Microsoft IT Camp

Hands-On Lab

Windows Server 2012: Hyper-V over SMB

Lab version: 2.0

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This lab assumes that you have completed the prior installation and configuration lab found here:

Lab Guide – Windows 2012 RTM Install and Configure Windows and Hyper-V

Word Version: http://aka.ms/tplabguideword

PDF Version: http://aka.ms/tplabguidepdf

Lab Guide – Windows 2012 RTM Continuously Available File Shares

Word Version: http://aka.ms/tplabguideword

PDF Version: http://aka.ms/tplabguidepdf

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Overview

In Lab 1, you will join your Hyper-V Host to the Active Directory Domain that you created in an earlier lab so that you can then create a Virtual Machine on the Host using an SMB Share in a guest cluster.

In Lab 2, you will learn how to run Hyper-V over SMB file shares. Running Hyper-V over SMB enables many new scenarios. By creating highly available file servers, which contain high-performance storage, and leveraging file shares for virtual machine storage, you can create very large clusters of many Hyper-V servers without needing to attach complex and expensive SAN infrastructure.

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Objectives

In this series of exercises, you will explore the following:

- Enabling delegation of a computer account
- Creating an SMB Share with proper permissions.
- Create a new virtual machine from a VHD running on an SMB file share.

Prerequisites

- Knowledge of Hyper-V.

Lab Deployment Guide

Lab Setup

This lab requires the following host computers and virtual machines. In order to complete this lab, you must have already completed the Hyper-V Getting Started Lab and Continuously Available File Shares Lab.

Host Computers:

- Your Windows Server 2012 Running Hyper-V
    - Host Name: [**Your Choice**]
    - OS: Windows Server 2012
    - Primary Roles: Hyper-V Server

Virtual Machines:

- **DC**
    - OS: Windows Server 2012
    - Primary Roles: Domain Controller
    - Additional Roles: DNS
- **Storage**
    - OS: Windows Server 2012
    - Primary Role: File and Storage Services
- **Cluster1**
    - OS: Windows Server 2012
    - Primary Role: Failover Clustering
- **Cluster2**
    - OS: Windows Server 2012
    - Primary Role: Failover Clustering

Lab 1 – Join Host to Domain

Tasks in this Lab Module

1) Join your host Hyper-V machine to the Domain you created.

1) Join Hyper-V Host machine to Domain.

1. Log on to **your Hyper-V host machine** as an **Administrator**.
2. Open **Hyper-V Manager**
3. Go to **Settings** for **DC**, **Storage**, **Cluster1** and **Cluster2** and ensure the following options are configured:
   A. Automatic Start Action: **Always Start**
      Automatic Stop Action: **Save**
4. From **Server Manager**, click **Local Server** and click **IP settings** for one of the network adapters in the list.
5. In **Network Connections**, right click the Network adapter that correlates to **IT Camp Lab** and choose **Properties**.
6. Enter the following IP v4 Address information:
   A. IP Address: **192.168.1.100**
      Subnet Mask: **255.255.255.0**
      Default Gateway: **192.168.1.1**
      DNS: **192.168.1.10**
7. From **Server Manager**, click **Local Server** and click the hyperlink for your **Hyper-V Host**.
8. The **System Properties** Page will open.
9. Click **Change** and join the domain you created in the setup lab.
10. Provide the **Domain Administrator** credentials and reboot when complete.
11. Upon reboot, allow 5 – 10 minutes for the four VMs to start up and then login as the **Domain Administrator**.

Lab 2 – Hyper-V over SMB

Tasks in this Lab Module

2) Enable delegation on the computer account of the Hyper-V server.
3) Create an SMB Share for Hyper-V.
4) Create a new virtual machine from a VHD running on an SMB file share (the share happens to be clustered).

1) Enable delegation on the computer account of the Hyper-V server.

1. Log on to **DC** as the **Domain Administrator**.
2. From the Taskbar open **Server Manager**, click **Tools**, and then click **Active Directory Users and Computers**.
3. Navigate to **[YourDomain]\Computers**, and then click **Your Hyper-V Host**.
4. On the Action menu, click **Properties**.
5. Click the **Delegation** tab.
6. Click **Trust this computer for delegation to any service (Kerberos only)**.

2) Create an SMB Share for Hyper-V.

1. Log onto **Cluster1**
2. From **Server Manager,** Click the **Tools** menu, click **Failover Cluster Manager**.
3. Expand **MainCluster.[yourdomain]**, and then click **Roles**.
4. Right Click **HAFileServer** and choose **Add File Share**.

    A. Profile: **SMB Share – Applications**
    Share Location: **Volume E:**
    Share Name: **SMBStore**
    Other Settings: **Accept Defaults**
    Permissions: Add **Domain Administrators** with **Full Control** and **Your Hyper-V Host** with **Full Control**

3) Create a new virtual machine from a VHD running on an SMB file share (the share happens to be clustered).

1. Switch to your **Hyper-V Host**.

2. Open **Hyper-V Manager**.

2. In the Hyper-V console, click **New**, and then click **Virtual Machine**.

3. Complete the **New Virtual Machine Wizard** with the following settings (all other settings are default).

   Name: **IT Camp VM**

   Check **Store the virtual machine in a different location**

   Location: **\\HAFileServer\SMBStore\Images**

   Start-up memory: **512**

   Check **Use Dynamic Memory for this virtual machine**

   Network Connection: **Not Connected**

   Create a Virtual Hard Disk: **Accept Defaults**

   Install an operating system from a boot CD/DVD-ROM:
   Image File: **[Select your Windows Server 2012 ISO Image]**

4. In **Hyper-V Manager,** select **IT Camp VM**, and then click **Start**.

5. If you would like, go ahead and install Windows Server 2012 into the VM.

More Information

Tommy's Blog

http://virtuallycloud9.com

Windows Server Blogs

http://blogs.technet.com/b/windowsserver/

Windows Server 2012 Product Download

http://aka.ms/ws2012tp

Microsoft Virtual Academy

http://aka.ms/tpva

Windows Server 2012 Virtual Labs

http://technet.microsoft.com/en-us/windowsserver/hh968267.aspx

Windows Azure 90-Day Free Trial Page

http://aka.ms/mshosting