How to deploy a Microsoft Windows 10 image to an AMD processor-based laptop or desktop

In the Principled Technologies datacenter, we used task sequences in Microsoft® System Center Configuration Manager (SCCM) to deploy a Microsoft Windows® 10 image with drivers to an AMD processor-based Lenovo™ laptop and an AMD processor-based HP desktop. Task sequences allow admins to automate many steps in management processes.

This document will show you how to use SCCM and task sequences to deploy a Windows 10 image to AMD processor-based systems. For more information on our testing and to see the results, please visit http://facts.pt/rxwzop.

We used a task sequence to deploy Windows 10 and necessary drivers to the following business-class systems:

Lenovo ThinkPad® A275
12.5-inch laptop featuring an AMD Pro A12-9800B processor
(2MB Cache, up to 2.70GHz)

HP EliteDesk 705 G3
Small Business Desktop PC
Desktop featuring an AMD Ryzen™ 5 PRO 1500 processor
(18MB Cache, up to 3.50GHz)

Can you image a system in SCCM? Then you can image an AMD system.

The steps to image AMD processor-based systems are the same as imaging Intel processor-based systems. You will add your drivers into SCCM, update the boot image, and deploy your Windows 10 imaging task sequence to the target collection.

Deploying the Windows 10 image

The quick version

The following bulleted list gives you the essential information to get you on your way:

- **Requirements** – You must already have an SCCM server with a customized Windows 10 image, along with a customized task sequence to deploy that image.
- **Download the drivers** – First, you need to download the drivers from the appropriate vendor. A cab file will contain drivers for most configurations of your target system.
- **Extract the drivers** – Most drivers are packaged in an executable file. Run the file and add the drivers files to a network share.
- **Add the drivers to SCCM** – Give SCCM the location of the extracted drivers in a shared folder.
- **Update the boot image** – The boot image can't boot or access the network if it doesn't recognize the device or its components. Updating the image will add the new drivers.
- **Deploy the task sequence** – Give System Center the go-ahead to start distributing the image over the network. If you already have the task sequence deployed, this step isn't necessary.
- **Launch the task sequence on the target machine** – You're ready to go. If you designated the task sequence as required, then the task sequence will deploy without any actions from the administrator, other than booting the target machine to LAN.

Did you know?

SCCM uses the same task sequence to deploy to systems based on AMD processors as to Intel processor-based systems. That means that even if you've used Intel processor-based systems in the past, you can keep all your existing infrastructure, task sequences, and software.

Simplified walkthrough

Download the drivers

Drivers tell your hardware how to run on specific operating systems, so having the most recent drivers ensures your hardware will function properly. For this task, visit either Lenovo or HP's website and download the model-specific driver pack. This driver pack will contain all necessary drivers for your AMD processor-based systems.

Extract the drivers

Run the executable file and accept all defaults to extract the drivers to your server. Make sure to put these drivers in a shared location accessible from the network.

Add the drivers to SCCM

Open your SCCM console, and navigate to the Software Library. Under Operating Systems → Drivers, click Add drivers. Using the Add driver wizard, select the target network share for the extracted drivers, and complete the prompts to add the drivers.

Update the boot image

Again, navigate to the Software Library, and select Boot Images. Software Library, select Boot Images. Right-click the x64 image, and select Update Distribution Points. Complete the wizard, and wait to update the boot image.

Deploy the task sequence

Now you are ready to deploy your organization's customized task sequence to the target systems. Again in the Software Library, select Task Sequences. Select your typical Windows 10 deployment task sequence, and select Deploy. Designate the target collection and customize your deployment according to your organization's environment.

Start the task sequence on the target systems

Now all you need to do is boot the system to the network. Select the option in your target AMD processor-based laptop or desktop's boot menu, and you're done.

Device-specific walkthroughs

Extracting the drivers

For Lenovo laptops

1. Run the executable file.
2. In the setup wizard, click Next.
3. Accept the license and agreement, and click Next.
4. Select a shared folder to extract the drivers to, and click Next.
5. Click Install.

For HP desktops

1. Run the executable file.
2. In the installation wizard, click Next.
3. Accept the license and agreement, and click Next.
4. Select a shared folder to extract the drivers to, and click Next.

Validating the drivers

1. In the SCCM console, navigate to Software Library → Operating Systems → Drivers.
2. Click Import Drivers.
3. In the Import New Driver Wizard, select the network path to the folder with the target drivers, and click Next.

Importing the drivers

1. In the Import New Driver Wizard, click Next.
2. Click Next.
3. Click Next.
4. Click Next.

Updating the boot image

1. In the SCCM console, under operating systems, select Boot Images.
2. Right-click the Boot image (x64), and select Update Distribution Points.
3. In the Update Distribution Points Wizard, click Next.
4. Click Next.

Deploying the task sequence

1. In the SCCM console, under operating systems, select Task Sequences.
2. Right click the Deploy Windows 10 task sequence, and select Deploy.
3. In the Deploy Software Wizard, for collection, click Browse….
4. In the Select Collection window, select All Unknown Computers. Click OK.
5. Click Next.
6. For Purpose, select Required. For Make available to the following, select Only Configuration Manager clients, media and PXE. Click Next.
7. For Assignment schedule, click New.
8. In the Assignment schedule window, select Assign immediately after this event, and click OK.
9. Click Next.
10. Click Next.
11. Click Next.
12. Check both boxes for Allow clients to use distribution points from the default site boundary group and Allow clients to share content with other clients on the same subnet. Click Next.
13. Click Next.

Starting the task sequence on the target system

For Lenovo laptops

1. At the target system, press the power button.
2. To enter the boot manager, press F12 during boot.
3. On the Boot Menu, select PCI LAN.
4. Press Enter.

For HP desktops

1. At the target system, press the power button.
2. To enter the Network (PXE) Boot Menu, press F12 during boot.
3. Select UEFI N/W – IPV4 Network.
4. Press Enter.

Read the report at http://facts.pt/rxwzop ▶

This project was commissioned by AMD.

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