

Dell

Business Client

Imaging Recommendations

Dell Venue 10 Pro 5056 / 8 Pro 5855

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1 Overview

The purpose of this document is to provide details for imaging Dell Venue 10 Pro 5056 and 8 Pro 5855 systems with the properly supported Microsoft Operating System and required drivers and applications.

Drivers and applications must be installed on Venue 10 Pro 5056 and 8 Pro 5855 in a prescribed order to ensure optimal functionality and performance. Dell provides drivers and applications that are not included in Microsoft Operating Systems. These drivers are required to enable the features of the Dell Venue 10 Pro 5056 and 8 Pro 5855 tablets. The needed drivers and their supporting applications can be retrieved from the following URLs:

Venue 10 Pro 5056: http://www.dell.com/support/home/us/en/19/product-support/product/dell-venue-10-pro-5056-tablet/drivers

Venue 8 Pro 5855: <u>http://www.dell.com/support/home/us/en/19/product-support/product/dell-venue-8-pro-5855-tablet/drivers</u>

2 Imaging

2.1 Supported Operating Systems

The following Microsoft operating systems have been validated for use with the Dell Venue 10 Pro 5056 and 8 Pro 5855 tablets:

- Windows 8.1 64 Bit (UEFI Mode Only)
- Windows 10 64 Bit (UEFI Mode Only)

2.2 Boot Capabilities

Venue 10 Pro 5056 and 8 Pro 5855 systems will only boot bit UEFI mode. Legacy or DOS boot is not supported.

2.3 OS Install

Note: Before beginning an image install, Dell first recommends that the system BIOS be updated to the latest version available and all BIOS settings are set correctly for the desired system operation. Also, drivers and supporting applications that are to be installed should be the latest available versions from the support pages.

Recommend BIOS Settings:

 The system USB configuration must be set to allow for USB boot. System Configuration->USB Configuration->Enable Boot Support - Enable

Settings - General - System Information - Battery Information - Settings	USB Configuration USB Configuration Enable Boot Support Enable External USB Port
Dool Sequence Date/Time System Configuration Integrated NIC Use Configuration	This field configures integrated USB controller. If Boot Support is enabled, system is allowed to boot any type of USB Mass Storage Devices (HDD, memory key, floppy).
Autio USB PowerShare Unobtrusive Mode Miscellaneous Devices +	USB-aware OS arways see USB Mass storage devices irrespective of this setting, provided the port is enabled. If USB Port is enabled, device attached to this port is enabled and available for OS If USB Port is disabled, OS can't see any device attached to this port Note: USB keyboard and mouse always work in the BIOS setup irrespective of this setting
Security Secure Boot Performance Power Management POST Behavior Virtualization Support	
Wireless Maintenance System Logs SupportAssist System Resolution	
	Restore Settings Exit

2. In order to boot to PXE from an Ethernet network device, the UEFI network stack must be enabled. System Configuration->Integrated NIC->Enable UEFI Network Stack - Enable

	Integrated NIC
Settings Ceneral System Information Battery Information Boot Sequence Date Time System Configuration Audio USB PowerShare Urobtrusive Mode Miscellaneous Devices Video Security Secure Boot Performance Power Management POST Behavior Vitrualization Support Vitrualization Support Wireless Maintenance System Logs SupportAssist System Resolution	Integrated NIC

3. In order for the system to detect and enumerate all the connected USB device, FastBoot mode must be set to "Thorough".

Post Behavior->Fastboot - Thorough

Settings Central System Information Battery Information Bot Sequence Date/Time System Configuration Date/Time USB Configuration Audio USB Configuration Audio USB PowerShare Uobbrusive Mode Miscellaneous Devices Video Security Secure Boot Power Management POST Behavior Extend BIOS POST Time Vitualization Support Maintenance System Logs SupportAssist System Resolution	Patiboot Immail Through This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process by bypassing some compatibility steps. This option can speed up the boot process.	
	Restore Settings Exit	

2.3.1 Two basic methods to install an OS image on the Venue 10 Pro 5056 and 8 Pro 5855 tablets.

1. Hand install from UEFI bootable USB flash drive that contains the OS install files.

2. Automated image install/deployment through Enterprise solutions such as Microsoft's SCCM.

2.3.1.1 Hand Install through USB Flash Drive

Microsoft[™] has made is easier than ever to create USB flash drive install media. Just download the "Media Creation Tool" (MCT) available from these URLs for the desired OS.

Windows 10 - 64 Bit - https://www.microsoft.com/en-us/software-download/windows10

Windows 8.1 - 64 Bit - http://windows.microsoft.com/en-us/windows-8/create-reset-refresh-media

2.3.1.1.1 Windows 10 – USB install media creation

Download the Windows 10 MCT to any workstation running Windows 7 or higher. Run the tool as admin and follow the prompts.

1. Accept the EULA.

<u>Ľ</u>	Windows 10 Setup		_ □	×
	License terms			
	Please read this so you know what you're agreeing to.			
	MICROSOFT SOFTWARE LICENSE TERMS			^
	MICROSOFT SOFTWARE			
	These license terms are an agreement between Microsoft Corporat live, one of its affiliates) and you. Please read them. They apply to which includes the media on which you received it, if any. The term Microsoft	ion (or based or the software na ns also apply to	n where you amed above, any	l
	• updates,			
	• supplements,			
	• Internet-based services, and			
	support services			
	for this software, unless other terms accompany those items. If so,	those terms ap	ply.	
	By using the software, you accept these terms. If you do no use the software.	ot accept them	n, do not	
	Privacy statement			
		Decline	Accept	

2. Select "Create installation media for another PC".



3. Select "Language, Edition and Architecture".

4. The MCT can create an ISO image or prepare a USB flash drive to boot the installer. Select "USB flash drive" and click next.



5. The MCT will show a list of USB flash drives that it has detected, select the drive to be used as the install device from the list and click next. It is recommended that the USB flash drive have storage space of 4GB or greater. The MCT will download the Windows 10 install files and create a bootable USB flash drive. The process will take several minutes.

🐇 Windows 10 Setup	_ 🗆 🗙
Choose which media to use	
If you want to install Windows 10 on another partition, you need to create and then run	the media to install it.
USB flash drive	
It needs to be at least 3 GB.	
ISO file	
You'll need to burn the ISO file to a DVD later.	
Back	Next
	T CAL

6. When the MCT has completed, select Finish. The USB flash drive is now ready to boot the Windows 10 installer.

<u>e</u>	Windows 10 Setup 🗕 🗆 🗙
	Your USB flash drive is ready Here are some things to keep in mind:
	If you're going to install Windows 10 on your PC for the first time (or install a different edition), you'll need a Windows 10 product key.
	If you're going to upgrade from Windows 7 or Windows 8.1. or you're reinstalling Windows 10, you won't need to enter a product key.
	D١
	Back Finish

2.3.1.1.2 Windows 8.1 – USB install media creation

Download the Windows 8.1 MCT to any workstation running Windows 7 or higher. Run the tool as admin and follow the prompts.

1. When 1st run, the tool prompts for selection of Language, OS edition and Architecture. Select the required settings and then click next. The rest of the process is similar to the process previously outlined for Windows 10.

Ń	Wir	ndows Installation N	/ledia Creation Too	I	_ 🗆 🗙
What create	kind of e?	installatio	n file do y	ou war	nt to
Language	E	nglish (United Kingdom)	*		
Edition	M	/indows 8.1 Pro	¥		
Architectur	e <mark>6</mark>	4-bit (x64)	¥		
					Nevt
					NEXL

2.3.1.2 To install the OS using a UEFI bootable USB flash drive with a USB-C dock:

For this example, the Dell Dock WD15 was used in conjunction with a Venue 10 Pro 5056. The process for the Venue 8 Pro 5855 would be similar.

The system can be connected to the WD15 Dock with a USB mouse and connected to the Dock's USB 2.0 ports. The travel/dock keyboard can be used for both mouse and keyboard input but having an external mouse makes the process somewhat easier.

Until the chipset drivers are installed, the touchscreen will not function. All input when installing the OS will need to come from an attached USB mouse and keyboard. Windows 10 and 8.1 both natively support USB 3.0 and will boot and run the OS installer from the USB 3.0 port of the WD15 Dock.



This method will work for both the Venue 10 Pro 5056 and is the best option for 8 Pro 5855 since it only has the single USB-C port.



With the Venue Pro 5056, if a USB-C docking unit is not available, another method possible is to use a USB-C charging adapter with a USB3.0 or 2.0 hub on the system's external USB port to provide connection for the keyboard, mouse and USB flash installer.



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After making the necessary connections and powering on the tablet, as soon as the Dell splash screen is displayed, press the F12 on the keyboard or hold the Volume-Up button to bring up the one-time boot selection menu.



Use the arrow keys or system Volume-Up bottom to highlight the second "USB Storage Device" then press enter on the USB keyboard or press the Volume-Down button the system.

After pressing enter or the Volume-Down button, the system will then boot to the USB flash drive and start the OS installer. Follow the OS installer prompts to complete the OS install process.

After the OS is installed, the device drivers and supporting application must be installed to provide full system functionality. Required drivers and supporting applications for the Dell Venue 10 Pro 5056 and 8 Pro 5855 tablets can be located at these URLs:

Venue 10 Pro 5056:

http://www.dell.com/support/home/us/en/19/product-support/product/dell-venue-10-pro-5056tablet/drivers

Venue 8 Pro 5855:

http://www.dell.com/support/home/us/en/19/product-support/product/dell-venue-8-pro-5855tablet/drivers

The recommended install order for device drivers and apps is outlined below in paragraph "2.3.3 Venue 10 Pro 5056 and 8 Pro 5855 Recommended Install Order for Drivers/Apps"

2.3.2 Installation through Microsoft's SCCM

2.3.2.1 **PXE Boot Setup**

The Venue 10 Pro 5056 and 8 Pro 5855 both support PXE network booting for connection to automated install and deployment servers. It is recommended to use the network capabilities of the docking unit to provide PXE boot and network support for the system.

The PXE boot image provided by the PXE server must be a WinPe boot.wim that boots UEFI mode. In order for WinPe to connect to the network image server after startup, the boot wim image file must include the drivers for the docking unit's network adapter.

Important: Standard PXE DOS (syslinux / initrd) boot images are not supported.

With the Venue 10 Pro 5056, the PXE boot and install process can be run with the travel/dock keyboard connected to the tablet and the Ethernet connection to the WD15 docking.



This technique will work for the Venue 10 Pro 5056 and is best the approach for the Venue 8 Pro 5855.



The Venue 10 Pro 5056 and 8 Pro 5855 both have PXE code included in the UEFI BIOS that can boot the following USB-C network devices.

USB-C/Thunderbolt to Ethernet Controller		
Dell P/N: D59GG (USB-C to Gigabit Ethernet)		
Dell P/N: 5FDDV (Dell Dock WD15)		

2.3.2.1.1 Booting the system to PXE

To PXE boot the tablet, make the necessary USB and network connections then power up the system.

As soon as the Dell splash screen is displayed, press the F12 on the attached keyboard or hold the Volume-Up button on the system to bring up the one-time boot selection menu.

<u>If the network topology is IPv4:</u> Use the keyboard arrow keys or the system's Volume-Up button to highlight, "Onboard NIC (IPv4)" then press Enter or press the Volume-Down button on the tablet.

<u>If the network topology is IPv6:</u> Use the keyboard arrow keys or the system's Volume-Up button to highlight, "Onboard NIC (IPv6)" then press Enter or press the Volume-Down button on the system.



2.3.2.2 Device Drivers / Apps

Dell provides pre-packaged driver and app Cab files for OS deployment through SCCM or other deployment services. The Cab files can be downloaded from:

Venue 10 Pro 5056:

Driver Cabs:

http://www.dell.com/support/home/us/en/19/Drivers/DriversDetails?driverId=6XFM6&fileId=35049 78136&osCode=WT64A&productCode=dell-venue-10-pro-5056tablet&languageCode=en&categoryId=SM

For the Venue 10 Pro 5056, Dell also provides an Integration Suite for SCCM 12 that extends Configuration Manager and system management support.

http://www.dell.com/support/home/us/en/19/Drivers/DriversDetails?driverId=MM5R4&fileId=35092 77181&osCode=WT64A&productCode=dell-venue-10-pro-5056tablet&languageCode=en&categoryId=SM

Venue 8 Pro 5855:

Driver Cabs:

http://www.dell.com/support/home/us/en/19/Drivers/DriversDetails?driverId=XXFDC&fileId=350828 7306&osCode=WT64A&productCode=dell-venue-8-pro-5855tablet&languageCode=en&categoryId=SM

2.3.2.3 SCCM System Drive Partition Setup

The Dell Venue 10 Pro 5055 / 8 Pro 8055 do not support legacy boot options. All disk setup configurations must be setup for UEFI function.

A typical Windows 10 will use this partitioning/volume scheme on a GPT formatted SSD.

Volume #	LTR	Label	File System	Size	Info
0	С		NTFS	Remaining %	Boot / OS
1		Recovery	NTFS	450 MB	Hidden
2			FAT32	100 MB	System - EFI

Follow Microsoft's recommended drive partition guidelines for UEFI based systems located at this URL,

https://msdn.microsoft.com/en-us/library/windows/hardware/dn898510(v=vs.85).aspx

The guideline includes a "Diskpart" script example for creating the required OS partitions.

More information with respect to capturing and applying Windows, System, and Recovery Partitions can be found here:

https://msdn.microsoft.com/en-us/library/windows/hardware/dn898498(v=vs.85).aspx

2.3.2.4 **Other Useful Information:**

Deploying Windows 10 through SCCM:

https://technet.microsoft.com/en-us/library/mt297520(v=vs.85).aspx

Deploying Windows 8.1 through SCCM:

https://technet.microsoft.com/en-us/library/dn744284.aspx

2.3.2.5 SCCM Driver Install Step Sequence

Dell recommends installing the Venue 10 Pro 5056 / 8 Pro 5855 system device drivers and supporting applications in the install order outlined below.

2.3.3 Venue 10 Pro 5056 and 8 Pro 5855 Recommended Install Order for Drivers/Apps

Required drivers/updates:

- 1. BIOS updates
- 2. Chipset
- 3. FW updates (for docking units as required)
- 4. Docking unit Ethernet driver (as required)
- 5. System WWAN drivers
- 6. System WLAN drivers (as applicable)
- 7. Docking unit Audio driver (Optional during system OS install/deployment)
- 8. System Audio driver
- 9. System Management utilities/applications (as required)
- 10. System security utilities/applications (as required)
- 11. User space applications