



IBM Software Group

WebSphere Application Server V6.1 Problem determination guide

WebSphere installation, update, and migration problems



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Converted to video May 18, 2015

This unit discusses problems revolving around installation, update, and migration problems with WebSphere® Application Server.

Unit objectives

After completing this unit, you should be able to:

- Follow an installation checklist to detect installation problems
- Locate and examine relevant installation logs
- Recover from a failed installation
- Use the installation verification utility
- Search for relevant version information and prerequisite levels
- Identify problems associated with applying maintenance updates
- Identify problems encountered during product migration



After completing this unit, you should be able to follow an installation checklist to detect installation problems, locate and examine relevant installation logs, recover from a failed installation, use the installation verification utility, search for relevant version information and prerequisite levels, identify problems associated with applying maintenance updates, and identify problems encountered during product migration.

Installing WebSphere Application Server

- A successful installation of WebSphere Application Server is composed of the core product files and server1 application server
- A successful installation of WebSphere Application Server Network Deployment is a two-part process:
 - ▶ First, use the installation wizard to install a shared set of core product files
 - ▶ Second, use the Profile Management Tool or *manageprofiles* command to create at least one profile



Creating a Network Deployment cell will also require creating profiles and then federating the new nodes to the deployment manager. The process of federating nodes or adding nodes to a cell can be done by using either the `addNode` command or the administrative console. Some common problems encountered when federating remote nodes include time synchronization issues between machines and network connectivity. If the node federation process fails, the first place to look for detailed information is the `addNode.log` file which can be found in the logs directory for the node being federated.

What can go wrong

- Launchpad or installation wizard fails to start
- The installation process fails
- Profile creation fails
- The Installation Verification Test fails to start the server or fails to validate one or more components
- The Installation Verification Utility reports missing files or reports changed files



Installation is a complex operation and can result in failure at multiple points in the process. The Launchpad or installation wizard can fail to start, profile creation may fail, or the Installation Verification Tool or IVT may report that the server or one of its components can not be started correctly.

Installation problem determination

- Evaluate the high-level symptoms to determine if one of them describes your problem
- If it does, collect the appropriate data that is required to diagnose the problem
- Next, research the documentation to determine where or what the problem is
- Take the next step for resolution
 - ▶ Access product support site
 - ▶ Contact IBM
 - ▶ Collect information about configuration
 - ▶ Some other recommended action
- **Note:** Make sure that you have read and met the hardware and software prerequisites



Before trying to determine the cause of an installation problem, make sure that you have read and met the hardware and software prerequisites. The latest information about these is available on the IBM Support site. To resolve the problem, you should examine the symptoms seen and determine how to collect the appropriate diagnostic material to resolve the problem. Visit the Must Gather pages provided by the IBM Support site to select the most appropriate one based on the observed failure symptoms.

Common installation problems

- Case 1: Launchpad or installation wizard will not start or fails with errors
- Case 2: Installation wizard hangs
- Case 3: Profile creation failure
- Case 4: IVT fails



This module will cover several different failure scenarios including: installation wizard failures, installation wizard hangs, profile creation failures, and IVT failures.

Case 1: launchpad or installation wizard start failure (1)

After completing this topic, you should be able to:

- Recognize symptoms of launchpad and install wizard failures
- Locate the relevant log files
- Collect problem determination data



After completing this topic, you should be able to recognize symptoms of launchpad and install wizard failures, locate the relevant log files, and collect problem determination data.

Case 1: launchpad or installation wizard start failure (2)

- This case covers these situations:
 - ▶ Launchpad failure
 - ▶ Installation wizard failures
- Possible causes for these problems include:
 - ▶ Web browser requirements not met
 - ▶ Insufficient disk space
 - ▶ Inadequate OS permissions



Case one will cover problems where the Launchpad fails to start or the installation wizard exists abnormally. Some potential causes for these types of issues are: insufficient disk space, inadequate permissions, and browser requirements not being met.

Case 1: browser requirements not met

- Is a supported Web browser installed and configured properly?
 - ▶ Verify that the latest version of a supported Web browser is installed
 - Mozilla
 - Internet Explorer®
 - ▶ On UNIX® platforms, ensure that the location of the supported browser is exported
 - For example: `export BROWSER=/usr/bin/mozilla`
- Ensure that JavaScript is enabled in the browser options or preferences.



The launchpad is a Web application. Before using the launchpad, you must have a supported Web browser. The launchpad supports Mozilla, Version 1.4 and 1.7.5 or later and Internet Explorer, Version 5.5 with Service Pack two or later. Additionally, make sure that JavaScript is enabled in the browser. On UNIX platforms confirm that the BROWSER environment variable is exported and points to the location of the browser binary.

Case 1: problems with the installation wizard

- If the installation wizard starts but fails during the installation process, look for messages that contain **INSTCONFSUCCESS**, **INSTCONFPARTIALSUCCESS**, or **INSTCONFFAILED**
- If you see the messages **INSTCONFPARTIALSUCCESS** or **INSTCONFFAILED**
 - Look for error or warning messages preceding them that indicate problems with resources
 - Some possible causes include
 - Not enough disk space
 - JVM exception
 - Segmentation Faults



All of the installation events for the installation wizard tool are logged in a file named `log.txt`. If the `log.txt` file does not exist, then run the installer directly from a command window using “`-log`” option to create a log of all events. When examining the logs, look for messages like **INSTCONFSUCCESS**, **INSTCONFPARTIALSUCCESS**, and **INSTCONFFAILED**. If you see partial success or failed messages you should examine the log entries before that message to discover errors or warnings that might have led to the failure. These errors can include hints like not having enough disk space, Java™ exceptions, or crashes.

Case 2: installation wizard hangs

After completing this topic, you should be able to:

- Recognize symptoms of installation wizard hangs
- Locate the relevant log files
- Collect problem determination data



After completing this topic, you should be able to recognize symptoms of installation wizard hangs, locate the relevant log files, and collect problem determination data.

Case 2: installation wizard hangs

- During installation, a progress indicator is displayed to show how far the installation has progressed
- If there is no change in the progress indicator for a very long time (>10 minutes), the installation process might be hung
- Reasons that the installation process might hang include:
 - ▶ The system is very low on resources such as virtual memory or swap space
 - ▶ There might be heavy network traffic or network breakdown if installing from a remote location
 - ▶ A task or thread has gone into an infinite wait or loop



When running an installation wizard it is helpful to use Task Manager on Windows® to monitor processor utilization. This way, even if the progress indicator seems hung, you can still determine if any processing is going on.

On UNIX machines, it is helpful to have a window open where you are running the command: “tail -f log.txt” in order to monitor the log output. If progress appears to be hung, check memory and swap space resources to assure that they are not depleted.

Case 2: data to collect for installation hangs

- If the installation hangs, check the installation logs
- If the installer fails at a very early stage, the log file might not be created or it might exist in the system temporary area
- Other logs to examine:
 - ▶ installconfig.log
 - ▶ trace.txt



If the installer hangs very early in the process a log file might not be created or might exist in the TEMP space. Other logs are available as well and can be found in the WebSphere installation directory in the logs/install directory. These logs are called installconfig.log and trace.txt.

Case 2: what to look for if installation hangs

- If you think the installation process is hung, check the *log.txt* and *installconfig.log* files periodically to see if progress is being made
- If you see the INSTCONFPARTIALSUCCESS or INSTCONFFAILED messages, then look for *error* or *warning* messages preceding them
- If the installation *does* appear to be hung, look for the last recorded message in the log file
 - ▶ This message gives you an idea of what the installer was doing before it hung



If you think the installation process is hung and logs have been created, check the *log.txt* and *installconfig.log* files periodically to see if progress is being made. As in case one, if you see INSTCONFPARTIALSUCCESS or INSTCONFFAILED in the logs, review the messages just before these to get clues on the root cause.

Case 2: identify which process failed (1 of 2)

- The order of the installation process is:
 1. Prerequisites check
 2. Check for existing WebSphere Application Server products
 3. Install core product files
 4. Profile creation



The order of the installation process is: the prerequisite check, a check for existing WebSphere Application Server products, and then the actual product installation which includes the core product files, uninstaller, and configuration of components. If the installation fails before step three, the log.txt file should contain messages detailing why the prerequisite check failed or if the process detected a previous WebSphere Application Server installation.

Case 2: identify which process failed (2 of 2)

- Determine if errors occurred during the *file copy and configuration process*

- ▶ Look in *log.txt* for an entry such as the this:

```
(<Date and time stamp>), Install,  
com.ibm.ws.install.ni.ismp.actions.
```

```
ISMPCfgManagerLaunchAction, msg1, INSTCONFSUCCESS: Post-  
installation configuration is successful
```

- If you see this message, the file copy and configuration process has completed successfully
- If not, inspect the messages in the log for an indication of the error



To determine if step three of the installation process, the file copy and configuration process, was successful look for the ISMPCfgManagerLaunchAction message in the log.txt file. Its presence with an INSTCONFSUCCESS flag indicates that the process was successful and you should look at the profile creation portion of the installation process. If it is not, look for an indication of an error in the log file and attempt to remedy the problem.

Case 3: profile creation failure

After completing this topic, you should be able to:

- Recognize symptoms of profile creation failures
- Locate the relevant log files
- Collect problem determination data



After completing this topic, you should be able to recognize symptoms of profile creation failures, locate the relevant log files, and collect problem determination data.

Case 3: profile creation failure

- Problems with profile creation might be due to:
 - ▶ Long directory paths
 - ▶ File permissions
 - ▶ Problems with the host name (using “localhost”)
- A default server profile is created as part of the installation process in a WebSphere Application Server or WebSphere Application Server – Express™ installation
- The Network Deployment installation wizard gives you the option of creating a profile
 - ▶ Profiles can also be created at any time after installation.



Profiles allow you to define multiple runtime environments, each with its own administrative interface while sharing the same code base. Profile creation can fail due to long directory paths, file permissions, and host name problems. After a successful installation, a default server profile is created in a WebSphere Application Server Base or Express install. For Network Deployment installs the installation wizard prompts you for the option of creating a profile. WebSphere Application server cannot be used unless one or more profiles have been created. Profiles can also be created at any time after the installation process completes.

Case 3: data to collect if profile creation fails (1 of 3)

- If the profile creation fails, check the profile creation log file
- This log file is created when the file copy process has completed and the creation of a default profile starts
 - ▶ also created when ***manageprofiles*** command is executed
 - ▶ traces all the events that occur during profile creation



If profile creation does fail, check the log files shown on this slide. The profile creation log is an XML-formatted log file that can viewed with a Web browser, text editor, or with the Log Analyzer tool provide in the ISA workbench. The profile creation log is also created when the manageprofiles tool is run from the command line to create or modify profiles.

Case 3: data to collect if profile creation fails (2 of 3)

- Numerous log files are created when a profile is created
- Logs created depend on the type of profile (deployment manager, application server, custom)



Many logs are created when a profile is created. Each log may or may not exist depending on the type of profile that is created. That is, the file names for the log files will differ based on the type of profile and the name given to the profile.

Case 3: data to collect if profile creation fails (3 of 3)

- Each profile has a portdef.props file located at
- Examine this file if you have a port conflict

```
#Generated by PMT GUI
#Tue Apr 03 15:48:22 EDT 2007
CSIV2_SSL_SERVERAUTH_LISTENER_ADDRESS=9403
WC_adminhost=9060
DCS_UNICAST_ADDRESS=9352
BOOTSTRAP_ADDRESS=9809
...
```



If you suspect port conflict errors are causing the profile creation to fail, check the portdef.props file for conflicting port numbers. Examine the file for the port name and port number that is causing the conflict and make the appropriate changes so that profile creation can succeed.

Case 3: what to look for if profile creation fails

- Check for status messages in the profile creation logs
- Look for entries such as WARNING, SEVERE, INSTCONFPARTIALSUCCESS, INSTCONFFAILED, FAILED
- If you see the INSTCONFPARTIALSUCCESS or INSTCONFFAILED messages, look for *error* or *warning* messages preceding them



Most profile creation tasks, such as system application installation or sample application installation, are logged to individual log files in the WebSphere installation directory in logs directory of the profile being created. If you can determine which task the profile creation was doing, examine the file for that task. As with previous cases, if you see INSTCONFPARTIALSUCCESS or INSTCONFFAILED messages in the log, examine the messages before determine what failures caused the process to fail.

Case 3: Path limitations and host name problems

- Look for an entry such as:

```
(<Date and time stamp>), Install,  
com.ibm.ws.install.ni.ismp.actions.  
ISMPWSProfileLaunchAction, err, INSTCONFFAILED:  
Cannot complete required configuration actions  
after installation. The configuration failed. The  
installation is not successful. Refer  
to\install_root\logs\wasprofile\wasprofile_create_  
profilename.log for more details
```

- If you see this entry, examine the log and try to determine what task was being performed when the profile creation failed



Windows 2000 has a length restriction of 258 characters for a command. A problem can occur that prevents the successful creation of a profile when a path is too long. The maximum length for the WebSphere installation directory is 60 characters. The maximum length for the profiles installation root directory is 80 characters. If your log files have errors stating that the input line is too long, then the length of the file path and node name in the command string has caused the entire command to exceed the operating system limit for command length. This error can show up in a message box during the wizard. Create the profile again using shorter directory paths and node names. If you are still in the installation process, consider reinstalling using a shorter path for the installation root.

If you see errors similar to localhost is not a valid host name for remote access, then you have entered localhost as the value in the host name field of the Profile creation wizard. Other machines in the network cannot reach your node using localhost, so you must provide a host name that can be resolved by other systems to the IP address of your system.

If an error occurred creating a custom profile, look at the addNode.log file for any additional errors. Look for an error message similar to “The system cannot create a SOAP connector to connect to host X at port Y”. If you see this error, it typically indicates that the deployment manager is probably not running or reachable.

Case 4: installation verification tool

After completing this topic, you should be able to:

- Recognize symptoms of IVT failures
- Locate the relevant log files
- Collect problem determination data



After completing this topic, you should be able to recognize symptoms of IVT failures, locate the relevant log files, and collect problem determination data.

Case 4: installation verification tool (1 of 2)

- The IVT looks at the profile configuration for the server and looks for a server running on the server port number
- Note that, if a server is up and running on the port, the IVT runs against that server
- If no server is running on that port, the IVT attempts to start the server
- When the server has started successfully, the IVT accesses the server and runs various tests, including:
 - ▶ Servlet engine verification
 - ▶ JSP verification
 - ▶ EJB verification
 - ▶ And others

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The Installation Verification Tool is used to confirm that a server is running and that the installation and profile creation process did, in fact, work correctly. The IVT also verifies the servlet engine, performs JSP verification, and EJB verification among other things.

Case 4: installation verification tool (2 of 2)

- You should run the IVT before making any configuration changes to WebSphere Application Server
- This acts as a checkpoint to see if any problems exist as a result of the installation
- If the IVT runs clean and problems show up later, they are most likely due to configuration changes done *after* the installation
- Stop all instances of WebSphere Application Server before running the IVT
- IVT typically fails because the application server fails to start



You should assure that the IVT tool be run against the server before making any configuration changes. This acts as a checkpoint to see if any problems exist from the installation procedure. Before running the IVT tool, stop all instances of WebSphere Application Server; the IVT tool will start the server and verify that it starts correctly. Most IVT failures result because the application server being tested fails to start correctly.

Case 4: what to look for if IVT fails (1 of 3)

- The first file to look at in case IVT has failed is *ivtClient.log*
 - ▶ Messages with IVTL and ADMU prefixes provide information about what the IVT application is doing and the status of each action
- Look for this message in *ivtClient.log*:

```
ADMUXXXXX: Server servername open for e-business; process  
id is xxxx
```

- If you find this message, then:
 - ▶ The server has started successfully
 - ▶ But the IVT failed while executing one of the tests
- Examine the error messages in *ivtClient.log* to locate the failing process



The primary file to review for IVT failures is the *ivtClient.log* file which contains messages with IVTL and ADMU prefixes to provide information on what the IVT application was doing and the status of each action. If you see message that the server started successfully in the *ivtClient.log*, then the server started OK but IVT failed while executing a test.

Case 4: what to look for if IVT fails (2 of 3)

- If another deployment manager is running with the same port, you see this message:

```
IVTL0110E: Log file error with  
C:\WebSphere\AppServer\profiles\Dmgr02\logs\dmgr\SystemOut.log  
, java.io.FileNotFoundException: C:\WebSphere\AppServer
```

- If the server does not start, look at the `Server Port number is:` entry.
 - ▶ Make sure that this port is not in use
- If the port does not seem to be the problem:
 - ▶ Look for information related to server start in the `startServer.log`, `SystemOut.log`, `SystemErr.log`



If the server does not start, examine the “Server Port Number is:” entry of the log and make sure this port is not in use. If the port does not appear to be the problem, check the server logs. In these logs, look for information related to the server start process.

Installation verification utility

After completing this topic, you should be able to:

- Explain how the IVU is used to verify the integrity of installed files
- Use the IVT to verify installations of the Application Server, deployment manager, Application Client, IBM HTTP Server, Web server plug-ins, Update Installer, and Fix Packs



After completing this topic, you should be able to explain how the IVU is used to verify the integrity of installed files and use the IVT to verify installations of the Application Server, deployment manager, Application Client, IBM HTTP Server, Web server plug-ins, Update Installer, and Fix Packs.

Installation verification utility: installver

- Installation Verification Utility (IVU) can be used to detect and diagnose initial installation issues
- IVU computes the actual checksum value for the installed files and compares them to the shipped bill-of-materials list
- After installing a refresh pack/fix pack, the bill-of-materials is automatically updated
- IVU can be used for verifying product binaries and maintenance packs
- Use IVU to create a new checksum after configuring or reconfiguring the system



The Installation Verification Utility can be used to detect and diagnose initial installation issues. IVU can be used to verify the application server, the application client, the IBM HTTP server, the Web server plug-ins, the update installer, and the fix packs installed. You can also use the IVU tool to create a new checksum after making configuration changes. Do not confuse with the Installation Verification Tool (IVT) application which is available from the First Steps console to validate that the server is functioning properly. This is very different from the file checksum verification provided by IVU.

Run the verifyinstallver command

- `<WAS_install_root>/bin>verifyinstallver`

```
I CWNVU0160I: [ivu] Verifying.
I CWNVU0170I: [ivu] The installation root directory is C:\WebSphere\AppServer\
I CWNVU0300I: [ivu] The total number of user excluded files found is 0.
I CWNVU0300I: [ivu] The total number of IBM excluded files found is 65.
I CWNVU0185I: [ivu] Searching component directory for file listing: files.list
I CWNVU0460I: [ivu] The utility is running.
I CWNVU0260I: [ivu] The total number of components found is: 269
I CWNVU0270I: [ivu] Gathering installation root data.
I CWNVU0290I: [ivu] Starting the verification for 2 components.
I CWNVU0470I: [ivu] Starting to analyze: installver
I CWNVU0480I: [ivu] Done analyzing: installver
I CWNVU0470I: [ivu] Starting to analyze: installver.bin
I CWNVU0480I: [ivu] Done analyzing: installver.bin
I CWNVU0400I: [ivu] Total issues found : 0
I CWNVU0340I: [ivu] Done.
```

Use the `verifyinstallver` command to perform a checksum on the files that comprise the `installver` command. The `verifyinstallver` command is used to verify the integrity of the `installver` command. The `verifyinstallver` command is located in the WebSphere installation root directory under the `bin` directory.

Running the installver utility

- Run from `<WAS_install_root>/bin`
 - The default log file is the `<WAS_install_root>/logs/installver.log` file
 - Redirect the output using the `-log` parameter and an argument.

```
I CWNVU0470I: [ivu] Starting to analyze: nif.componentmap.embed
I CWNVU0480I: [ivu] Done analyzing: nif.componentmap.embed

I CWNVU0470I: [ivu] Starting to analyze: nif.componentmap.embed.common
I CWNVU0440I: [ivu] The following file is different:
properties/version/nif/componentmaps/componentmap.coreruntime.embed.common.xml
I CWNVU0410I: [ivu] 74e081bcfb5db1d0e4a19682302aac84d34d24ce is the checksum in
the bill of materials.
I CWNVU0420I: [ivu] c10bf99e87829af2549eee72c902c4dea6cf34c3 is the checksum on
the file system.
I CWNVU0390I: [ivu] Component issues found : 1
I CWNVU0480I: [ivu] Done analyzing: nif.componentmap.embed.common
```

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The IVU tool is started from the bin directory under the WebSphere installation directory. The log file it creates is named `installver.log` and resides in the logs directory under the WebSphere installation directory. You can also specify the “-log” parameter with a path and filename to where you’d like to redirect the tool output in case you are not satisfied with the default log file location. By looking at the log output you can see which internal product components pass or fail verification.

Creating a new baseline checksum

- After configuring the product, create a new baseline checksum to establish a new checksum standard for your system

```
C:\WASv61\bin>installver -createinventory
W CWNVU0320W: [ivu] The C:\WASv61\bin\sys.inv inventory file is within the product
installation root directory: C:\WASv61.
I CWNVU0300I: [ivu]The total number of user excluded files found is 0.
I CWNVU0300I: [ivu]The total number of IBM excluded files found is 82.
I CWNVU0310I: [ivu]Creating the following inventory file: C:\WASv61\bin\sys.inv
I CWNVU0460I: [ivu] The utility is running.
...
I CWNVU0340I: [ivu] Done.
```

After installation, you can verify the actual checksums of installed files against a bill of materials that ships with the product. After configuring your system, create a new checksum so that you can compare the system periodically to the new checksum. Use the result to analyze changes to your configured system. The `installver` tool can compute a new baseline checksum for the inventory of all files in the installation root directory. The tool stores the new checksum by default in the `sys.inv` file within the current working directory. You can specify a different file path and file name. Create the file outside of the installation root directory or exclude the file from comparisons. Later, compare the checksums in the `sys.inv` file (or the file that you specified when creating the inventory) to the checksums of the currently installed files to see what files have changed.

The baseline checksum report identifies missing files, additional files, and changed files.

Uninstalling after failed or hung install

After completing this topic, you should be able to:

- Recover from a failed installation

After completing this topic, you should be able to recover from a failed installation

Recovering from a failed or hung installation (1 of 2)

- Depending on the state of your system when an installation fails or hangs, you might need to uninstall WebSphere Application Server manually before you retry the process
- The uninstaller program can leave some files that can prevent you from reinstalling into the original directory requiring manual clean up
- Cleaning the machine means deleting everything from the previous installation,
 - ▶ Including *log files* that are left behind by the uninstall command
 - ▶ Before you start the procedure, back up log files, if necessary
- Manually uninstalling produces a clean system



Depending on the state of your system when an installation fails or hangs, you might need to uninstall WebSphere Application Server manually before you retry the process. The uninstaller program leaves some files that can prevent you from reinstalling into the original directory, so it is necessary to delete the installation root directory and any registry entries to *clean* the machine so that you can reinstall into any directory. Cleaning the machine means deleting everything from the previous installation including log files.

Recovering from a failed or hung installation (2 of 2)

- If possible, issue the uninstall command to invoke the uninstall program
- If the installation fails or hangs before the uninstaller is created, the process of uninstalling is more complex including the manual clean up steps
- Refer to the Information Center for documented procedures



After a failed installation, try issuing the uninstall command first. If the installation process failed to create the uninstaller, then a manual approach must be used to remove the remnants of the installation. These operations include backing up and editing the system registry, deleting the installation directory, and editing or removing the vpd.properties file. The manual process is not a trivial task to undertake. Consult the WebSphere Application Server V6.1 Information Center for detailed information on the manual procedure.

Reinstall with tracing turned on

- If you can successfully perform an uninstall, try reinstalling from the command line
 - ▶ `install -is:javaconsole`
 - Reports the stdout and stderr logs to the console window
 - ▶ `Install -is:javaconsole > C:\capturefilename.txt`
 - Captures the stream to a file
 - ▶ `install -W Setup.product.install.logAllEvents="true"`
 - Turns on additional installation logging
- Perform a silent install
 - ▶ `install -options "C:\temp\responsefile.txt" -silent -log # !C:\temp\log.txt @ALL`



If you are able to perform the uninstall in a prior attempt, you can try installing the product from the command line with additional logging and tracing. Using this method, additional data can be collected that might help resolve the installation process. Using the “-is:javaconsole” option, you can have all standard out and standard error logging be output to the console window. Additionally, you can redirect this output to a file using the normal redirect operator for your platform. Also, you can use the “Setup.product.install.logAllEvents=true” option and produce even more logging for the installation process. If you prefer or require a silent installation method, you can use the “-log” option and specify a log file path and file name and include the “@ALL” argument which will produce the verbose output described previously.

Troubleshooting migration problems

After completing this topic, you should be able to:

- Identify migration tools
- Locate the relevant migration log files
- Identify log messages associated with migration problems



After completing this topic, you should be able to identify migration tools, locate the relevant migration log files, and identify log messages associated with migration problems.

Migrating an earlier version of WebSphere V6.1

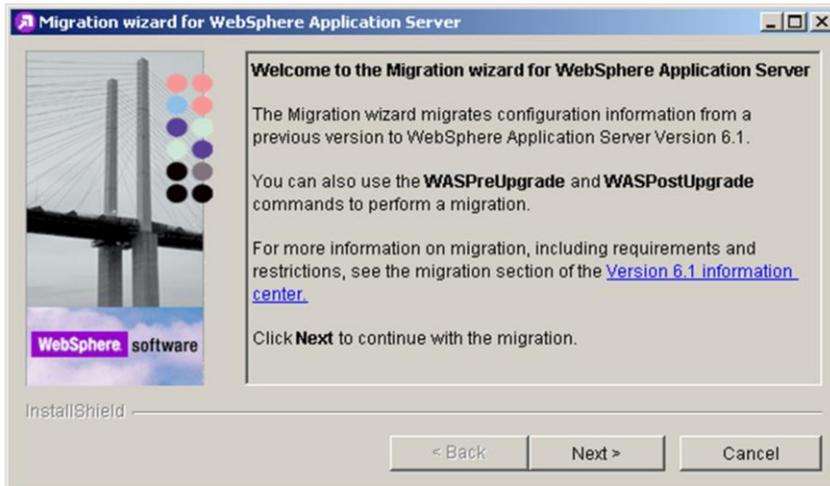
- Both stand-alone application servers and deployment managers can be migrated from V5 or V6.0 to V6.1
- Using the Migration wizard
- Use the **WASPreUpgrade** command
- Use the **WASPostUpgrade** command



Migrating a WebSphere Application Server V5 or V6.0 deployment manager to a V6.1 deployment manager moves all of the V5 or V6.0 managed nodes to become V5 or V6.0 managed nodes in the V6.1 cell. If you are migrating a V5 or V6.0 managed node that is part of a V6.1 cell to a V6.1 managed node, do not federate the managed node when you create it with the Profile Management tool, but do be sure that the Version 5 or V6.0 and Version 6.1 node names match. Migrating the V5 or V6.0 managed node to the V6.1 managed node also federates the node.

Migration wizard

- Launch the Migration wizard from the command line:
`<WAS_ROOT>\bin\migration.bat/sh`



This screen capture shows a sample screen from the Migration wizard for WebSphere Application Server. The migration wizard graphical tool is found in the bin directory under the WebSphere installation directory. The WASPreUpgrade and WASPostUpgrade command line tools can be used if you can not or prefer not to use the graphical tool.

Troubleshooting migration (1 of 2)

- If you encounter a problem migrating from a previous version of WebSphere Application Server to Version 6.1, check the log files
- Look for the log files, and browse them for symptoms
 - ▶ `<migration_bkup_dir>/WASPreUpgrade.time_stamp.log`
 - ▶ `<profile_root>/logs/WASPostUpgrade.time_stamp.log`
 - ▶ `<app_server_root>/logs/clientupgrade.time_stamp.log`



During the migration process, if you encounter errors, examine the log files created during the process. These logs are found in three places: the migration backup directory, the logs directory under the profile's root directory, and the logs directory under the application server root directory. Each of the logs created details a specific portion of the process. For example, the pre-upgrade operation logs to the `WASPreUpgrade.time_stamp.log`.

Troubleshooting migration (2 of 2)

- If the migration is not successful attempt to correct any problems based on the error messages that appear in the log files
- Refer to the Information Center for documentation on Migration Troubleshooting



If the migration was not successful, messages giving clues as to the root cause can be found in the migration logs. For detailed troubleshooting procedures for migration problems, consult the WebSphere Application Server V6.1 Information Center Web site.

Before contacting IBM support

- Check that you have met product hardware and software prerequisites
- Determine what version and fix pack level is currently installed
- Read the MustGather documentation for installation problems



Before contacting IBM Support for help make sure that you've met the hardware and software prerequisites for the product. Capture the exact version and fix pack level by using the versionInfo command. Additionally, consult the MustGathers on the IBM Support site and provide any further data required by the MustGather. By completing all these steps before contacting support you can advance the problem determination effort to closure quicker.

Unit summary

Now that you have completed this unit, you should be able to:

- Follow an installation checklist to detect installation problems
- Locate and examine relevant installation logs
- Recover from a failed installation
- Use the installation verification utility
- Search for relevant version information and prerequisite levels
- Identify problems associated with applying maintenance updates
- Identify problems encountered during product migration



Now that you have completed this unit, you should be able to follow an installation checklist to detect installation problems, locate and examine relevant installation logs, recover from a failed installation, use the installation verification utility, search for relevant version information and prerequisite levels, identify problems associated with applying maintenance updates, and identify problems encountered during product migration.

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