Windows 10 IoT Enterprise for Dell Wyse Thin Clients

BIOS Upgrade Guide



Notes, cautions, and warnings

(i) 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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Introduction

1

This document provides the steps to update the BIOS on Windows 10 IoT Enterprise for Dell Wyse thin clients. You can update the BIOS by using one of the following methods:

- Wyse Management Suite
- Wyse Device Manager Server (WDM)
 - () NOTE: You cannot update the BIOS using WDM on Wyse 5070 Thin Client, Wyse 5470 Thin Client, and Wyse 5470 All-in-One Thin Client.
- System Center Configuration Manager (SCCM) serverUSB drive—Manual update
- (i) NOTE: The build number of the BIOS is represented as x.x.x. The value of x is not constant and changes with every update to the build. The build number that is displayed in the images is for reference only, and the build number on your system may vary.

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Supported thin clients

The following are the list of thin clients that run on Windows 10 IoT Enterprise:

- Wyse 5470 Thin Client
- Wyse 5470 All-in-One Thin Client
- Wyse 5070 Thin Client with Celeron processor
- Wyse 5070 Thin Client with Pentium processor
- Wyse 5070 Extended Thin Client with Pentium processor
- Wyse 5060 Thin Client
- Wyse 7040 Thin Client
- Latitude 3480 mobile Thin Client
- · Latitude 5280 mobile Thin Client

(i) NOTE: The Wyse 7040 Thin Client support Windows 10 IoT Enterprise Threshold 1 operating system and the remaining thin clients support Windows 10 IoT Enterprise Redstone 1 operating system.

Upgrading BIOS by using Wyse Management Suite

Prerequisites

Wyse Device Agent version 14.1.0.3 or later must be installed.

Steps

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

(i) 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 BIOS package (.exe file) to your system.
- 6. Copy the downloaded .exe file (raw installer file) to the Wyse Management Suite server repository. For example, copy the downloaded file to <drive C>\Share\repository\thinClientApps.
- 7. Log in to Wyse Management Suite.
- 8. Click Portal Administration, and then click File Repository under Console Settings.
- 9. Select the Local Repository check box.
- 10. Click Sync Files. Wait for the synchronization process to complete. The synchronization process copies the package from the repository to Apps and
- Data. 11. Click Apps and Data.
 - The **Apps and Data** page is displayed.
- 12. Verify the copied package in the Applications list.
- To create a group in the Wyse Management Suite server, click Groups & Configs. The Groups & Configs page is displayed.
- 14. Click the **Plus sign (+)** button and enter the required details to register your client in the same group.
- 15. Click Apps and Data.
 - The Apps and Data page is displayed.
- 16. Click Thin Clients under App Policies.
- **17.** Click **Add Policy** to add the policy to the required group.
 - () NOTE:
 - The silent installation parameter is /s /r /p=<Password>, and the default password is Fireport.
 - For the WDA 14.x.exe files, .msi files, and .msu files, the silent installation parameter is not required.
- 18. Update the required fields, and then click Save.
 - An **Alert** window is displayed.
- 19. Click Yes

(i) NOTE: The lock screen is displayed during the package installation process on all the thin clients.

The package is deployed immediately.

4

Upgrading BIOS by using WDM server

Prerequisites

Ensure that you are using WDM server setup v5.7.2 or later.

Steps

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

(i) 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 respective .exe file.
- 6. Extract and store the file in your local repository or the WDM server.
- 7. Log in to the WDM server.
- 8. Click **Applications** > **Other Packages**, and then click the plus icon. The **Dell Wyse Device Manager** screen is displayed.

Oell Wyse Device	Mana	ager			Q	Search	, ^{ED}	
Dashboard	Oth	er Pac	kages				С	+
Devices			NAME ~	DESCRIPTION	OPERATING SYSTEM	CREATED AT		
Applications		٠	BootAgentUpgradeLinux	Boot Agent Upgrade for SLETC SP1/SP2 (3.4.4)	SUSE Linux	2016-07-31 12:00:00.200		
Agent Update			BootAgentUpgradeThinLinux	Boot Agent Upgrade for ThinLinux (3.4.4)	ThinLinux	2016-07-31 12:00:00.200		
Device Configuration			BootAgentUpgradeWE8S	Boot Agent Upgrade for WEBS (Ver-3.4.4)	Windows Embedded 8 Standard 64	2016-07-31 12:00:00.200		
Images		•	BootAgentUpgradeWE85x	Boot Agent Upgrade for WE85x (Ver-3.4.4)	Windows Embedded 8 Standard 32	2016-07-31 12:00:00.200		
images		•	BootAgentUpgradeWES7	Boot Agent Upgrade for WES7 (Ver-3.4.4)	Windows Embedded Standard 7	2016-07-31 12:00:00.200		
Other Packages			BootAgentUpgradeWES7P	Boot Agent Upgrade for WES7P (Ver-3.4.4)	Windows Embedded Standard 7 P	2016-07-31 12:00:00.200		
PCoIP Device configuration			BootAgentUpgradeWIE10	Boot Agent Upgrade for WIE10 (Ver-3.4.4)	Windows 10 IoT Enterprise	2016-07-31 12:00:00.200		
🕂 Updates		•	Reboot	Device Reboot	ALL	2011-12-19 12:50:16.970		
🚮 Reports		٠	ResetOSSettings	Resets OS configuration to factory default	ALL	2013+10-29 16:08:57.000		
📑 System		•	ShutDown	Device Shutdown	ALL	2011-12-19 12:50:17.063		
		٠	WakeOnLAN	Device WOL	ALL	2011-12-19 12:50:17.017		

Figure 1. Dell Wyse Device Manager

- 9. Click Download.
- **10.** Double-click the downloaded package.

The WDM Package Registration Utility screen is displayed.

1 |0F1 <>

IDM Task		WDM server address and credenti
	_	WDM Server *
		https:// (Hint: https://10.100.214.103.443)
RSP	EXE	Username *
Register Rsp	Register Exe	(Hint: Administrator)
		Password *
		•••••
Allows you to choose a loca	al .exe, .msi, .msu, or .bat file, server.	Several and the formula D

Figure 2. WDM Package Registration Utility

- 11. Click **EXE**, and navigate to the folder where the BIOS package is located.
- 12. Select the target client operating system, and enter the command line parameters /s/r.

13. Click Upload.

The BIOS package is registered in the **Other Packages** section.

	WDM Package Regis	tration Utility G	
elect exe, msi, r	nsu or bat to upload Browse	WDM server address and credenti	
		WDM Server *	
Number	Landson, 1988, Processor, 2018, 2 10.7	https://	
Description		(Hint: https://10.100.214.103:443)	
Operating System	WIE10	Username *	
Category	Other Packages		
Image Size	19661	(Hint: Administrator)	
Command Parameters	/s/r	Provide the	
		Password **	
Select Operating System	* Windows 10 IoT Enterprise	Save credentials (encrypted)	
Install Path on Thin Clie	nt * Command Parameters		
C:\Temp	/s /r	On	
(Must be a valid path on T	hin Client) (Hint: some-file-name, or some-flag)		

Figure 3. EXE file selected

14. After the upload process is complete, close the window. The **Package details** screen is displayed.

Dell Wyse Device	e Man	ager			Q.	iserch 💭
Dashboard	Oth	her Pac	kages			C +
Devices			NAME ~	DESCRIPTION	OPERATING SYSTEM	CREATED AT
Applications			BootAgentUpgradeLinux	Boot Agent Upgrade for SLETC SP1/SP2 (3.4.4)	SUSE Linux	2016-07-31 12:00:00.200
Agent Update			BootAgentUpgradeThinLinux	Boot Agent Upgrade for ThinLinux (3.4.4)	ThinLinux	2016-07-31 12:00:00.200
Device Configuration			BootAgentUpgradeWE8S	Boot Agent Upgrade for WE8S (Ver-3.4.4)	Windows Embedded 8 Standard 64	2016-07-31 12:00:00.200
Image			BootAgentUpgradeWE8Sx	Boot Agent Upgrade for WEBSx (Ver-3.4.4)	Windows Embedded 8 Standard 32	2016-07-31 12:00:00.200
Images			BootAgentUpgradeWES7	Boot Agent Upgrade for WES7 (Ver-3.4.4)	Windows Embedded Standard 7	2016-07-31 12:00:00.200
Other Packages			BootAgentUpgradeWES7P	Boot Agent Upgrade for WES7P (Ver-3.4.4)	Windows Embedded Standard 7 P	2016-07-31 12:00:00.200
PCoIP Device configuration			BootAgentUpgradeWIE10	Boot Agent Upgrade for WIE18 (Ver-3.4.4)	Windows 10 IoT Enterprise	2016-07-31 12:00:00.200
↔ Updates			BootAgentUpgradeWIE10_3.5.3	Boot Agent Upgrade for WIE10 3.5.3	Windows 10 IoT Enterprise	2017-05-22 23:30:29.440
Reports			states which have a little of	status, 100 chevra, 160 chiva	Windows 10 IoT Enterprise	2017-06-12 02:41:57.900
++ System			Reboot	Device Reboot	ALL	2011-12-19 12:50:16.970
			ResetOSSettings	Resets OS configuration to factory default	ALL	2013-10-29 16:08:57.000
			ShutDown	Device Shutdown	ALL	2011-12-19 12:50:17.063
			WakeOnLAN	Device WOL	ALL	2011-12-19 12:50:17.017
	13 Par	ckage(s) L	Jisted			1 OF 1 < 1

Figure 4. Package details

15. Click **Devices**, and select the devices that require an update.

16. Click Update.

The **Devices** screen is displayed.

wu Dell Wyse D	evice Manager			Q, Search	P	15	
Dashboard	All Devices 🗸			o *	Save	Cancel	Ŧ
Devices	I NAME ↓	IP ADDRESS »	Distribute Package 1 Devices(s) selected				Clear Al
Applications	✓ 1234567wES	100000	Select Package				
* Updates			No Package Selected	~			
Reports			Schedule Distribution				
🔹 System			One time distribute	Recurring distribution			
			Distribute Now ~				
			Retry failed updates Off				
	1 Device(s) Listed	1 OF1 <	3				

Figure 5. Devices

17. In Select package, click Other Packages, and then select the registered BIOS package.

18. Click Save.

The BIOS Flash Package screen is displayed.

🗪 Dell Wyse De	evice Manager			Q Search	"
Dashboard	All Devices 🗸			C 🔿 Save	Cancel
Devices	NAME ~	IP ADDRESS »	Distribute Package 8 Devices(s) selected		Clear All
Applications	WESSRT53H2	ADDAT	Select Package		
+++ Updates				~	
👬 Reports			Schedule Distribution		
😅 System			One time distribute	Recurring distribution	
			Distribute New ~		
			Retry failed updates Off		
	1 Device(s) Listed	1_0F1 < >			

Figure 6. BIOS Flash Package

Results

The client restarts and upgrades the BIOS.

Upgrading BIOS by using SCCM server

Prerequisites

Ensure that you are using SCCM server 2016 or later.

Steps

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

() 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 respective .exe file.
- 6. In Configuration Manager Content Source Share, create a folder with the name Packages.
- 7. Copy the installation package to the Packages folder.
- 8. Open the System Center Configuration Manager console, and go to Software Library > Application Management > Packages.
- 9. Click **Packages**, and select **Create Package**. The **SCCM** screen is displayed.

Home Folder									^
福 福 🔪 🔯	Manage Access Accounts	Export	111		a 1				
Create Create Package Import Saved	Create Prestaged Content File	Refresh Deploy Distribute	Update	Move Set	Security Prope	erties			
Create Search	Package	Deol	ovment	Move C	lassify Proor	rties			
← → - 👩 \ → Software Library → (Overview + Application Management + Pac	kages							
Software Library	Packages 14 items								
4 💣 Overview	Search							X P Search	Add Criteri
A G Application Management	Icon Name	Programs	Manufacturer	Version	Language	Package ID			
Applications	Boot_Time_Fix_WES7P	1				NPI0001A			
License Information for Store Apps	BootTime	1				NPI0001C			
Packages	Disable_WF	1				NPI00042			
Approval Requests	Enable WF	1				NPI00043			
[2] Global Condit	FT Firstey	1				NPI00049			
Center application requi	ests from users for Software	1				NPI0004A			
App-V Virtual	Ucense	0				NPI00024			
Windows Sideloading Keys	WIE10Solano_sysprep	0				NPICODOA			
Policies Management Policies	WIE10-UWF-enable	1				NPI00048			
App Configuration Policies	Write_Merlin_Sig	0				NPICODOE			
Software Updates	Docking Station	1	Dell	1000	Eng	NPI00041			
Operating Systems	TESTexclusion	1	dsfsd		sdf	NPI00020			
Windows 10 Servicing	Configuration Manager Client Up	grade 1	Microsoft	6.0	ALL	NPI00040			
	Configuration Manager Client Pat	skage 0	Microsoft Corpo	-		NPI00001			
	Boot_Time_Fix_WES7P								
	Participa Descention		C-1-10					Related Objects	
	Package Properties		Content sta	tus		-		helated Objects	
	Package ID: NPI0001A Manufacturer: Version: Language:						Success: 0 In Progress: 0 Failed: 0 Unknown: 0	Content Status	
						0 Targeted (Last Update: Never)			
·									
Assets and compilance									
Software Library									
Software Library									
Software Library	-								
Software Library Monitoring Administration									

Figure 7. SCCM console

The Create Package and Program Wizard screen is displayed.

🛐 Create Package and Pro	gram Wizard		×
Package Program Type Standard Program Requirements Summary Progress Completion	Specify info Enter a name an Application Cata Name: Description: Manufacturge: Language: Jhis packag Sourge fold	rmation about this package Ind other details for the new package. To take full advantage of new features that include the log, use an application instead. BIOSupdate BIOSupdate BIOSupdate Wersion: Wersion: BICSupdate BICSUpdate BICSUpda	
		< Previous Next > Summary Car	ncel

Figure 8. Create Package and Program Wizard

10. Click Next.

The **Program Type** screen is displayed.

Program Type		
Package Program Type Standard Program Requirements Summary Progress Completion	 Choose the program type that you want to create Standard program Create a program for a client computer. O Program for device Create a program for a device. 	
	Do not create a program Create a package, but do not create a program. You can use the Create Program Wizard to add a program later.	
	< Previous Next > Summary Cancel	

Figure 9. Program Type

11. Select Standard Program, and click Next. The Standard Program screen is displayed.

🛐 Create Package and Pr	ogram Wizard		×
Standard Prog	gram		
Package Program Type Standard Program	Specify information	on about this standard program	
Requirements	Na <u>m</u> e:	BIOSupdate	
Summary	<u>C</u> ommand line:	Browse	
Progress	S <u>t</u> artup folder:		
completion	<u>B</u> un:	Normal	~
	Program can r <u>u</u> n:	Only when a user is logged on	~
	Run mod <u>e</u> :	Run with user's rights	~
	Allow users to view	and interact with the program installation	
	<u>D</u> rive mode:	Runs with UNC name $\qquad \checkmark$	
	Reconnect to distribution	uution p <u>o</u> int at log on	
		< <u>P</u> revious <u>N</u> ext > <u>Summary</u> Can	icel

Figure 10. Standard Program

- 12. In the Standard Program package, enter the package name.
- 13. In the Command Line field, navigate to the folder where the BIOS executable file is located, and select it.
- 14. Click Next.
- The **Requirements** screen is displayed.

Requirements			
Package Program Type Standard Program	Specify the requirements for this s	standard program	
Requirements	Bun another program first		
Summary	Package:		Browse
Progress	Program:		~
Lompietion	Always run this program first		
	Platform requirements		
	This program can run on any platform		
	This program can run only on specified platfi	oms	
	All Windows RT All Windows RT 8.1 All Windows RT 0.(32-bit) All Windows 10 (32-bit) All Windows 10 (64-bit) All Windows 7 (64-bit) All Windows 8.(64-bit) All Windows Embedded 8 Industry (64-bit) Windows Embedded 8.1 Industry (64-bit) Windows Embedded 8.1 Industry (64-bit) Windows Embedded 8.1 Industry (64-bit)) ()	~
	Estimated gisk space:	Unknown	~ MB ~
	$\underline{M} a x imum$ allowed run time (minutes):	120	~

Figure 11. Requirements

15. Click Next.

The **Summary** screen is displayed.

🚮 Create Package and Pro	gram Wizard	×
Summary		
Package Program Type Standard Program	Confirm the settings	
Requirements Summary Progress Completion	General: • Name: BIOSupdate • Description: • Version: • Version: • Upblisher: • Language: • Source files: \\ • Always obtain files from the source folder Program Type: Standard Program Program: • Name: BIOSupdate • Command line: • Start in: • Start in: • Start in: • Run mode: Run with user's rights • Program can run: Only when a user is logged on • Allow users to view and interact with the program installation • Drive mode: Runs with UNC name Requirements: • Platforms supported: Any • Maximum allowed runtime(minutes): 120 To change these settings, click Previous. To apply the settings, click Next.	
	< Previous Next > Summary Car	icel

Figure 12. Summary

16. Verify the information that you have provided, and click **Next**. The **Completion** screen is displayed.

Create Package and Progr	am Wizard	×
Package Program Type Standard Program Requirements Summary Progress Completion	 The Create Package and Program Wizard completed successfully Letais: Success: General: Name: BIOSupdate Name: BIOSupdate Name: BIOSupdate Success: Program Type: Standard Program Success: Program Type: Standard Program Success: Program Type: Standard Program Success: Program Typ	
	< <u>P</u> revious <u>N</u> ext > Summary	Close

Figure 13. Completion

17. Click Close.

18. Right-click the package, and select Distribute Content.

Create Package Import Package from Definition Create Searches - Search	Menage Access Accounts	Export Refresh Delete Deploy Distribute Content D Deployn	Update istribution Points tent	Move Set Move C	ecurity Proper opes assity Proper	ties			
🗲 🔿 🔻 🛐 🛝 🔸 Software Library 🔸 Ov	rerview Application Management Pac	kages							•
Software Library	PAckaps 15 Rems Search Con Name BIOSupdate BotTime BotTime BotTime BotTime BotTime Dabay VF Findox do Findox do Visito VisitoUWF-enable WisitoUWF-enable WisitoUWF-enable Configuration Manager Clam	Programs 3 Manage Access Accounts Create Protraged Content File Create Program Espont Deptoy Debte Update Datribution Points More Set Sacurity Scopes Properties	P5 Delete	Version 1000 6.0	Eng adf ALL	Package ID NP00001 NP0001A NP0001A NP0001A NP00023 NP00043 NP00040 NP00040 NP00040 NP00040 NP00041 NP00020 NP00040 NP00041 NP00040 NP00040		K	Add Criteria
	BIOSupdate Package Properties Reckage ID: NP00081 Manufacturen Version: Language		Content Status	-	0 Targeted	Leet Update: 4/24/2017 11:55 AM	Success 0 In Program 0 Dealer of the own 0	Related Objects	

Figure 14. Distribute Content

- 19. After the package content is distributed, check if the status of the package turns green.
- **20.** Add the client to the domain, and verify if it is displayed on the SCCM server.
- 21. In the target client, go to Assets and compliance > Devices and check the MAC ID of the client.
- 22. Add the device to the device collection.
- **23.** Deploy the BIOS package to the created device collection. The client restarts and upgrades the BIOS.

Upgrading BIOS by using USB drive

To upgrade the BIOS—by using the USB drive—from the operating system, do the following:

- 1. Download the BIOS binary file and copy it to a USB drive.
- 2. Run the file on the target thin client.
- 3. Click Ok.

The client restarts and upgrades the BIOS.

(i) NOTE: The executable file can also be downloaded and run directly on the target thin client.

To upgrade the BIOS—by using the USB drive—through the BIOS boot menu, do the following:

- 1. Copy the downloaded executable file to a USB drive.
- 2. Plug in the USB drive into a USB port.
- **3.** During system start-up, press F12.

The **Boot Menu** is displayed.

- 4. In Other Options, select BIOS Flash Update.
- 5. Navigate to the downloaded executable file, and click Ok.
- 6. Verify the existing system BIOS information, and the BIOS update information.
- 7. Click Begin Flash Update.
- 8. After you review the warning message, click Yes.

The client restarts and upgrades the BIOS.