

JMPS Simplified Load and Installation for Computers (J-SLIC) User's Guide For JMPS Enterprise Servers

Prepared By
SPAWARSSYSCEN San Diego, C4I Programs Office, Philadelphia, PA

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SPAWARSSYSCEN San Diego C4I Programs Office Philadelphia

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Revision History

Rev	By	Date	ECO/ECP	Description
0.1	Eugene Shpilsky	2/12/04	N/A	Initial release for J-SLIC Server Beta Version 0.2
0.2	Eugene Shpilsky	3/8/04	N/A	Minor corrections to some installation steps and references to the manual JMPS Server Load Instructions.

Contact Information

Name	Company	Phone Number	E-mail
Paul D. Meisinger	C4I Programs Office	215-214-8039	meisinge@spawar.navy.mil
Nhan Nguyen	C4I Programs Office	215-214-8000	jnguyen@spawar.navy.mil
Chris LaBohne	C4I Programs Office	215-214-8000	labohne@spawar.navy.mil
David Bartkus	Gnostech Inc	215-214-8000	dbartkus@gnostech.com
Joseph Mountain	Gnostech Inc	215-214-8000	mountain@gnostech.com
Charlie Pittman	Gnostech Inc.	215-214-8000	cpittman@gnostech.com
Betty Meyers	Gnostech Inc.	215-443-8660	bmeyers@gnostech.com
Eugene Shpilsky	Gnostech Inc.	215-443-8660	genes@gnostech.com

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1. Introduction

The JMPS Simplified Load and Installation for Computers (J-SLIC) is an automated deployment method for JMPS. It has been designed to minimize the required user interaction during the installation while producing consistent loads across the JMPS User Community. The J-SLIC process will load the basic system components, JMPS required applications, the JMPS software, and 3rd party software required for JMPS Enterprise Server operation. This document outlines the setup instructions for the J-SLIC load.

2. Necessary Items

The following items will be required:

- Two J-SLIC Server DVDs, one for each Enterprise Server (both DVDs are bootable)
- JMPS Installation CD (a default version of JMPS is provided on the DVD however, if desired or needed, a different version can be loaded)
- JMPS Server Loading and Configuration document v. 1.7

3. System Configuration

The J-SLIC Server Load will install Windows 2000 Advanced Server, the necessary system drivers, COE, the required JMPS COE Segments, and all 3rd party software necessary for JMPS system operation. The system hard disks will be configured in the standard COE 3 partition scheme (C: System, D: Segments and E: Data).

4. Customization

This image will provide the basic operating system and software components. It is assumed that the system administrator will perform all the necessary post-install custom setup and configuration. These custom details will include some of the following items:

1. Setup of JMPS User accounts
2. Assignment of default printer(s)
3. Norton virus definition updates (if required), scheduling of virus scans
4. Map Data additions / updates

5. J-SLIC Server Loading Procedure

NOTE

These procedures will cause the existing contents of the target hard drives to be completely overwritten. Ensure that all the necessary data has been backed up from the target drive prior to execution.

Operator must have a printed version of this manual and JMPS Server Loading and Configuration Manual v1.7 in order to complete the process.

Prior to executing the steps below, remove fibre connections from the bottom HBAs on both servers. Also turn off the second Ciprico RAID. Then disconnect controller B on the first RAID from the Brocade switch. Only 3 initial fibre connections shown in blue in Figure 7 - JMPS Enterprise System Overview of JMPS Server Loading and Configuration Manual v1.7 should be made.

NOTE

Steps 1 - 20 must be performed on both servers and may be executed at the same time.

1. Turn on the server and place the Server J-SLIC bootable DVDs into the DVD drive.
2. After about 30 seconds the following will appear on the screen.

JMPS J-SLIC Enterprise Server 1 Installer v0.2d

- 0) Exit J-SLIC installer and preserve existing JMPS installation, if any
- 1) Configure DL380 BIOS and RAID controller
- 2) Perform JMPS server load using the J-SLIC installer

Type your choice (0, 1, or 2) at the prompt and press the "Enter" key ...

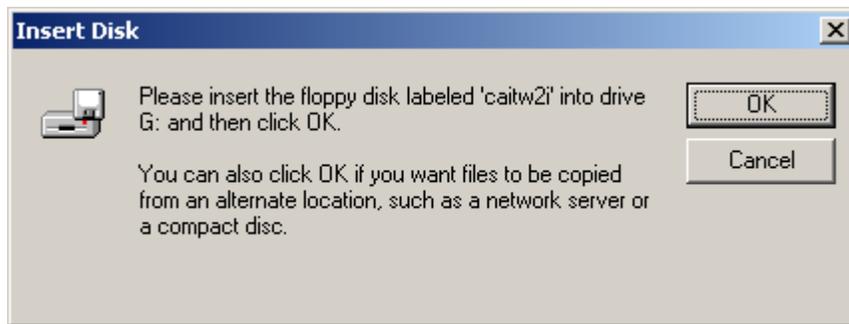
boot:

3. Press 1 to configure the DL380 BIOS and RAID controller and press the "Enter" key.
4. After some diagnostic messages, the following will appear on the screen:

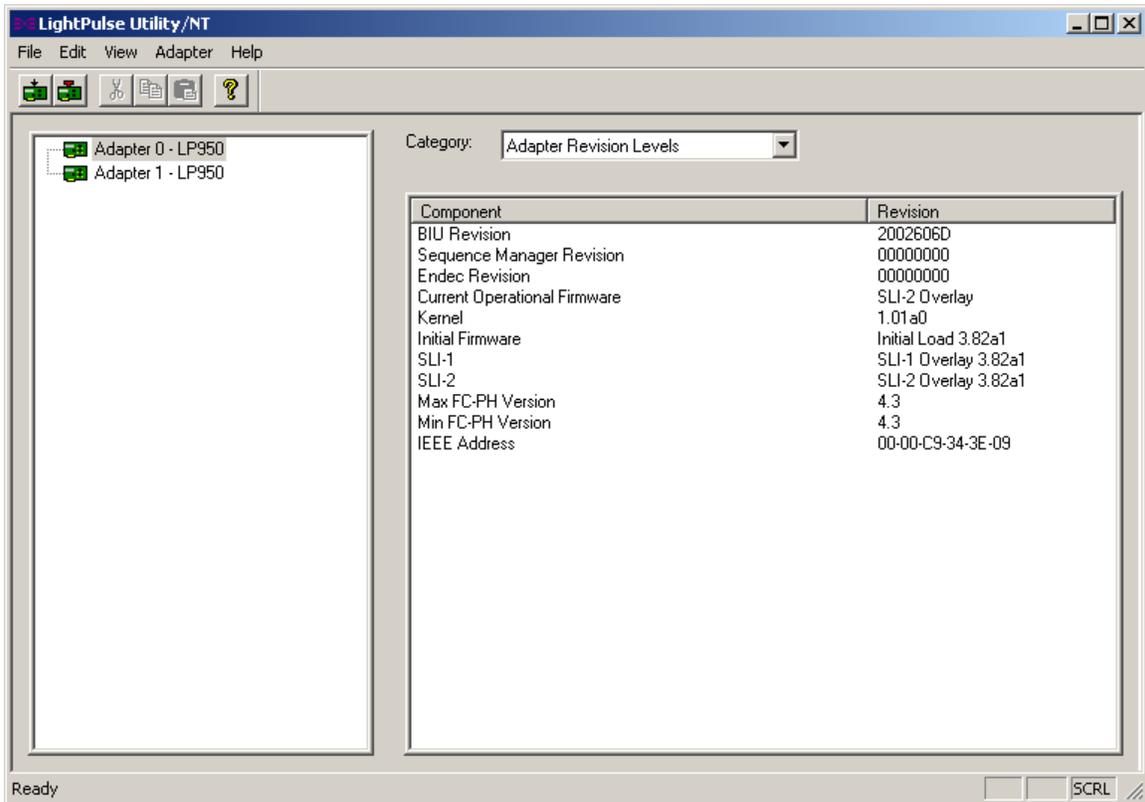
Configuring DL380 BIOS. Please Wait ...
BIOS Configuration completed successfully!

Configuring DL380 RAID Controller:
Type 1 for 36 GB drives or type 2 for 72 GB drives --->

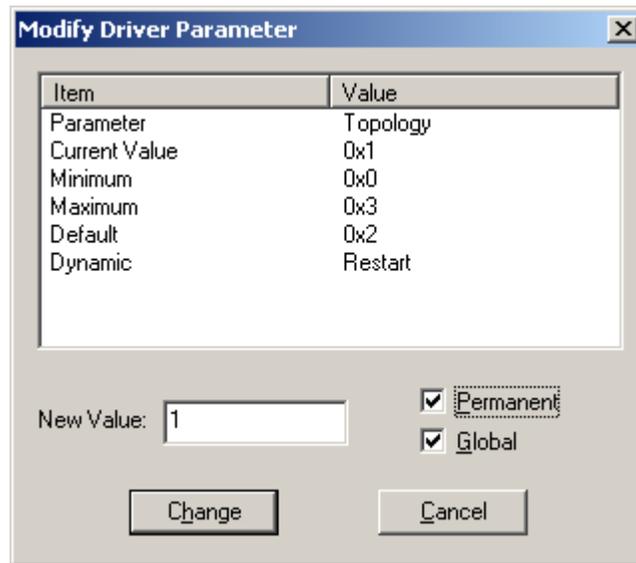
5. Select the right hard drive choice based on the current server configuration. There is no need to press the Enter key after inputting the right choice. *Note: Older DL380 servers were purchased with 36 GB drives. Newer ones came with 72 GB drives.*
6. DL380 RAID controller will be automatically configured and the server will reboot itself.
7. After rebooting, the server will go to the initial boot screen with 3 choices shown in step 2.
8. This time, press 2 to perform JMPS server load and press the “Enter” key.
9. After some diagnostic messages, a PowerQuest ImageCenter window will appear. The window will show the progress of the server image restore.
10. This process will take 40-50 minutes! Wait for the process to complete.
11. When finished, the server will automatically eject the J-SLIC bootable DVD and will reboot itself.
12. At this point, the J-SLIC bootable DVD can be taken out of the drive.
13. Windows 2000 Server Setup window will come up. Enter the name and organization and click Next.
14. *Note: The licensing Mode screen will flash by and will show only 5 Windows CALs (Client Access Licenses). In reality, there are 25. It is only that screen that temporarily shows 5 licenses.*
15. Server will reboot itself and automatically continue.
16. JSLIC screen will appear after an automatic logon. There is a 60 second wait after every reboot to synchronize system processes before JSLIC can continue.
17. Upon reboot, the following window **may** come up. Follow instructions below to load the caitw2i driver if the window below comes up. If not, skip to step 19.



18. Perform the following steps to load the caitw2i.sys file.
 - a. Click OK.
 - b. Click on Browse.
 - c. Navigate to C:\system software\AIT50 Tape Driver\Drivers\StandAloneTapeDrives\W2000\ait\caitw2i.sys
 - d. Double click on this .sys file.
 - e. Click OK.
 - f. Click Finish
 - g. Click NO when prompted for reboot. DO NOT REBOOT!!!
19. Set the Fiber HBA driver parameter
 - a. Go to winnt\system32
 - b. Double click on lputilnt.exe. The following window will come up.

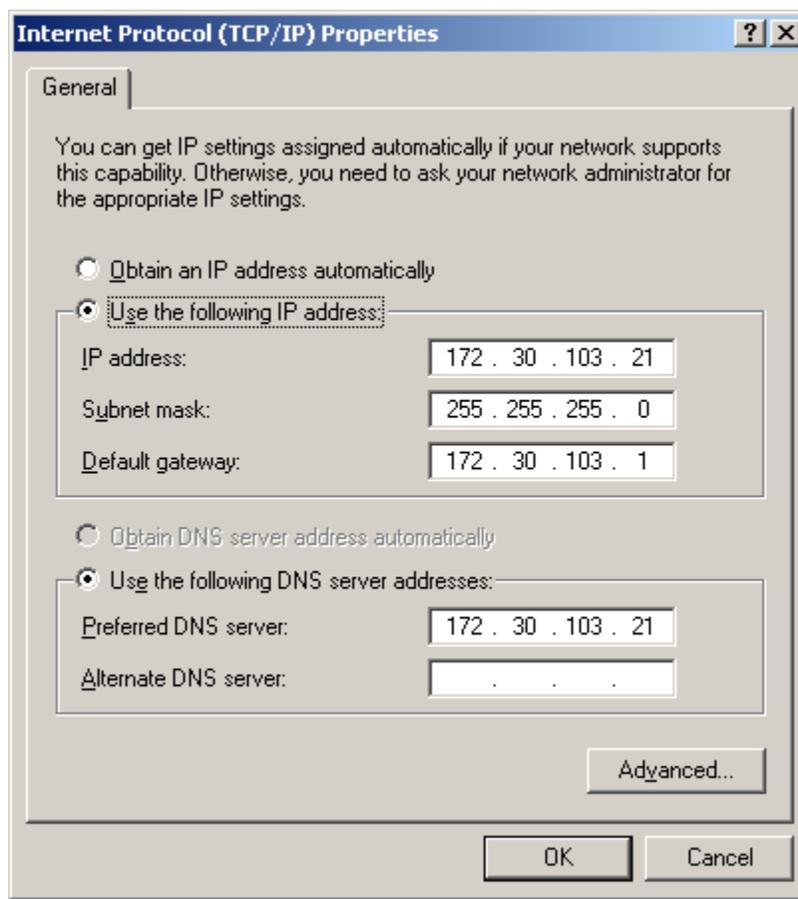


- c. In the category drop down menu, select Driver Parameters.
- d. Scroll down until Topology is visible.
- e. Double click on Topology. The following window will come up.

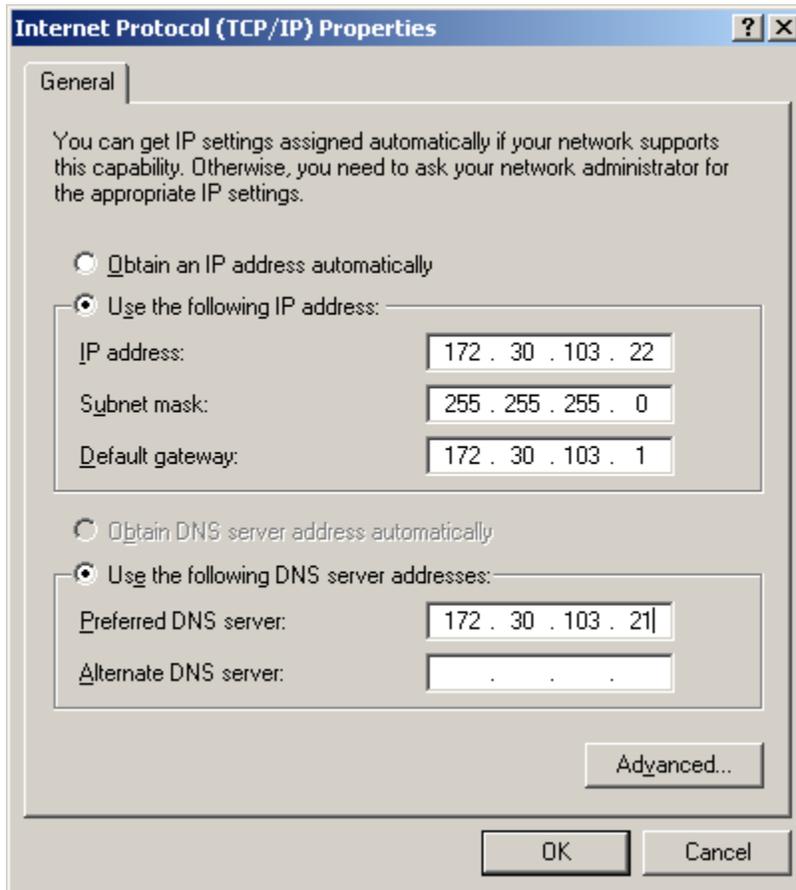


- f. Enter 1 for New Value.
 - g. Check the Permanent box and verify that the Global box is also checked.
 - h. Click Change.
 - i. File → Exit to quit.
20. Depending on the monitor, the display refresh rate may need to be set.
- a. Right-click on the blue Windows screen background and select Properties.

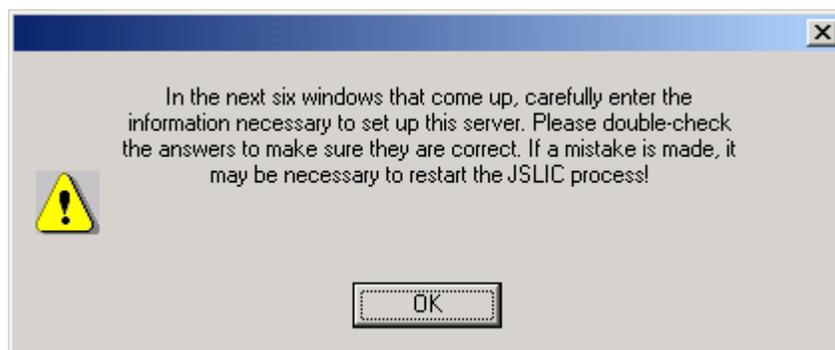
- b. Click on Settings.
 - c. Click on Advanced
 - d. Click the Monitor tab
 - e. Set the Refresh rate to 75 (or whatever the optimal monitor refresh rate is)
 - f. Click OK
 - g. Click OK
 - h. Click Yes
 - i. Click OK
 - j. Repeat on the second server
21. Configure networking on the first server. An example is included below.
- a. Right-click on My Network Places and select Properties
 - b. Right-click on Local Area Connection and select Properties. Note: Verify that Local Area Connection is the Gigabit NIC by single-clicking on it and looking at the status bar at the bottom of the window.
 - c. Double-click on TCP/IP.
 - d. Set the IP, subnet mask, default gateway, and preferred DNS.
- Note: PREFERRED DNS MUST BE EXACTLY THE SAME AS THE IP ADDRESS.**
- e. Leave the Alternate DNS server blank.
 - f. Click OK.
 - g. Click OK.



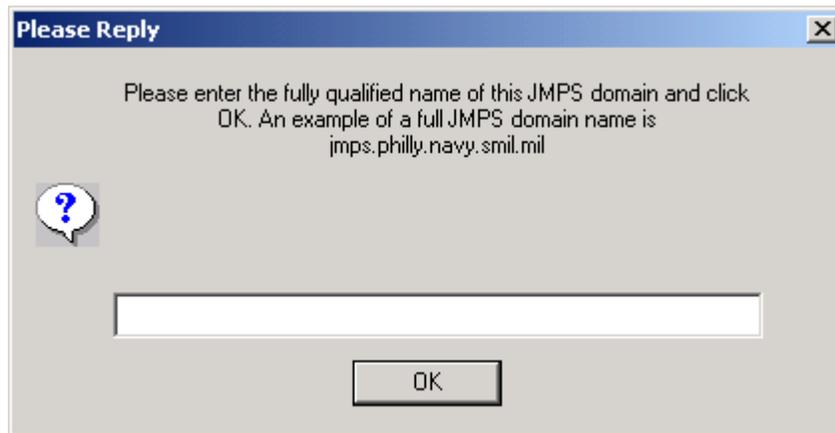
22. Configure networking on the second server according to steps above. Leave the Alternate DNS blank **Note: PREFERRED DNS ON THE SECOND SERVER MUST BE THE SAME AS THE IP ADDRESS ON THE FIRST SERVER!** See example below.



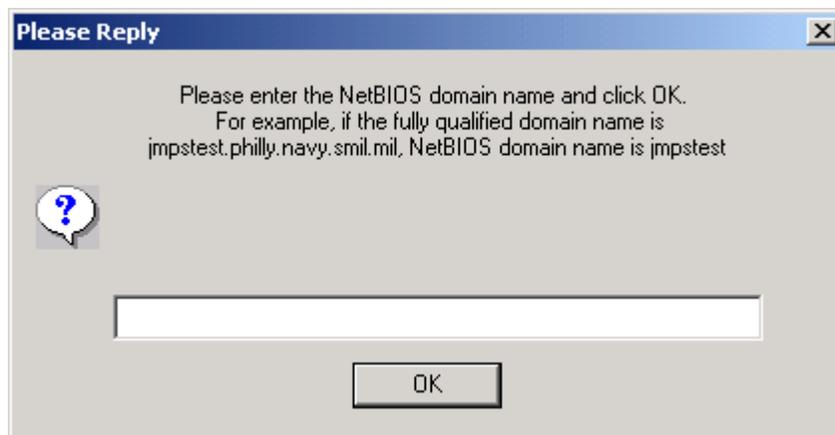
23. Back on the JSLIC window, select the Classification level and click OK.
24. Click Continue.
25. Set keyman and secman passwords.
26. Set the time zone, click Apply, and then set the time. Click OK when finished.
Time zones MUST be the same on both servers.
27. Click Continue.
28. The following window will come up on JMPSSV1.



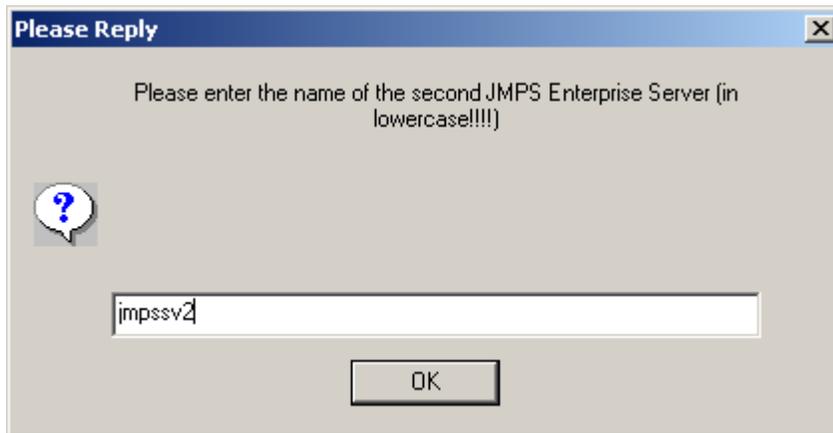
29. Carefully read the message and acknowledge by clicking OK.
30. The following window will come up on JMPSSV1.



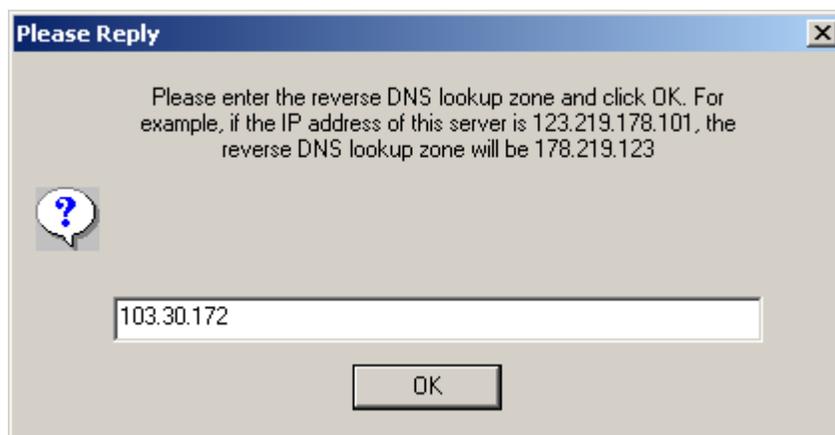
31. Carefully read the message and enter the fully qualified name for the JMPS domain that is being configured. An example of a fully qualified domain name is jmps.chinalake.navy.smil.mil or jmpslite.ptmugu.navy.smil.mil.
32. The following window will come up on JMPSSV1.



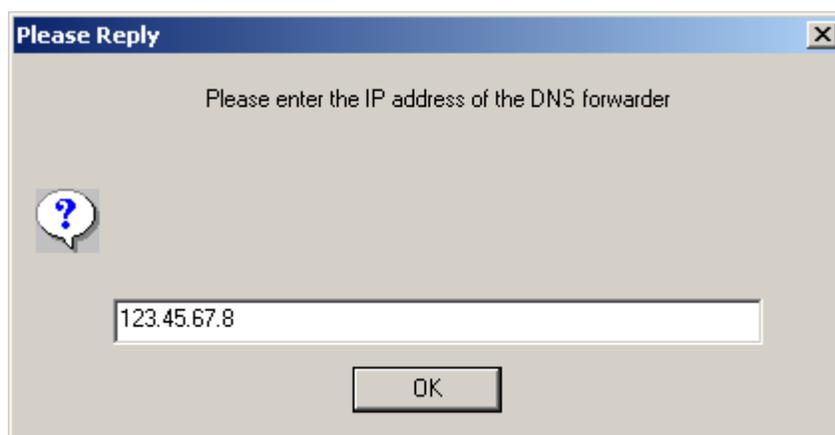
33. Carefully read the message and enter the NetBIOS domain name for the JMPS domain that is being configured. If the fully qualified domain name is jmpstest.chinalake.navy.smil.mil, NetBIOS domain name will be jmpstest.
34. The following window will come up on JMPSSV1.



35. Carefully read the message and enter the name of the second JMPS Enterprise Server in lowercase. Enter “jmpssv2” as shown above.
36. The following window will come up on JMPSSV1.



37. Carefully read the message and enter the reverse DNS lookup zone of the JMPS domain that is being configured.
38. The following window will come up on JMPSSV1.



39. Carefully read the message and enter the IP address of the DNS forwarder of the JMPS domain that is being configured. On a ship, this may be a GOTS/DELTA system or any other existing DNS server with access to the outside network.

40. The following window will come up on JMPSSV1.



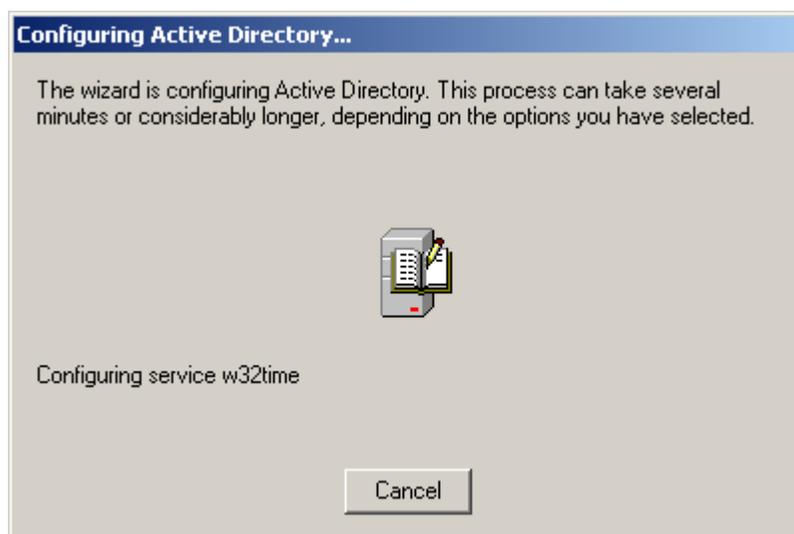
41. Carefully read the message and enter the IP address of the second server.

42. The following window will come up on JMPSSV1.



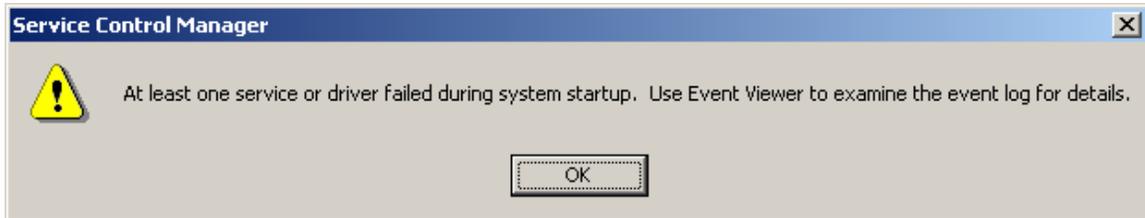
43. Carefully read the message and acknowledge by clicking OK.

44. The following window will appear during the Active Directory installation.



45. Active Directory will be installed on JMPSSV1 and the server will then automatically reboot.

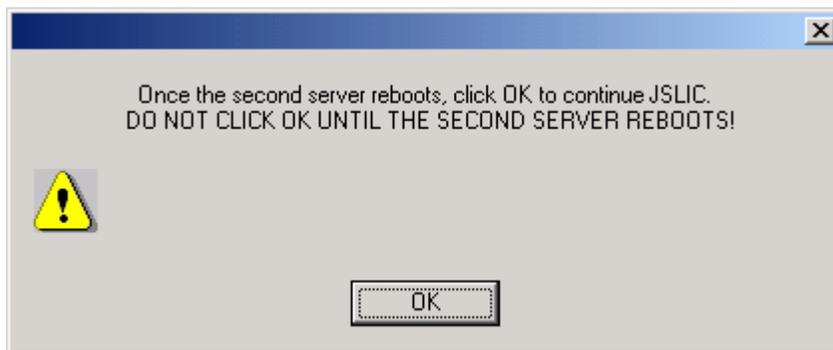
46. Once JMPSSV1 comes up, a standard Windows 2000 logon window **may** appear. Enter “Administrator” for the User name and “#Admin02” for the Password and click OK to log in.
47. The following window **may** appear after the reboot. This is normal. Click OK if the window comes up.



48. The following window will come up on JMPSSV1.



49. Carefully read the message and acknowledge by clicking OK.
50. The following window will come up on JMPSSV1.



51. Carefully read the message! DO NOT CLICK OK until the second server completes Active Directory installation, reboots automatically, and then automatically logs in as a domain Administrator. A standard JSLIC background window will appear once the second server is ready to continue.
52. Configure Your Server Wizard will come up on the second server. Uncheck the box and close the wizard. The window is shown below.



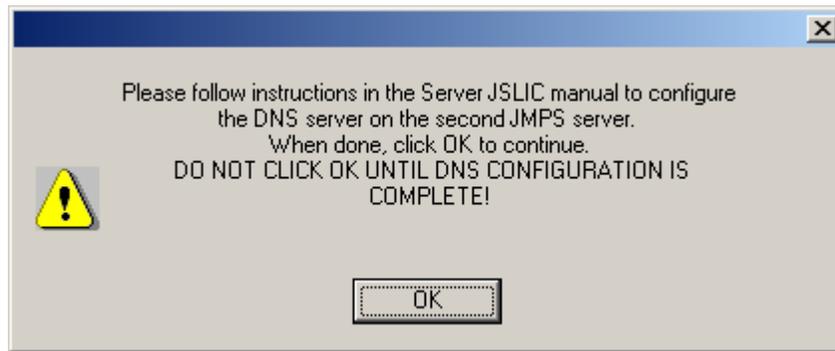
53. The following window will come up on JMPSSV1.



54. Carefully read the message and acknowledge by clicking OK.

55. DNS server will be installed and configured on JMPSSV2. Be patient! This may take 1-2 minutes.

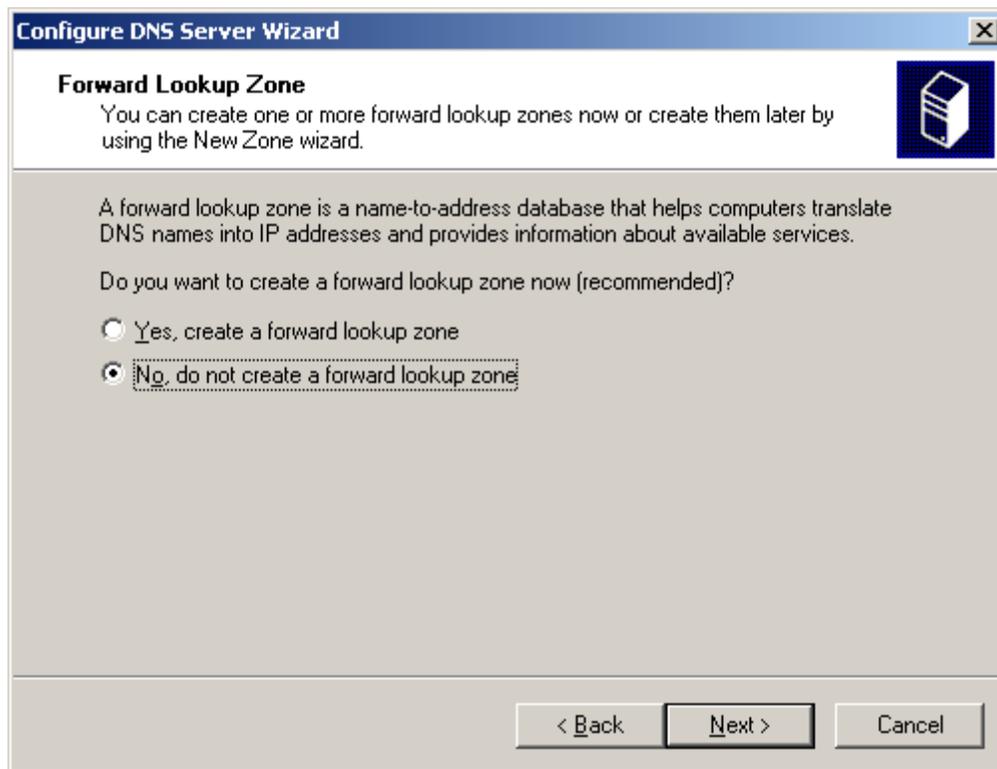
56. The following window will then come up on JMPSSV1.



57. Carefully read the message! Follow instructions below to configure the DNS server on JMPSSV2. DO NOT CLICK OK until the DNS server on JMPSSV2 is configured.
58. To configure the DNS server on JMPSSV2, perform the following steps:
 - a. Go to Start → Programs → Administrative Tools → DNS.
 - b. Right-click on the server name (JMPSSV2) and select Configure Your Server. The following window will come up.



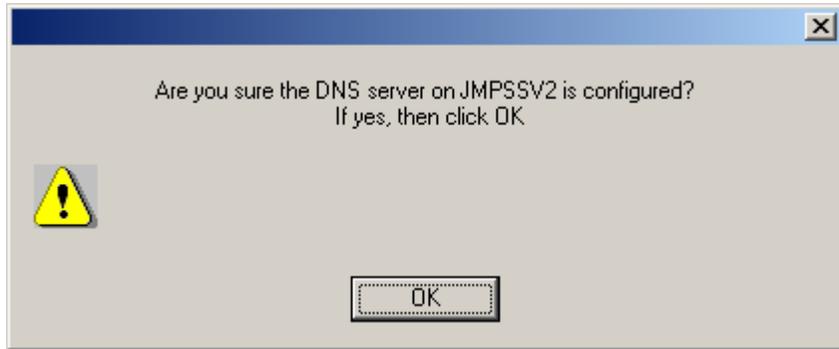
- c. Click Next. The following window will come up.



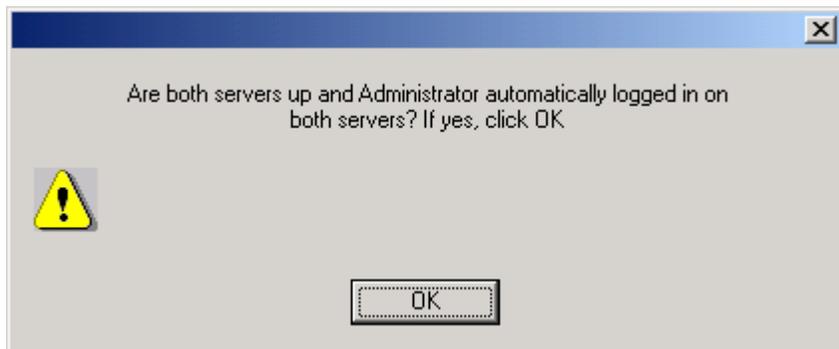
- d. Select No, do not create a forward lookup zone, and then click Next.
- e. The following window will come up.



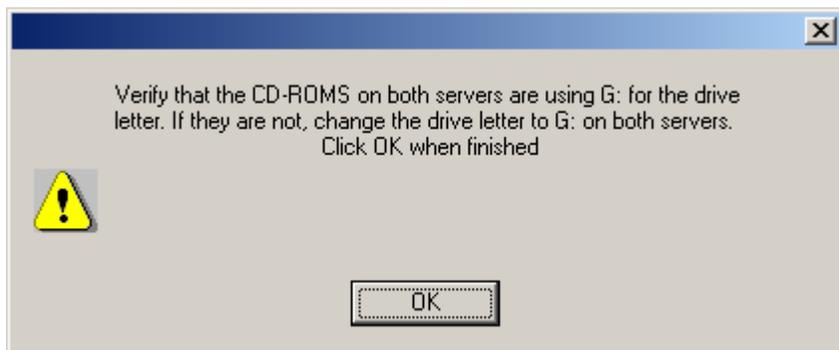
- f. Click Finish.
59. The following window will then come up on JMPSSV1.



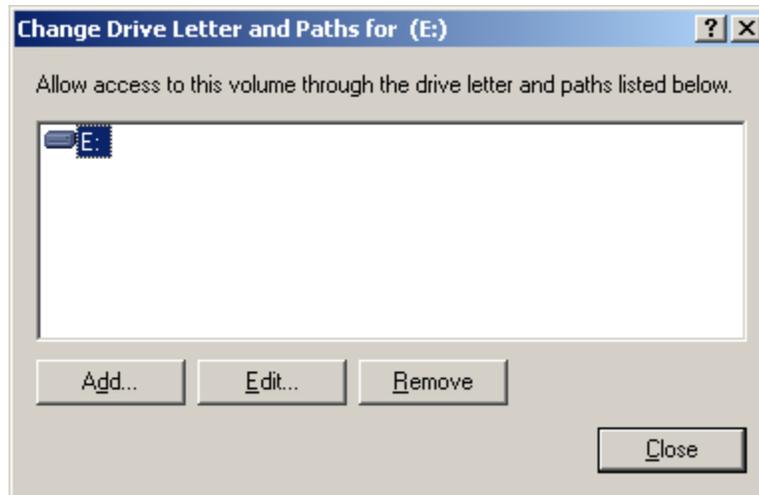
60. Carefully read the message and acknowledge by clicking OK.
61. DNS configuration will complete and Message Queuing Services will be installed on both servers. Be patient! This will take 2-3 minutes. Both servers will be rebooted automatically.
62. Once the servers reboot, log into both manually using the User ID and Password listed above.
63. The following window will then come up on JMPSSV1.



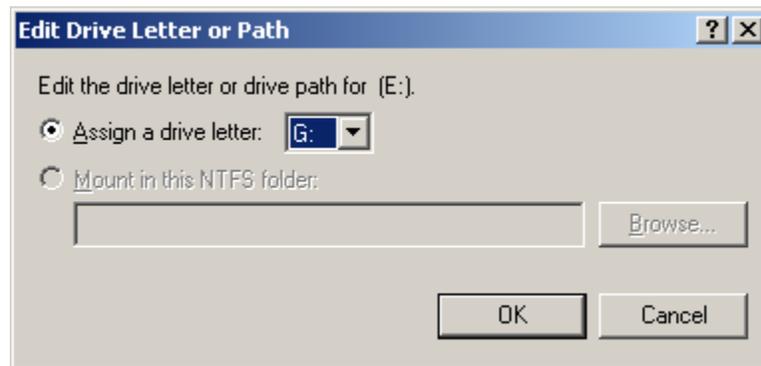
64. Carefully read the message and acknowledge by clicking OK.
65. The following window will then come up on JMPSSV1.



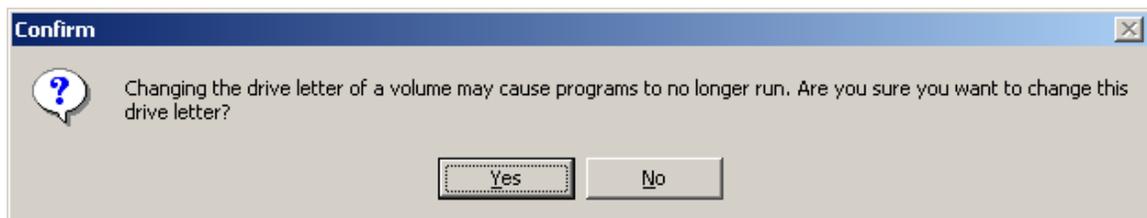
66. Carefully read the message! Verify that the DVD-ROM drives on both servers are using the letter G. If not, follow the steps below to change the drive letters. Click OK when done.
 - a. Right-click on My Computer and select Manage.
 - b. Click on Disk Management under storage
 - c. Right-click on CDRom 0 and select Change Drive Letter and Path.



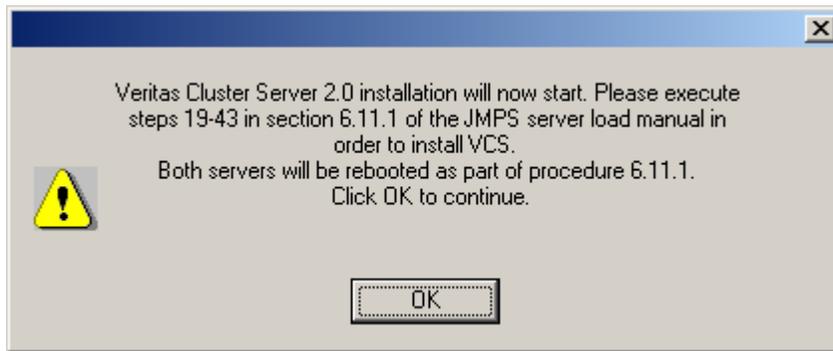
- d. Click Edit
- e. Select G for the drive letter and click OK.



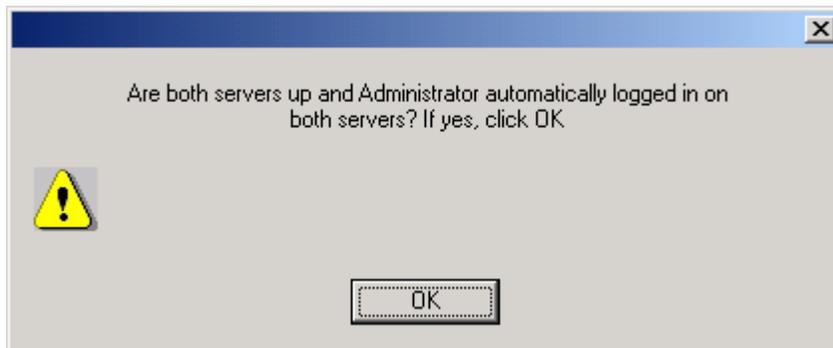
- f. Click Yes to the warning about drive letter change.



- g. Close Computer Management.
 - h. Repeat on the second server.
67. The following window will then come up on JMPSSV1.



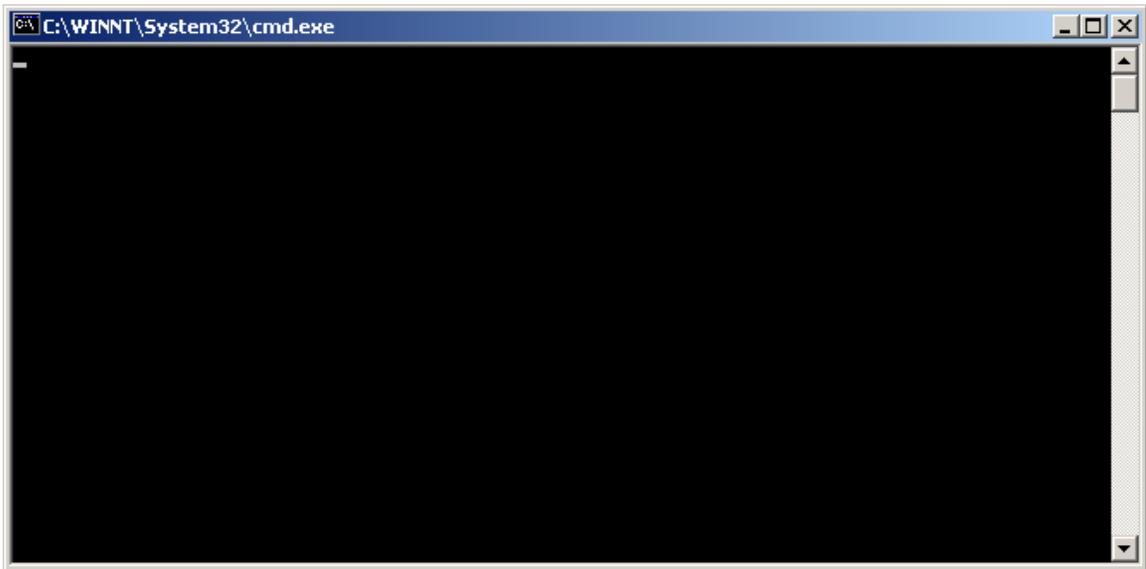
68. Carefully read the message and acknowledge by clicking OK. Veritas Cluster Server 2.0 installation will start automatically. Perform steps 19-43 in section 6.11.1 of the JMPS Server Loading and Configuration Manual v. 1.7 to install Veritas Cluster Server 2.0.
69. Once the servers reboot, the following window will come up on JMPSSV1.



70. Carefully read the message and acknowledge by clicking OK.
71. The following window will then come up on JMPSSV1.



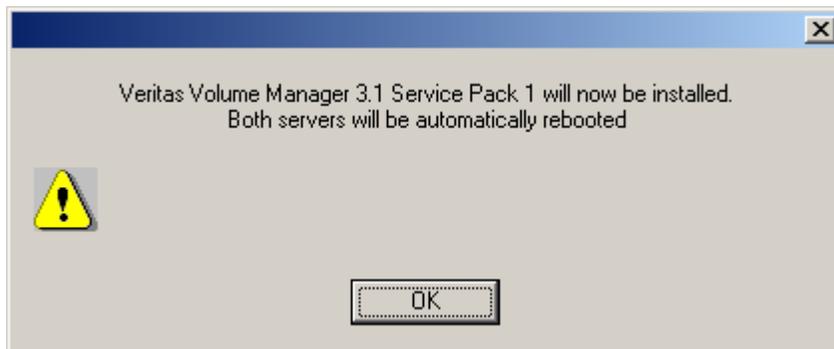
72. Carefully read the message and acknowledge by clicking OK.
73. The following window will then come up on JMPSSV1 and then on JMPSSV2 as part of the installation. This is normal.



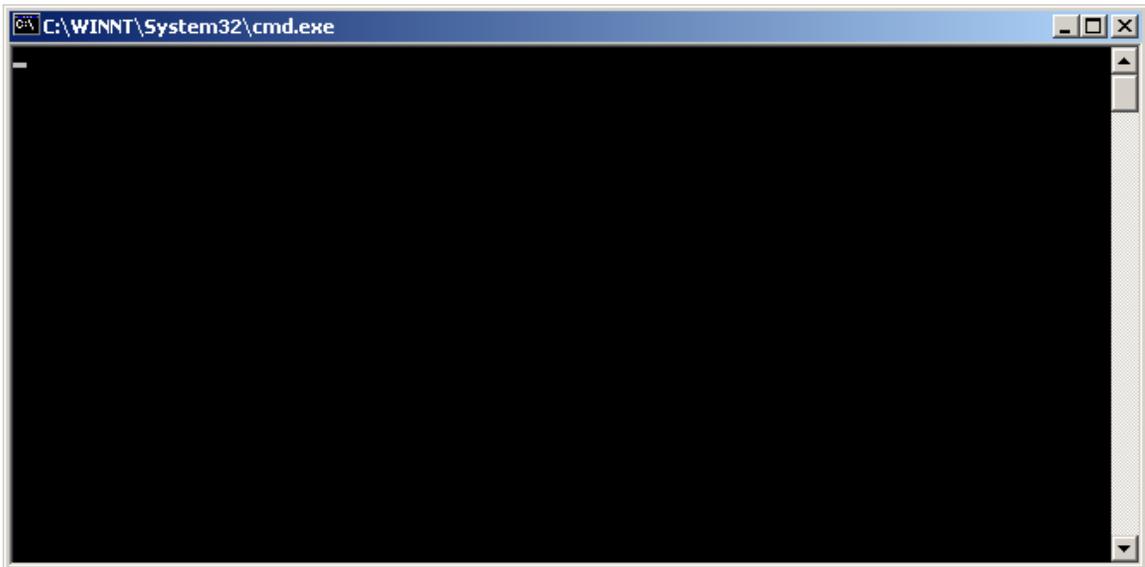
- 74. Volume Manager installation will take 3-4 minutes. Be patient! Both servers will be rebooted automatically.
- 75. Once the servers reboot, the following window will come up on JMPSSV1.



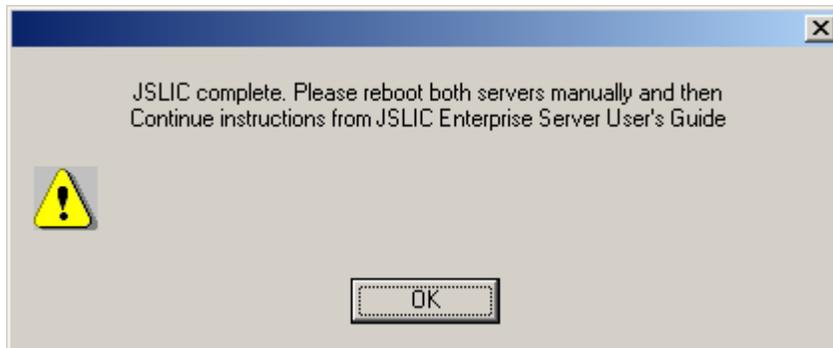
- 76. Carefully read the message and acknowledge by clicking OK.
- 77. The following window will then come up on JMPSSV1.



- 78. Carefully read the message and acknowledge by clicking OK.
- 79. The following window will then come up on JMPSSV1 and then on JMPSSV2 as part of the installation. This is normal.



80. Volume Manager 3.1 Service Pack 1 installation will take 3-4 minutes. Be patient! Both servers will be rebooted automatically.
81. Once the servers reboot, the following window will come up on JMPSSV1.



82. Carefully read the message and acknowledge by clicking OK.
83. J-SLIC processing is now complete and both servers must be rebooted manually.
84. Reboot JMPSSV2, wait 60 seconds, and then reboot JMPSSV1. **Note: DO NOT REBOOT BOTH SERVERS AT THE SAME TIME!**
85. The rest of the Enterprise Server setup will be performed manually.
86. Once the servers reboot, modify license keys for Volume Manager 3.1 on both servers by using the following steps.
87. Start Enterprise Administrator.
 - a. Go to Tools → System License
 - b. Enter the new license key (with dashes) and click Replace.
 - c. A warning message will come up asking if the license key should be replaced. Click OK to confirm.
 - d. A status message that the license key was replaced successfully will come up. Click OK to confirm.
 - e. Click Close and exit of out Enterprise Administrator.
88. Follow instructions in section 6.10.1 steps 29-45 of the JMPS Server Loading and Configuration Manual v. 1.7 to configure the RAID.

89. Follow instructions in section 6.13.1 to add disk signatures using Veritas Volume Manager 3.1. *Note: Depending on the previous Ciprico RAID configuration, it may not be necessary to add disk signatures.*
90. Follow instructions in section 6.14 to create dynamic disk groups. *Note: Depending on the previous Ciprico RAID configuration, it may be necessary to first delete previous basic or dynamic disk groups.*
91. Follow instructions in section 6.15 steps 1-26 to create dynamic volumes. *Note: Depending on the previous Ciprico RAID configuration, it may be necessary to first delete previous volumes.*
92. On JMPSSV1, copy the “Program Files” directory from C:\temp\sql to E:.
93. On JMPSSV1, copy the “data” and “temp” directories from C:\temp\MB to E:.
94. Follow instructions in section 6.17 to install the VCS SQL agent.
 - a. In steps 1-2, instead of using a CD, go to “C:\System Software\vcs sql” and double-click on Setup.exe to launch the VCS SQL agent installation program.
 - b. Perform steps 1-9. In step 9, do not uncheck the box to launch the VCS SQL agent installation wizard.
 - c. Skip steps 10-21 and continue with step 22.
 - d. In step 29, select the instance by clicking on the instance name – J MPS _SQL _SERVER.
 - e. After bringing SQL service group online, execute steps 12-19 on JMPSSV1 and then on JMPSSV2. Use respective server names.
95. Follow instructions in section 6.18. Skip steps 2-8. **Note: Step 9 must be performed before continuing with the next step.**
96. Follow instructions in section 6.21 to install VCS SP2. In steps 1-2, instead of using a CD, go to “C:\System Software\VCS2 SP2” and double-click on Update.exe to launch the VCS Service Pack 2 installation program.
97. Follow instructions in section 6.22.1 to install MS Sec Templates. JSLIC DVDs can be used to install the Microsoft Security Configuration Templates COE segment. Before rebooting, remove DVDs from the drives.
98. Follow instructions in section 6.22.2 to modify access permissions to the Documents and Settings folder on drive C.

Note: If this procedure does not remove the Everyone group from access permissions, perform the following steps.

 - a. Click on Everyone
 - b. Click on the Remove button
 - c. Click on the Reset permissions on all child objects and enable propagation of inheritable permissions check box and then click Apply.
99. Follow instructions in section 6.22.3 to install COE security templates.
100. Follow instructions in section 6.22.4 to remove POSIX and OS2 files.
101. Follow instructions in section 6.23.1 to apply the Task Scheduler and Event Viewer Fix
102. Follow instructions in section 6.23.2 to modify Domain Security Policy to allow users to Log on as Batch Job and Log on as Service
103. Follow instructions in section 6.23.3 to give SYSTEM Full Control to Indexing Service, Internet Connection Sharing, Irmon, and NetMeeting Remote Desktop Sharing Services.

104. Follow instructions in section 6.23.4 to make additional Domain Controller Security Policy modifications to enable Backup Exec 9.0 and Active Directory to function properly.
105. Follow instructions in section 6.23.5 to install the JMPS_DC_Spike_Fix.inf security template to Modify Active Directory replication frequency.
106. Follow instructions in section 6.23.6 to reset Logon Parameters for Backup Exec Services.
107. Follow instructions in section 6.23.7 to reset Logon Parameters for SQL Server Services.
108. Follow instructions in section 6.24.1 to add Veritas Backup Exec Service Group to Veritas Cluster Server.
109. Perform the following steps to reset the default Backup Exec 9.0 logon account.
 - a. Start Backup Exec by clicking on the Backup Exec icon on the desktop
 - b. Click on Next on the logon account wizard. *Note: If the logon account wizard does not start automatically, go to Tools → Wizards → Logon Account Wizard*
 - c. Click Add a new logon account and click Next
 - d. Use JMPS\Administrator for the user name
 - e. Enter password twice and click Next.
 - f. Click Next to accept default description. *Note: If there is no default description, enter "Backup Exec Logon Account"*
 - g. Click Next to leave account as restricted.
 - h. Click Next to review changes.
 - i. Click Finish.
 - j. In the main Backup Exec window, go to Network → Logon Accounts.
 - k. Click on System Logon account (2nd in the list) and click Delete.
 - l. Click OK to confirm.
 - m. Click Yes to confirm again.
 - n. Click OK.
 - o. Offline the Backup Exec service group in VCS Cluster Manager.
 - p. Switch the SQL group from JMPSSV1 to JMPSSV2.
 - q. Online the Backup Exec service group. Start Backup Exec and perform the same steps to change the logon account on JMPSSV2.
 - r. Offline the Backup Exec service group on JMPSSV2.
110. Follow instructions in section 6.24.2 to modify VCS parameters.
111. Configure SQL on JMPSSV1 by following steps 77-96 in section 6.16.1.2. Instead of JMPSSERVER1, server name will be JMPSSV1.
112. Switch the SQL and File Share service groups from JMPSSV1 to JMPSSV2
113. Configure SQL on JMPSSV2 by following steps 77-89 in section 6.16.1.2. Instead of JMPSSERVER1, server name will be JMPSSV2.
114. Switch service groups from JMPSSV2 to JMPSSV1
115. Create F:\JMPS_Data\ftproot directory.
116. Follow instructions in section 6.27.1, 6.27.2, 6.27.3, 6.27.4 to install JC1.
117. Follow instructions in section 6.28.1.
118. Follow instructions in section 6.28.2.
119. Follow instructions in section 6.28.3. Skip steps 1-5.

120. Follow instructions in section 6.28.4 to configure the SNMP zone.
121. Follow instructions in section 6.28.5 to install IAVA patches.
122. Remove JMPSSV1\Administrator and JMPSSV2\Administrator from respective MSDE permissions using the JMPS Admin tool. *Note: Only members of JmpsSecurityAdministrator group can perform this step.*
123. Unshare C drives on both servers by performing the following steps.
 - a. Right-click on the C drive in Windows Explorer and select Sharing.
 - b. Click on the Remove Share button.
 - c. Click OK.
124. Follow instructions in section 6.29 to enabling automatic group starting in VCS 2.0.
125. Follow instructions in section 6.30 to configure DMP functionality.
Note: This will take 3 days to complete!
126. Perform additional system administration tasks such as adding accounts, loading any additional JMPS data, updating DAFIF data as needed to configure the JMPS server.