Configuring Windows 10 (70-697): Lab Setup

FIRST STEPS

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Why Should I Take This Mini Course?

Familiarize yourself with Windows 10

Follow along with the demos in the 70-697 learning track

Build a test environment where you can experiment, test configurations, apps, *etc.*

I'll show you via demos how to build your virtual switches and virtual machines.

Modules in This Mini Course

First Steps

Build Virtual Switches

Build Virtual Machines

Add Roles & Configure Networking

This course details the setup that *I* used. *You* can set things up differently if you like – this is all a suggestion.

First Steps

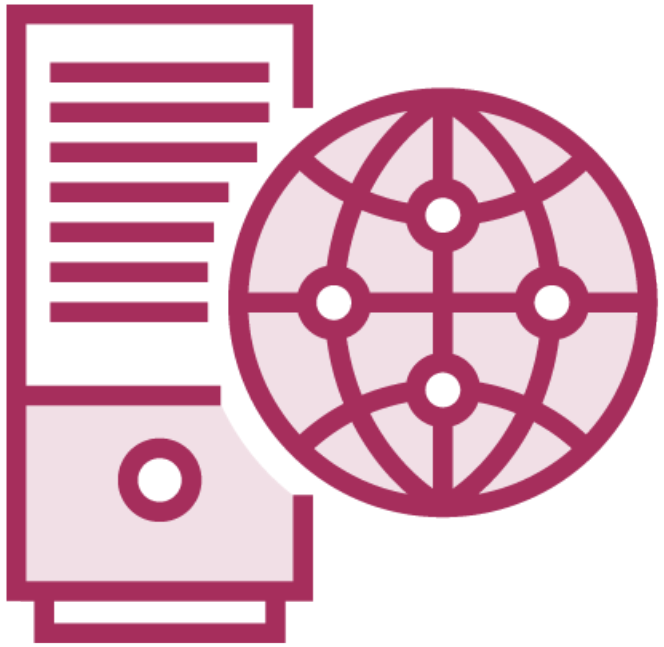
Topics in This Module:

Obtaining Evaluation Software

Configuring a VM Host

Obtaining Evaluation Software

Snag the Eval of Server 2016



Recommended version:

- Datacenter edition (Standard will work)
- Server “with Desktop Experience”

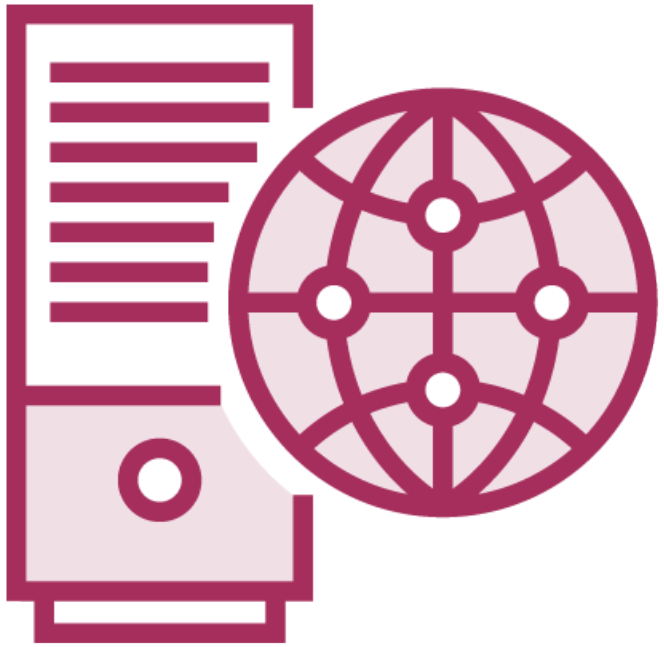
180-day eval from Microsoft:

- www.microsoft.com/en-us/evalcenter/
- evaluate-windows-server-2016

Visit Jason Helmick’s GitHub site:

- github.com/theJasonHelmick/
- PS-AutoLab-Env

Snag the Eval of Windows 10



Recommended version:

- Enterprise edition

180-day eval from Microsoft:

- www.microsoft.com/en-us/evalcenter/
- evaluate-windows-10-enterprise

Visit Jason Helmick's GitHub site:

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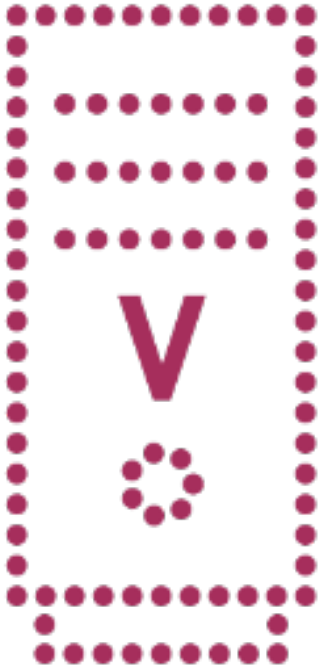
Configuring a VM Host

VM Host Hardware



Host system recommendations:

- Hardware Assisted Virtualization (HAV)
- Enable virtualization features in BIOS/UEFI setup
- 8 to 16 GB RAM (affects # of simultaneous VMs you can run)
- About 75 GB storage (SSD is best!)

Internet connectivity required for some demos

VM Host Software

Hyper-V Server Role

- Other platforms can work (VMware, VirtualBox)
- Server 2012 R2 does *not* require SLAT, Server 2016 *does*

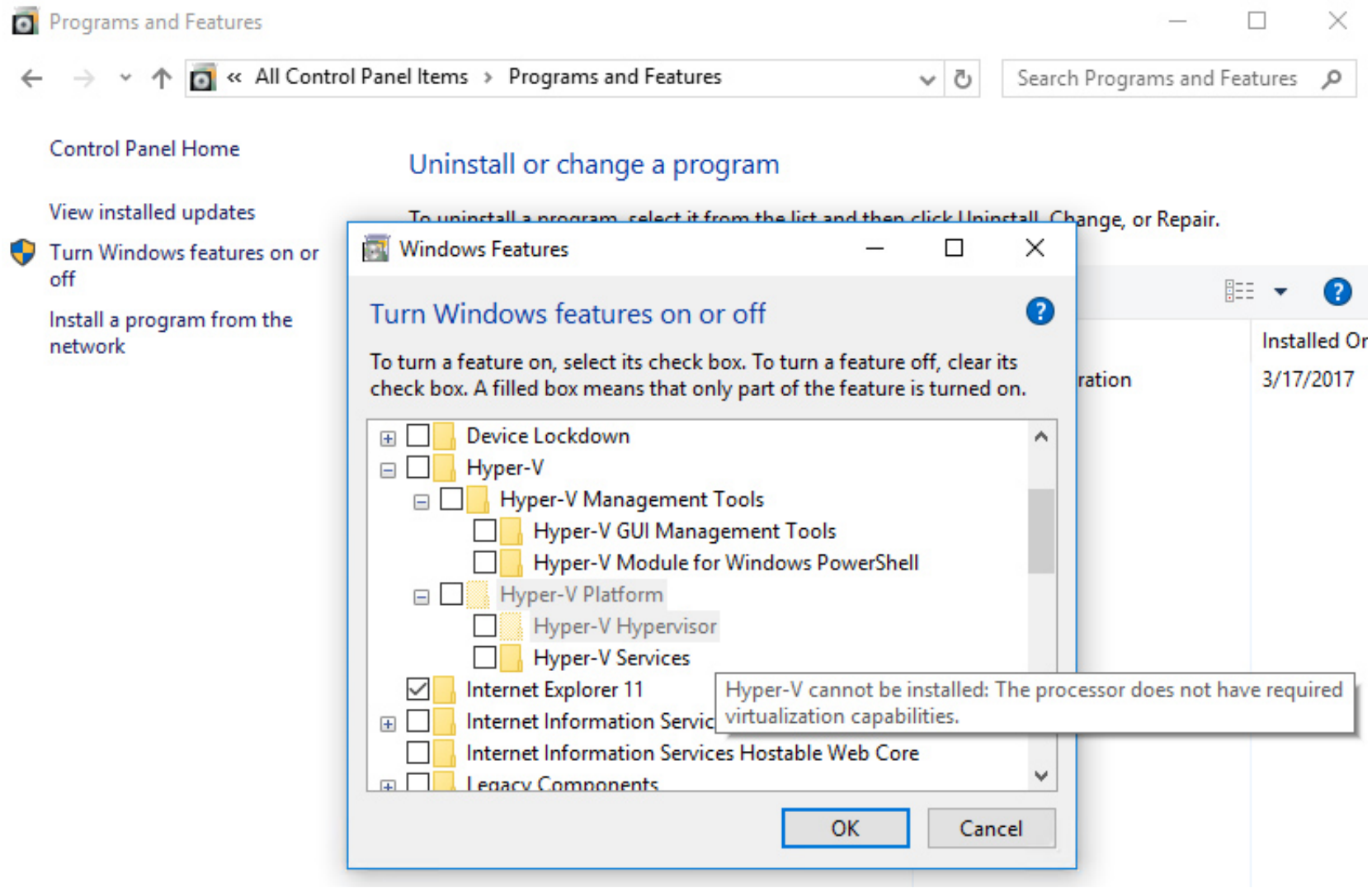
Client Hyper-V

- Requires 64-bit OS
- Requires HAV support
- Requires Second Level Address Translation (SLAT)
- Windows 10 Enterprise, Pro, Education

Client Hyper-V Features

- Support for 32-bit and 64-bit VMs
- Storage migration (but not live migration)
- Support for VHD and VHDX disks
- Can use local or network-based storage (but not virtual fiber channel)
- Export/import compatibility with Hyper-V Server
- Sleep/hibernate support (unlike server)

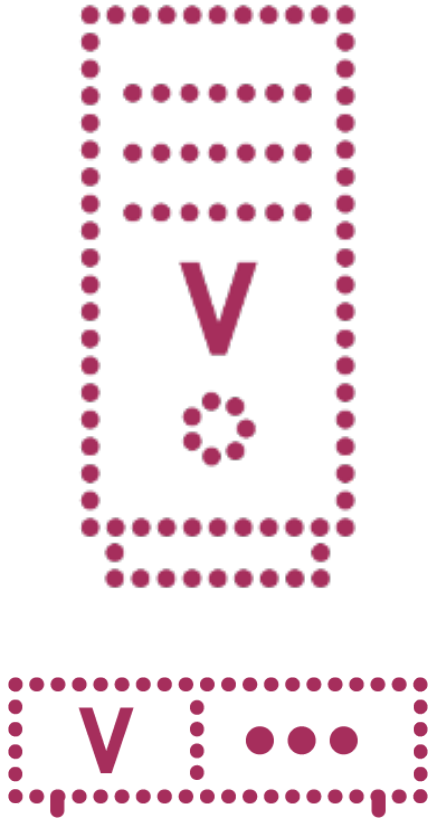
Windows Tells You if Requirements Not Met



You can also install Client Hyper-V using PowerShell:

```
Enable-WindowsOptionalFeature
-FeatureName Microsoft-Hyper-V
-All -Online
```

Post-installation Environment



New “Hyper-V Manager” console

New “Hyper-V Administrators” group

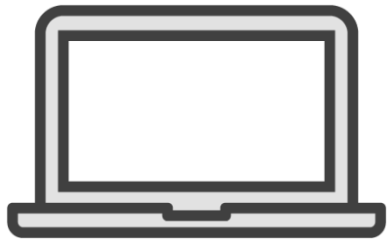
New services

Virtual Machine Connection

PowerShell management cmdlets

For *some* demos, you'll need real hardware rather than virtual machines.

Demos that Require a Physical Machine



Windows Hello

- Also need biometric hardware

Client Hyper-V

Windows-to-Go

BitLocker

- Unless your host supports virtual TPMs

Wi-Fi demos

Demo

Configure a Server VM Host

You're Ready to Build Virtual Switches!