

ITFreeTraining



Installing First Generation Virtual Machine

For the free video please see
<http://itfreetraining.com/hyperv#/gen1>

This video from ITFreeTraining will look at creating a 1st generation virtual machine in Hyper-V and what settings are available in that virtual machine. The generation of virtual machine determines what hardware the operating system will see. First generation was the first virtual machine that was released with Hyper-V.

Demonstration

00:17 Demonstration

00:25 Click on Server Manager

00:36 Click on Hyper-V in the left-hand panel

00:40 Right click on the server name and select Hyper-V Manager

00:48 Right click on the server name and select New and then New Virtual machine.

1:00 Click Next on welcome screen

1:04 Enter in the name of the virtual machine, in this case 'Windows Server 2012 R2'

1:12 To store in a different location, click on 'Store the virtual machine in a different location'

1:20 Select Generation 1 and note that the generation cannot be changed later.

1:50 Change Startup memory to the amount of RAM you'd like to give this machine, 2048 in this case, and click Next

2:20 Select network adaptor or virtual switch to use, Realtek Virtual Adapter

2:44 Select 'Create a virtual hard disk' and click on Next

2:56 Selecting 'Install an operating system later' will make no changes to the hard drive and needs to be changed later.

3:04 The next couple of options change the boot order of the machine and set the machine to boot from media or virtual media to install an operating system.

3:30 Press finish to complete the wizard and create the machine

3:45 Right click on the virtual machine and select settings

3:58 Click on Add Hardware to add additional hardware to the virtual machine

4:10 Generation 1 virtual machines cannot boot from SCSI Controllers

4:20 You can add SCSI Controllers, Network Adapters (up to 8), Legacy Network Adapters (up to 4), Fibre Channel Adapter and RemoteFX 3d Video Adapter (if available on the host server)

4:44 Legacy Network Adapters can boot from the network and Network Adapters cannot.

5:20 Select BIOS setting to set the boot order

5:48 Select Memory

6:04 If you'd like for the machine use dynamic memory, select Enable Dynamic Memory and set Minimum and Maximum values. Selecting Dynamic memory may allow you to run more virtual machines on each host.

8:10 Memory buffer will instruct the host to keep enough memory unallocated to give to the virtual machine dynamically if needed.

8:18 Memory weight will allow you to prioritize virtual machines that are more important to the company if the host runs low on memory

8:34 Select processor

8:38 You can change the number of virtual processors the machine can use.

9:10 You can reserve CPU on the host for the virtual machine with 'Virtual machine reserve'

9:27 If you have a virtual machine requiring a lot of CPU, you may limit the virtual machine's CPU so that it doesn't affect other machines

9:54 Relative weight allows you to rank machines based on importance to your company

10:16 Select IDE controller 0

10:26 Each IDE controller can have up to 2 devices connected to it.

10:44 The controller location can be changed and it can also be changed to SCSI.

11:04 Pressing Edit on the virtual hard drive will allow you to edit the virtual hard drive, such as compacting the size, converting from thin or dynamically provisioned to full provisioned or expand the capacity.

12:02 Clicking on Inspect will show the properties of the virtual disk.

13:04 Click on the DVD drive.

13:23 Click on Image File and Browse.

13:38 Click on Apply

13:58 Select SCSI controller to add a SCSI controller

14:22 Remove the SCSI controller with the remove button

14:26 Select network adapter

14:30 The top option allows you to select the virtual switch

14:42 Tick the option enable virtual LAN identification in order to use VLANs for your virtual machine

15:08 You can also enable minimum and maximum bandwidth from the Network Adapter configuration page

15:20 Select com 1 in order to map a serial port from the host to the virtual machine

15:40 Select diskette drive to attach a virtual floppy drive to the machine

15:58 Under Management, select Name. To assist other admins, you should use something meaningful to identify the machine

16:14 Integration Services will be covered in a later video

16:30 Select checkpoint file location in order to change the location where the checkpoints are located

16:44 Select Paging File Location. If you use dynamic memory, this location may be used, particularly during startup. As a result, this location may be moved to a faster hard drive location.

17:30 Select Automatic Start Action to select what to do when the host machine is restarted.

18:02 Selecting Nothing will leave the virtual machine off

18:22 Startup delay will delay starting up a machine, in order to start them in a specific order or importance such as delaying other machines until a domain controller starts up.

19:02 Select Automatic Stop Action to specify what action the virtual machine takes when the host computer shuts down.

19:40 Click on OK to exit out and return to Hyper-V Manager

19:44 Click the virtual machine

19:58 Press that start button from the bottom right panel

20:08 Double click on the virtual machine to open up the virtual console and interact with the machine.

See <http://YouTube.com/ITFreeTraining> or <http://itfreetraining.com> for our always free training videos. This is only one video from the many free courses available on YouTube.

References

“Installing and Configuring Windows Server 2012 R2 Exam Ref 70-410” pg 139 - 143

“Hyper-V Dynamic Memory Overview” <http://technet.microsoft.com/en-us/library/hh831766>