Restoring the Server to Bare Metal

Figure 19 below shows a virtual machine named Bare Metal System. As you can see, when we try to boot the system the boot fails because there is no operating system installed on the machine:

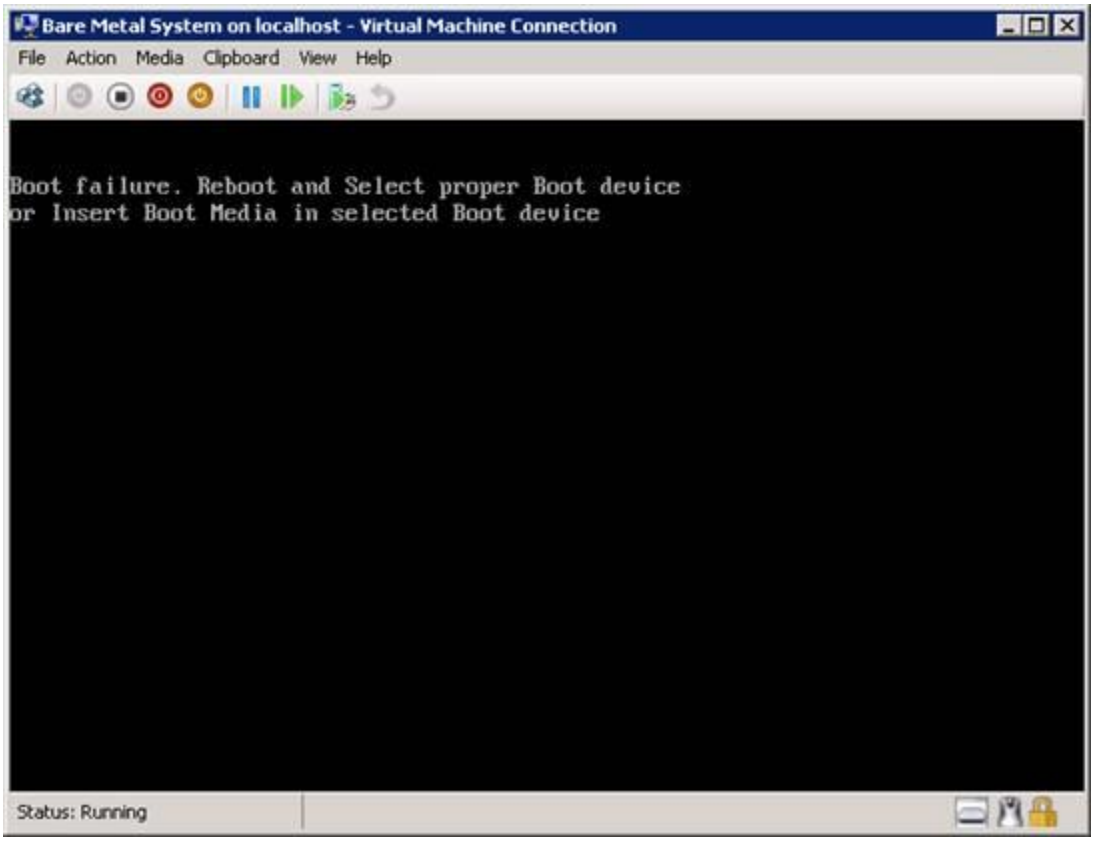

Figure 19: This bare metal system has no operating system installed

To launch the recovery process, we need to boot our bare metal system using Windows media. Since our system is a virtual machine, we simply attach an .iso image of Windows Server 2008 R2 installation media in the settings for the virtual machine and then restart the virtual machine. In a few seconds the Install Windows dialog comes up:

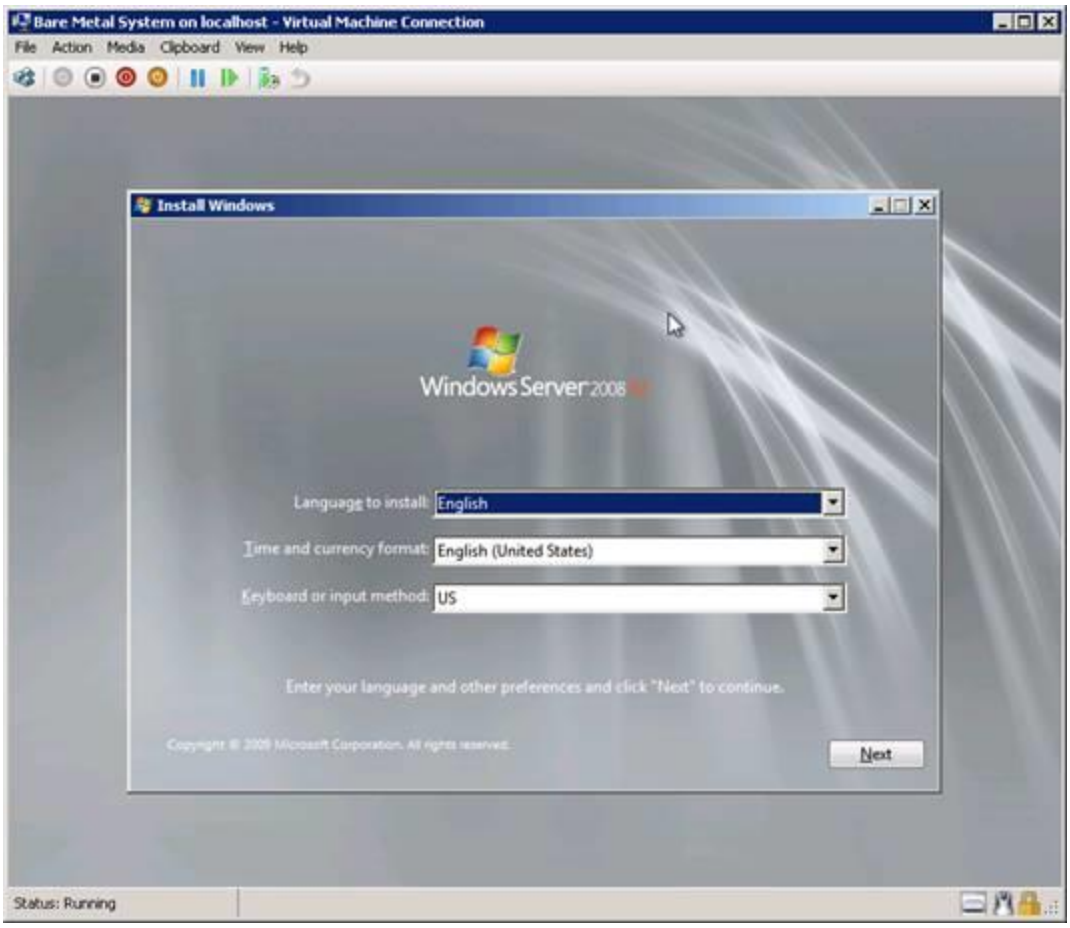

Figure 20: Step 1 of restoring to bare metal

After clicking Next in the previous screen, we now select the Repair Your Computer option at the bottom left as shown here:

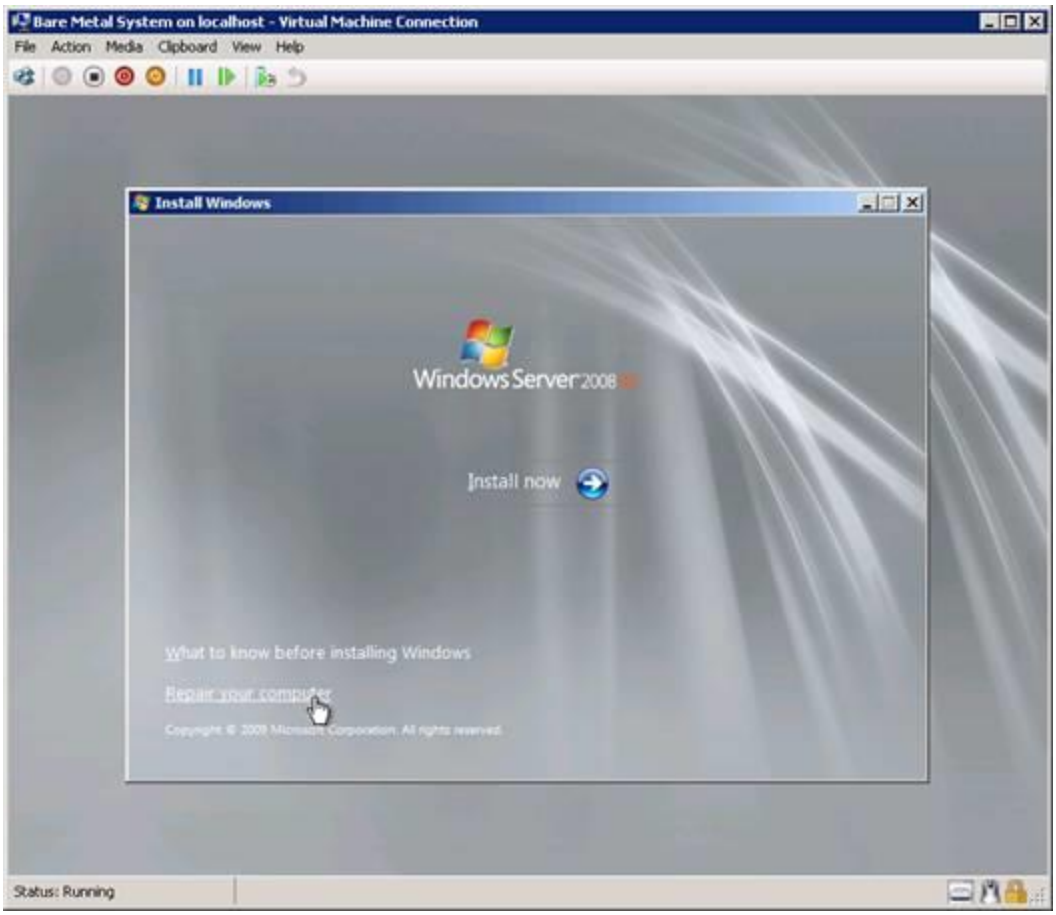

Figure 21: Step 2 of restoring to bare metal

In the System Recovery Options dialog, we select the "Restore your computer using a system image that you created earlier" option:

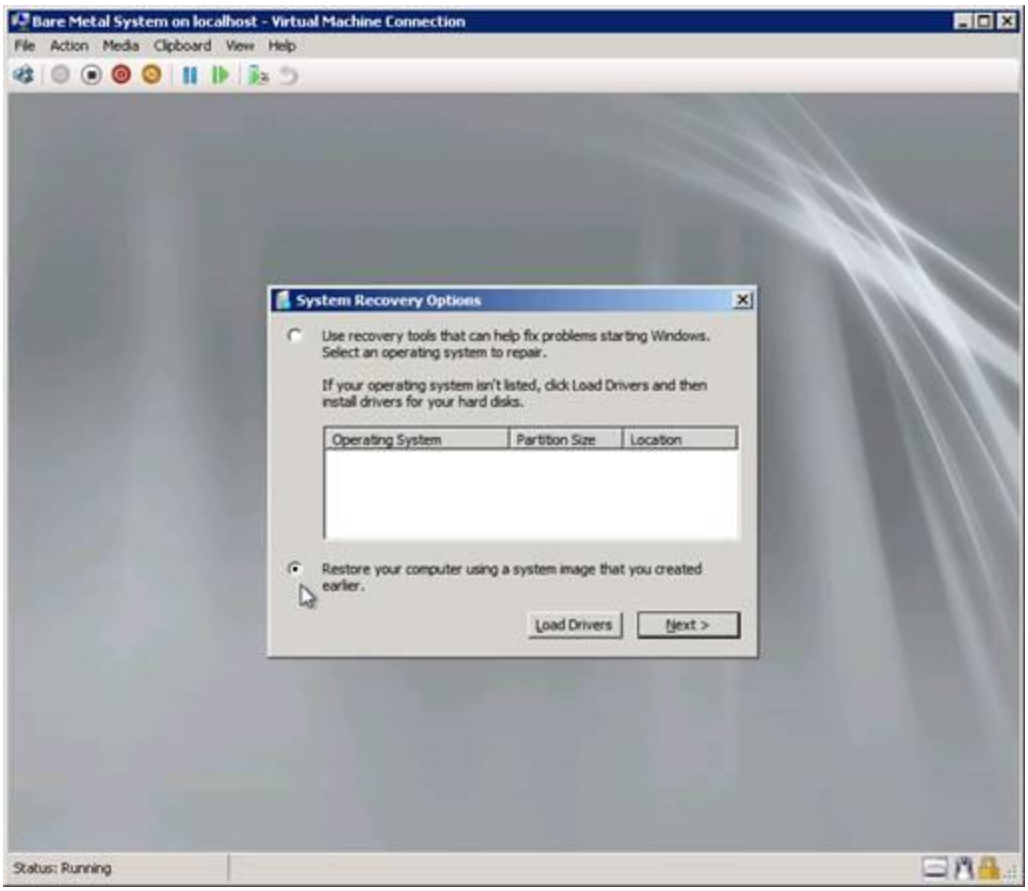

Figure 22: Step 3 of restoring to bare metal

When the Re-image Your Computer dialog appears, we click Cancel:

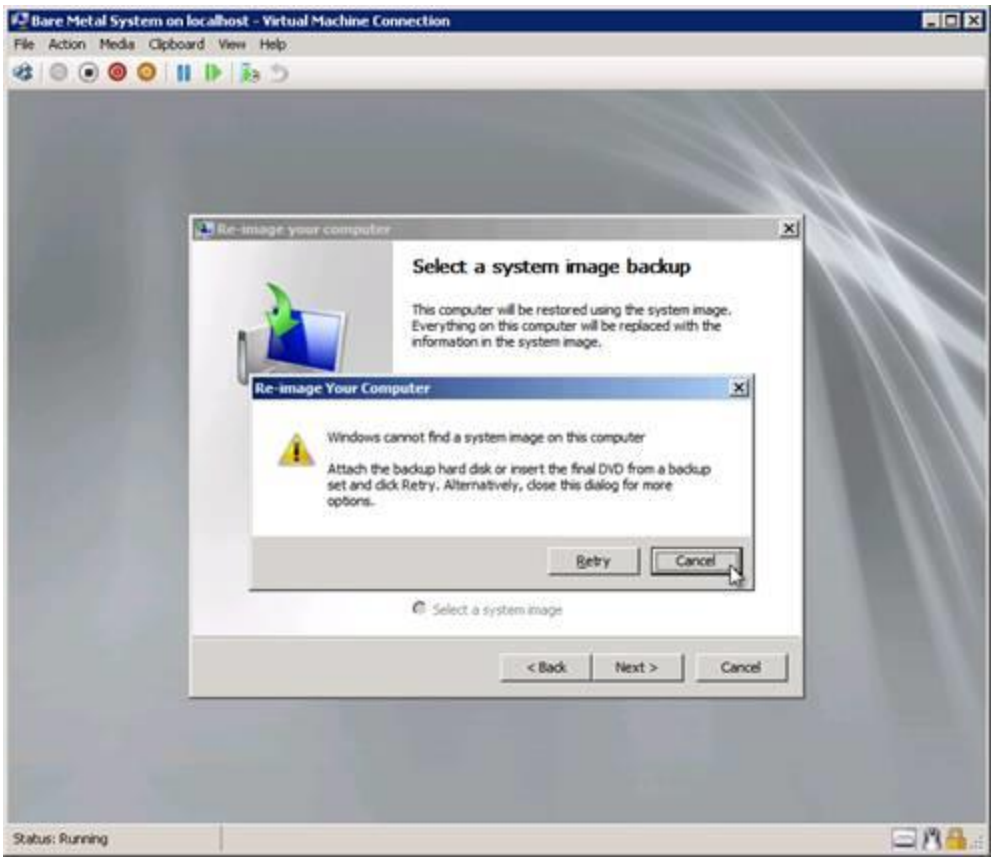

Figure 23: Step 4 of restoring to bare metal

Note:#
If the backup you were restoring from resided on a hard drive attached to the system (for example an external USB drive) this Re-image Your Computer dialog won't be displayed. Instead, you'll be taken directly to the next screen below where you will select the first option "Use the latest available system image (recommended)" and proceed with the restore process.

On the Select A System Image Backup page, make sure Select A System Image is selected and click Next as shown here:

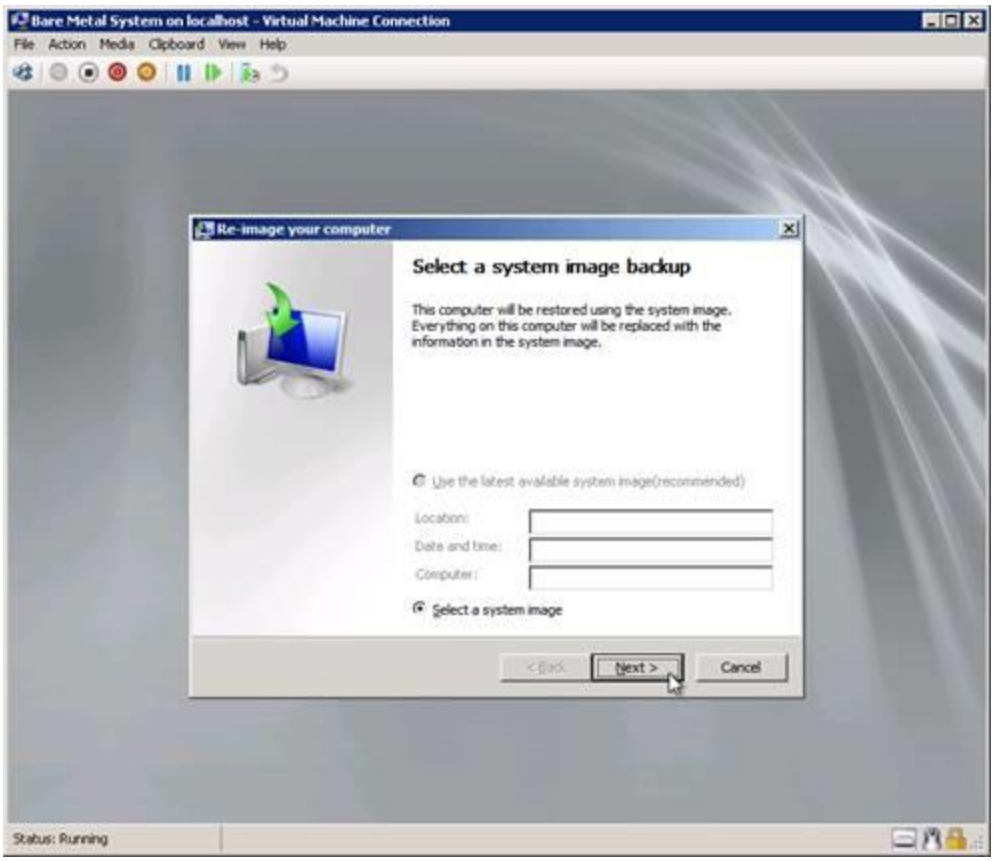

Figure 24: Step 5 of restoring to bare metal

The next page should not show any backups available. The reason is because we've backed up our server to the network (to a file share on our host machine) and not to a local drive on the system or attached USB drive. If you had backed up to a local or attached drive instead of the network, you would continue the restore process starting at Figure 30 below.

On the page shown below, click Advanced:

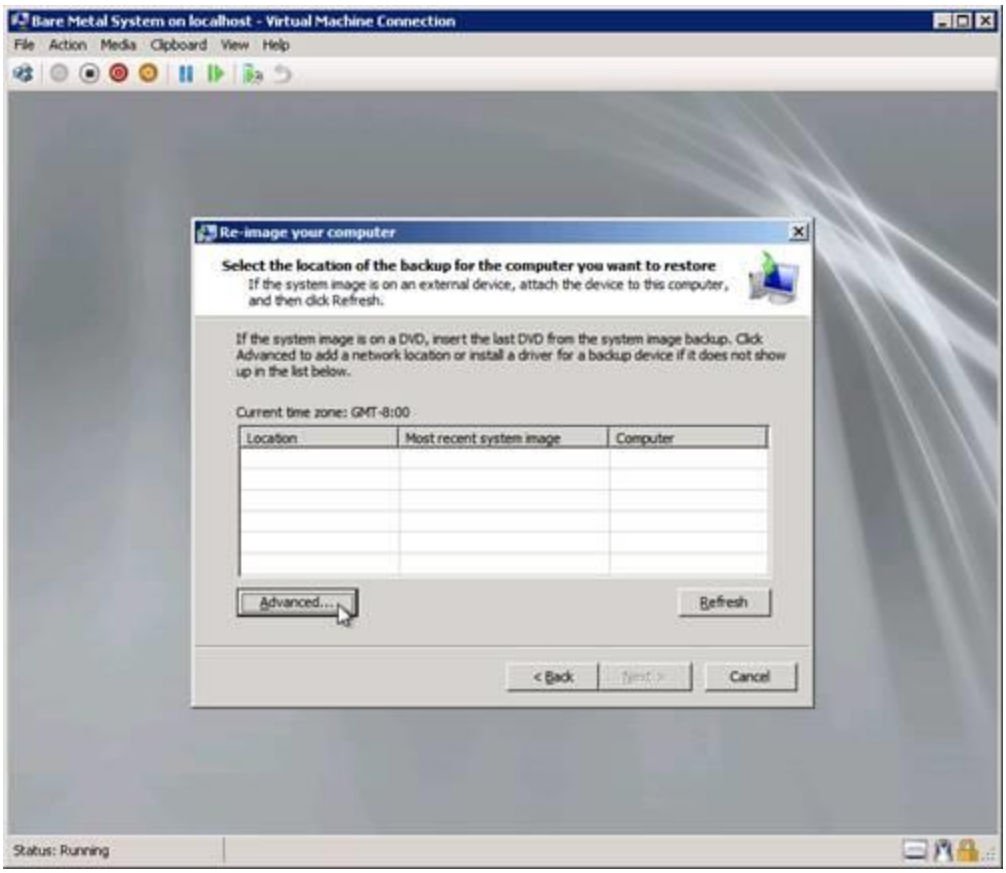

Figure 25: Step 6 of restoring to bare metal

In the dialog that appears, select the "Search for a system image on the network" option as shown here:

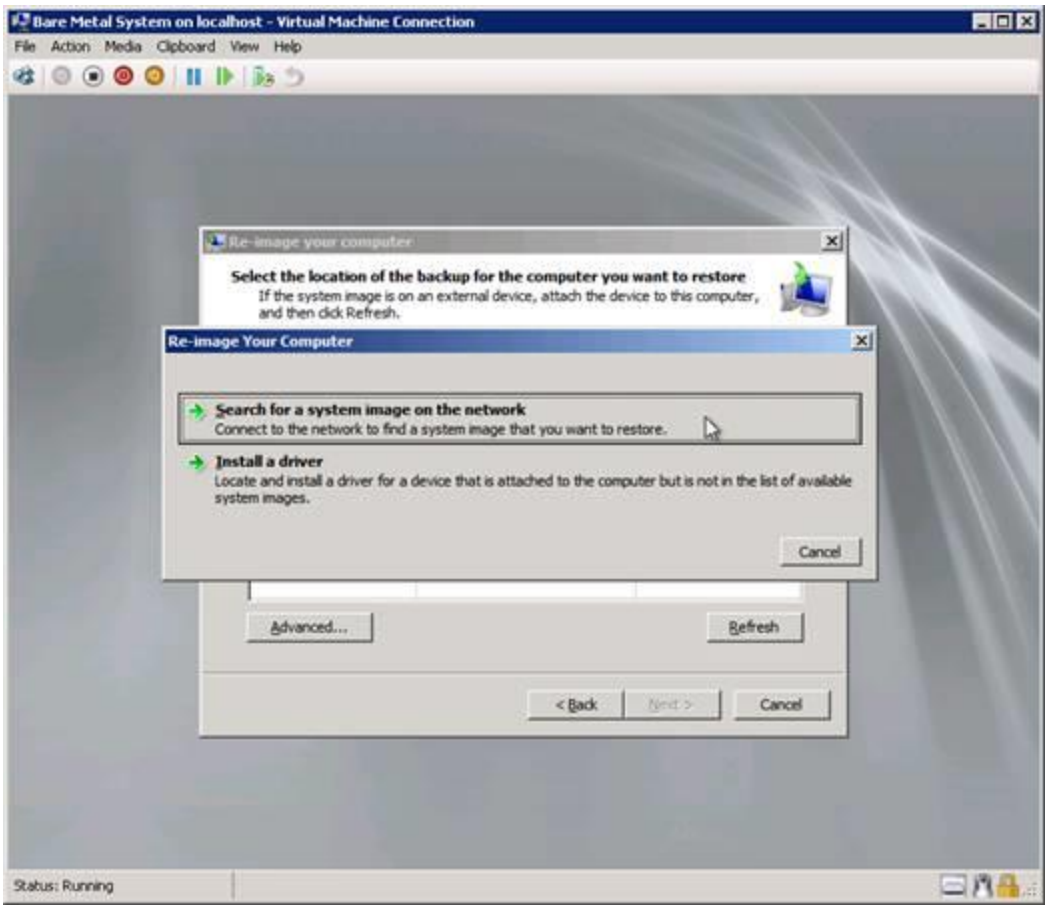

Figure 26: Step 7 of restoring to bare metal

Note:
The test environment for this walkthrough has a DHCP server and this is how the Windows Recovery Environment is able to connect to the network share where the backup set is located.

In the Are You Sure dialog that appears next, click Yes:

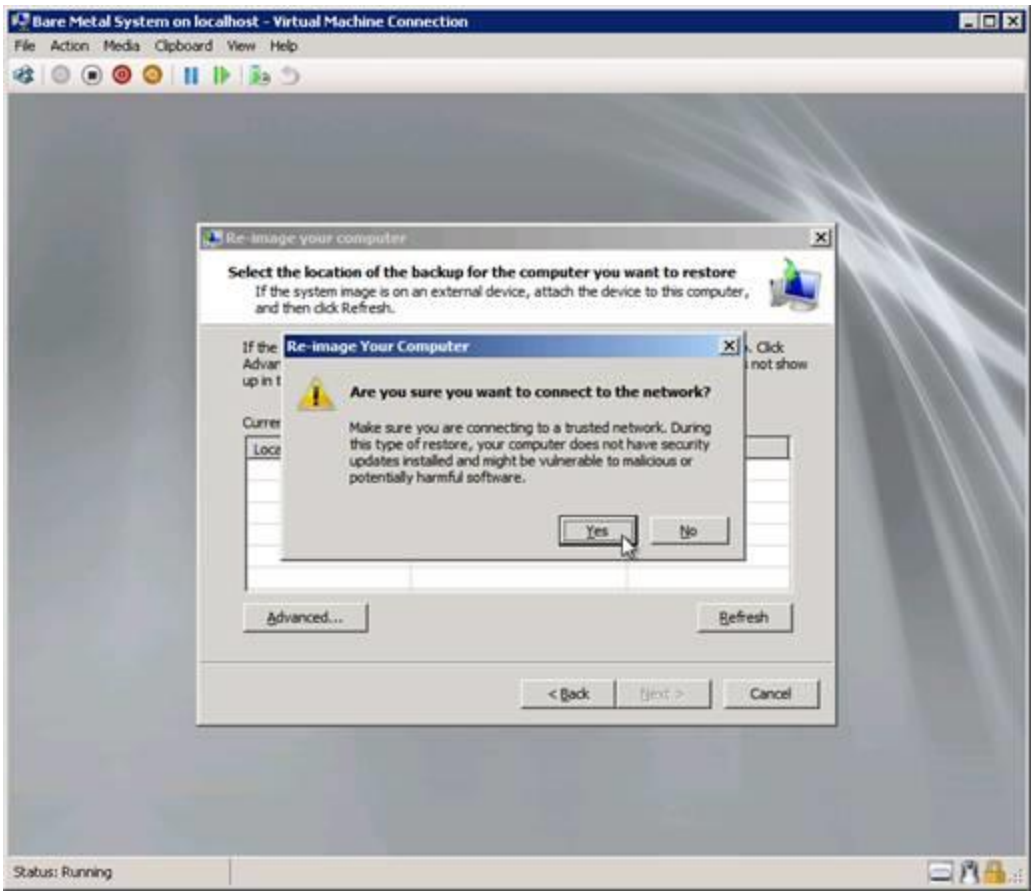

Figure 27: Step 8 of restoring to bare metal

Note:
As the dialog above indicates, restoring a system from a backup stored on the network is not as secure as restoring the system from a local or attached drive, so take this into consideration when planning your disaster recover infrastructure for your servers!

Type the UNC path to where the backup is stored on the network:

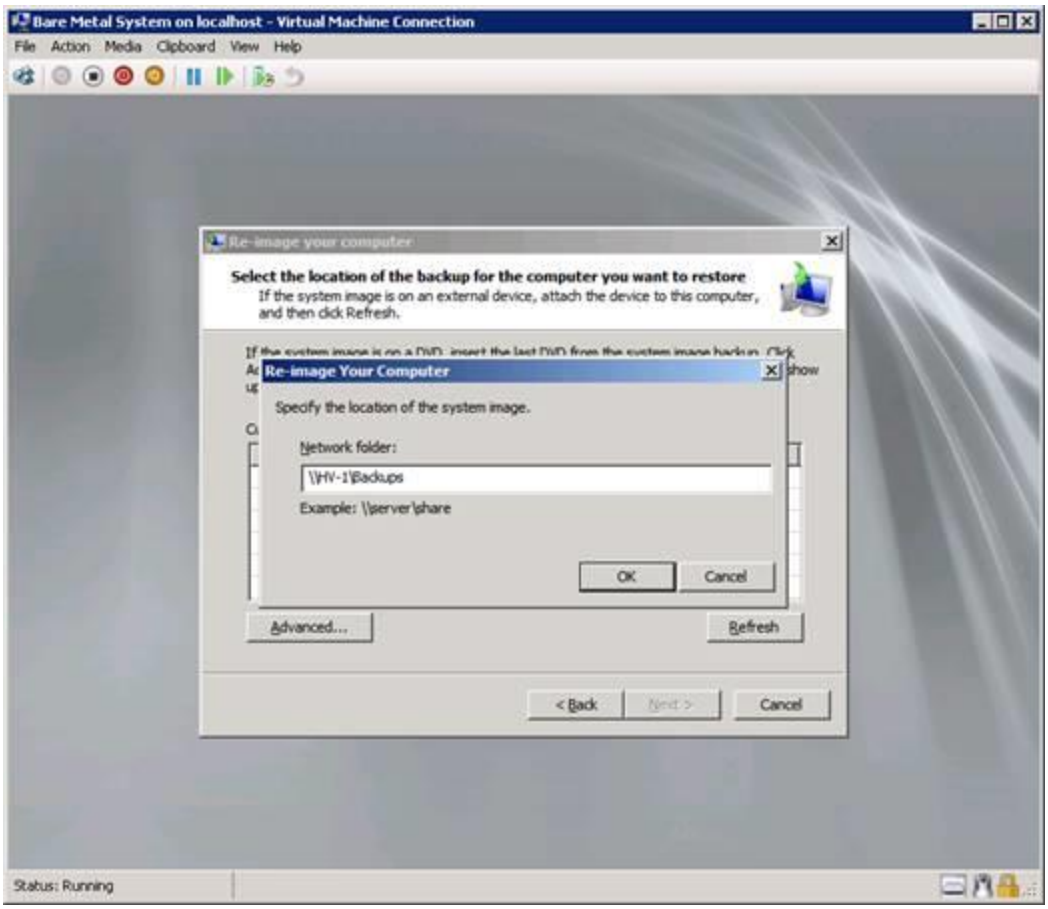

Figure 28: Step 9 of restoring to bare metal

Specify credentials needed to access the network share:

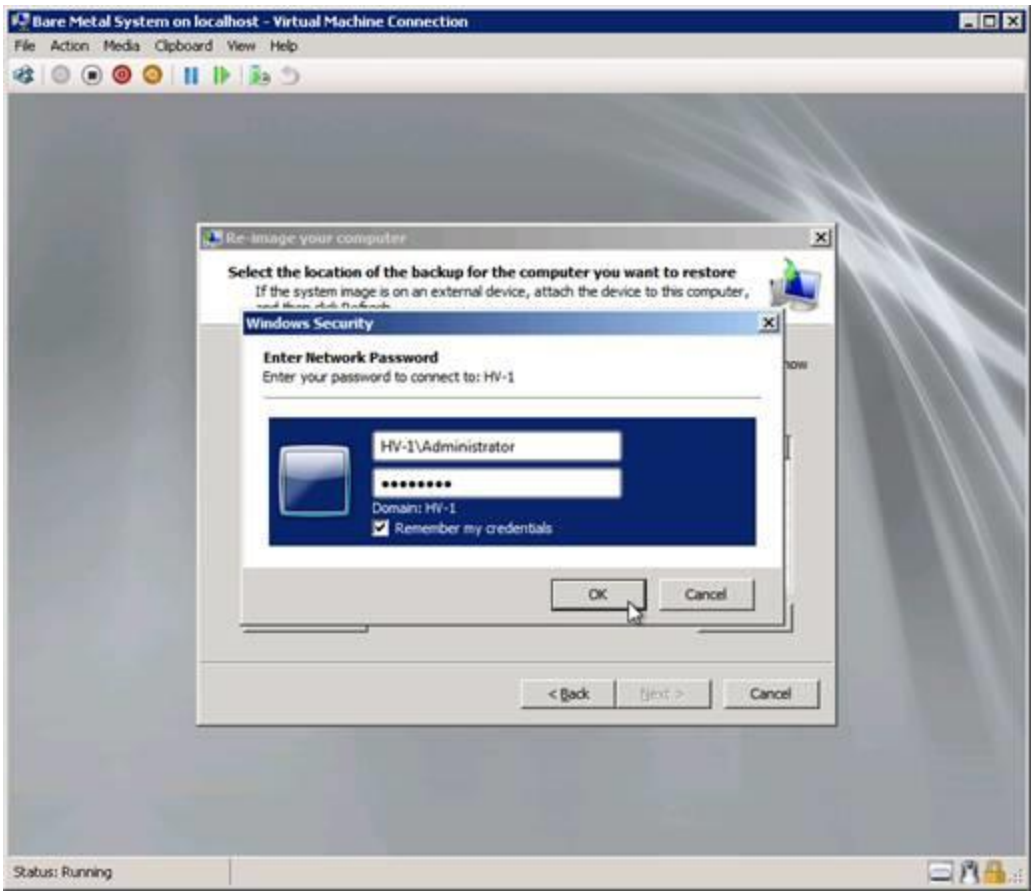

Figure 29: Step 10 of restoring to bare metal

Once the Windows Recovery Environment has connected to the network share you should see a list of available backup locations on the share. Select the one you want and click Next as shown here:

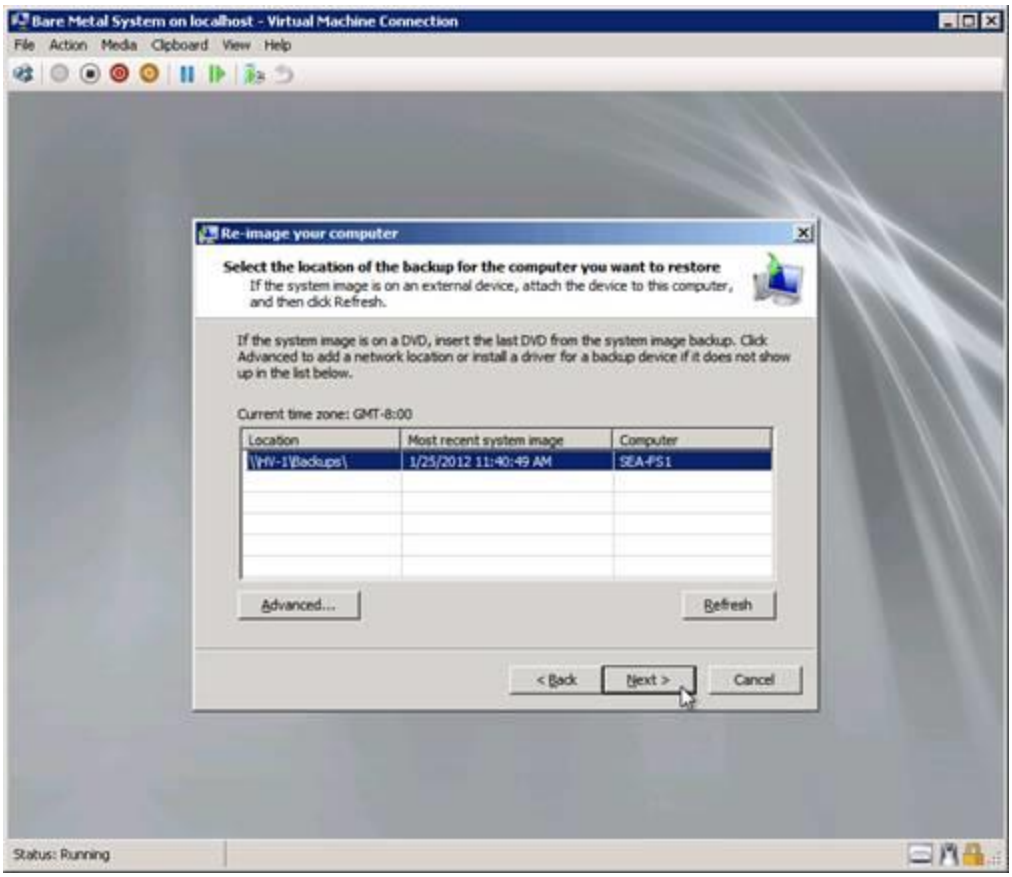

Figure 30: Step 11 of restoring to bare metal

Now select the backup set you want to restore from:

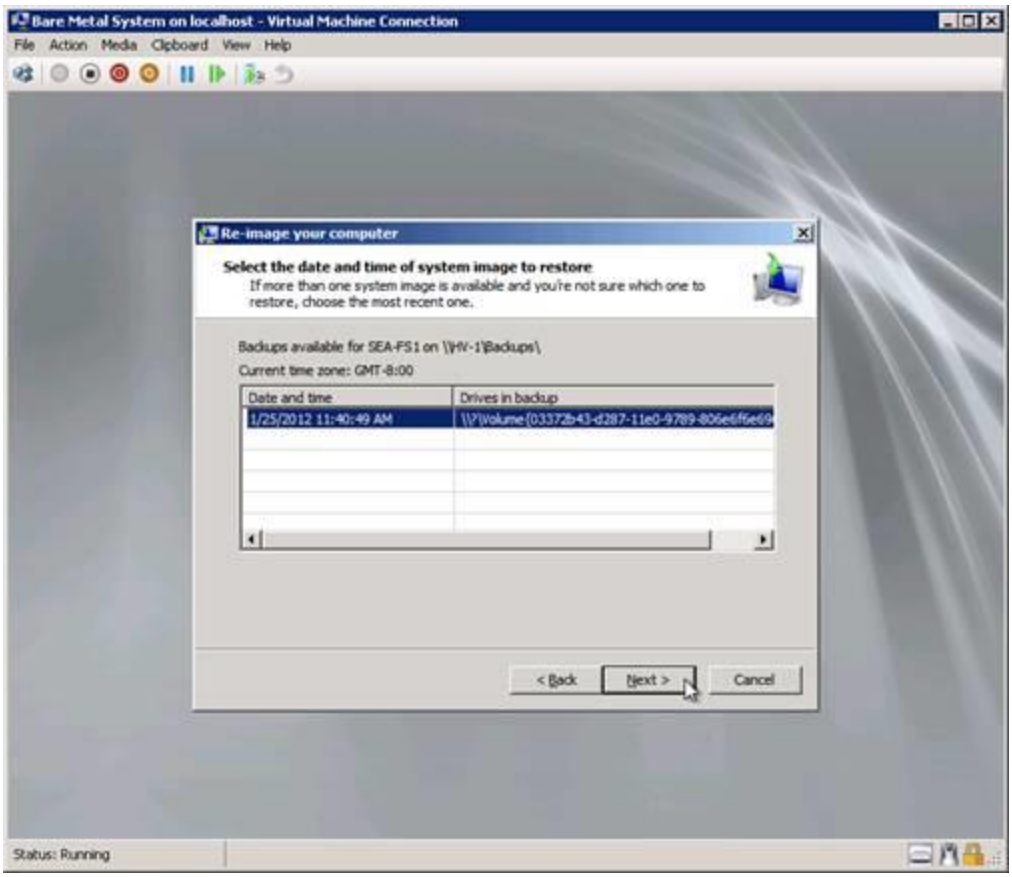

Figure 31: Step 12 of restoring to bare metal

Clicking Next brings up the Choose Additional Restore Options page:

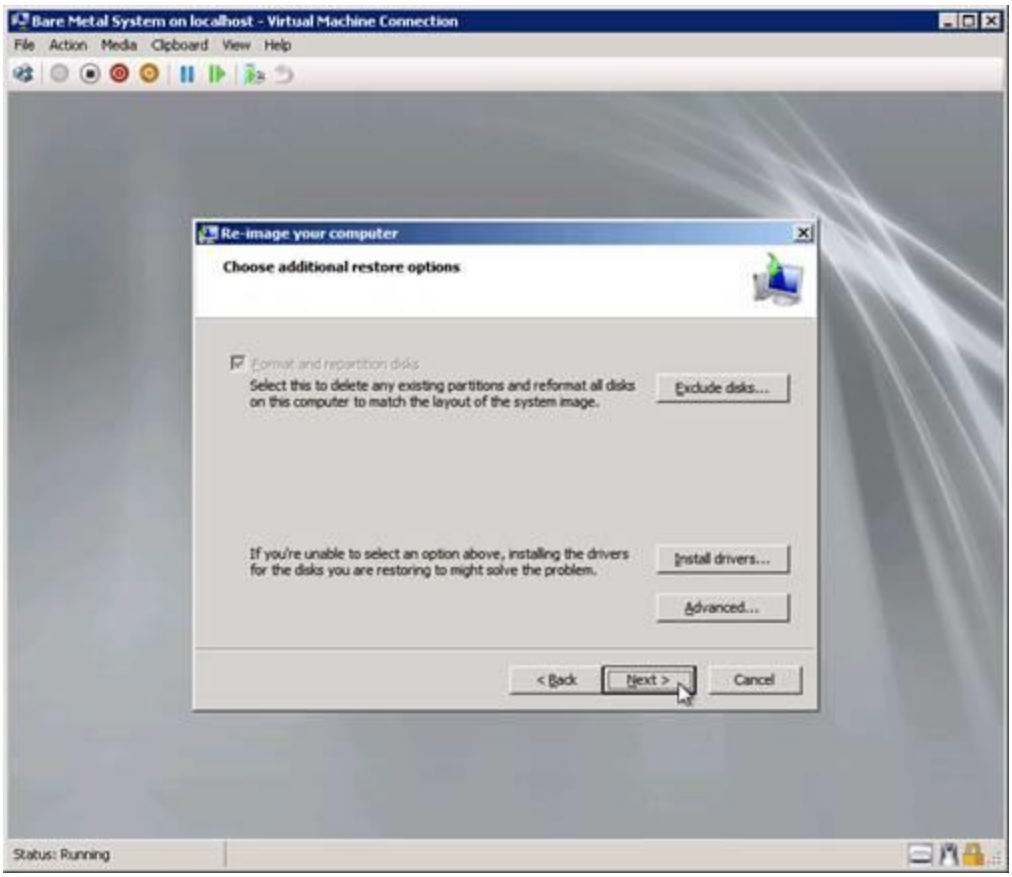

Figure 32: Step 13 of restoring to bare metal

If you click Advanced, you can see that the system will automatically restart once the restore process is finished and will also check the disk for errors. We'll leave both of these options selected:

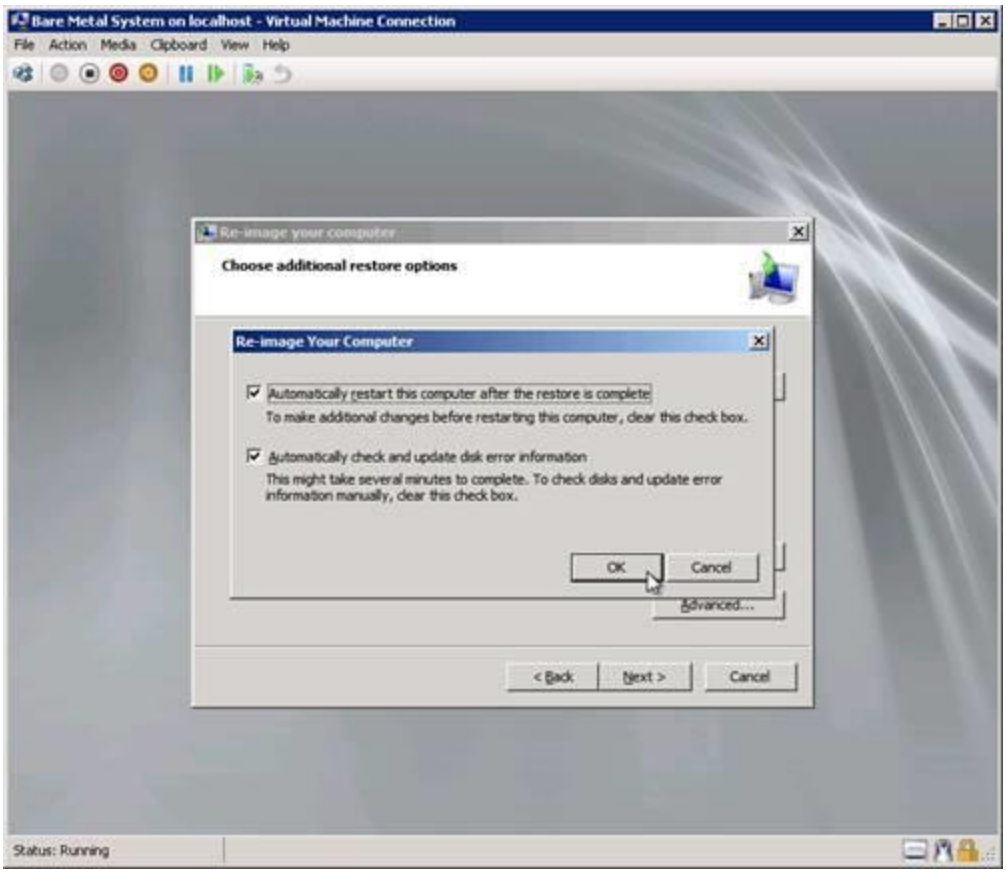

Figure 33: Step 14 of restoring to bare metal

Clicking Next asks us to confirm our selections:

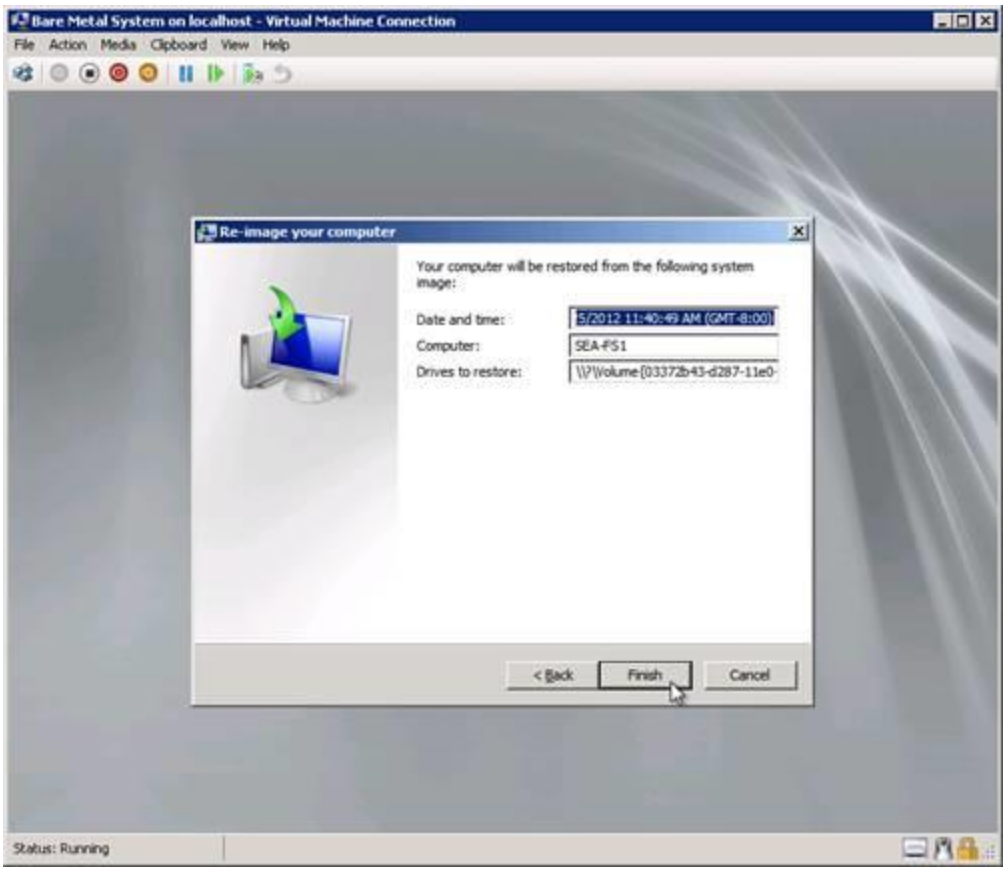

Figure 34: Step 15 of restoring to bare metal

Click Yes to confirm that YES I DEFINITELY WANT TO RESTORE FROM BACKUP:

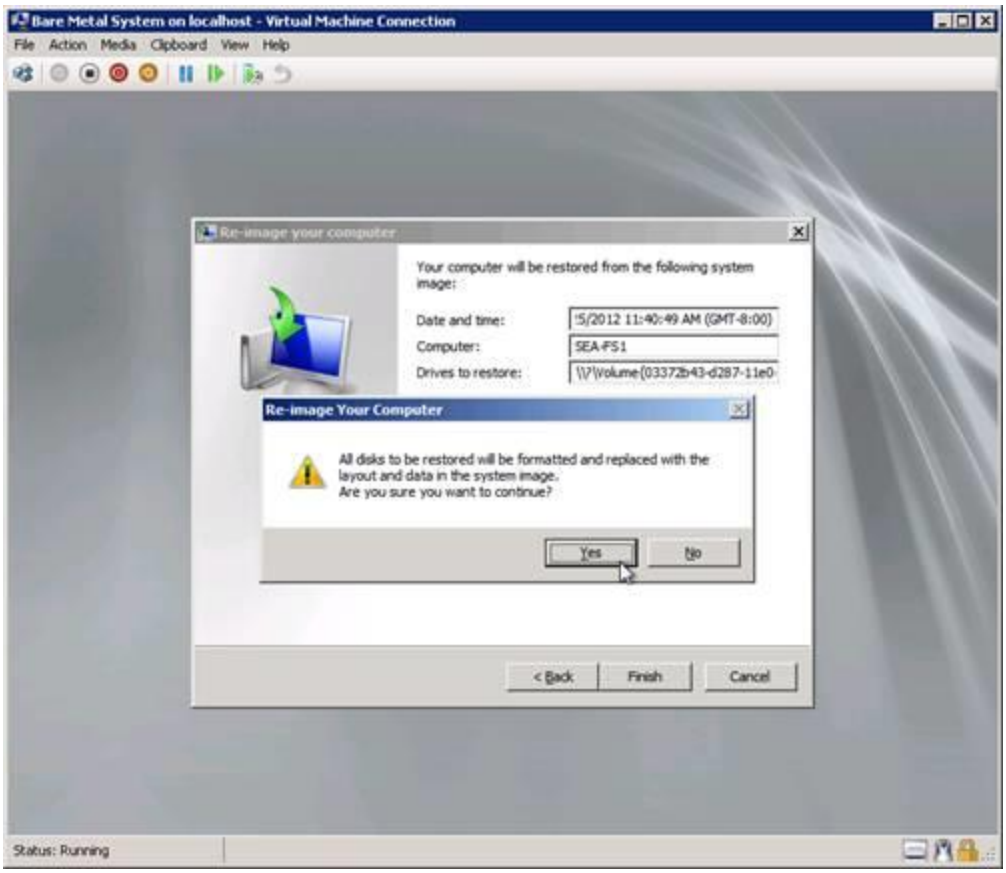

Figure 35: Step 16 of restoring to bare metal

NOTE: Make sure the hard drive of the bare metal system you are restoring to is equal to or larger in size than the hard drive of the system that failed. If this is not so you will get an error message here saying that the restore failed.

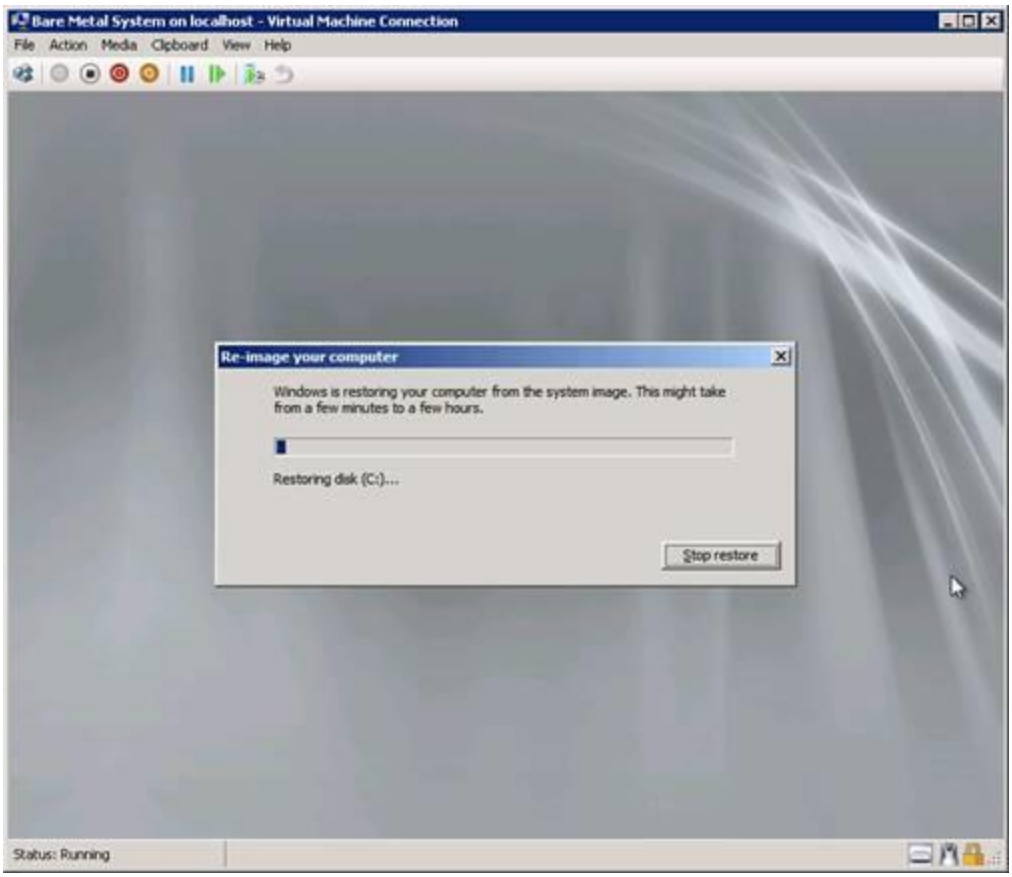

Figure 36:

Once the restore to bare metal finishes and the machine reboots, we log on and verify that our recovered server has the same name as our original server (compare the figure below with Figure 1 at the beginning of this article):

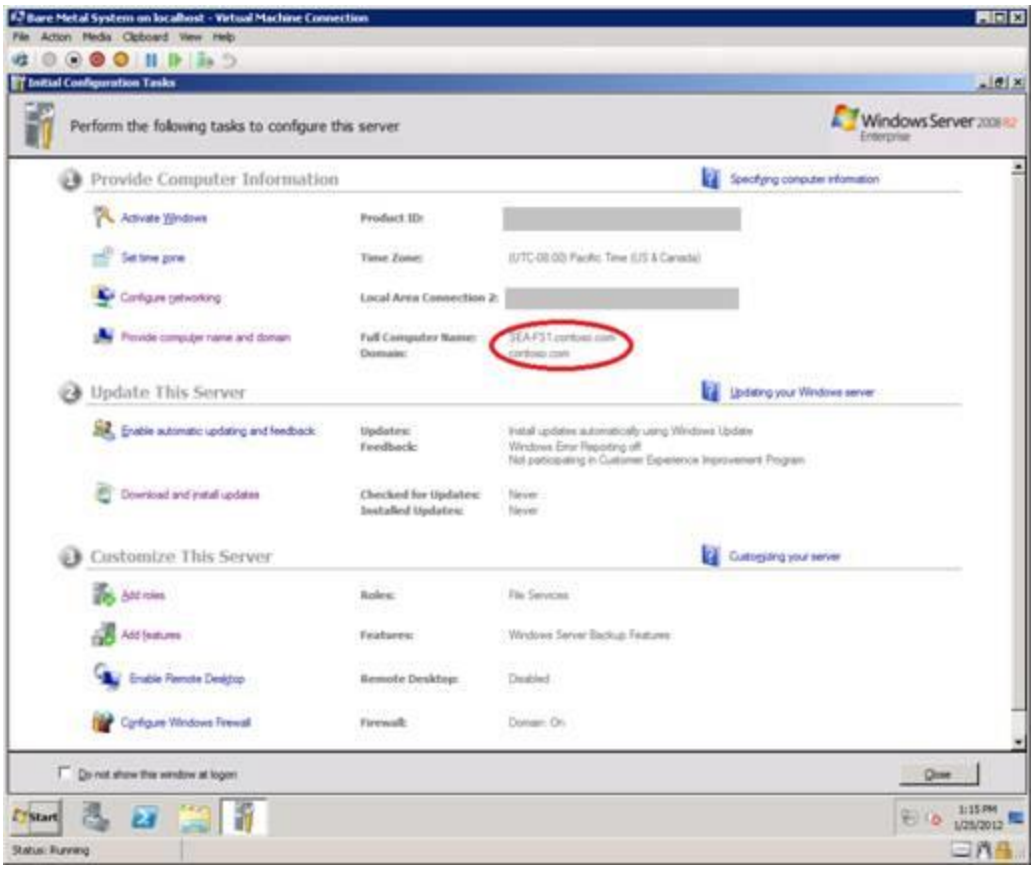

Figure 37 : The restore is finished.