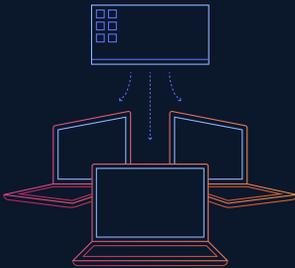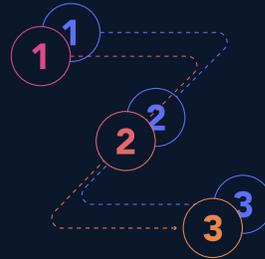PT

Executive summary

**Schedule the same time**

It took a similar amount of time to deploy Microsoft Windows 10 Pro images for AMD and Intel processor-powered laptops

**Use the same process**

We used an identical Windows 10 Pro image-deployment procedure for AMD and Intel processor-based laptops

# Deploy Windows 10 Pro images using one consistent process, no matter the CPU

## We compared OS deployment time and steps on AMD Ryzen 5 PRO 4650U and Intel Core i5-10310U vPro processor-based HP EliteBook 800 G7 Series Notebook PCs and Lenovo ThinkPad T14 laptops

Selecting new devices for employees is rarely easy, especially if the laptops you're considering contain a processor from a different manufacturer than the ones already in your fleet. Being able to use the same deployment process across all devices—regardless of processor—makes things easier on your IT staff.

In a mixed-CPU Windows 10 Pro test environment, we used the same 11-step driver-installation process and the same 6-step Microsoft Configuration Manager (formerly SCCM) automated task sequence to deploy the same Microsoft Windows 10 Pro image on four enterprise laptops:

- **Lenovo® ThinkPad® T14 laptop** with an AMD Ryzen™ 5 PRO 4650U processor

- **Lenovo ThinkPad T14 laptop** with an Intel® Core™ i5-10310U vPro® processor

- **HP EliteBook 835 G7 Notebook PC** with an AMD Ryzen 5 PRO 4650U processor

- **HP EliteBook 830 G7 Notebook PC** with an Intel Core i5-10310U vPro processor

We found that each enterprise laptop required a similar amount of hands-on administrator time: between 1 minute and 38 seconds and 1 minute and 49 seconds. The difference in total time, including system-only time, was less than 2 minutes across all devices.

## Installing drivers

Before we deployed the Windows 10 Pro image, we loaded drivers onto a custom image and added the driver packages to Configuration Manager. This enabled the automated sequence to complete all OS updates and customizations on each device.

The 11-step process of adding drivers was identical on each of the four devices. Installing the drivers took a similar amount of time, with the AMD Ryzen 5 PRO 4650U processor-based devices taking from 1 to 4 seconds longer than the Intel Core i5-10310U vPro processor-based devices.

## Deploying the OS

We used the same 6-step process to deploy each of the devices, regardless of processor. Having a single deployment process for all devices makes it easier for IT to ensure that employees receive their new devices as quickly as possible.

Although system time varied slightly between the different models, the hands-on time required was similar across all four devices: between 1 minute 38 seconds and 1 minute 49 seconds.

Table 1: Hands-on testing results. Lower is better. Admin time refers to the time it took us to start the installation process on the target laptop, and system time refers to the time it took the automated task sequence to install the OS, install drivers and applications, and configure the system. Source: Principled Technologies.

| | Lenovo ThinkPad T14 20UD with an AMD Ryzen 5 PRO 4650U processor | Lenovo ThinkPad T14 20S0 with an Intel Core i5-10310U processor | HP EliteBook 835 G7 with an AMD Ryzen 5 PRO 4650U processor | HP EliteBook 830 G7 with an Intel Core i5-10310U vPro processor |
|---|---|---|---|---|
| Adding drivers to the boot image and driver package | | | | |
| Time (mm:ss) | **2:57** | **2:53** | **2:53** | **2:52** |
| Deploying one laptop using Configuration Manager | | | | |
| Admin time (mm:ss) | 1:47 | 1:49 | 1:38 | 1:42 |
| System time (mm:ss) | 14:54 | 15:35 | 16:25 | 16:38 |
| Total time (mm:ss) | **16:41** | **15:35** | **18:03** | **18:20** |

## Conclusion

If you're considering managing a fleet with both AMD and Intel processor-based PCs, deployment time or adaptations to existing Windows 10 Pro image deployment processes shouldn't be a concern. In our tests, the two AMD Ryzen 5 PRO 4650U processor-powered devices required the same steps and a similar amount of hands-on time to deploy as the two Intel Core i5-10310U processor-based devices. Our recent findings are consistent with our findings from similar testing in 2018,[1] which indicates that there's no need to develop or alter existing Windows 10 Pro image deployment processes when introducing AMD or Intel processor-based PCs into your environment.

---

1   Principled Technologies, "Deploy a Microsoft Windows 10 image to AMD Processor-based systems without altering existing processes," accessed February 22, 2021, https://www.principledtechnologies.com/AMD/PRO_processors_image_deployment_competitive_0518.pdf.

**Read the report at http://facts.pt/oooxzir** ▶

## Principled Technologies®

Facts matter.®

This project was commissioned by AMD.