Windows® 10 IoT Enterprise 2016 LTSB (64-bit) Unified Build for Latitude 5280 Mobile Thin Client

Release Notes

Contents

Release type and definition

Software releases are created to correct defects, make enhancements, or add new features. These releases are tested on all current, actively shipping platforms and operating systems as applicable. This release notes contain details on the supported platforms, any changes in the configuration settings and licensing details as well. The bug fixes along with the workarounds are documented in the release notes. Any changes in the feature functionality from an end-user perspective are listed with the description of each feature at a high level.

Release type and definition

This release supports Windows 10 IoT Enterprise (WIE10) Unified MUI build 0A64.

Windows 10 IoT Enterprise Redstone v12.01 unified build 0A64 supports English, and the following MUI languages:

- French
- German
- Spanish
- Italian
- Simplified Chinese
- Traditional Chinese
- Japanese

New features

The new features in this release are:

- Unified build

  Supports English and seven MUI languages.
- Threat Defense

  Dell Data Protection | Threat Defense (powered by Cylance) detects and blocks malware before it affects your computer. Cylance uses a mathematical approach to identify malware, using machine learning techniques instead of reactive signatures, trust-based systems, or sandboxes. It analyzes potential malware files in the operating system.

  Threat Defense agent version: 2.0.1422.
- Supported hardware:

  ○ Option for 802.11 a/b/g/n/ac wireless.
  ○ Bluetooth BT 4.x via WLAN card.
- Menu driven custom/ConfigMgr Sysprep:

  ○ Supports menu driven custom/ConfigMgr Sysprep – You can select an option.
  ○ Shrinking of disk volume during ConfigMgr Sysprep – Reduces the image pull/push time for large disk volume. You must use **diskmgmt** to shrink the disk volume.
- New connection brokers:

  ○ VMware Horizon Client v4.3.0.
  ○ Citrix Receiver v14.6.
  ○ Ericom WebConnect v7.5.1.
- Out-of-Box driver installation

  All the device drivers are pre-installed in the operating system instead of using pre-staged drivers.
- New 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 are based on XML file as input.

- Logging support

  For customization scripts, logging support is provided.
- Flash.sys

  You can enable or disable the Hostname calculation in the `flash.sys` file.

  - To calculate the host name after changing the MAC ID, you must run the `MINWITHNET` script.
- Event viewer log preservation

  You can enable or disable the Event logs to be automatically saved when the Unified Write Filter (UWF) is **ON**. This feature allows you to collect event logs for debugging or analysis purposes.
- Dell thin client application

  You can view general information about the thin client device, system shortcuts, custom fields, RAM disk, Auto logon, C-A-D map tool, and support information.

ⓘ **NOTE: The RAM disk size is set to 512 MB for Latitude 5280 mobile thin client.**

Login credentials

This section provides information about the login credentials for user and administrator accounts.

Table 1. Login credential details

Account detail	Password
User	DellCCCvdi
Admin	DellCCCvdi

ⓘ **NOTE: For TightVNC, the password is DELL and for BIOS setup administrator password is Fireport (factory setting)**

Operating system architecture

This section contains the Windows 10 IoT Enterprise architecture details.

Windows 10 IoT Enterprise
- The build contains the following five partitions:

  - 100 MB.
  - 450 MB Windows recovery.
  - 100 MB EFI system, partition is FAT32 without the drive letter and file system property in disk management.
  - 16 MB MSR partitions are in disk manager. Partition structure is based on GPT partition table.
  - Operating system.

Build components

This section contains the components in the Windows 10 IoT Enterprise.

Microsoft Internet Explorer 11
- Support for web standards like CSS animations, the HTML5 spell checking, and improved Java script performance.
- Security in Enhanced Protected Mode, which locks and prevents the web browser from accessing the operating system.

Customizations
- First run customizations are disabled.
- Internet Explorer 11 enhanced protection mode is disabled.
- Start page and default page set to www.dell.com/wyse.
- Internet Explorer cookies and cache details are redirected to C:\, and cache memory is set to 100 MB storage.
- Clears browsing history when you close Internet Explorer.

Citrix Receiver

USB redirection is applicable for all users on all published XenDesktops, irrespective of the settings in the connection preferences UI.

Energy Star specification

Latitude 5280 mobile thin client with Windows 10 IoT Enterprise meets the Energy Star v6.0 thin client requirements.

The default values in control panel applet for power options are:

When your thin client is connected to a power source or when system is on battery:

- Supports Wake on LAN (WoL) during power off.
- Supports Idle State wake up from the sleep mode.
- Screen off timer set to 10 minutes when connected to power source, and Screen off timer set to 5 minutes when system is on battery.
- Sleep timer set to 15 minutes when connected to power source, and Sleep timer set to 5 minutes when system is on battery.

SCCM 2016 details: Supports standard deployment of images.

UWF file list

The following are UWF file exclusion list for each feature:

- `C:\Users\Admin\AppData\LocalLow`
- `C:\Users\User\AppData\LocalLow`
- `C:\Program Files\Windows Defender`
- `C:\Program Files (x86)\Windows Defender`
- `C:\Windows\WindowsUpdate.log`
- `C:\Windows\Temp\MpCmdRun.log`
- `C:\ProgramData\Microsoft\Windows Defender`
- `C:\program files\Wyse\WDA\Config`
- `C:\Users\Public\Documents\Wyse`
- `C:\Wyse\WCM\ConfigMgmt`
- `C:\Wyse\WCM`
- `C:\Wyse\WDA`
- `C:\Windows\System32\spp`

The following are the UWF registry exclusions:

- `HKLM\Software\Wyse\ConfigMgmt`
- `HKLM\SYSTEM\CurrentControlSet\Control\WNT\UWFSvc`
- `HKLM\SOFTWARE\Microsoft\Windows Defender`
- `HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\HomeGroup`
- `HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\NetworkList`
- `HKLM\SYSTEM\WPAX`

Additional details regarding the customizations are:

1. Changing administrator password in `Sysprep.xml` file:

   Part of custom sysprep to change administrator password.

2. Domain join support in `Sysprep.xml` file:

   Part of the custom sysprep script when you create golden image. You need domain join credentials for this functionality.

3. Keyboard filter:

   You can use keyboard filter to disable undesirable key press or combination. For example, you can disable any Windows key combinations like **Ctrl+Alt+Delete** and **Alt+Tab**.

4. Windows ATP:

   Windows Defender ATP is a new service that supports enterprises to detect, investigate, and respond to advanced attacks on their networks.

5. File Checker:

   System scan is added as a part of `precustomsysprep` and `ConfigMgr_Sysprep`.

   Sfc /scannow runs the file checker and auto repair during integrity violations.

   (i) **NOTE: Run sfc scan during system update only.**

   - Do the following to skip **sfc** scan during deployment:
     - In `CustomSysprep`:

a. Go to `C:\windows\setup\Customsysprep\AnswerFile`.
b. Right-click `CustomSysprep.xml` and select **edit**.
c. Search **systemscan** and set the value as **Execute=0** (default value is 1).

○ In `Config Mgr sysprep`:

a. Go to `C:\windows\setup\ConfigMgrSysprep\AnswerFile`.
b. Right– click `ConfigMgrSysprep` and select **edit**.
c. Search **systemscan** and set the value as **Execute=0** (default value is 1).

(i) **NOTE: In vWorkspace, after installation you must check that `install.txt` file is created in C: drive.**

C-A-D tool Information

To enable the **C-A-D** tool, do the following:

1. Log in to the system using administrator privileges.
2. Disable **Write Filter**.
3. Launch the command prompt from the **Run** window in elevated mode.
4. Navigate to **cd c:\windows\system32**.
5. Run the file `DWKBFilterMon.exe` from the command prompt.
6. Click **Enable**.
7. Restart the system to enable the **C-A-D** tool.

Enhancements

- Security update for bluetooth vulnerability is added.
- Windows defender auto-update task from task scheduler is removed.

Known issues

This section contains the list of known issues with workaround wherever applicable.

Table 2. Known issues

SLNO.	Description	Workaround
1.	PAD imaging does not work in Wyse Device Manager (WDM) environment.	Add-on fix will be released to address this issue.
2.	Errors are displayed when you run `ConfigMgr Sysprep`.	There is no functionality impact.
3.	Domain login configuration when you run custom `sysprep` displays four warning messages if you click **Submit** without entering the required details.	There is no functionality impact.
4.	SCCM background does not fit to full screen while deploying the image on Latitude 5280 mobile thin client.	There is no functionality impact.
5.	The **YouTube** web page that you have bookmarked does not open properly.	There is no functionality impact.
6.	Optimal resolution is received in a client that is connected using VNC viewer.	There is no functionality impact.
7.	Print window is not displayed when you press Ctrl+P to print in Microsoft Notepad or Microsoft Paint applications.	There is no functionality impact.
8.	Dell symbol is displayed in compressed mode on the background wallpaper.	There is no functionality impact.
9.	Run time commands are not localized in respective languages.	There is no functionality impact.
10.	Errors are displayed when you run `PostSysprep` Script, after you deploy SCCM image.	There is no functionality impact.

Table 2. Known issues(continued)

SLNO.	Description	Workaround
11.	The `Sysprep.xml` file contains Z90Q10 entry under the Model tag.	There is no functionality impact.
12.	HAgent and Wyse Device Agent (WDA) services stop working and the Startup type is automatically set to manual, after you deploy `.wim` image from SCCM server.	There is no functionality impact.
13.	The drive D is mounted on the thin client after you deploy `.wim` image from SCCM server.	There is no functionality impact.
14.	The platform type, Latitude 5280 mobile thin client is displayed as 5480 on the Wyse Device Manager console.	There is no functionality impact.
15.	While trying to upgrade the VMware v4.3 to v4.5, VMWare v4.3 gets uninstalled and VMware v4.5 does not get upgraded.	It will be fixed in v4.6.1 and later release.

Test environment

This section lists the test environment details on which the build was tested before the release cycle.

Table 3. Test environment

Platform	Part Number	RAM/HDD/SED Detail
Latitude 5280 mobile thin client	T9XK1	8 GB RAM/128 GB M2-SSD

- Servers are installed on VMware VCenter Server v5.1.0.
- Windows 2K8 R2 Enterprise Server with Wyse Device Manager v5.7.2.
- Windows 2K8 R2 Enterprise Server with Wyse Management Suite v1.0 (basic functionality).
- Windows 2K3 R2 Enterprise Server with WSI v5.0.5.
- Windows 2K3 Server, Windows Server 2K8 R2 Enterprise, and Windows Server 2K12.
- Windows 2K12 R2 Enterprise with Citrix XenDesktop Server v7.13.
- Windows 2K8 R2 Enterprise with VMware Horizon View Server v7.1.
- Red Hat Linux Server with Ericom Server v9.2.
- Ericom WebConnect Server v6.0.

Build details

This section contains the Latitude 5280 mobile thin client build details.

Table 4. General build details

Platform	Latitude 5280 mobile thin client
Product	WIE10 –LTSB2016
Build Version	12.01
Build Number	0A64
Localization	English, French France, Spanish, Italian, German, Japanese, Chinese Simplified, Chinese Traditional
WSI/Wizard Compatibility	5.0.5 (Build-263)
Wyse Device Manager	5.7.2

SectorImg.exe	1.0.0.7
BA version	3.5.3
USB Imaging Tool	2.1.4

Table 5. Platform Specific Build Details

Dell Latitude 5280 Wyse thin client	
Version	12.01
Build Number	0A64
Build WSI Package Name	5280_0A64_32GB.exe
Build Size (Bytes)	12,379,600,282
Localization	English, French France, German, Spain, Italian, Japanese, Chinese Simplified, Chinese Traditional

Boot sequence

This section provides the boot sequence details that are part of BIOS in factory configuration in UEFI mode or legacy BIOS-compatibility mode.

- Windows boot Manager
- **<Released image name>** Non-Pxe
- Onboard NIC (IPv4)

Supported peripherals

This section lists the supported peripherals that are valid for this release.

Table 6. Supported peripherals

Supported Device Name
Dell Pro Stereo Headset UC300 - Lync Certified
Dell Pro Stereo Headset - Skype for Business
Jabra Evolve 65 MS wireless headset (Stereo) - Office Centric
Dell USB Sound Bar
Dell 2.0 Speaker System
Dell Adapter- HDMI to VGA adapter
Dell MS116 USB Wired Optical Mouse
Dell Wireless Mouse- WM326
Dell Wireless Keyboard and Mouse Combo- KM636
Dell USB Wired keyboard with Smartcard Reader- KB813
Dell Entry USB 3.0 dock- D1000
Dell Dock- WD15
Dell 20 Monitor (Dell E2016H)

Table 6. Supported peripherals(continued)

Supported Device Name
Dell 20 Monitor (Dell E2016HV)
Dell 22 Monitor (Dell E2216H)
Dell 22 Monitor (Dell E2216HV)
Dell Ultra Sharp 24 Monitors (Dell U2415)
Dell 21.5 Medical Review Monitor
Dell 20 Monitor
Dell 22 Monitor
Dell 24 Monitor (Dell P2417H)
Dell 23 Monitor (Dell P2317H)
Dell 27 Monitor (Dell P2317H)
Dell E2318HN
Power Companion (PW7015M)

Disk space information

This section provides information on the used and free space on your system disk (for example, drive C) for imaging and after imaging on your thin client.

Table 7. Disk space details

Platform	Flash Size	Used space on drive C for imaging	Free Space on drive C after imaging
Latitude 5280 mobile thin client	128 GB	14.7 GB	103 GB

Manufacturing details

This section provides manufacturing details for Latitude 5280 mobile thin client.

Table 8. Manufacturing details

Manufacturing details	
Product Name	Latitude 5280 mobile thin client
Version	12.01
CPU Type / CPU Speed	Intel® Core™ i5-7300U @2.60 GHz/ 2701 MHz

Operating system components

This section lists the files/driver information for Latitude 5280 mobile thin client and applications/files.

Table 9. Driver details

Drivers/ Files	Comments
Chipset	Intel Chipset Device software – 10.1.1.38
Chipset	Intel® Dynamic and Thermal Framework – 8.2.11000.2996

Table 9. Driver details(continued)

Drivers/ Files	Comments
Chipset	Intel® HID Event Filter – 1.1.0.317
Chipset	ST Microelectronics 3-Axis Digital Accelerometer – 2.2.3.13
Intel MSR MEI	Intel® Management Engine Interface – 11.6.0.1026
Security	Dell Control Vault without Fingerprint Sensor – 4.5.16.46
Storage	Intel® 6th Generation Core Processor Family Platform I/O SATA AHCI Controller – 15.2.2.1030
Audio	Realtek Audio – 6.0.1.8037
Display Adapter	Intel® HD Graphics 610 – 21.20.16.4550
Ethernet Adapter	Realtek PCIe GBE Family Controller – 10.12.1007.2016
Wireless Adapter	Qualcomm QCA61x4A 802.11ac Wireless Adapter – 12.0.0.295
Bluetooth	Qualcomm QCA61x4A Bluetooth 4.1 – 10.0.0295
Tell IT WWAN	DellWireless5814e_Win81_Win10_x64 (in programs and features)
Touchpad	Dell Touchpad – 10.2207.101.108
Memory Card Reader	Realtek PCIE Card Reader – 10.0.14393.21292
IR Camera	Realtek PC Camera – 10.0.14393.11242 (in programs and features)
Display Link Graphics Driver	8.0.778.0(programs and features)
USB LAN Driver	Realtek USB Ethernet Controller All-In-One Windows Driver – 10.12.1007.2016(programs and features)
USB Audio	6.3.9600.50(programs and features)
Dell Keyboard driver application	For KM632 & KB212-B
Wyseramdisk.sys (Wyse RAM Disk driver)	Dell Wyse RAM Disk driver-5.0.2183.5 Default value would be 512 MB
Flash.sys	Dell Wyse Flash Driver-1.0.7.7
Dell Open Print Driver	1.91.7882.0

Table 10. Application/file details

Application/Component/file	Version
RDC	10.0.14393 (RDP v10.2) 10.0.14393.0(thin client application)
Citrix receiver 4.6 (Standard)	14.6.0.12010
	Citrix Online Plugin -14.6.0.12010

Table 10. Application/file details(continued)

Application/Component/file	Version
Citrix HDX real time media engine	2.1.200
VMware Horizon client	4.3.0.4209 4.3.0 in VMware Horizon client
vWorkspace client	8.6.309.4062
Ericom powerterm interconnect for thin clients	12.0
SCCM client	SCCM 2016 client-5.00.8412.1307
Windows media player	12.0.14393
Internet Explorer	11.576.14393.0
Adobe Flash player 21 NPAPI	21.0.0.213
Tight VNC	2.6.4
Ericom connect web connect	7.5.1
.NET Framework	4.6.2
WDA	13.0.1.2
Bit locker with TPM	Supported
Windows Multi touch	Supported
Windows Defender with latest definition	Updated with Virus and Spyware definition
Microsoft Management Console	Management Console v3.0 Version 1607 (Operating System build 14393.1)
Microsoft Silverlight	5.1.50905.0
Background Intelligent Transfer Service (BITS)	Supported
MSXML	Supported
XML Paper Specification (XPS)	Supported
Network Access Protection	Not Supported
Credential roaming	Supported
WPA2	Supported
CredSSP	Supported
Dell Wyse wallpaper on All Users	Supported
DirectX	12
DellThinClientApplication.exe (New Client Application)	10.0.0.11

Table 10. Application/file details(continued)

Application/Component/file	Version
Unified Write Filter manager -Uwfmgr.exe (File Version)	10.0.14393.0
UWF system tray UI – UWFTray.exe	1.0.4.6
UWF Service – UWFSvc.exe	1.0.4.6
NetXClean.exe	3.0.0.8
Dell Command Monitor	9.2.0.135
Disk_Size.exe	3.0.0.5
DeleteFreeSpace.exe	1.2.1.0
Custom Sysprep support in scripts	Supported
Windows Time Service	Supported
Dell open printer driver	1.91.7882.0
Dell CAPS lock indicator application	2.1.10.0604
CAD MAP Application DWKbFilter.sys DWKbFilterMon.exe DWKbFilterWatchdog.exe	2.3.0.1 2.2.0.4 2.2.0.4

Quick Fix Engineering (QFE) details

This section contains the QFE or security patch details until September 2017.

Table 11. QFEs

Security Update
KB3209498
KB4038806
KB4038782