the existing thin client.

A default icon is added on the ThinLinux desktop that enables you to launch the application. You can enable or disable the desktop icon for a specific user by using the **Hide Desktop Icons** option in **Other Settings** , or the INI parameter.

**INI parameter**

| INI parameter | Description |
|---|---|
| Custom.HideQuickStart={yes, no} | This parameter enables you to hide the Quick Start application from the ThinLinux desktop. Default selection is no. |

# Suspend mode

ThinLinux 2.2 supports suspend mode, which enables the device to enter the S3 power state (low-power), and quickly resume your work without rebooting the device.

You can enable the suspend mode using either the GUI option available in **System Settings**, or from the **Power** button. You can also use the INI parameter to enable the suspend mode.

**INI parameter**

| INI parameter | Description |
|---|---|
| SuspendSystem=<value> | This parameter enables you to enter the time in seconds to suspend the thin client after the specified idle time. Default selection is 15 minutes. |

ⓘ | **NOTE: Suspend mode is supported only on Wyse 5070 thin client.**

# Bluetooth functionality

ThinLinux 2.2 supports Bluetooth version 5.0. Administrator can enable or disable the Bluetooth function using the GUI option in the **Peripherals** settings, or through INI parameters. Normal user (thinuser) cannot enable or disable the Bluetooth functionality.

ⓘ **NOTE: When a normal user (thinuser) attempts to enable or disable Bluetooth, the following warning message is displayed:**
```
Please contact Administrator.
```

The following devices are supported by Bluetooth:

- Keyboard
- Mouse
- Headset

ⓘ **NOTE: Bluetooth printers are not supported.**

**INI parameter**

**Table 8. Bluetooth parameter**

| INI parameter | Description |
| --- | --- |
| DisableBluetooth={yes, no} | This parameter allows you to enable or disable the Bluetooth function on your thin client. Default selection is yes. |

# System Performance Improvement

In ThinLinux 2.2, the system performance during bootup is improved.

# Web browser updates

- Google Chrome is upgrade to the latest version 72.0.3626.81-1.
- Mozilla Firefox Extended Support Release (ESR) is upgraded to the latest version ESR-60.4.0.

# Multidisplay support on Wyse 5070 Extended thin client

ThinLinux 2.2 supports up to six displays.

**Salient features**:

- By default, the **Display Settings** UI is available in both user mode and admin mode. Any changes to display preferences that are made through this UI is saved for the user.
- You must select the layout for The **Display Settings** UI has an option to select the layout. The available layout options are **Horizontal** (1 x 6), **Vertical** (6 x 1), 2 Screens per column (2 x 3), and 3 Screens per column (3 x 2).
- A minimum of four monitors are required for **2 Screens per column**.
- A minimum of six monitors are required for **3 Screens per column**.
- VMware protocol supports only four monitors.
- Daisy chain configuration is not supported on ThinLinux 2.2.

ⓘ **NOTE: Rotation and Mirror screens options are not available for quad display.**

**Port preferences on Wyse 5070 Extended thin client**:

- Optional port can be used as second RJ45, SFP, or VGA.
- If wireless is enabled, the optional port cannot be used as second RJ45 or SFP.
- If front headphone is used, the back headset is disabled.
- When monitor is connected on USB-C port, DP2 becomes inactive.
- When VGA monitor is connected on VGA optional port, DP3 becomes inactive.
- Power option is available on the first serial port.
- PCIe slot is available.

**Table 9. Ports**

| Ports | DP1 | DP2 | DP3 | VGA | USB Type-C | mDP4 | mDP5 | DP6 |
|---|---|---|---|---|---|---|---|---|
| Monitor priority | 1 | 2B[1] | 3B[2] | 3A[2] | 2A[1] | 4 | 5 | 6 |
| 4K display | Yes | Yes | Yes | No[3] | Yes | Yes | Yes | Yes |
| Non-4K display | Yes | Yes | Yes | Yes[3] | Yes | Yes | Yes | Yes |

[1]DP2 and USB Type-C port are mutually exclusive with USB Type-C port taking higher priority.

[2]DP3 and VGA port are mutually exclusive with VGA port taking higher priority.

[3]VGA port supports only 1080p resolution.

**Display matrix**:

**Table 10. Wyse 5070 Extended thin client with AMD GPU**

| Number of displays | Supported display resolution | |
|---|---|---|
| | 4K resolution 3840 x 2160 @ 60 Hz | Non-4K resolution Up to 2560 x 1600 @ 60 Hz |
| One display | Yes | Yes |
| Two displays | Yes | Yes |
| Three displays[1] | Yes | Yes |
| Four displays | Yes | Yes |
| Five displays | No[2] | Yes |
| Six displays | No[2] | Yes |

[1]For three displays, Dell recommends that you configure first two 4K displays on the main board (DP1~DP3), and the third 4K display on AMD GPU card.

[2]Support only four monitors with 4K screen resolution @ 60 Hz and the remaining displays with 2K screen resolution.

**Monitor priority**—The following order defines the monitor priority set on ThinLinux 2.2 for Wyse 5070 Extended thin client:

- DP1 > DP2 > DP3 > mDP4 > mDP5 > DP6
- DP1 > USB-C > DP3 > mDP4 > mDP5 > DP6
- DP1 > DP2 > VGA > mDP4 > mDP5 > DP6
- DP1> USB-C > VGA > mDP4 > mDP5 > DP6

For more information about configuring multiple displays on Wyse 5070 Extended thin client, see the *Dell Wyse ThinLinux 2.2 Administrator's Guide* at support.dell.com.

ⓘ **NOTE: INI parameters are not supported on a multi-display setup with more than three displays.**

# Fixed issues

**Table 11. Fixed Issues**

| Serial number | Summary |
|---|---|
| 1. | Resolved an issue where you can save the **Manage USB Port settings** using the GUI option after entering an incorrect BIOS password. |
| 2. | Resolved an issue wherein after parsing the INI `USB_Rule=Deny_Class Class=Storage` in a VMware session, the `VMware view Connect USB Device` drop-down option is listed. |
| 3. | Resolved an issue where the mouse blinks in Mozilla Firefox browser when a YouTube video is played. |
| 4. | Resolved an issue where a blank screen is observed when you use multiple displays with high-resolution on the Wyse 3040 thin client. |
| 5. | Resolved an issue where desktop artifacts and the **Windows Start** menu are not displayed in an ICA session. The issue is observed when you connect a secondary display on the Wyse 3040 thin client. |
| 6. | Resolved an issue where the Swiss German language keyboard layout does not redirect to the Citrix session. |

# Known issues

**Table 12. Known issues**

| Issue ID | Description | Workaround |
|---|---|---|
| TL-1197 | When you connect to a Bluetooth keyboard, the keyboard does not work for the first time. | Reboot the thin client. |
| TL-1290 | When you select a **window resolution** in the browser connection and launch the browser, the resolution reverts to **Default**. | Create a Mozilla Firefox browser connection and set the window resolution. |
| TL-1313 | Network proxy settings do not persist after passing the Firefox proxy settings. | Set either the network proxy settings or Firefox proxy settings. |
| TL-1342 | By default, the domain name in **System Information** is displayed as **Project-Id-Version:gnome-shell.master** for supported language builds other than English. | No workaround |
| TL-1234 | When you connect two displays in the L-shape orientation, the Citrix session fails to launch on the secondary display. | No workaround |
| TL-1303 | The date and time are not preserved in the **Date and Time** settings window. | First set the Time zone and then set the date and time. |
| TL-1338 | MMR Redirection does not work for VMware (PCoIP and Blast). | Not supported by VMware with gstremer1.0. |
| TL-1329 | Terminal name is not preserved after imaging. | Reboot the device after imaging. |
| TL-1263 | Domain user can log in after deleting the entry from Active Directory. | Disjoin the thin client from Active Directory before deleting the entry. |
| TL-1355 | Device does not receive messages with special characters **%** and **\** from Wyse Management Suite. The same issue is observed when you type a message after pressing the Enter key. | No workaround |
| TL-1330 | When you set the output device mode as **Headset Headunit (HSP/ HFP)**, the Bluetooth audio is played with disturbance. | Set the audio output mode to **High Fidelity Playback (A2DP sink)**. |
| TL-1374 | When you press the CTRL+ALT+L key, the screen lock takes approximately 10 seconds to get locked. | No workaround |
| LS-588 | Unable to set the **Custom Info** parameters from the Wyse Management Suite server. | There is no workaround. |
| LS-607 | When the INI parameters for **USB Devices** are configured on the client without the BIOS administrator password, changes that are made in BIOS settings are not applied in **USB Manager**. | Set the BIOS password. |
| TL-1151 | 802.1x settings that are configured using the GUI options are not preserved across system restarts. | Use INI parameters to configure the 802.1x settings. |
| TL-1140 | Google Chrome is opened with the **Set as default browser** option enabled. | Set Google Chrome as the default browser. The Chrome browser works without any issues. |

| Issue ID | Description | Workaround |
|---|---|---|
| TL-1028 | CAC is not found when you log in to the VMware Horizon session using the onboard smart card reader. | There is no workaround. |
| TL-1119 | After doing OEM branding, the services list is displayed during the system boot. | There is no workaround. |
| TL-731 | Wyse 5070 thin client does not automatically connect to a wireless network once the client is connected to a hidden network. | Reconnect to the wireless network after restarting the client. |
| TL-980 | When you connect one 4K and two non-4K displays on the Wyse 5070 thin client, the values in few drop-down lists are not displayed. This issue is observed on the **Display** settings and **connections** settings pages. | There is no workaround. |
| TL-1088 | GDM login screen remains blank when you perform imaging on a dual-display setup. | Switch to one display. |
| TL-1065 | When you switch to the admin mode from system settings and enter the incorrect password, the `incorrect password` message is not displayed. This is not observed on English and Korean builds. | Enter the appropriate password. |
| TL-722 | AD PAM login takes more than 10 seconds. | There is no workaround. |
| TL-562 | The thin client login password expiry function is not supported. | Reset the password on the server side. |
| TL-1044 | The Citrix StoreFront connection does not launch the second time if the first attempt is a failure (when the target desktop is turned off). If the desktop is turned on, you must restart the thin client. | There is no workaround. |
| TL-753 | When you connect the display to DP2 and change the display rotation to right, you cannot move the mouse cursor to the lower edge of the screen. | Connect the display to DP1. |
| TL-887 | Ericom show menu bar options are not displayed with the respective system languages. | There is no workaround. |
| TL-1164 | When the Ericom Power term connection is created using the INI parameters, the COM2 port is not displayed in the **Port** section. | There is no workaround. |
| TL-896 | When you enter a command in the Ericom console by using the keyboard, the Ericom menu bar options are getting selected. | There is no workaround. |

# Limitations

## Multidisplay support on Wyse 5070 extended thin client

When you set the 2K resolution for the primary display and open **System Settings** on the same display, the drop-down menu appears blank in all features except **Display**.

To overcome this limitation, do the following:

1   Drag the System Settings window to any nonprimary display.
2   Set the primary display to 4K resolution.

# Upgrading firmware

## Upgrade ThinLinux 2.0 or 2.1 to 2.2 on Wyse 3040 thin client

Use Wyse Management Suite version 1.3 to upgrade the ThinLinux build version 2.0.19 or 2.1 to 2.2.

To upgrade ThinLinux by using Wyse Management Suite for Wyse 3040 thin client:

1   Go to www.dell.com/support.
2   Click **Product Support**, enter the **Service Tag** of your thin client, and then press Enter.

> ⓘ **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 list, select **ThinLinux**.
5   Scroll down the page, and do the following:
    - Download the **wda3040_3.0.10-01_amd64.deb**, **wda_3.2.13-01_amd64.tar**, and **merlin-nonpxe_3.7.7-00.05_amd64.deb** add-ons.
    - Download the latest ThinLinux version 2.2 image file (**2.2.0.00_3040_merlin_16GB.exe**).
6   On the thin client, go to **Settings** > **Management** > **Wyse Device Agent**.
7   Register the device to the Wyse Management Suite server.
8   Log in to the Wyse Management Suite console.
9   Create and deploy app policy for **wda3040_3.0.10-01_amd64.deb**, **wda_3.2.13-01_amd64.tar**, and **merlin-nonpxe_3.7.7-00.05_amd64.deb** add-ons.
10   Reboot the thin client.
11   Log in to the Wyse Management Suite server.
12   Copy the downloaded image (**2.2.0.00_3040_merlin_16GB.exe** file) to **<drive C>/wms/localrepo/repository/osimages/zipped/**.
13   Log in to the Wyse Management Suite console.
14   Go to **Apps & Data** > **OS Image repository** > **WES/ThinLinux** and verify that the ThinLinux image is available.
15   Go to **Apps & Data** > **OS Image policies (WES/ThinLinux)** and click **Add Policy**.
16   Update the required fields, and click **Save**.
17   Schedule the job.
18   Click **Update now** on the client to update the image.

## Upgrade ThinLinux 2.0 or 2.1 to 2.2 on Wyse 5070 thin client

Use Wyse Management Suite version 1.3 to upgrade the ThinLinux build version 2.0.27, 2.1.0.0 or 2.1.0.01 to 2.2.

To upgrade ThinLinux by using Wyse Management Suite for Wyse 5070 thin client:

1   Go to www.dell.com/support.
2   Click **Product Support**, enter the **Service Tag** of your thin client, and then press Enter.

> ⓘ **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 list, select **ThinLinux**.

5    Scroll down the page, and download the latest ThinLinux version 2.2 image file (**2.2.0.00_5070_merlin_16GB.exe**).

6    On the thin client, go to **Settings** > **Management** > **Wyse Device Agent**.

7    Register the device to the Wyse Management Suite server.

8    Log in to the Wyse Management Suite server.

9    Copy the downloaded image (**2.2.0.00_5070_merlin_16GB.exe** file) to **<drive C>/wms/localrepo/repository/osimages/zipped/**.

10   Log in to the Wyse Management Suite console.

11   Go to **Apps & Data** > **OS Image repository** > **WES/ThinLinux** and verify that the ThinLinux image is available.

12   Go to **Apps & Data** > **OS Image policies (WES/ThinLinux)** and click **Add Policy**.

13   Update the required fields, and click **Save**.

14   Schedule the job.

15   Click **Update now** on the client to update the image.

# Upgrade ThinLinux 1.0.4 to 2.2 on Wyse 3040 thin client

Use Wyse Management Suite version 1.3 to upgrade the ThinLinux build version 1.0.4 to 2.2.

To upgrade ThinLinux by using Wyse Management Suite:

1    Go to www.dell.com/support.

2    Click **Product Support**, enter the **Service Tag** of your thin client, and then press Enter.

> ⓘ 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 list, select **ThinLinux**.

5    Scroll down the page, and do the following:

   - Download the **Platform_util-1.0.26-0.3.x86_64.rpm**, **wda-2.1.23-00.01.x86_64.rpm**, and **merlin_nonpxe-3.7.7-00.05.x86_64.rpm** add-ons.
   - Download the latest ThinLinux version 2.2 image file (**2.2.0.00_3040_merlin_16GB.exe**).

6    On the thin client, go to **Settings** > **Management** > **Wyse Device Agent**.

7    Register the device to the Wyse Management Suite server.

8    Log in to the Wyse Management Suite console.

9    Create and deploy app policy for **Platform_util-1.0.26-0.3.x86_64.rpm**, **wda-2.1.23-00.01.x86_64.rpm**, and **merlin_nonpxe-3.7.7-00.05.x86_64.rpm**.

10   Reboot the thin client.

11   Log in to the Wyse Management Suite server.

12   Copy the downloaded image (**2.2.0.00_3040_merlin_16GB.exe** file) to **<drive C>/wms/localrepo/repository/osimages/zipped/**.

13   Log in to the Wyse Management Suite console.

14   Go to **Apps & Data** > **OS Image repository** > **WES/ThinLinux** and verify that the ThinLinux image is available.

15   Go to **Apps & Data** > **OS Image policies (WES/ThinLinux)** and click **Add Policy**.

16   Update the required fields, and click **Save**.

17   Schedule the job.

18   Click **Update now** on the client to update the image.

# Upgrade ThinLinux 1.0.7.1 to 2.2 on Wyse 3040 thin client

Use Wyse Management Suite version 1.3 to upgrade the ThinLinux build version 1.0.7.1 to 2.2.

To upgrade ThinLinux by using Wyse Management Suite:

1   Go to www.dell.com/support.
2   Click **Product Support**, enter the **Service Tag** of your thin client, and then press Enter.

> ⓘ **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 list, select **ThinLinux**.
5   Scroll down the page, and do the following:
    - Download the **merlin_nonpxe-3.7.7-00.05.x86_64.rpm** add-on.
    - Download the latest ThinLinux version 2.2 image file (**2.2.0.00_3040_merlin_16GB.exe**).
6   On the thin client, go to **Settings** > **Management** > **Wyse Device Agent**.
7   Register the device to the Wyse Management Suite server.
8   Log in to the Wyse Management Suite console.
9   Create and deploy app policy for **merlin_nonpxe-3.7.7-00.05.x86_64.rpm**.
10  Reboot the thin client.
11  Log in to the Wyse Management Suite server.
12  Copy the downloaded image (**2.2.0.00_3040_merlin_16GB.exe** file) to **<drive C>/wms/localrepo/repository/osimages/zipped/**.
13  Log in to the Wyse Management Suite console.
14  Go to **Apps & Data** > **OS Image repository** > **WES/ThinLinux** and verify that the ThinLinux image is available.
15  Go to **Apps & Data** > **OS Image policies (WES/ThinLinux)** and click **Add Policy**.
16  Update the required fields, and click **Save**.
17  Schedule the job.
18  Click **Update now** on the client to update the image.

# 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.