

ZENworks Configuration Management 11.2: Core Troubleshooting Lab

ZEN13

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SECTION 1 **Core Troubleshooting Exercises**

This workbook provides the exercises for the ZENworks 11 SP2 Core Troubleshooting session. This includes the following three exercises:

1. [“Start the lab environment” on page 6](#)
2. [“Using Troubleshooting Tools” on page 7](#)
3. [“Troubleshooting Exercise” on page 11](#)
4. [“Troubleshooting Exercise Walkthrough” on page 12](#)

Exercise 1-1 Start the lab environment

If your instructor has not previously started the lab environment you will need to follow these steps to get your ZENworks Server and test workstation started.

1. Start the ZENworks Primary Server.
 - a. Launch VMware Workstation.
 - b. Power on the **ZENworks Server** virtual machine.
2. Power on the **WinXP-Client** virtual machine.
3. Login to the Windows XP Workstation as **Administrator** with a password of **n0v3ll**
4. At the ZENworks Login window, click **Cancel**.

You now have the necessary virtual machines to complete the rest of the exercises in this workbook.

(End of Exercise)

Exercise 1-2 Using Troubleshooting Tools

In this exercise you install and use some of the basic tools for troubleshooting problems with the ZENworks Adaptive Agent for Windows.

1. Install Wireshark on the Windows Host PC.
 - a. On the Host PC, browse to **C:\labs\coretbl**
 - b. Double-click **wireshark.exe**
 - c. If you receive a UAC prompt, select **Yes** to allow the install to continue.
 - d. At the Welcome screen, click **Next**.
 - e. At the Licensing page, click **I Agree**.
 - f. At the Choose components page, click **Next**.
 - g. At the Select Additional Tasks page, click **Next**.
 - h. At the Choose Install Location page, click **Next**.
 - i. At the Install WinPcap page, click **Install**.
 - j. At the WinPCap Installer page, click **Next**.
 - k. At the WinPcap Setup Wizard page, click **Next**.
 - l. At the License Agreement page, click **I Agree**.
 - m. At the Installation options page, click **Install**.
 - n. At the Completing WinPcap Setup Wizard page, click **Finish**.
 - o. At the Installation Complete page, click **Next**.
 - p. Check the **Run Wireshark** checkbox.
 - q. Click **Finish**.
2. Copy the ZENworks server SSL private key to the Host PC.
 - a. Make the **ZENworks Server** virtual machine the active VM.
 - b. Login as **root** with a password of **n0v3ll**
 - c. Right click the desktop and select **Open in Terminal**.
 - d. At the command prompt, enter **cp /etc/opt/novell/zenworks/security/server.key /mnt/hgfs/coretbl**
3. Configure Wireshark to use the SSL key for decoding SSL traffic to the ZENworks server.
 - a. Make Wireshark the active window.
 - b. Select **Edit > Preferences**.
 - c. Select **Protocols > SSL**.
 - d. Click the **Edit...** button next to the RSA keys list field.
 - e. Click **New**.
 - f. In the IP Address field, enter **172.17.6.245**.
 - g. In the Port field, enter **443**.

- h. In the Protocol field, enter **http**.
 - i. In the Key file field, enter **c:\labs\coretbl\server.key**
 - j. Click **OK**.
 - k. Click **OK**.
 - l. Click **OK**.
 4. Test Wireshark and verify that it is properly decoding SSL traffic.
 - a. Open a command prompt.
 - b. Type **ipconfig**.
 - c. Find the section related to VMNet5 and notice the IPv6 and IPv4 addresses.
 - d. In Wireshark select **Capture > Interfaces**.
 - e. Click the **Start** button next to the interface that has the address of the VMNet5 adapter.
 - f. Restart the Windows XP virtual machine.
 - g. In your wireshark trace you will hopefully see a number of incoming packets that have a green background indicating that they are HTTP packets.
 - h. One of these should be a zenworks-ping and another a zenworks-registration request.
 - i. Close Wireshark.
 5. Install LDAP Browser.
 - a. On the host PC, browse to **c:\labs\coretbl**
 - b. Doubleclick **ldapbrowser.msi**.
 - c. If you get a file security warning, click **Run**.
 - d. At the Welcome screen, click **Next**.
 - e. At the License Agreement screen, select **I accept the license agreement**
 - f. Click **Next**.
 - g. At the Readme Information screen, click **Next**.
 - h. At the Destination folder screen, click **Next**.
 - i. At the Select Installation Type screen, click **Next**.
 - j. At the Ready to Install screen, click **Next**.
 - k. If you receive a UAC prompt, click **Yes**.
 - l. At the successfully installed screen, click **Finish**.
 6. Use LDAP Browser to test the LDAP connectivity of your user source.
 - a. From the Start Menu launch **Softerra LDAP Browser 4.5**
 - b. At the pop-up click **OK**.
 - c. Click **New > New Profile**
 - d. In the Profile Name field, enter **ZENworks**.

- e. Click **Next**.
 - f. In the Host field, enter **172.17.6.245**
 - g. In the Port field, enter **636**
 - h. Check **Use secure connection (SSL)**
 - i. Click **Fetch Base DNs**
 - j. At the Security Alert pop-up, check **Keep this setting until the end of the session**.
 - k. Click **Yes**.
 - l. In the Base DN field, select **o=da**
 - m. Click **Next**.
 - n. Click **Fetch Supported**.
 - o. In the Principal field, enter **cn=zcmuser,o=da**
 - p. In the Password field, enter **N0v3ll123**
 - q. Check **Save password**.
 - r. Click **Finish**.
 - s. Double click **ou=hq** and verify you can see the users.
 - t. Close the LDAP browser.
7. Use ZAC to create a zeninfo package.
 - a. Make the XP-Client virtual machine the active VM.
 - b. Login as **Administrator** with a password of **n0v3ll**.
 - c. Cancel the ZENworks login.
 - d. Open a **command prompt** window.
 - e. At the command prompt, enter **zac zeninfo**
 8. Review the contents of the zeninfo package.
 - a. Right click **zeninfo-###.zip** and select **Extract All...**
 - b. Click **Next**.
 - c. At the Select a Destination page, click **Next**.
 - d. Click **Finish**.
 - e. Double click **debuglogs** and explorer the logs that were collected.
 - f. Go to the folder you extracted the files to.
 - g. Double click **propPageInfo** and browse the subdirectory with the HTML files to see what the z-icon pages look like.
 - h. Go to the folder you extracted the files to.
 - i. Double click **RefreshInfo**.
 - j. Double click **index.html** and explorer the refreshes that have occurred on the device.

- k. Go to the folder you extracted the files to.
- l. Double click **systemInfo**.
- m. Double click **sysInfo.nfo** to view the system information for the machine.

You now have the tools required to troubleshoot problems with the ZENworks agent. In the next section you will use these tools to troubleshoot a problem with the ZENworks agent.

(End of Exercise)

Exercise 1-3 Troubleshooting Exercise

In this exercise you will practice the troubleshooting techniques discussed in this session. In this scenario a user has contacted the helpdesk (GHanley) and indicates that he is not able to access the RunMe applications that is supposed to be on his desktop.

GHanley's Windows password is N0v3ll123. The ZENworks password for GHanley is n0v3ll.

1. Make the ZENworks Server virtual machine the active VM.
2. Select **VM > Snapshot > Troubleshooting**.
3. If prompted to continue, click **Yes**.
4. Power on the **ZENworks Server** virtual machine.
5. Make the **XP-Client** virtual machine the active VM.
6. Select **VM > Snapshot > Troubleshooting**.
7. If prompted to continue, click **Yes**.
8. Once the ZENworks Server virtual machine is all the way up, power on the **XP-Client VM**.
9. Troubleshoot the system until you are able to login as the GHanley user to Windows and ZENworks and you see and can execute the RunME application on the desktop.

If you need or want help in troubleshooting this scenario please refer to [“Troubleshooting Exercise Walkthrough” on page 10](#).

(End of Exercise)

Exercise 1-4 Troubleshooting Exercise Walkthrough

This section provides a step-by-step walkthrough for troubleshooting the session scenario. To recap, the user's complaint is that they are not getting the applications they expect showing up on their desktop and cannot run them. To troubleshoot this problem:

1. Login to the XP-Client virtual machine as GHanley with a password of N0v3ll123.
2. Check to see if the ZENworks login happened by right click z-icon and selecting Show Properties. Notice that the user is not logged in.
3. Notice at the bottom of the page that in the Agent Status information at the bottom of the page that User Management is not listed. This means that the user will never be able to login as the GINA components and other requirements for login are not present.
4. On the Host PC, launch Internet Explorer and browse to <https://172.17.6.245>
5. If you receive a security warning select Continue to the website.
6. Login as administrator with a password of n0v3ll.
7. At the License Notification, click OK.
8. Click the Devices > Workstations > Branches > xpsp3
9. Select the Settings page.
10. Expand Device Management and select ZENworks Agent.
11. Notice that User Management has been disabled. Either enable it and mark it active or Revert the settings to the zone level.
12. Refresh the agent. Notice that there is no change.
13. In z-icon properties go to Logging.
14. Click Clear Log.
15. Change the log level to Errors, Warnings, Information, Debug; then click Apply.
16. Refresh the agent.
17. When the agent finishes refreshing click View Log.
18. Search the log for the term "error". You should see the error : Error in the TLS certificate chain. Message: A required certificate is not within its validity period when verifying against the current system clock or the timestamp in the signed file.
19. Close the log.
20. Open Internet Explorer in the Virtual Machine and browse to <https://172.17.6.245>
21. Notice the error you get indicating a validity period issue. Click Continue to this website.
22. In the address bar click the Certificate Error and click View Certificates.

23. Check the valid from and to dates. Check the time of the local device, notice the time is before the valid time. Change the time to be the current time.
24. Clear the log and refresh the device.
25. Notice that the error is no longer in the log, however the agent still didn't install the user management components. Next check to see which servers are being used by the agent by looking under Status > Servers in z-icon.
26. Notice that it is blank. This means that in the current configuration the agent operates in a "disconnected" mode. You need to fix this.
27. In ZCC, go to Configuration > Locations > Unknown
28. Go to the Servers tab.
29. Uncheck Exclude the Closest Server Default Rule; then click Apply.
30. On the agent run the 'zac cc' command at a command prompt to clear the local cache. This forces the agent to read its configuration from the initial web service file.
31. Wait approximately 5 mins, then refresh the agent. This gives the server enough time recalculate the location response and then sends it to the agent.
32. In z-icon ensure that the new servers have shown up. Once this happens the device should get the information that the User Management agent is enabled and install it. This will prompt for a reboot of the device.
33. Attempt to login. Notice this time you are prompted for ZENworks credentials, but that they still fail. This means that the agent is now able to communicate with the server, but the authentication piece is failing.
34. In ZCC go to the Users tab.
35. Notice that the tree shows an error.
36. Go to Configuration > User Sources > DA-ZCM11-TREE. Notice the error message indicating that one or more connections do not support non-SSL.
37. At the confirmation dialog click OK.
38. Click the DA-eDir-tree connection link.
39. Click the Update button.
40. Click OK.
41. Click OK.
42. Go to the User tab.
43. Click DA.
44. Notice that the HQ container is not listed.
45. Launch LDAP Browser to validate the LDAP connectivity.
46. Click Yes next to Use SSL.

47. Browse the ZENworks profile and notice that the ou=hq container is not present. This indicates that either the container doesn't exist or the zenworks user doesn't have permissions.
 48. Make the ZENworks Server VM the active virtual machine.
 49. Login as root with a password of n0v3ll.
 50. Launch ConsoleOne.
 51. Login as admin with a password of N0v3ll123.
 52. Browse to HQ.DA.
 53. Right click and select Trustees of this object.
 54. Click Effective Rights.
 55. Browse to zcmuser.da; then click OK. Notice the user has no rights.
 56. Click Close.
 57. Click Add.
 58. Browse to the zcmuser.da user; then click OK.
 59. Click OK to grant the rights.
 60. Click OK to save the changes.
 61. In ZCC check to see if you can now see the HQ folder and its users.
 62. Verify you can now login on the device as ghanley to both Windows and ZCM.
 63. Assign the runme application to ghanley.
 64. Refresh the agent. Notice the application still doesn't show up.
 65. In ZCC publish the bundle so that it becomes available to non-test users and devices.
 66. Refresh the agent. The application should now be available and launch calc.
- (End of Exercise)**