



IBM Software Group

IBM WebSphere® Enterprise Service Bus V6.0.1

Installation



@business on demand.

© 2005 IBM Corporation
Updated February 3, 2006

This presentation will cover installation of WebSphere Enterprise Service Bus V6.0.1

Goals

- Discuss Installation of WebSphere Enterprise Service Bus V6.0.1
 - ▶ Cover an overview and initial install information
 - ▶ Step through installation flow discussing information on each installation screen, including uninstall
 - ▶ Discuss troubleshooting topics like known limitations, best practices, and debugging/logging information

The goal is to provide an overview of initial install information, then step through an installation flow discussing each installation screen, including uninstall. Troubleshooting topics such as known limitations, best practices, and debugging and logging information will also be discussed.

Agenda

- **Installation Overview**
- Install Flow / Information on Install Screens
- Troubleshooting
- Summary

This section will provide an overview of the installation process.

Installation Overview

- WebSphere Enterprise Service Bus V6.0.1 GUI Installer is an ISMP based GUI Installer
 - ▶ ISMP = InstallShield MultiPlatform
- Supports interactive GUI and silent installs
- Two installation types
 - ▶ Complete Install
 - Discussed in this presentation
 - ▶ Custom Install
 - Also discussed in this presentation, but profile creation discussed in a separate Profile Creation Wizard presentation

The WebSphere Enterprise Service Bus V6.0.1 GUI Installer is an InstallShield MultiPlatform (ISMP) based installer that supports both interactive GUI and silent installs. The two installation types available are complete install, which is covered in detail by this presentation, and custom install. Custom installation is also discussed in this presentation, but profile creation is discussed in a separate Profile Creation Wizard presentation.

Silent Install

- Install Wizard and Profile Wizard can be invoked silently
- Silent install can be linked to silent Profile Wizard invocation
- Sample response file is shipped on the CD and ESD image
 - ▶ supports Custom Install only
 - ▶ Can be easily modified by customers

WebSphere Enterprise Service Bus V6.0.1 does provide support for silent install. A sample response file is shipped on the CD and ESD image, allowing you to create custom silent install scripts. It supports custom install only and can be easily modified to suit your needs.

Section

- Installation Overview
- **Install Flow / Information on Install Screens**
- Troubleshooting
- Summary

This section will describe the typical flow of installation screens.

Typical Flow

- Typical flow of WebSphere Enterprise Service Bus install
 - ▶ Welcome screen
 - ▶ License acceptance screen
 - ▶ System prerequisites check screen
 - ▶ Existing WebSphere Application Server, WebSphere Application Server Network Deployment detection screen
 - ▶ Existing WebSphere ESB detection screen
 - ▶ Installation root directory screen
 - ▶ Installation type selection screen
 - ▶ Feature selection screen
 - ▶ Installation summary screen
 - ▶ Finish screen



A typical sequence of WebSphere Enterprise Service Bus V6.0.1 installation screens is shown here. The first one is the welcome screen, which always leads into the license acceptance screen. Next, the installer will do a system prerequisites check similar to a WebSphere Application Server install. Then the installer will check for existing WebSphere Application Server, WebSphere Application Server Network Deployment and WebSphere ESB installs. After that, you will be prompted for the WebSphere Enterprise Service Bus V6.0.1 installation root directory and asked to choose between two installation types, Complete and Custom, in the installation type selection screen. The custom installation provides a feature selection screen. Both installation types will show an installation summary screen before installing the server. The last screen displayed is the finish screen, where you will be prompted to open the First Steps or Profile Creation Wizard.

System Prerequisite Check



System prerequisites check

The Installation Wizard checks your system to determine whether a supported operating system is running and whether the operating system has the appropriate service packs and patches. After checking prerequisites, the Installation Wizard checks for existing WebSphere Application Server and WebSphere Process Server products.

Your system completed the prerequisites check successfully.

- Prerequisite check similar to WebSphere Application Server install
 - ▶ Checks for supported OS levels
 - ▶ Checks for required fix packs, service packs or patches
 - ▶ Does NOT check for
 - Minimum memory or processor requirements
 - Minimum disk space requirements
 - Any other required software
 - ▶ Will allow install to proceed after warning even if check fails

The welcome and license acceptance screens are self explanatory. On the System Prerequisite check screen, the installer does a prerequisite check similar to a WebSphere Application Server install, checking for supported OS levels, required fix packs, and service packs or patches. However, it does not check for minimum memory or processor requirements, minimum disk space requirements, or any other required software at this time. Even if this check fails, the install is allowed to proceed.

Install Detections

- Install will detect existing installs of WebSphere Application Server, WebSphere Application Server Network Deployment, and any other WebSphere Enterprise Service Bus
- User can choose to
 - ▶ Install a separate WebSphere Enterprise Service Bus that will coexist with WebSphere Application Server
 - ▶ Extend WebSphere Application Server, Version 6.0.x to have WebSphere ESB capability.



In the install detections screen, the installer will detect existing installations of WebSphere Application Server, WebSphere Application Server Network Deployment and WebSphere ESB. You can choose to Install a new copy of WebSphere ESB under *install_root* /logs/wbi/instconfig.log 6.0.1 or add new features to an existing installation

Installing Over Existing WebSphere Application Server

- During WebSphere ESB install, existing install detection screen is displayed if:
 - ▶ Existing WebSphere Application Server or WebSphere Application Server Network Deployment V6.0.x.x installation is detected
 - ▶ And it has not been upgraded to WebSphere ESB

- Installer can choose the following
 - ▶ Install on top of detected WebSphere Application Server or WebSphere Application Server Network Deployment V6.0.x.x
 - ▶ Or, install a new copy of WebSphere Application Server Network Deployment

- If the installer chooses to install WebSphere ESB on top of WebSphere Application Server or WebSphere Application Server Network Deployment V6.0.x.x, then
 - ▶ Installer must ensure that the global security of WebSphere Application Server or WebSphere Application Server Network Deployment V6.0.x.x has been disabled
 - ▶ Existing version of WebSphere Application Server will be moved up to the proper service level (6.0.2.3) as part of the install



The install detection screen is displayed when an existing WebSphere Application Server Base or Network Deployment V6.0.x.x installation is detected and there is not already a copy of WebSphere ESB installed over it. You can choose to install on top of the detected WebSphere Application Server or install a new copy of WebSphere Application Server Network Deployment. Any existing version of WebSphere Application Server will be upgraded to the proper service level (V6.0.2.3) as part of the installation.

If WebSphere Enterprise Service Bus is being installed over an existing installation of a secured WebSphere Application Server or WebSphere Application Server Network Deployment, ensure that the global security is disabled before installing WebSphere Enterprise Service Bus .

Installing Stand-Alone WebSphere ESB

- WebSphere Enterprise Service Bus V6.0.1 install ships with a full copy of WebSphere Application Server Network Deployment V6.0.2.3
 - ▶ WebSphere ESB install will silently install this version of WebSphere Application Server Network Deployment
 - ▶ Both the products are installed into the same install location
 - ▶ Install summary screen displays disk space requirements for both the products
- If the samples feature is selected then WebSphere Application Server samples are also installed



If you are installing a stand-alone WebSphere Enterprise Service Bus V6.0.1, the install ships with a full copy of WebSphere Application Server ND V6.0.2.3, which will be silently installed. WebSphere ESB and WebSphere Application Server ND are both installed into the same location. The install summary screen displays disk space requirements for both WebSphere ESB and WebSphere Application Server ND. If the WebSphere ESB samples feature is selected, the WebSphere Application Server samples are also installed.

Installation Root Directory

- Highly recommended to install as close to the computer's root directory
 - ▶ The shorter the install path, the less chances to run into the 259 character path limit
- Try not to use spaces or non-letter characters in the path name
- Examples:
 - ▶ C:/WESB
 - ▶ C:/WESB601



At the Installation Root directory screen, you will be asked where to install the WebSphere Enterprise Service Bus . It is highly recommended to install as close to the system root directory as possible. The shorter the install path, the less likelihood to run into the 259 character path limit. Avoid using spaces or non-alpha characters in the path name. Examples: C:/WESB and C:/WESB601.

Complete Install

- Complete installation
 Everything needed to start running your WebSphere Process Server is installed. See the installation information for descriptions of the default configuration settings used during a Complete installation.
- Custom installation
 More flexibility provided for component installation, with the option to launch the Profile Wizard. See the installation information for descriptions of the product features you can install and configure.

■ Complete Install

- ▶ Installs default features (Samples and Javadoc)
- ▶ Silently creates a default stand-alone WebSphere Enterprise Service Bus profile
- ▶ Selects defaults for all profile wizard screens and does not provide an option to run the profile wizard
- ▶ Finish screen (last screen) allows launch of First Steps page



For the complete installation, the default features (Samples and Javadoc) are installed. This also silently creates a default stand-alone WebSphere Enterprise Service Bus profile which selects all the defaults for the profile wizard screens and does not provide an option to run the profile wizard. The finish screen (last screen) allows you to launch the First Steps page. A complete install will take over an hour depending on system specifications.

Custom Install

- Custom Install
 - ▶ Can check or uncheck 2 features
 - Samples, JavaDoc
 - ▶ Selection of Samples will also cause WebSphere Application Server ND Samples to be installed
 - ▶ Does not create a default profile
 - ▶ Finish screen (last screen) allows launch of the Profile Wizard
 - ▶ Profile setup discussed in Profile Creation Wizard presentation

The custom install allows you to check or uncheck the Samples and JavaDoc features, which are installed by default by the Complete Install. Selection of the WebSphere ESB Samples will also cause WebSphere ND Samples to be installed. Custom install is recommended for most users. This install option does not create a default profile, but launches the Profile Creation Wizard on the finish screen (last screen). The WebSphere Enterprise Service Bus Profile requires more details than WebSphere Profile, which is the reason for recommending a Custom install. Profile setup is discussed in the Profile Creation Wizard education module. Custom installation will take less time since a default profile is not created. However, you must create a profile before you can start the server.

Installation Summary screen

- Lists out features to be installed
- Lists out and checks for available disk space
- Also checks for available temporary disk space on Unix/Linux systems
 - ▶ Does not check for this on Windows (open issue)
- Includes space needed for the umbrella WebSphere Application Server ND install (when performed)
- Includes space needed for default profile for Complete installs



The installation summary screen lists the features to be installed and checks for available temporary disk space on Unix® and Linux systems. This check is not currently performed on Windows® systems. The check includes the space needed for the umbrella WebSphere Application Server ND install (when performed) and the default profile for Complete installs.

Uninstall

- For WebSphere ESB stand-alone installs (that was not installed on any existing WebSphere Application Server or WebSphere Application Server Network Deployment):
 - ▶ Provides option to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment
 - ▶ By default, it will uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment
 - ▶ If the option is to keep the underlying install of WebSphere Application Server or WebSphere Application Server Network Deployment, any profiles that have been augmented by WebSphere ESB will be un-augmented, as long as WebSphere ESB is the last augmentor
 - ▶ If the option is to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment, all profiles will be first unaugmented and then deleted
- Uninstall can also be run silently

The uninstaller allows you to uninstall the underlying WebSphere Application Server Base or Network Deployment and can be run interactively or silently. The underlying WebSphere Application Server will be selected for uninstallation by default if WebSphere Enterprise Service Bus was an umbrella install. If you chose to not uninstall the underlying WebSphere Application Server, any profiles that have been augmented by WebSphere ESB will be unaugmented as long as WebSphere ESB is the last augmentor. If you chose to uninstall the underlying WebSphere Application Server or WebSphere Application Server Network Deployment, all profiles will be first unaugmented and then deleted.

Section

- Installation Overview
- Install Flow / Information on Install Screens
- **Troubleshooting**
- Summary

This section covers troubleshooting, including known limitations, best practices, debugging and logging information.

Known Limitations

- When installing WebSphere ESB on top existing install of WebSphere Application Server , the global security for WebSphere Application Server or WebSphere Application Server Network Deployment needs to be disabled
- Cannot augment an already federated custom WebSphere ESB profile



There are several known limitations identified in the WebSphere Enterprise Service Bus readme and release notes. Some of those limitations are listed here.

When installing WebSphere ESB on an existing WebSphere Application Server Base or Network Deployment environment where global security is enabled, security must be disabled before installation starts..

A custom WebSphere ESB profile cannot be augmented if the custom node/profile is already federated with a deployment manager.

Best Practices

- Limit use of Complete install
 - ▶ Does not let user configure the profile
 - ▶ Selects all defaults
 - ▶ Use Custom install and run the Profile Wizard
- Use the Installation Guide from WebSphere Enterprise Service Bus V6.0.1 online Information Center
 - ▶ <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp>
- If installation failed
 - ▶ Refer to InfoCenter when uninstalling any installed portions before reinstalling
 - Go to the following selection in the navigation panel:
WebSphere Enterprise Service Bus 6.0.1 > Installing WebSphere ESB >
Uninstalling WebSphere Enterprise Service Bus > Preparing for reinstallation
after a failed uninstallation.

Listed here are a few best practices, in addition to the information in the information center, readme, and release notes. Limit the use of Complete install since it does not allow you to configure the profile and selects all the defaults for that profile. Instead, use "Custom" install and run the Profile Wizard. Always refer to the Installation Guide from WebSphere Enterprise Service Bus V6.0.1 online Information Center (InfoCenter) at <http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp>

If the installation fails, refer to the Information Center to uninstall any partially installed components before reinstalling. Go to the WebSphere Enterprise Service Bus 6.0.1 > Installing WebSphere ESB > Uninstalling WebSphere Enterprise Service Bus > Preparing for reinstallation after a failed uninstallation navigation panel for more information.

Debug Install Errors

- Use collector.bat (very useful to IBM Support)
- The full set of files to immediately gather are:
 - ▶ <profilePath>/logs/* (zip recursively)
 - ▶ <profilePath>/properties/*
 - ▶ <WESB_HOME>/logs/wasprofile/*<profileName>*
 - ▶ <WESB_HOME>/logs/wbi/*
 - ▶ <WESB_HOME>/properties/profileRegistry.xml
 - ▶ <WESB_HOME>/properties/wasprofile.properties



To debug install errors, immediately gather the full set of files listed here:

<profilePath>/logs/* (zip recursively)
<profilePath>/properties/*
<WESB_HOME>/logs/wasprofile/*<profileName>*
<WESB_HOME>/logs/wbi/*
<WESB_HOME>/properties/profileRegistry.xml
<WESB_HOME>/properties/wasprofile.properties

When working with IBM support, you can run the collector.bat to quickly collect all the necessary files to send to support.

Install Logs

- log.txt
 - ▶ On Linux and UNIX platforms: *install_root*/logs/wbi/log.txt
 - ▶ On Windows platforms: *install_root* \logs\wbi\log.txt
 - ▶ Logs all installation events relating to WebSphere Enterprise Service Bus
 - ▶ **INSTCONFFAILED**
 - Total installation failure
 - ▶ **INSTCONFSUCCESS**
 - Successful installation
 - ▶ **INSTCONFPARTIALSUCCESS**
 - Installation errors occurred but the installation is still usable
 - Additional information in other log files identifies the errors

The install log is aptly called log.txt and can be found in *install_root*/logs/wbi/log.txt on Linux, Unix, and Windows platforms. The log.txt contains entries for all installation events related to WebSphere Enterprise Service Bus, which fall under one of the following three categories:

INSTCONFFAILED means the installation failed.

INSTCONFSUCCESS means the installation was successful.

INSTCONFPARTIALSUCCESS means that errors occurred during the installation, but the installation is still usable. Additional information in other log files identifies the errors.

Install Logs

▪ inst_config.log

- ▶ On Linux and UNIX platforms: *install_root*/logs/wbi/instconfig.log
- ▶ On Windows platforms: *install_root*\logs\wbi\instconfig.log
- ▶ Logs configuration actions that run at the end of the installation process to configure components, install system applications, and create Windows shortcuts and registry entries.
- ▶ Contains a series of <record> elements that document the configuration actions. If a post-installation configuration action fails, text like the following appears in the log:

```
<record>
  <date>2005-05-26T11:41:17</date>
  <millis>1117132877344</millis>
  <sequence>742</sequence>
  <logger>com.ibm.ws.install.configmanager.ConfigManager</logger>
  <level>WARNING</level>
  <class>com.ibm.ws.install.configmanager.ConfigManager</class>
  <method>executeAllActionsFound</method>
  <thread>12</thread>
  <message>Configuration action failed: com.ibm.ws.install.configmanager.actionengine.ANTAction-
D:WBI\AS\properties\version\install.wbi\6.0.0.0\config\full\install\90S\install\CEI.ant</message>
</record>
```

The inst_config.log will log configuration actions that run at the end of the installation process to configure components, install system applications, and create Windows shortcuts and registry entries and is found under *install_root*/logs/wbi/instconfig.log on Linux, Unix, and Windows platforms. It contains a series of <record> elements that document the configuration actions. If a post-installation configuration action fails, text similar to that shown in the above screen appears in the log.

Install Release Notes/ Technotes

- Profile directory path length limit of 256 characters on Microsoft® Windows® Operating Systems.
 - ▶ Profile creation fails if the user chooses a profile path that is long on Microsoft® Windows® operating systems
- “First Steps” console mentions migration wizard – however, migration wizard does not exist in WebSphere ESB V6.0.1
- Installation fails due to insufficient disk space on Windows.
 - ▶ The silent installation of the underlying WebSphere Application Server Network Deployment, version 6.0.x, requires approximately 1 GB of additional free disk space beyond what is actually used.
- For a complete list of tech notes, use the following link
 - ▶ <http://www.ibm.com/software/integration/wsesb/support/>



Some important points from the WebSphere Enterprise Service Bus release notes and tech notes are shown here. Installation fails if the profile directory path exceeds 256 characters. Installation can fail with a `java.util.ZipException` with an unmapped network drive. The Install Complete panel of the installation wizard provides an option to launch the first steps console after doing a custom install (after unchecking the "launch profile creation" box), and mentions a "migration wizard". The "migration wizard" does not exist in WebSphere ESB V6.0.1

The silent installation of the underlying WebSphere Application Server Network Deployment version 6.0, requires approximately 1 GB of additional free temp disk space beyond what is actually used.

Section

- Installation Overview
- Install Flow / Information on Install Screens
- Troubleshooting
- **Summary**

This section will provide a summary of topics discussed in this presentation.

Summary

- Discussed Installation of WebSphere Enterprise Service Bus V6.0.1
 - ▶ Covered an overview and initial install information
 - ▶ Stepped through installation flow discussing information on each installation screen, including uninstall
 - ▶ Discussed troubleshooting topics like known limitations, best practices, and debugging/logging information

This presentation covered the WebSphere Enterprise Service Bus V6.0.1 installation. It also provided an overview and initial install information, and stepped through the installation flow, discussing information on each installation screen, including uninstall. Troubleshooting topics such as known limitations, best practices, and debugging and logging information was also discussed.

Trademarks, Copyrights, and Disclaimers

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

| | | | | |
|-------------------|------------------------|----------|----------|-----------|
| IBM | CICS | IMS | MQSeries | Tivoli |
| IBM (logo) | Cloudscape | Informix | OS/390 | WebSphere |
| e (logo) business | DB2 | iSeries | OS/400 | xSeries |
| AIX | DB2 Universal Database | Lotus | pSeries | zSeries |

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are registered trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds.

Other company, product and service names may be trademarks or service marks of others.

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements and/or changes in the product(s) and/or program(s) described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

Information is provided "AS IS" without warranty of any kind. THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (e.g., IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2005. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.