Technical white paper

Deploying a Microsoft[®] Windows[®] 8 32-bit image to the HP ElitePad 900 using Microsoft System Center Configuration Manager



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Introduction

This document provides information on performing an operating system deployment (OSD) of a Microsoft[®] Windows[®] 8 32bit image to the HP ElitePad 900 using Microsoft System Center Configuration Manager (SCCM) 2012 SP1. For guidance and help on other configuration items or issues such as Server 2012 setup and general SCCM and Windows Deployment Services (WDS) questions please consult the appropriate product documentation and/or support personnel.

Requirements

For a successful OSD to the HP ElitePad 900, your network infrastructure requires the following:

- Microsoft Windows 8 32-bit for the HP Elite Pad
- Microsoft SCCM 2012 SP1 running on Windows Server 2012

Important

Cumulative Update 1 for System Center 2012 Configuration Manager Service Pack 1 (KB2817245, available from Microsoft.com <u>here</u>) must be installed to properly support PXE booting.

- HP ElitePad 900 Windows 8 x86 Driver Pack available from hp.com here.
- Updates mentioned in the following sections

Driver pack contents and purpose

The driver pack contains bundled drivers, firmware, and BIOS updates that should be installed together to ensure optimum performance of the HP ElitePad 900. In addition, this package installs manageability support of BIOS settings through the Windows Management Instruction (WMI) interface, allowing tools such as the HP BIOS Configuration Utility to work.

Note

The driver pack does not contain WWAN drivers, which require an installer for installation. If you wish to deploy to ElitePads with WWAN capability you will need to download the packages and add them to the task sequence for installation as an application. Consult the documentation for those packages for details on configuration.

You can import the HP ElitePad 900 driver pack into SCCM the same way other drivers are. All drivers should be added to a driver pack for reference during the task sequence creation process. The driver pack contains the HP ElitePad 900 Driver & Firmware Update package, which requires additional setup and considerations discussed in the following sections.

HP ElitePad 900Driver and Firmware Update setup

The driver pack includes the folder "Driver – Firmware and Chipset" that contains a single executable file. To import the HP ElitePad 900 Driver & Firmware Update package into SCCM, perform the following steps:

- 1. Extract the contents of the package by running the executable in the "Driver Firmware and Chipset" folder with the following parameters:
 - /e /f <desired output location>
- 2. Import the output of the package into SCCM as an application.

Note

Do not create a program when creating the package—the program must be run as a command line task or **FDSetup** will fail to run. Specifying the command to run will be done when creating the task sequence.

Boot image setup

The x86 boot image must be used for deployment. For network connectivity to be functional during deployment in SCCM, the boot image must have either of the following components added:

• The drivers in the HP Client WinPE 4.0 x86 and x64 Driver Pack here.

or

• The network drivers from the HP ElitePad 900 driver pack

If BIOS access (via WMI) is needed when in WinPE, the ElitePad900 WMI Provider (available from hp.com <u>here</u>) will need to be added to the image as well.

Windows 8 Image setup

Microsoft update KB 2756872 (available from Microsoft.com <u>here</u>) must be applied to the Windows 8 image before deployment to ensure successful installation of the Driver & Firmware Update package.

Task Sequence setup

Formatting & partitioning the disk

The HP ElitePad requires the disk to be formatted for Extensible Firmware Interface (EFI) systems. Leverage the default Format & Partition Disk (EFI) step created by SCCM to ensure your disk is partitioned and formatted correctly.

General guidelines and additional steps

Table 1 lists task sequence steps that should be added and run in the order listed below. You can run these additional steps anytime after the computer boots into the OS (not while in Windows PE).

Table 1. Steps to be added to the Task	Sequence
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Step	Function	Description		
A	Installs Root Certificate Update	Installs required updated root certificates (LINK) not included in the current base OS image of Windows 8. This step is not required if the OS image already includes the update.		
В	Command-line step that runs FDSetup	Installs the HP ElitePad 90 When using the command <u>Parameter Description</u> -s -f -p <passwordfilename></passwordfilename>	D0 Driver & Firmware Update package created earlier. d FDSetup , the following parameters are available: Standard silent install (required for OSD) Forces FDSetup to run regardless of the previous version installed. This may be necessary if a captured image from an ElitePad is used that has already run FDSetup to ensure the BIOS and firmware are updated. The –f must be used with the –s parameter. Required if the BIOS is password protected. The encrypted password file is created by using the HPQPSWD utility available at hp.com here. Note there are no spaces between –p and the file name. Insert quotes around any spaces in the file name. For security purposes, the password file is deleted after FDSetup is run. If the password file is included with the package and the packages are set to be downloaded from the distribution point those ne constification configuration is needed.	
			run directly from the distribution point, you will need to use a script to use or make a local copy so the original password file is not deleted from the deployment share. For example, you can have the password file copied to a local location with a task sequence step and have FDSetup reference that location.	
С	Restarts computer	Restarts the computer aft package.	er installation of the HP ElitePad 900 Driver & Firmware Update	

HP ElitePad	900 Example Task Sec	quence Task Sequence Editor	_ 🗆 X
Add - Remove	Properties Options		
Add • Remove Install Operating System Restart in Windows PE Partition Disk 0 - BIOS Partition Disk 0 - UEFI Apply Operating System Apply Network Settings Apply Network Settings Setup Operating System Setup Windows and Configuration Manager Install Root Cert Updates Install Root Cert Updates Install HP ElitePad 900 Driver & FW Update Restart Computer	Properties Options Type: Name: Description:	Run Command Line Install HP ElitePad 900 Driver & FW Upd em redirection er & Firmware Update 1.0.10.1 15 ollowing account	ate
		ОК	Cancel Apply

Figure 2. Example Task Sequence highlighting the Install HP ElitePad 900 Driver & FW Update step.

Image creation and capture considerations

If you are doing an image creation & capture, take note of the following while the task sequence has the computer booted to the OS:

- Add a task sequence step to install the root certificate update described in Table 1. Note that this step will not be
 necessary in the redeployment phase.
- We recommend <u>not</u> adding the command-line step to install the HP ElitePad 900 Driver & Firmware Update for creation and capture. This step should be part of the redeployment process since matching drivers, firmware, and BIOS versions in the package work best if installed together.

Note

Do not create a program when creating the package—the program must be run as a command line task or **FDSetup** will fail to run. Specifying the command to run will be done when creating the task sequence.

Redeployment considerations

For the redeployment process, add the task sequence step to run the **FDSetup** command to install the HP ElitePad 900 Driver & Firmware Update described in Table 1. This must be done even if the reference image already has it installed, as the firmware and BIOS need to be updated.

Boot image download speed

The default TFTP block size setting of SCCM 2012 SP1 may result in slow download times of the boot image during PXE booting. You should change this setting if you experience such performance issues.

To adjust this setting, perform the following:

- 1. Open the registry editor.
- 2. Navigate to HKEY_LOCAL_MACHINES\SOFTWARE\Microsoft\SMS\DP.

Note

Be sure to back up the registry before making changes.

3. Create a new DWORD value with the name **RamDiskTFTPBlockSize**, and specify a larger value such as 0x2000 (8192).

Note

Be sure to test the new value before deploying this setting widely. For more guidance on setting and adjusting this value, consult the appropriate Microsoft documentation.

After deployment

To be able to easily view and edit BIOS settings on the HP ElitePad 900, install the HP BIOS Settings utility available from hp.com here.

For more information

To read more about HP Client Manageability Solutions, go to hp.com/go/clientmanagement.







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736167-002, created May 2013, Updated August 2013

