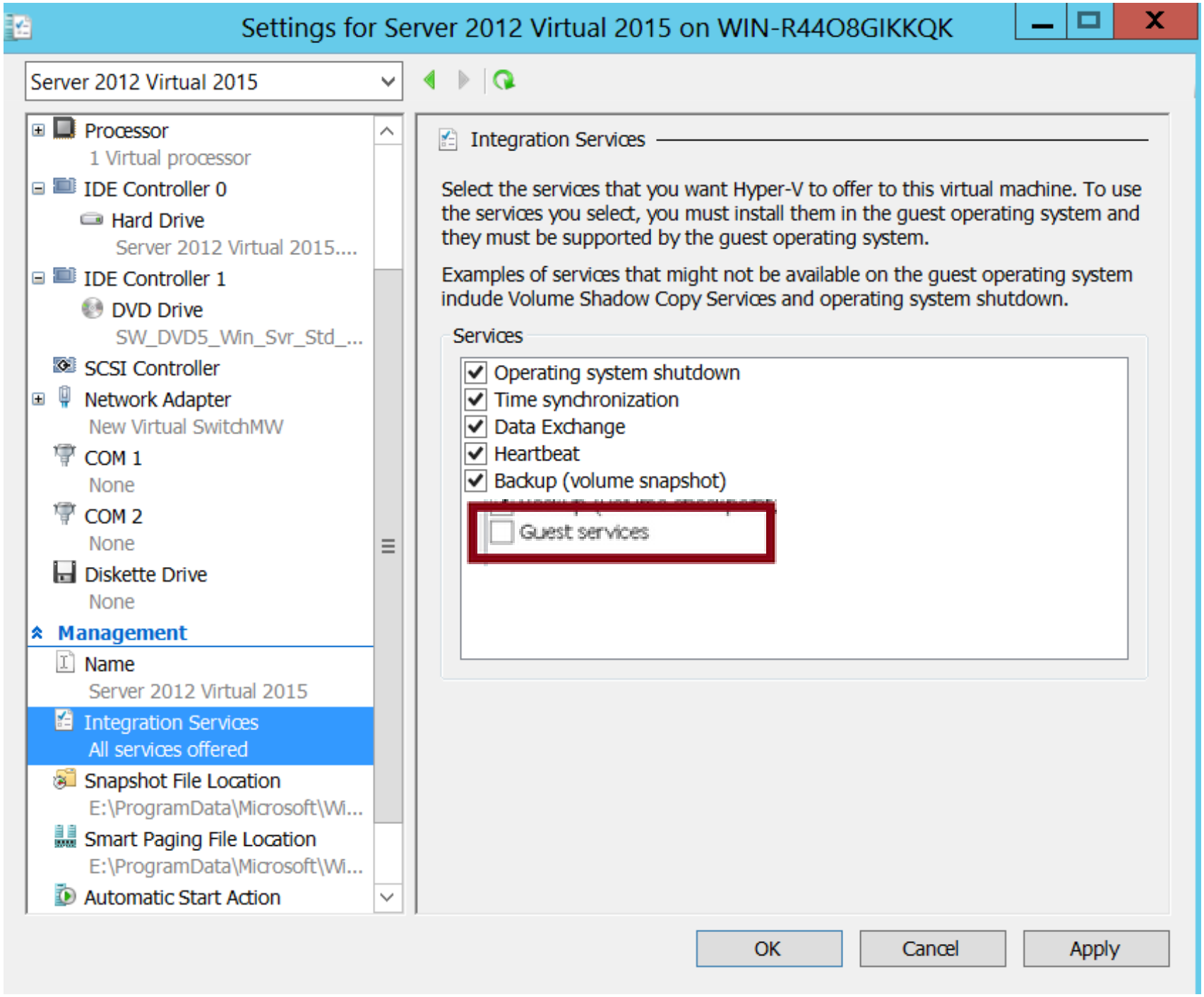
GUEST INTEGRATION SERVICES

SERVER 2012R2

What is Hyper-V Guest Services?

Guest Services is introduced in Windows Server 2012 R2 Hyper-V as a new component of Hyper-V Integration Services, the virtual machine tooling that get installed inside each VM to provide tight integration with the underlying host environment. If you have kept a keen eye after upgrading to R2, you may have seen Guest Services show up on 2012 R2 Hyper-V Hosts within the settings of each VM on the *Integration Services* page.


Settings for Server 2012 Virtual 2015 on WIN-R44O8GIKKQK
Server 2012 Virtual 2015
Processor
1 Virtual processor
IDE Controller 0
Hard Drive
Server 2012 Virtual 2015....
IDE Controller 1
DVD Drive
SW_DVD5_Win_Svr_Std_...
SCSI Controller
Network Adapter
New Virtual SwitchMW
COM 1
None
COM 2
None
Diskette Drive
None
Management
Name
Server 2012 Virtual 2015
Integration Services
All services offered
Snapshot File Location
E:\ProgramData\Microsoft\Wi...
Smart Paging File Location
E:\ProgramData\Microsoft\Wi...
Automatic Start Action
Integration Services
Select the services that you want Hyper-V to offer to this virtual machine. To use the services you select, you must install them in the guest operating system and they must be supported by the guest operating system.
Examples of services that might not be available on the guest operating system include Volume Shadow Copy Services and operating system shutdown.
Services
Operating system shutdown
Time synchronization
Data Exchange
Heartbeat
Backup (volume snapshot)
Guest services
OK
Cancel
Apply

Several integration services are available for virtual machines (VMs) such as time synchronization, heartbeat, backup, OS shutdown, and data exchange. In Windows Server 2012 R2, a new integration service has been added, Guest services. Guest services enables the copying of files to a VM using WMI APIs or using the new Copy-VMFile Windows PowerShell cmdlet

You'll note that while Guest Services is present as a new Integration Services component, it's unchecked by default on VM's. Guest services can be enabled on a per-VM basis on Windows Server 2012 R2 Hyper-V simply by checking the related checkbox and clicking the **Apply** button. Alternatively we can enable and disable Guest Services on several VM's at once via PowerShell.

But … What does Guest Services do?

When enabled, Guest Services provides the ability to copy files into running VM's using a process that is *out-of-band* to any virtual network connections those VM's may have. This means that we can copy and update files inside VM's even in situations where those VM's are disconnected from any virtual networks, are connected to Private virtual network switches, or are located on networks that are isolated from the underlying host using VLANs or Hyper-V Network Virtualization (HNV).

How do I use Guest Services?

In order to use Guest Services, this component first needs to be enabled on each VM to which you'll be copying files. To enable Guest Services on each VM, you can configure the checkbox
setting noted in this article above for each VM. Alternatively, you can enable Guest Services from within a PowerShell script by using the Enable-VMIntegrationService cmdlet.

```
Get-VM –Name VM_NAME | Enable-VMIntegrationService –Name "Guest Service Interface"
```

Once Guest Services is enabled, the *Hyper-V Guest Service Interface* service inside the enabled VM is started automatically. You can confirm this on Windows VM's by using the Get-Service cmdlet:

Get-Service -ComputerName *VM_NAME* -DisplayName "Hyper-V Guest Service Interface"

For efficiency, you can also enable Guest Services for *all* VM's on a Hyper-V host in one command line by simply omitting the VM_Name parameter, such as:

Get-VM | Enable-VMIntegrationService -Name "Guest Service Interface"