

Hyper-V Pre-Installation Checklist

Perform these steps on your newly-installed Windows Server 2019 deployment prior to installing Hyper-V.

- Update device drivers
- Install vendor-supplied system management utilities
- Configure basic networking — delay if you will use a fully-converged design
- Update Windows Server — you might need to temporarily configure basic networking to make that possible
- Rename the computer
- Join to the domain. No, your workgroup mode is not as secure, and no, you're not solving any problems by avoiding domain membership. You can skip this, of course, but I don't provide any guidance on such builds. I figure that if you intentionally ask for the unsecured micro-management nightmare of a workgroup build, then I would disrespect your wishes if I helped you.
- Figure out how you want your Hyper-V networking to look. Take time to think it through. I can give you a quick nudge. That article links to deeper dives if you need them.

Installing Hyper-V on Windows Server 2019

Install Hyper-V with PowerShell

PowerShell is the fastest and easiest way to install Hyper-V. It works on Core and GUI equally well. Just remember to start PowerShell in an elevated prompt if using a GUI-mode install.

```
Install-WindowsFeature -Name Hyper-V -IncludeManagementTools -Restart  
1
```

Install Hyper-V with DISM

You have to type a bit more to get DISM to work, but you can run it from the standard elevated command prompt:

```
dism /Online /Enable-Feature /FeatureName:Microsoft-Hyper-V /All  
1
```

Once this command completes, it will ask if you want to restart the computer.

Install Hyper-V from Server Manager

The Server Manager technique is, by far, the longest, most painful, and most confusing. I recommend that you choose either of the other two.

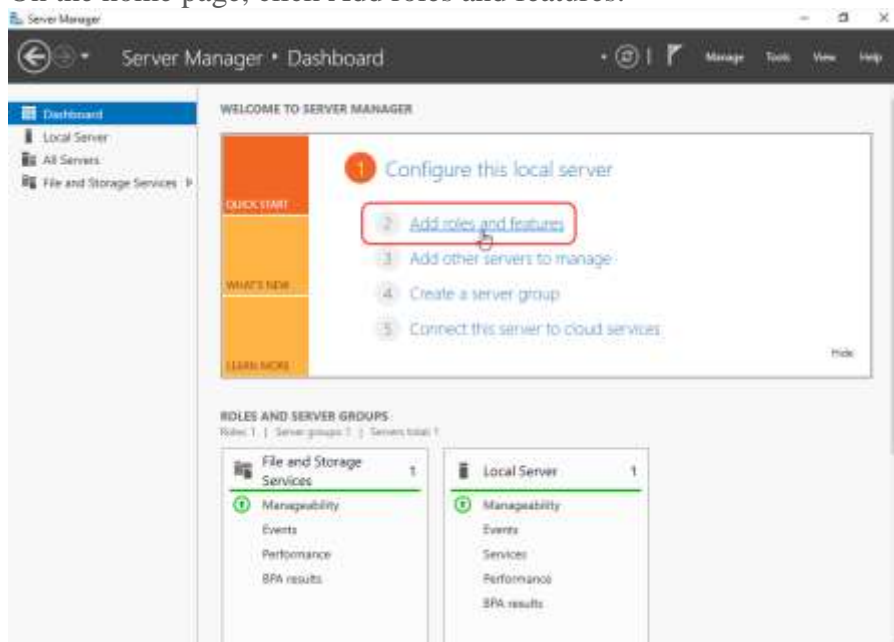
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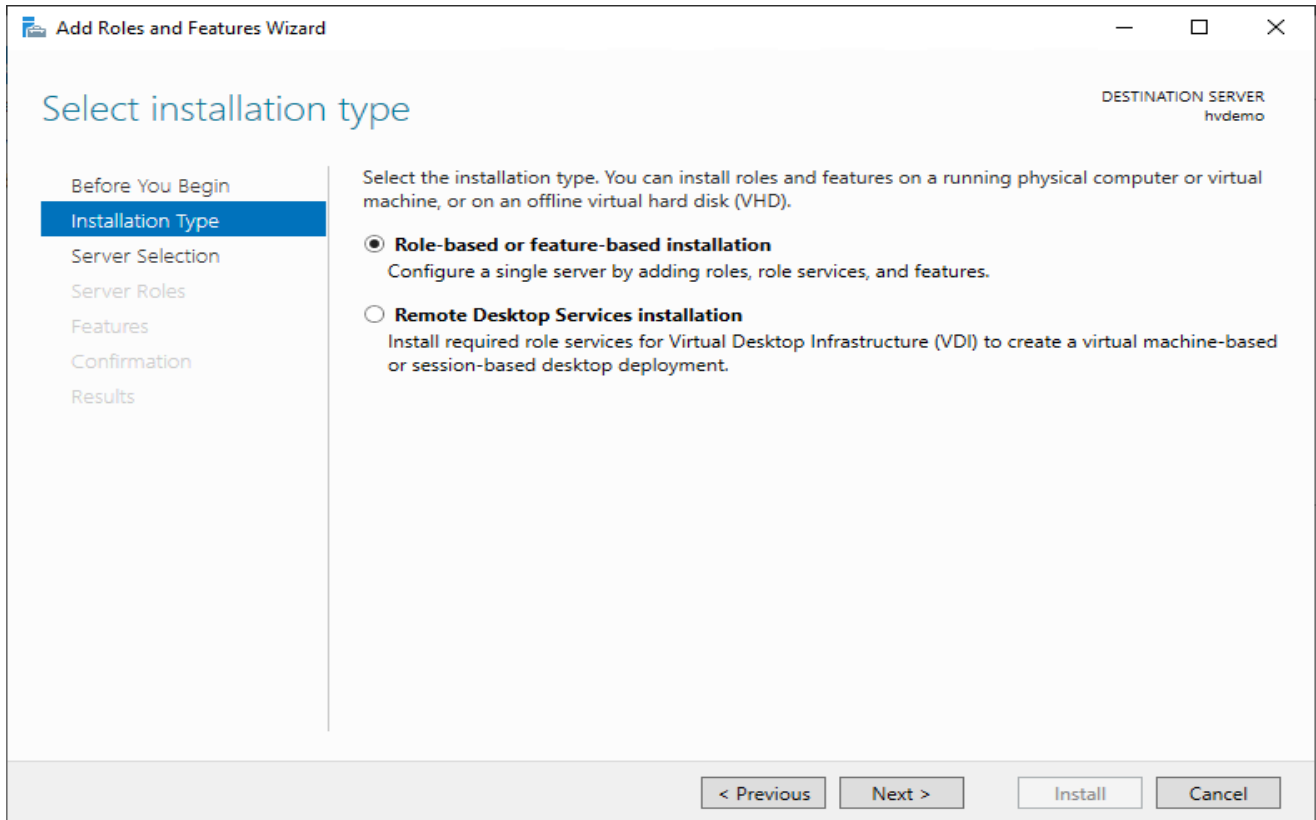
Most people that use Server Manager modify the local system. You can connect to a remote system from Server Manager's home page. You can then pick it instead of the local system at the correct point.

1. On the home page, click Add roles and features:



2. Click Next on the introductory screen.

3. Choose Role-based or feature-based installation.



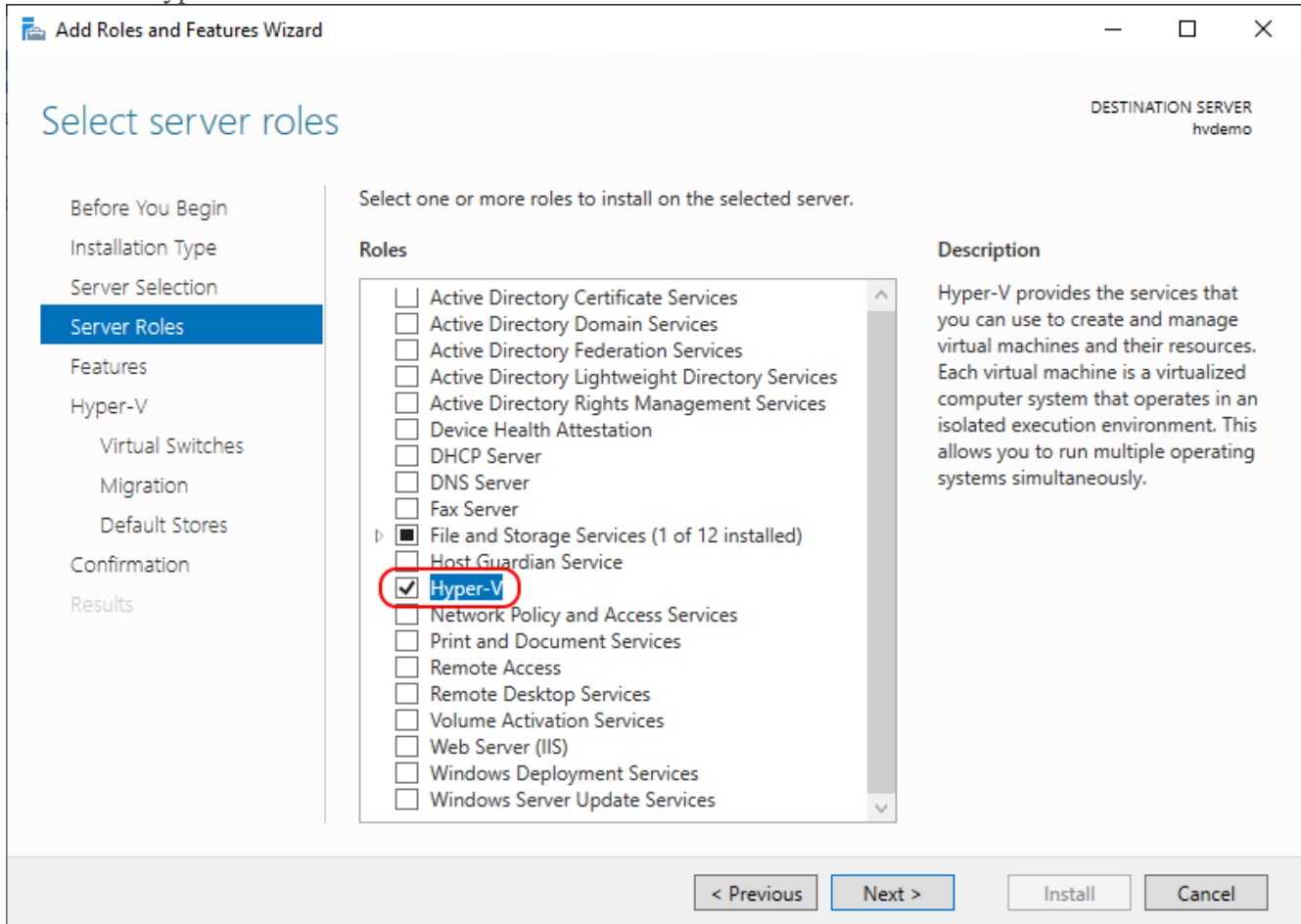
4. If you do nothing on the Select destination server screen, you will change roles on the local server. If you added a remote server prior to starting the wizard, you can modify roles there. Choose the desired system and click Next.

The screenshot shows the 'Add Roles and Features Wizard' window. The title bar reads 'Add Roles and Features Wizard'. The main heading is 'Select destination server'. In the top right corner, it says 'DESTINATION SERVER' and 'hvdemo'. On the left, a navigation pane lists: 'Before You Begin', 'Installation Type', 'Server Selection' (highlighted), 'Server Roles', 'Features', 'Confirmation', and 'Results'. The main area contains the instruction: 'Select a server or a virtual hard disk on which to install roles and features.' Below this are two radio buttons: 'Select a server from the server pool' (selected) and 'Select a virtual hard disk'. A 'Server Pool' section includes a 'Filter:' text box and a table with the following data:

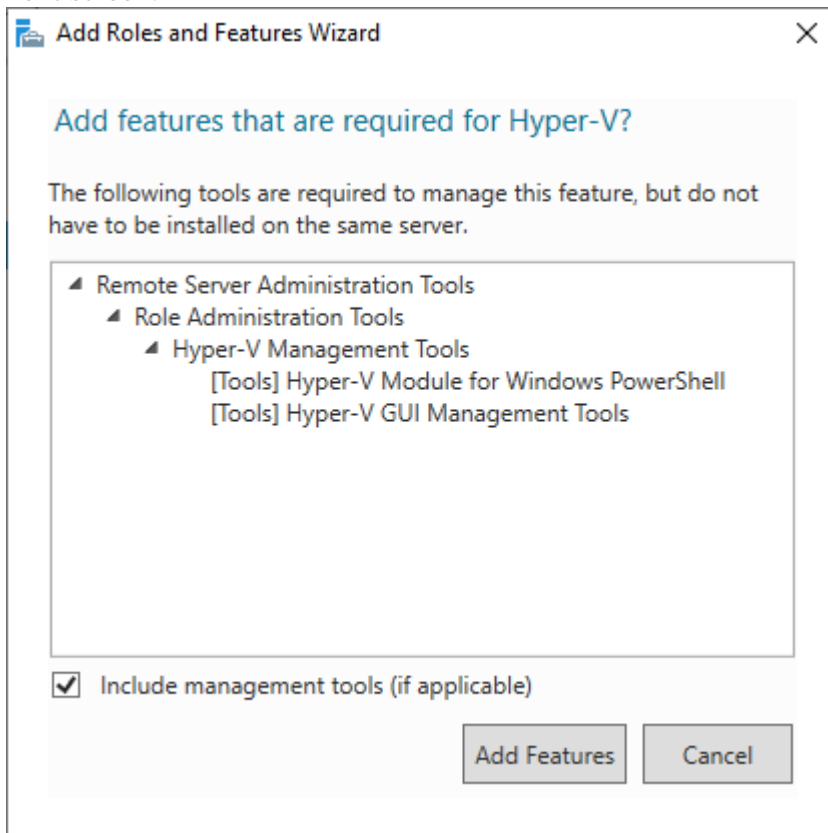
Name	IP Address	Operating System
hvdemo	192.168.50.2	Microsoft Windows Server 2019 Standard

Below the table, it says '1 Computer(s) found'. A note at the bottom states: 'This page shows servers that are running Windows Server 2012 or a newer release of Windows Server, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.' At the bottom of the window are four buttons: '< Previous', 'Next >', 'Install', and 'Cancel'.

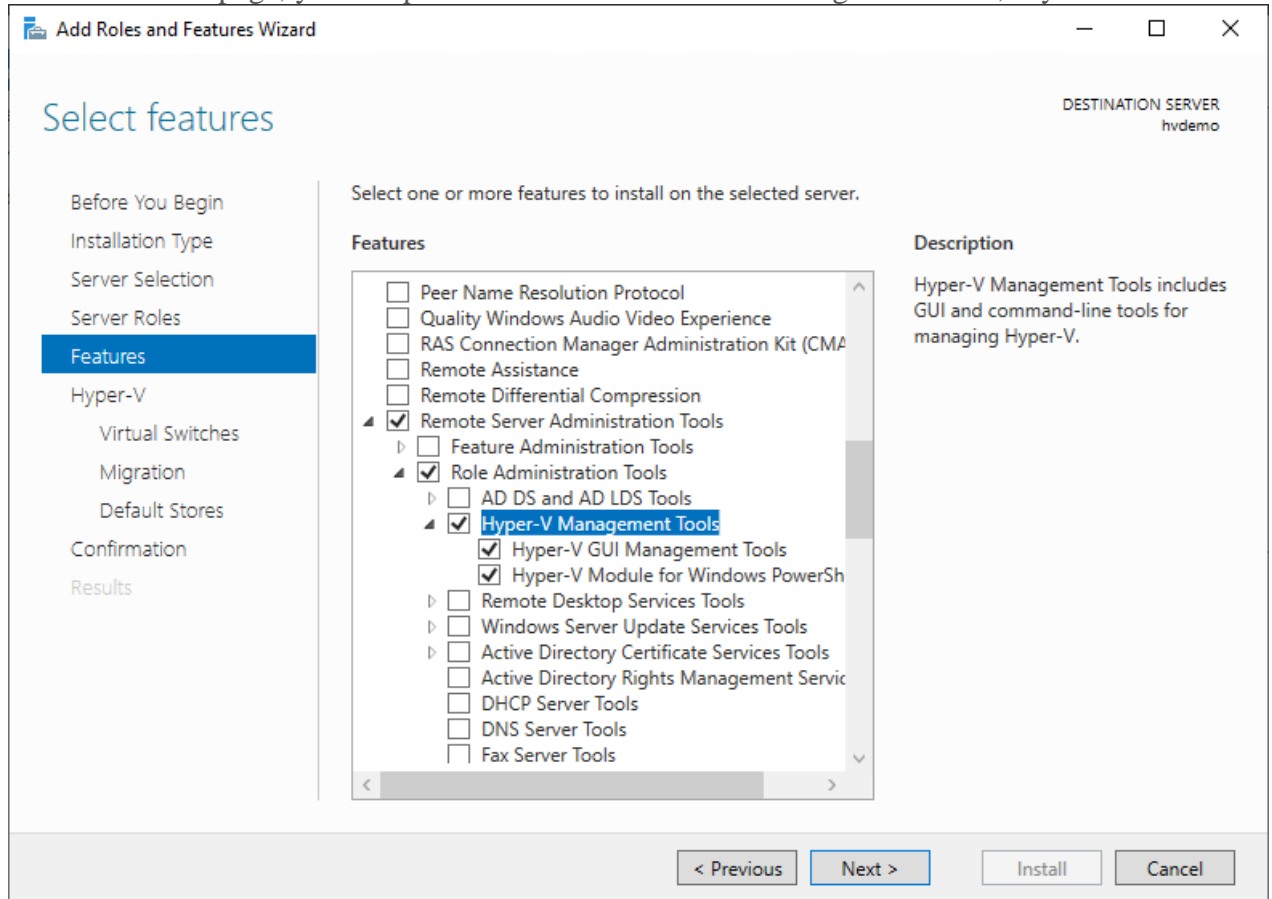
5. Check the Hyper-V role.



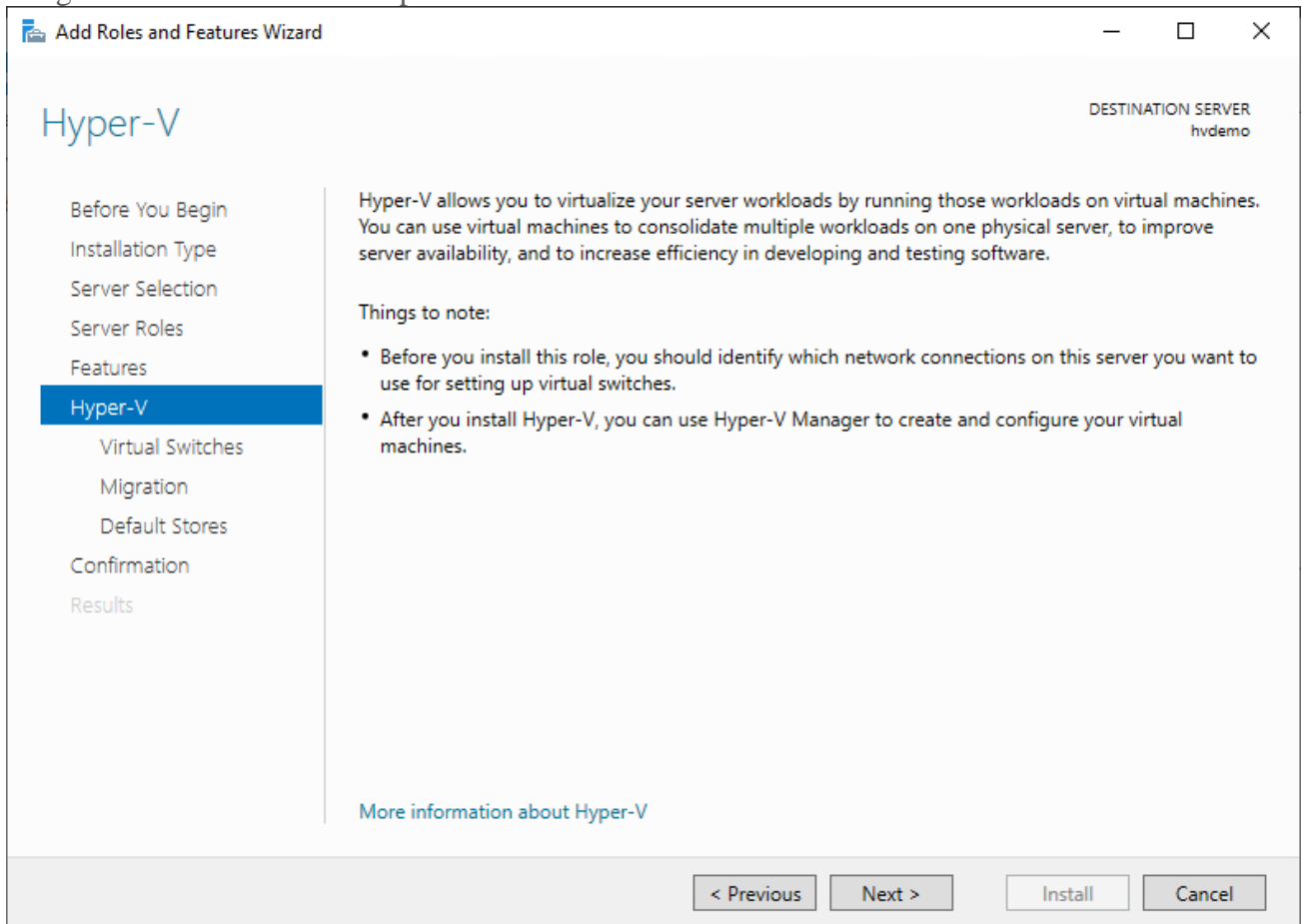
6. When prompted, you can add the management tools as well. You do not need to do so. If you prefer, you can Cancel here and select individual management components on the next screen.



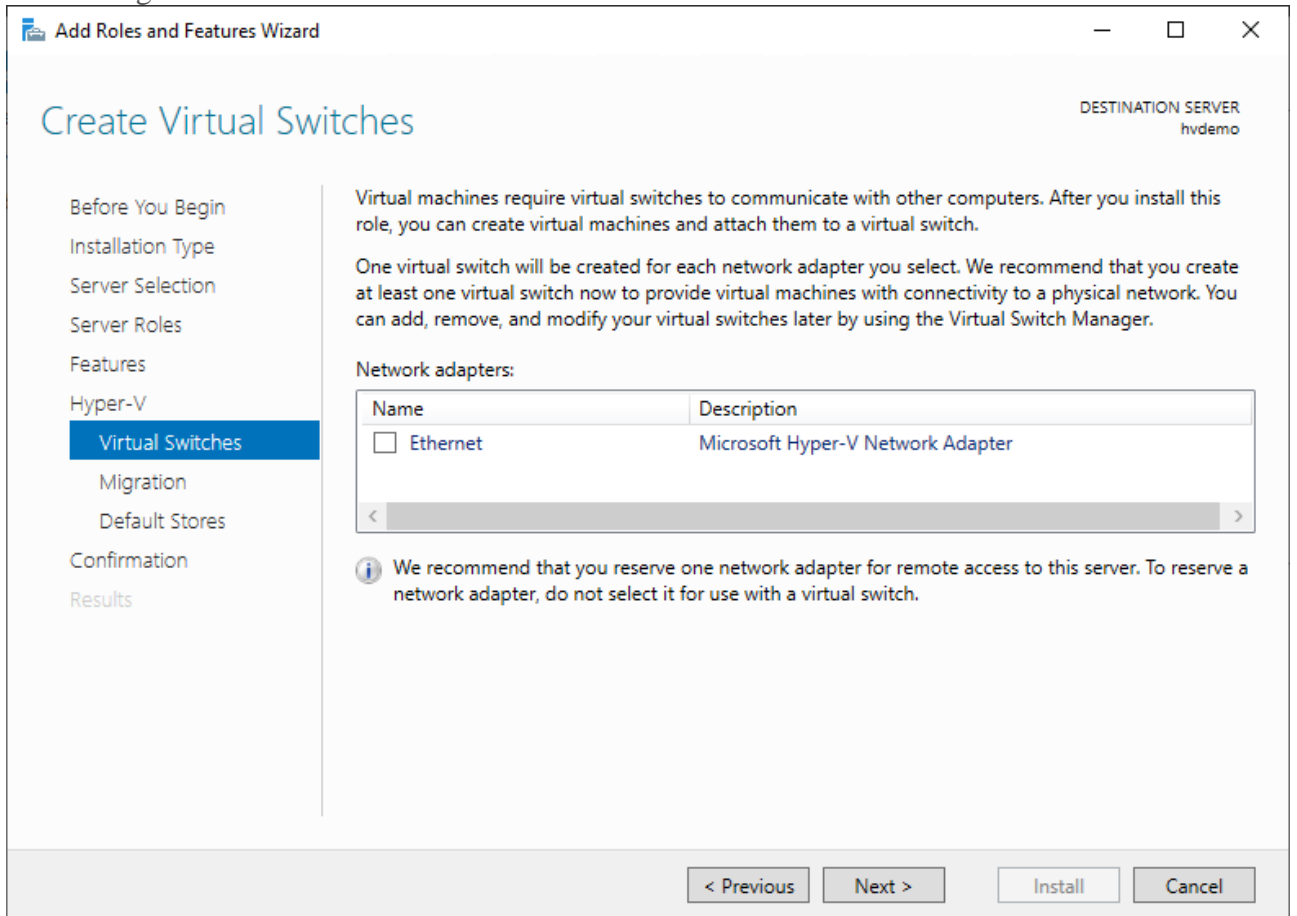
7. On the Features page, you can pick a different selection of management tools, if you wish.



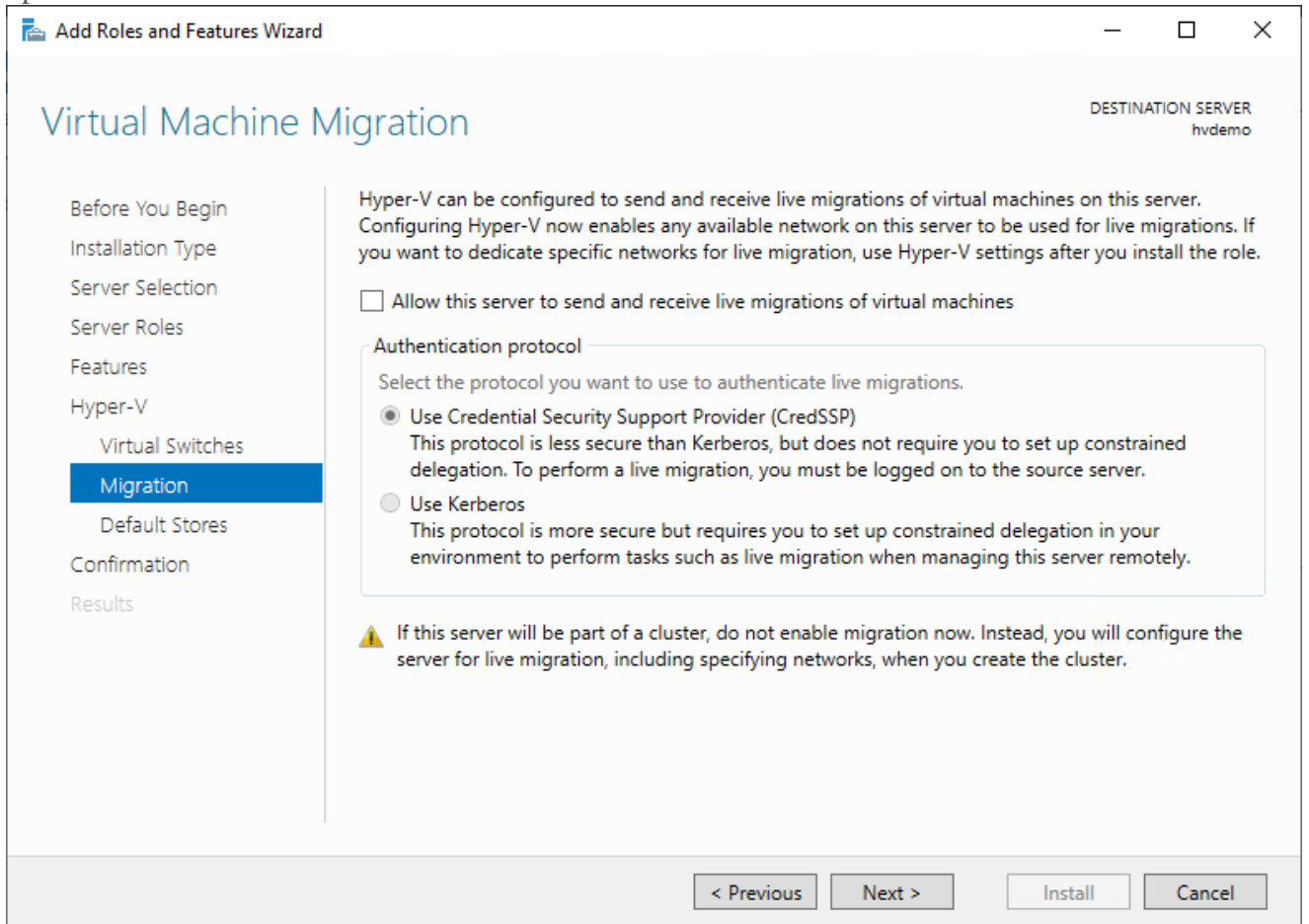
8. You will get an introductory screen specific to Hyper-V. It talks about some of the same things we went over in the the pre-installation checklist above.



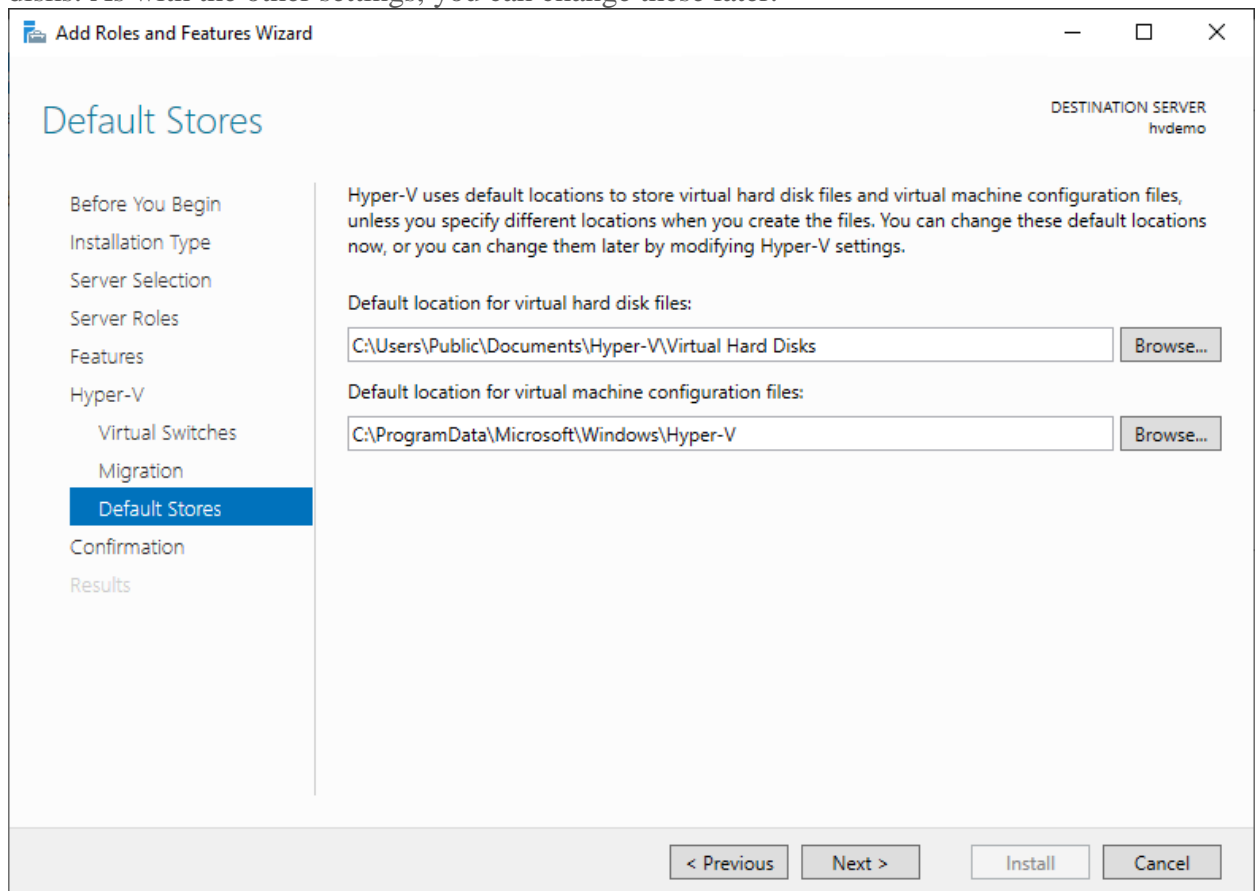
9. You can now pick a physical Ethernet adapter to host a Hyper-V virtual switch. I highly recommend that you skip this page unless you want only defaults. You can set up networking later.



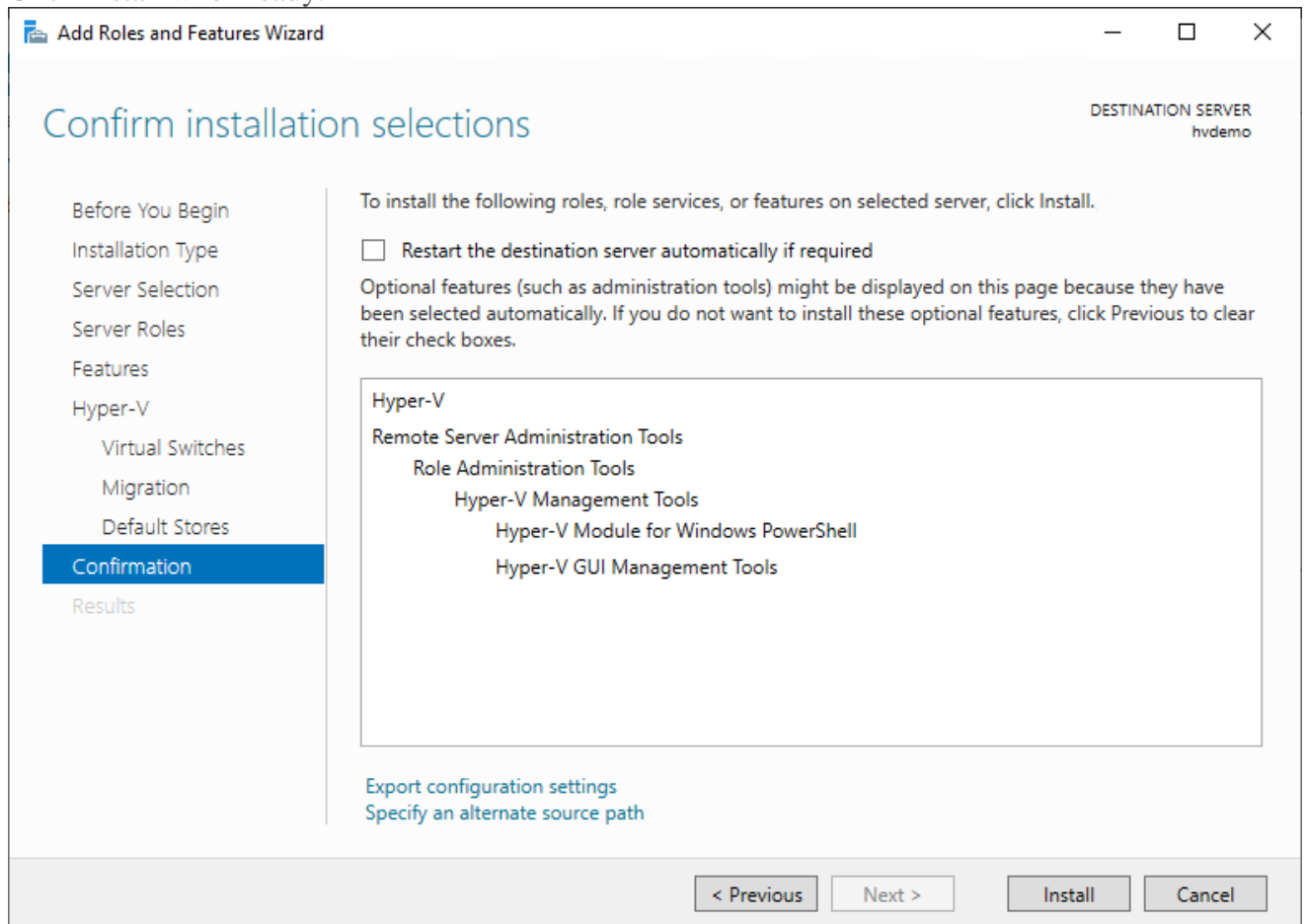
10. You can choose the initial Live Migration security control. The settings shown only apply to Shared Nothing Live Migration, not clustered Live Migrations. I prefer Kerberos because of the security and the ease of initiating migrations. You can always change this option later.



11. Here, you can change the default storage location for virtual machines and virtual hard disks. As with the other settings, you can change these later.



12. The final screen allows you to review the basic options that you chose and optionally export them. It also allows you to enable an automatic reboot to enable Hyper-V. Click Install when ready.



Once all the reboots have completed, you're ready to start creating and running virtual machines.