BEA SmartConnect Installation and Configuration
Guide
Version 2.6 RP1

Preface

This documentation describes how to install and configure BEA SmartConnect for use with BEA AquaLogic Service Bus (ALSB). It is intended for those with an administrator's knowledge of the operating systems and target systems involved in their implementation.

How This Manual Is Organized

The following table includes numbers, titles, and brief descriptions of chapters and appendixes in this manual.

Chapter/Appendix		Contents
1	BEA SmartConnect Installation Overview	Provides an overview of the installation and configuration of BEA SmartConnect for AquaLogic Service Bus (ALSB).
2	Installing BEA SmartConnect	Describe the requirements and initial installation procedures for BEA SmartConnect ERP Transports and BEA SmartConnect Explorer.

Documentation Conventions

The following table lists and describes the conventions that apply throughout this manual.

Convention	Description
`THIS TYPEFACE` or `this typeface`	Denotes syntax that you must enter exactly as shown.
`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
<u>underscore</u>	Indicates a default setting.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option you can click or select.
this typeface	Highlights a file name or command. It may also indicate a button, menu item, or dialog box option you can click or select.
Key + Key	Indicates keys that you must press simultaneously.

Convention	Description
{ }	Indicates two or three choices; type one of them, not the braces.
|	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
. . .	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis points (…).
. . .	Indicates that there are (or could be) intervening or additional commands.

Contact Us!

Your feedback on BEA SmartConnect documentation is important to us.

Send us e-mail at docsupport@bea.com if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update BEA SmartConnect documentation.

In your e-mail message, please indicate that you are using the documentation for BEA SmartConnect and the version of the documentation.

If you have any questions about this version of BEA SmartConnect, or if you have problems using BEA SmartConnect, contact BEA Customer Support through BEA WebSUPPORT at www.bea.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Help Us to Serve You Better

To help our consultants answer your questions effectively, please be prepared to provide specifications and sample files and to answer questions about errors and problems.

The following tables list the specifications our consultants require.

Platform	
Operating System	
OS Version	
Product List	
Transports	
Transport Deployment	
Container Version	

The following table lists components. Specify the version in the column provided.

Component	**Version**
Transport	
EIS (DBMS/APP)	
HOTFIX / Service Pack	

In the following table, specify the JVM version and vendor in the columns provided.

Version	**Vendor**

The following table lists additional questions to help us serve you better.

Request/Question	**Error/Problem Details or Information**
Provide usage scenarios or summarize the application that produces the problem.	
Did this happen previously?	

Request/Question	Error/Problem Details or Information
Can you reproduce this problem consistently?	
Any **change in the application environment**: software configuration, EIS/database configuration, application, and so forth?	
Under what circumstance does the problem *not* occur?	
Describe the **steps** to reproduce the problem.	
Describe the **problem**.	
Specify the **error** message(s).	

The following lists error/problem files that might be applicable.

- XML schema

- XML instances

- Other input documents (transformation)

- Error screen shots

- Error output files

- Trace and log files

- Log transaction

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BEA SmartConnect Installation Overview

Topics:

- BEA SmartConnect Components

- Installation and Configuration Overview

This section provides an overview of the installation and configuration of BEA SmartConnect for AquaLogic Service Bus (ALSB).

BEA SmartConnect Components

This manual explains how to install and configure the following products and their components for use with ALSB:

- BEA SmartConnect for mySAP

- BEA SmartConnect for Siebel

- BEA SmartConnect Explorer

The following topics briefly summarize the components. Most users require only a subset of the available components.

BEA SmartConnect ERP Transports

BEA SmartConnect ERP Transports provide the fastest and most efficient way to connect your applications to the following systems:

- mySAP

- Siebel

BEA SmartConnect Explorer

BEA SmartConnect Explorer is a servlet-based Web application that uses a tree metaphor to introspect ERP system metadata. It enables you to create XML schemas and publish WSDLS for an associated object and import them into ALSB, without requiring in-depth knowledge of the objects or systems.

Installation and Configuration Overview

Depending on the ERP Transports and components you wish to use, installation and configuration steps include the following:

1. Review the requirements and install any required third party components.

2. Run the installation program to install the ERP Transports and BEA SmartConnect Explorer.

3. Deploy the ERP Transports and BEA SmartConnect Explorer using the Configuration Wizard.

4. Add any required third party libraries to the ALSB domain classpath.

5. Perform any transport-specific post-installation steps described in the documentation for your transports.

For more information on each of the installation and configuration steps, see Chapter 2, *Installing BEA SmartConnect*.

Chapter 2

Installing BEA SmartConnect

Topics:

- Installation Requirements

- Running the BEA SmartConnect Installation Program

- Deploying BEA SmartConnect

- Post-Installation Topics and Tasks

This section describes the requirements and initial installation procedures for BEA SmartConnect ERP Transports and BEA SmartConnect Explorer.

Installation Requirements

Review the following installation requirements to ensure your system supports BEA SmartConnect ERP Transports.

BEA Requirements

BEA SmartConnect ERP Transports run as part of ALSB and require the same hardware, operating system, and Java software requirements as ALSB version 2.6 RP1 (or later). Ensure that ALSB 2.6 RP1 is properly installed and functioning before configuring it for use with BEA SmartConnect ERP Transports. Be sure to install any needed service packs.

Make sure you have also upgraded ALSB and your ALSB domains to meet this requirement. For more information on upgrading ALSB, see the *BEA AquaLogic Service Bus 2.6 RP1 Upgrade Guide*, which can be accessed here:

http://edocs.bea.com/alsb/docs261/pdf/upgrade.pdf

You can use an existing ALSB domain or create a new ALSB domain for transport components using the Configuration Wizard.

- You can access the Configuration Wizard on Windows from the Start menu by selecting *Programs*, *BEA Products*, *Tools*, and then *Configuration Wizard*.

- You can access the Configuration Wizard on UNIX by executing the following:

  BEA_HOME/weblogic92/common/bin/config.sh

  where:

  BEA_HOME

      Is the location where BEA WebLogic is installed.

Note: If multiple domains run on your machine, be sure to change the default port so it does not conflict with other domains. For more information, see the BEA WebLogic documentation.

The procedures, names, and paths in this manual use Windows conventions and default locations unless otherwise indicated. For other operating systems and non-default locations, substitute accordingly. Names and case may vary between operating systems.

Note: Ensure that /JAVA_HOME/bin is in PATH on UNIX.

Additional ERP Transport Requirements

Additional ERP Transport requirements include:

- One of the supported operating system and hardware configurations on which BEA supports AquaLogic Service Bus 2.6 RP1. For a complete list of supported configurations, see the *AquaLogic Service Bus 2.6 Supported Configurations* document, which can be accessed here:

  http://edocs.bea.com/platform/suppconfigs/configs_al26/26_over/
  overview.html

- Third party libraries. Some transports require third party libraries provided by the vendor of the target system. You must add these files to the ALSB domain classpath after you install and deploy BEA SmartConnect. For more information, see *Adding Files to the ALSB Domain Classpath* on page 2-13.

Running the BEA SmartConnect Installation Program

The BEA SmartConnect installation program installs the following:

- BEA SmartConnect for mySAP

- BEA SmartConnect for Siebel

- BEA SmartConnect Explorer

On Windows, you must be an administrator for the local machine to run the installation.

On UNIX, since ERP Transports run as part of your application server, it is a good idea to install as the user ID under which your application server runs.

Running the Installation

Use the steps below to install BEA SmartConnect.

Procedure: How to Install BEA SmartConnect

To install BEA SmartConnect:

1. Execute the installation program for your platform. The name of this program may vary, for example:

   - On Windows:

     BEA_smartconnect260_win32.exe

   - On Linux platforms:

     BEA_smartconnect260_linux32.bin

   The installation begins and the Welcome window opens.

Note: In this section, the Windows version of the installation is used as an example.
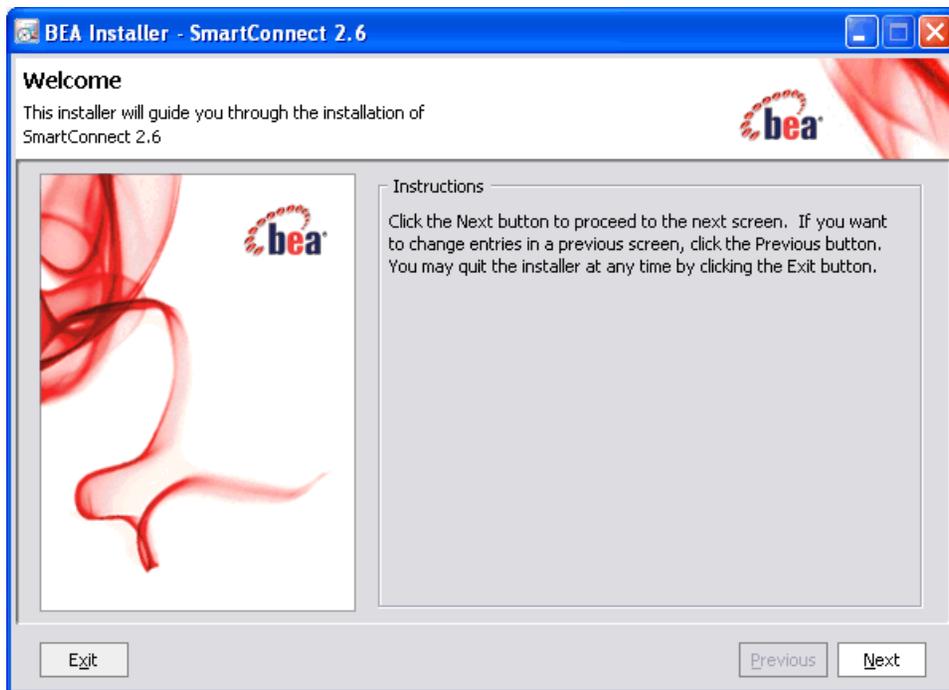
2. Click *Next*.

    The BEA License Agreement window opens.
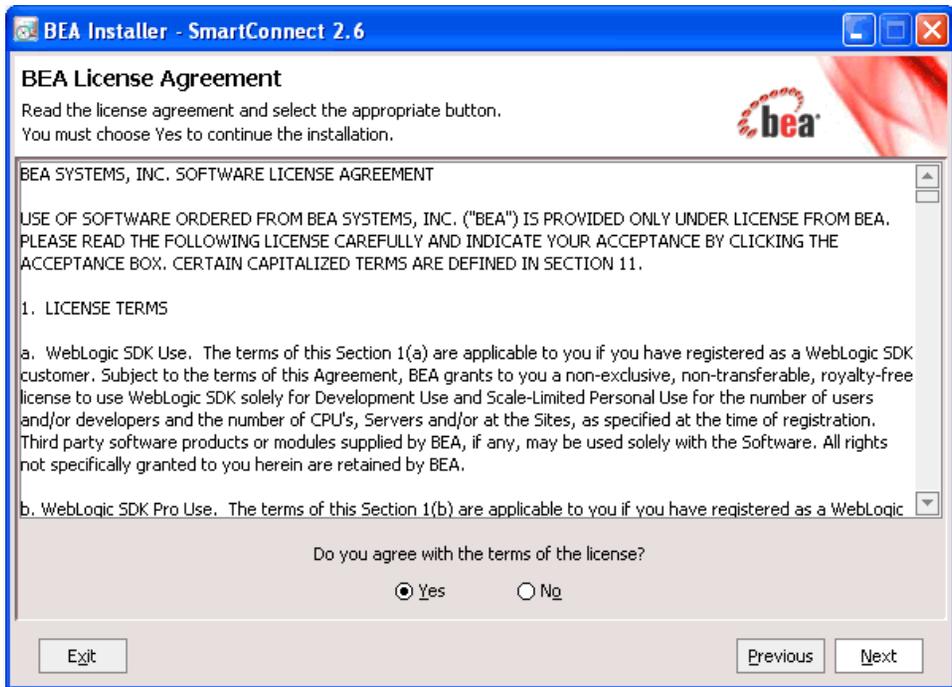
3. Review the information, indicate that you accept the terms, and click *Next* to continue.

The Choose BEA Home Directory window opens.
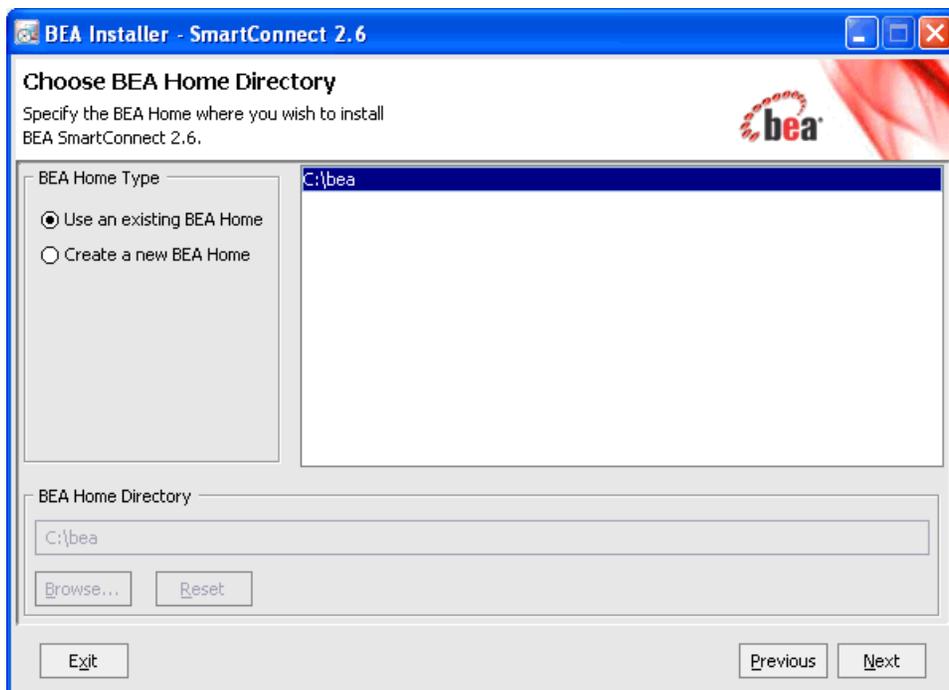
4. Specify the BEA directory into which WebLogic and other BEA software are installed.

5. Click *Next*.

   The Choose Install Type window opens.
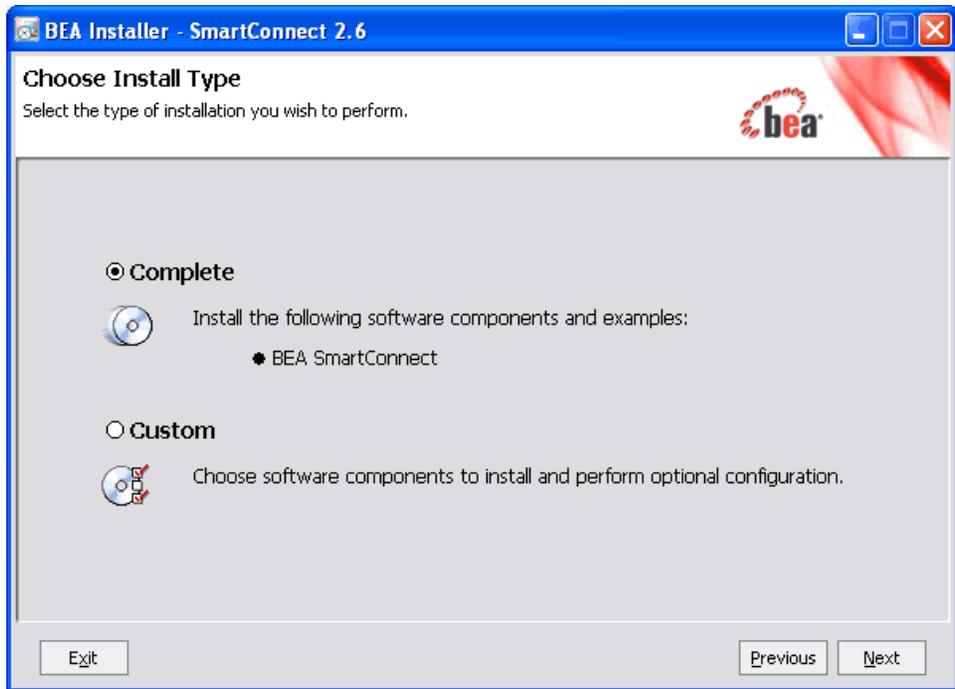
6. Select the type of installation you want to perform:

   - Complete (default)

     Installs the entire BEA SmartConnect product suite.

   - Custom

     Installs only selected components you can specify from the BEA SmartConnect product suite.

7. Click *Next*.

   The Choose Product Installation Directories window opens.
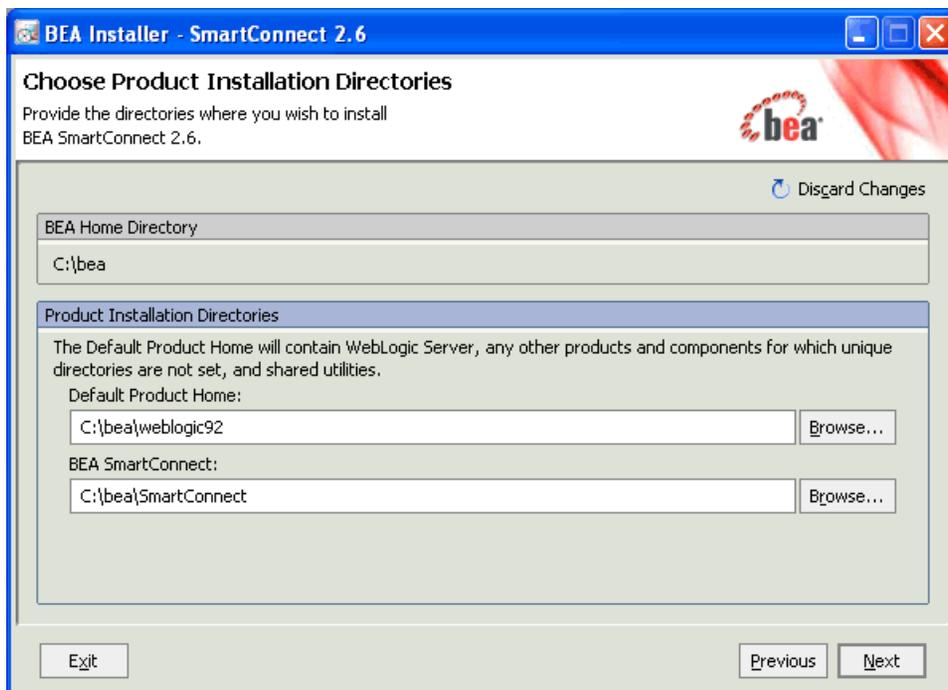
This window allows you to specify the location where the default BEA WebLogic product home is installed and where BEA SmartConnect will be installed.

8. Accept the default or click *Browse* to specify a new location and then click *Next*.

The Choose Shortcut Location window opens.
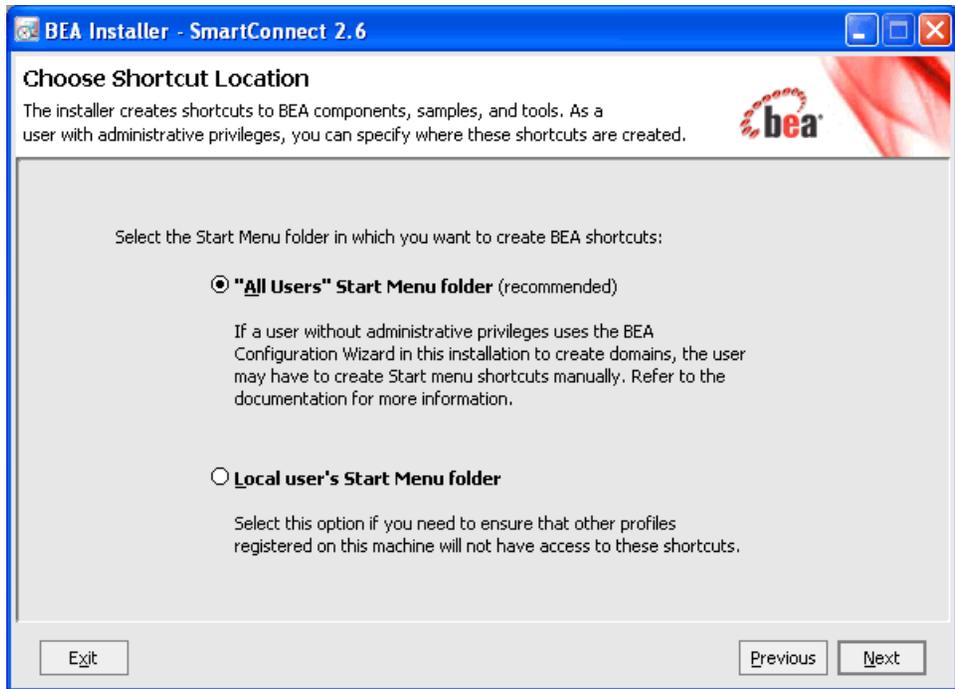
9. Select the Start Menu folder where you want to create BEA shortcuts:

   • "All Users" Start Menu Folder (recommended)

   • Local user's Start Menu folder

10. Click *Next* to start the installation.

    Files are copied to your system in the directory you specified.

    Once the installation is complete, you can deploy BEA SmartConnect ERP Transports and BEA SmartConnect Explorer using the Configuration Wizard.

Deploying BEA SmartConnect

After you have finished installing BEA SmartConnect, perform the following steps to extend your ALSB domains and deploy BEA SmartConnect ERP Transports and BEA SmartConnect Explorer:

1. Stop all running ALSB servers.

2. Back up all ALSB domains.

3. In a command window, go to the following directory:

   BEA_HOME`/common/bin`

   where:

   BEA_HOME

   Is the location where BEA WebLogic is installed.

4. Execute the following script for each ALSB domain:

   ```
   ALSBDomainUtils.cmd/sh extendALSBDomain <fully qualified path to
   domain> <fully qualified path to SmartConnect domain extension
   template>
   ```

   For example:

   ```
   ALSBDomainUtils.cmd extendALSBDomain
   d:\beaALSB\user_projects\domains\base_domain
   d:\beaALSB\weblogic92\common\templates\applications\smartconnect.jar
   ```

   Your ALSB domains are now extended, and BEA SmartConnect ERP Transports and SmartConnect Explorer are deployed.

5. Restart your ALSB servers for the changes to take effect.

Post-Installation Topics and Tasks

Review the topics that follow to determine if any tasks are required for your platform and transports.

Copying and Collecting Files for BEA SmartConnect ERP Transports

Some ERP Transports require third party libraries or JDBC drivers. Use the table that follows to determine which third party files are required for your transport.

Note: The table sometimes lists the actual names of required files rather than the generic name of the driver or library. However, your vendor may change file names, update files, or have different versions of the drivers for different releases. Therefore, confirm which files are required by reviewing information provided by your vendor. Ensure you use the latest version of the driver for the correct release of your target system, data source, or protocol.

The following table lists the required libraries or drivers for your transports.

BEA SmartConnect ERP Transport for	Required Libraries or Drivers
mySAP	SAP Java connector 2.16 (normally sapjco.jar). For the current release status of the SAP Java Connector, refer to SAP Note #549268 in the SAP Service Marketplace Web site. A valid SAP service ID is required to access this site. To download the current version, follow the information provided on the SAP Java Connector (SAP JCo) overview page. For more information, contact your SAP BASIS Administrator. Using the appropriate archive tool, open the archive containing the SAP Java Connector (SAP JCo) and extract the run-time files. The file names may vary by platform, but usually are contained in the root of the archive. **Note:** The librfc32.dll file, which is also provided by SAP with the Java Connector system files, must be copied into the Windows\System32 directory. When using an application server, if you run into problems with the BEA SmartConnect for mySAP, add sapjco.jar to your application server CLASSPATH. For BEA WebLogic, the sapjco.jar file must be added to your WebLogic domain CLASSPATH.

BEA SmartConnect ERP Transport for	Required Libraries or Drivers
Siebel	For Siebel 7.0.3 through 8.0, Siebel Java Data Bean API.
	This is distributed as .jar files with the Siebel Thin Client. These libraries vary by Siebel release in both content and name. Therefore, the Siebel Thin Client provided with the target Siebel system must always be used with the transport, for example:
	• Siebel 7.0.3
	`SiebelJI_Common.jar`
	`SiebelJI_enu.jar`
	• Siebel 7.5.2
	`SiebelJI_Common.jar`
	`SiebelJI_enu.jar`
	`SiebelJI.jar`
	• Siebel 7.7
	`SiebelJI_enu.jar`
	`Siebel.jar`
	• Siebel 7.8
	`SiebelJI_enu.jar`
	`Siebel.jar`
	• Siebel 8.0
	`SiebelJI_enu.jar`
	`Siebel.jar`
	Note: The following file is used for English language implementations:
	`SiebelJI_enu.jar`
	For non-English installations, the last three letters (_enu) vary.

Adding Files to the ALSB Domain Classpath

Once BEA SmartConnect ERP Transports and BEA SmartConnect Explorer are installed and deployed to ALSB, you must add any required third-party files to your ALSB domain classpath.

You can add these files to the classpath by modifying the environment properties in the setDomainEnv script file on your platform:

*   Windows:

    BEA_HOME\user_projects\domains*DOMAIN_NAME*\bin\setDomainEnv.cmd

    where:

    BEA_HOME

    > Is the location where BEA WebLogic is installed.

    DOMAIN_NAME

    > Is the name of your ALSB domain.

*   UNIX:

    BEA_HOME/user_projects/domains/*DOMAIN_NAME*/bin/setDomainEnv.sh

    where:

    BEA_HOME

    > Is the location where BEA WebLogic is installed.

    DOMAIN_NAME

    > Is the name of your ALSB domain.

Procedure: How to Add Files to the ALSB Domain Classpath

To add files to the ALSB domain classpath:

1. If it is started, stop the ALSB domain you are using.

2. Depending on your platform, open the setDomainEnv.cmd (Windows) or setDomainEnv.sh (UNIX) file in a text editor.

3. Add the full path to any required files required to the POST_CLASSPATH variable. For example:

    On Windows:

```
set
POST_CLASSPATH=%POST_CLASSPATH%;%WL_HOME%\servicebus\L10N;%WL_HOME%\se
rvicebus\lib\sb-public.jar;%WL_HOME%\servicebus\lib\sb-common.jar;%WL_
HOME%\servicebus\lib\sb-internal.jar;%WL_HOME%\servicebus\lib\sb-core.
jar;%WL_HOME%\integration\common\lib\mfl-common.jar;%WL_HOME%\platform
\lib\p13n\p13n_system.jar;%WL_HOME%\common\p13n\lib\p13n_common.jar;%W
L_HOME%\server\lib\wlxbean.jar;%WL_HOME%\server\lib\apachexmlbeansutil
.jar;%WL_HOME%\server\lib\xquery.jar;%WL_HOME%\server\lib\binxml.jar;%
WL_HOME%\common\lib\log4j.jar;%WL_HOME%\servicebus\lib\uddi_library.ja
r;%WL_HOME%\servicebus\lib\uddi_client_v3.jar;%WL_HOME%\servicebus\lib
\version.jar;<INSERT FULL PATH HERE>
```

On UNIX:

```
POST_CLASSPATH="${POST_CLASSPATH}${CLASSPATHSEP}${WL_HOME}/servicebus/
L10N${CLASSPATHSEP}${WL_HOME}/servicebus/lib/sb-public.jar${CLASSPATHS
EP}${WL_HOME}/servicebus/lib/sb-common.jar${CLASSPATHSEP}${WL_HOME}/se
rvicebus/lib/sb-internal.jar${CLASSPATHSEP}${WL_HOME}/servicebus/lib/s
b-core.jar${CLASSPATHSEP}${WL_HOME}/integration/common/lib/mfl-common.
jar${CLASSPATHSEP}${WL_HOME}/platform/lib/p13n/p13n_system.jar${CLASSP
ATHSEP}${WL_HOME}/common/p13n/lib/p13n_common.jar${CLASSPATHSEP}${WL_H
OME}/server/lib/wlxbean.jar${CLASSPATHSEP}${WL_HOME}/server/lib/apache
xmlbeansutil.jar${CLASSPATHSEP}${WL_HOME}/server/lib/xquery.jar${CLASS
PATHSEP}${WL_HOME}/server/lib/binxml.jar${CLASSPATHSEP}${WL_HOME}/comm
on/lib/log4j.jar${CLASSPATHSEP}${WL_HOME}/servicebus/lib/uddi_library.
jar${CLASSPATHSEP}${WL_HOME}/servicebus/lib/uddi_client_v3.jar${CLASSP
ATHSEP}${WL_HOME}/servicebus/lib/version.jar"$<INSERT FULL PATH HERE>
export POST_CLASSPATH
```

Note: Adding directories is not sufficient. You must add the full paths including each file. On UNIX, make sure to export the variable.

4. Save and exit the file.

5. Restart ALSB.

Merging the BEA SmartConnect License File

BEA SmartConnect ERP Transports cannot be used without a valid software license. When you have obtained a valid license for the ERP Transport, you must merge the BEA SmartConnect license file by updating your *license.bea* file.

Procedure: How to Merge the BEA SmartConnect License File

To merge the BEA SmartConnect license file:

1. Save the BEA SmartConnect license file that you obtained with a name other than *license.bea*, in the BEA_HOME directory. For example, save the file as *SmartConnectLicense.bea*. Use this file as the *license_update_file* in step 4 of this procedure.

Warning: Do not overwrite or change the name of the existing *license.bea* file.

2. Perform the step appropriate for your platform:

- On a Windows system, open an MS-DOS session and go to the *BEA_HOME* directory.

- On a UNIX system, go to the *BEA_HOME* directory.

3. If it is not already included, add the JDK to your PATH variable by executing the command appropriate to your system:

- On a Windows system:

```
set PATH=BEA_HOME\jdk131_03\bin;%PATH%
```

- On a UNIX system:

```
PATH=BEA_HOME/jdk131_03/bin:$PATH
export PATH
```

4. Merge the license update file into your existing license by executing the command appropriate to your system:

- On a Windows system:

```
UpdateLicense license_update_file
```

- On a UNIX system:

```
sh UpdateLicense.sh license_update_file
```

where:

license_update_file

Is the name to which you saved the BEA SmartConnect license update file in step 1.

5. Save a copy of your updated *license.bea* file in a safe place.

Enabling Debug Tracing

As a default, debug tracing is disabled for BEA SmartConnect for mySAP and BEA SmartConnect for Siebel. In the event that you wish to troubleshoot Business Services or Proxy Services, or you wish to prepare a trace file for a support call, you must enable debug tracing by adding the following line to the StartWebLogic.cmd file in your domain directory:

- BEA SmartConnect for mySAP:

```
set EXTRA_JAVA_PROPERTIES=-Dmysap.transport.debug=y
```

- BEA SmartConnect for Siebel:

```
set EXTRA_JAVA_PROPERTIES=-Dsiebel.transport.debug=y
```

Configuring the Siebel.Properties File

You must create a *siebel.properties* file for use with BEA SmartConnect for Siebel.

This file must be located in your classpath and can be used to provide default parameters for applications connecting to Siebel using the Java Data Bean API.

The following table lists and describes the property values that can be added in the siebel.properties file.

Property Type	Property	Description
Request Timeout	siebel.conmgr.txtimeout	Indicates the transaction timeout in seconds on the server side. The default is 2700 seconds.
Poolsize	siebel.conmgr.poolsize	Indicates the connection pool size. Connection pool maintains a set of connections to a specific server process. The default is 2 with a maximum of 500.
Session Timeout	siebel.conmgr.sesstimeout	Indicates the transaction timeout in seconds on the client side. The default is 600 seconds.
Encryption	siebel.conmgr.jce	Indicates the usage of Java Cryptography Extension. You can set this to 1 for jce usage and 0 for nonusage.
Boolean	siebel.user.encrypted	Specifies whether the user name and the password is encrypted with com.siebel.extra.MangleString.

You must restart the ALSB server after setting this environment variable.

Uninstalling BEA SmartConnect

An uninstall utility is provided to properly remove BEA SmartConnect and its related components from your system. You should use the uninstall utility rather than manually deleting directories. Manually removing directories on your system may cause problems if you wish to reinstall at a later time.

Procedure: How to Uninstall BEA SmartConnect

To uninstall BEA SmartConnect:

1. Select *Programs*, *BEA Products*, and click *Uninstall BEA Products*.

   The BEA Uninstaller - SmartConnect 2.6 utility opens, as shown in the following image.
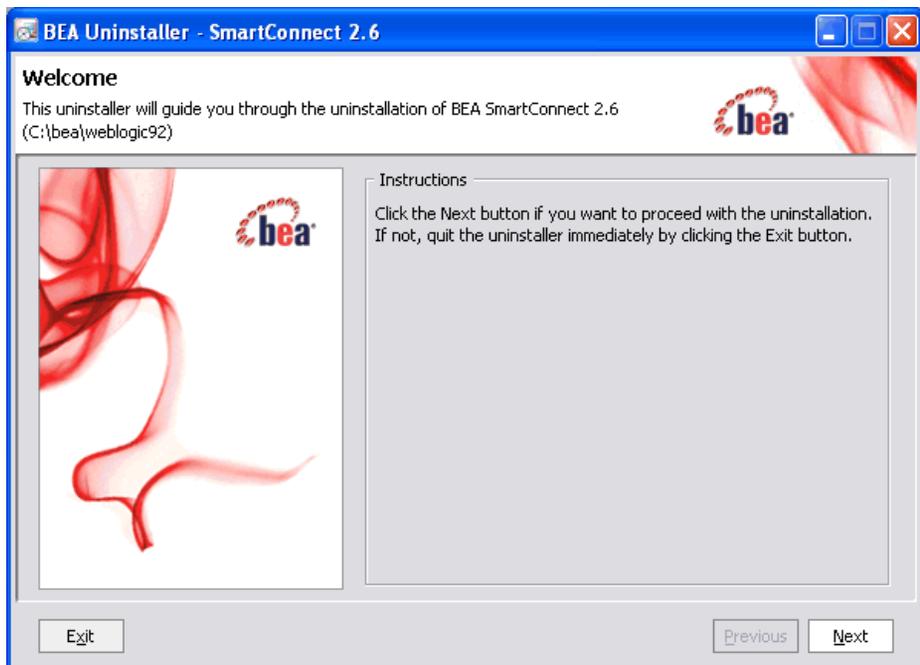
2. Click *Next*.

   The Choose Components window opens.
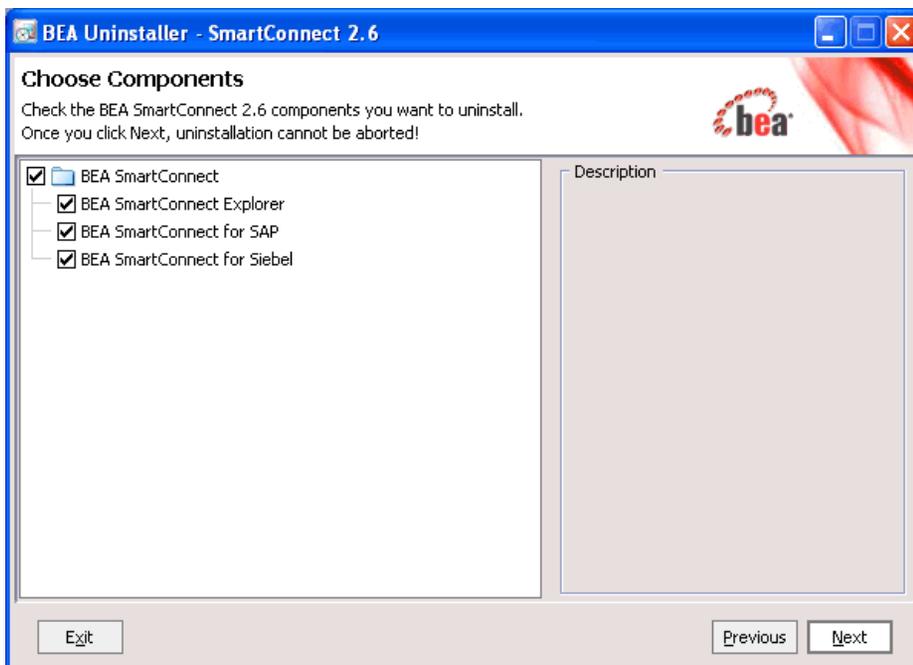
3. Select the BEA SmartConnect components you want to uninstall and click *Next*.

Note: Once you click *Next* at this point, the uninstallation process will begin and cannot be aborted.