

PlateSpin Migrate 9: The Premier Workload Migration Tool Lab

NIQ06

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NIQ06: PlateSpin Migrate 9.1

The Premier Workload Management Tool

Labs

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Important Notes:

1. In the labs when you see *X* in IP addresses and hostnames replace the *X* with your station number.
For example - If you are station 2 then the IP address 10.0.0.*X*1 would be 10.0.0.21
- If the server is MIGRATE-*X* then you should use MIGRATE-2
2. Only one student can do the lab on each workstation-ESX server setup

Lab 1- Server Discovery

In this exercise, you learn how to do the following:

1. Discover Source Servers and a Target Virtual Host

1.1 Discover Source Servers and a Target Virtual Host

First you will discover your source servers and target virtual host in preparation for migrating and deploying virtual machines.

Part 1: Preparation

This exercise requires that the virtual machines **MIGRATE-*X***, **SLES-*X***, **WINSRV-*X*** be running.

1. Authenticate to your assigned workstation
Username: **Administrator**
Password: **novell**

- 2 Start the Virtual Infrastructure Client (VIC) from the icon on your desktop

- 3 Authenticate to the ESXi host using the following
The ESXi host address: **10.0.0.X0**
The user: **root**
The password: **novell**

- 4 If a certificate warning appears, select **Ignore**

- 5 Expand the **ESX-X.platespin.com** host using the "+"

- 6 Right-click on the **MIGRATE-X** virtual machine
 - 6.1 Select **Snapshot > SnapShot Manager**
 - 6.2 Select **Start Labs**
 - 6.3 Click on **Go to**
 - 6.4 When done select **Close**

- 7 Right-click on the **MIGRATE-X** virtual machine

- 8 Select **Power On** from the drop-down menu

- 9 If you get a yellow icon in front of the name then do the following
 - 9.1 Right-click on the virtual machine name
 - 9.2 Select **Open Console** from the menu
 - 9.3 Select **Create** from the choices
 - 9.4 Select **OK**

- 10 Right-click on the **SLES-X** virtual machine
 - 10.1 Select **Snapshot > SnapShot Manager**
 - 10.2 Select **Start Labs**
 - 10.3 Click on **Go to**
 - 10.4 When done select **Close**

- 11 Right-click on the **SLES-X** virtual machine
 - 11.1 Select **Snapshot > SnapShot Manager**

- 11.2 Select **Start Labs**
- 11.3 Click on **Go to**
- 11.4 When done select **Close**

- 12 Select **Power On** from the drop-down menu

- 13 If you get a yellow icon in front of the name then do the following
 - 13.1 Right-click on the virtual machine name
 - 13.2 Select **Open Console** from the menu
 - 13.3 Select **Create** from the choices
 - 13.4 Select **OK**
 - 13.5 Close the console

- 14 Right-click on the **WINSRV-X** virtual machine
 - 14.1 Select **Snapshot > SnapShot Manager**
 - 14.2 Select **Start Labs**
 - 14.3 Click on **Go to**
 - 14.4 When done select **Close**

- 15 Right-click on the **WINSRV-X** virtual machine

- 16 Select **Power On** from the drop-down menu

- 17 If you get a yellow icon in front of the name then do the following
 - 17.1 Right-click on the virtual machine name
 - 17.2 Select **Open Console** from the menu
 - 17.3 Select **Create** from the choices
 - 17.4 Select **OK**
 - 17.5 Close the console

- 18 Right-click on the **MIGRATE-X** virtual machine

- 19 Select **Open Console** from the drop-down menu

- 20 Press **CTRL+ALT+INS** to bring up the login dialog box

21. Authenticate using the following
User: **Administrator**
Password: **novell**

Part 2: Discover Target Virtual Host

1. Start the **Migrate Client** using the icon on the Migrate Server desktop
2. Authenticate using the following (Only needed the first time from the Client)
User: **Administrator**
Password: **novell**
3. Select **Server** View if not already there
4. Select **Actions > Discover Details**
5. In the **Discover Details** dialog, specify the following for the ESX server:
 Hostname: **10.0.0.X0**
 Machine Type **VMware ESX**
 Username: **root**
 Password: **novell**
6. Select **Save (Encrypted Locally)**
7. Click **Discover**.
8. In the **Discover** dialog, after validating access is complete, click **Hide**
9. Click **Close** to close the **Discover Details** dialog
10. Select the **Jobs** View from the choices on the left
11. Wait until the Job is finished

12. Return to the Servers View and you should see the **platespin** group in the list of servers
13. Expand the view to see the VMs on the ESX server

Part 3: Discover a Windows Source Server

1. In the Migrate Client expand the **platespin** and **ESX-X**
2. Right-click **WINSRV-X** and then select **Discover Details**
3. In the **Discover Details** dialog, specify the IP address **10.0.0.X7** for the **WINSRV-X** host
4. Select **Windows** as the Machine Type
5. Enter the username **localhost\administrator**
6. Enter the password **novell**
7. Select **Save (Encrypted Locally)**
8. Click **Discover**.
9. In the **Discover** dialog, after validating access is complete, click **Hide**.
10. Click **Close** to close the **Discover Details** dialog.

Part 4: Discover a Linux Source Server

1. In the Migrate Client, click **Discover Details** (magnifying glass icon at the left of the toolbar)

2. In the **Discover Details** dialog box, enter the IP address **10.0.0.X5** for the **SLES -X** host
3. Select **Linux** as the Machine Type
4. Enter the Username **root**
5. Enter the Password **novell**
6. Select **Save (Encrypted Locally)**
7. Click **Discover**
8. In the **Discover** dialog, after validating access is complete, click **Hide**.
9. Click **Close** to close the **Discover Details** dialog.

Part 5: Monitor Discovery Job Progress

1. In the **View** pane, select **Jobs** and wait for the discovery jobs to complete.
2. Expand the **Discover Server Details** jobs to view the details of each job.
Note: This particular job does not have many steps
3. In the **View** pane, select **Servers** to switch back to the Servers view.
4. Select **Group By > Machine**
5. Right-click **ESX-X** machine
6. Select **Properties** to view the details of your virtual server.
7. Browse the information provided on each of the **Properties** tabs.

8. When finished, click **Close**.
9. Repeat this for WINSRV-X
10. Repeat this for SLES-X
11. Leave the Migrate Client open for the next exercise.

Lab 2 Configure and Run a Migration

In this section, you learn how to do the following:

1. Configure a Custom action
2. Configure a Windows Server Migration
3. Execute the Migration

2.1 Create a Custom Action

In this exercise, you will create a post-conversion action on the PlateSpin Migrate Server which can then be used in future conversions. This custom action will later be used to automatically install WinZip on the target near the end of a migration job.

1. In the Migrate Client, select **Tools > Manage Actions...**
2. Click **Add....**
3. In the **Action Name** field, type “**Install WinZip**”.
4. Select the Browse button next to the **Action Folder** field
5. Browse to and select the **C:\Platespin Migrate\ClassFiles** folder
6. Click **OK**.
7. Select **Install.bat** from the list of files and then click **Set**.
8. Click **OK**.
9. Wait for the files to be uploaded
10. Click **Close** to close the **Manage Actions** dialog.

2.2 Configure a Peer-to-Peer Windows 2003 Server Migration

This exercise migrates a Windows workload to a virtual machine. Once the conversion completes, you will run a Job Report to check file transfer statistics. You will convert a Windows 2003 Server using a fixed IP address for a Live migration.

As a best practice, you should always refresh the server details for any discovered server before configuring a migration job. Server discovery is not dynamic, so the PlateSpin Server database is only as up-to-date as the last discovery. If changes were made to in the interim, these changes could adversely affect the outcome of your conversions. For example, manually deleted virtual machines, hard disk changes, or network interfaces can fail jobs or result in unwanted conversion configurations.

Part I: Refresh the Source Server

- 1 In the Migrate Client, on the left side (sources) right-click your **WINSRV-X** server
- 2 Select **Refresh Details...**
- 3 If you did not save your credentials when you did Discovery then
 - 3.1 In the **Refresh Details** dialog, enter the credentials **workgroup\administrator** and **novell**
 - 3.2 Make sure to check “**Save Credentials**”
- 4 Click **Refresh...**
- 5 Wait for the refresh to complete
- 6 If needed, click **Close** to close the dialog.

Part II: Refresh Target Virtual Server

- 1 In the Migrate Client, on the right side (targets) right-click your ESX server **ESX-X**
- 2 Leave “**Direct to ESX**” selected
- 3 Select **Refresh Details...** from the drop-down menu

- 4 If you did not save your credentials when you did Discovery then
 - 4.1 In the **Refresh Details** dialog enter the credentials **root** and **novell**
 - 4.2 Make sure to check “**Save Credentials**”
- 5 Click **Refresh...**
- 6 Wait for access to be validated and click the **Hide** button
- 7 If needed, click **Close** to close the dialog box
- 8 Switch to the **Jobs** View to monitor the job progress
- 9 Wait for the refresh to complete
- 10 Switch back to th **Servers** View

Part III: Configure Conversion Settings

- 1 In the source pane (left side), drag-and-drop **WINSRV-X** onto **ESX-X** in the target pane (right side).
- 2 In the Action window, select **Copy Workload**
- 3 Click **Start Wizard**.
- 4 In the **User Credentials** window if you did not save the credentials you will need to enter and test credentials for both the source workload and target machine
- 5 Click **Next**.
- 6 In the **Transfer Option** dialog window, select the preferred **Block Based** method
- 7 Click **Next**
- 8 In the **Host Name** window

- 8.1 Change the hostname to **WIN-X-NEW** where the X is your station number
 - 8.2 Check the box to **Generate a New System Identifier (SID)**
 - 8.3 Click **Next**
- 9 In the **Networking** window:
- 9.1 Configure the **Target Network Address** to use **10.0.0.2X**
 - 9.2 Configure the **Temporary Take Control Network Settings** to use **10.0.0.2X**
 - 9.3 Click **Next**
- Note:** If you are station 5 then use 205 and if you are station 15 use 215
- Note:** Use **10.0.0.1** for the default gateway and the DNS server
- Note:** Use **255.255.255.0** for the subnet mask
- 10 In the **VM Configuration** window:
- 10.1 Change the **Virtual Machine Name** to **WIN-X-NEW**
 - 10.2 Change the **Configuration File Path** to **/WIN-X-NEW/WIN-X-NEW.vmx**.
 - 10.3 Click **Next**.
- 11 In the **VM Tools** dialog window:
- 11.1 Check the **Provide Credentials** box
 - 11.2 Enter **workgroup\administrator** for the **User Name**
 - 11.3 Enter **novell** for the password
 - 11.4 Click **Next**
 - 11.5
- 12 In the **Volumes** dialog window click **Next**.
- 13 In the **Disks** dialog window click **Next**
- 14 In the **Services** window
- 14.1 Scroll down to **Telephony** and click the periods to the right
 - 14.2 Change it to **Disabled**
 - 14.3 Click **OK**
 - 14.4 Click **Next**
- 15 In the **Transfer Services** dialog window click **Next**

16 Select **Post Migration**

16.1 For **Select Action** use the pull down menu to select **Install Winzip**

16.2 Click **Next**

17 Select the **Additional Items** dialog window and note the warning

18 Click the **Advanced** button.

19 Click **Yes** to confirm your choice

20 Select the **End States** tab and make sure both machines will be powered on at the end of the copy

20.1 **The Source Machine End State shutdown** check box should be unchecked

20.2 The **Target End State** should be set to **Power On**

20.3 Click **OK**

21 Select the Network tab limit the bandwidth so all machines can get on the network

21.1 Check the box to **Enable Throttling**

21.2 Set the value to **50 MB/sec**

21.3 Click **OK**

2.3 Execute the Migration

1 Verify that there are no errors and make any required changes

2 Click **Start**.

3 Click **Hide** in the **Starting Job** dialog.

4 In the **View** pane (upper left), select **Jobs**.

5 In the **Jobs** view, expand the conversion job and monitor its progress until complete.

6 This step will take some time to complete.

7 Once the job is complete, you should generate a job report

7.1 Right-click on the **job** in the **Jobs View**

7.2 Select **report** from the drop-down menu

8 You should review the results to determine things like

9 How long did the conversion take to run? Should be about 40 minutes

10 What was the average transfer speed? Should be about 50 Mbps

11 How much data was transferred in total? Should be about 3 GB

Once the basic migration job is finished it will install WinZip which will take a few more minutes and after the server WIN-X-NEW is booted you should bring it up to check it

12 In the Servers view, right-click on **WIN-X-NEW**

13 Select **Open Console** from the drop-down menu

14 If required, click in the window to make it active

15 If required, press **CTRL+ALT+INS** to bring up the login screen

16 Login using **administrator/novell**

17 Check the following

18 Was there any issue with the video? There should be since Migrate does not handle video drivers

19 What is the server IP address? It should be **10.0.0.2X**

20 What is the server name? It should be **WIN-X-NEW**

21 Was WinZip installed on WIN-X-NEW? It should be

22 Shut down the **WIN-X-NEW** server