

INSTALLING ADOBE® CUSTOMER EXPERIENCE SOLUTIONS



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Chapter 1: About This Document

This document will help you learn about installing, configuring, and deploying Adobe® Customer Experience Solutions.

1.1 What's in this document?

This guide provides information about how to install and configure the following Customer Experience Solutions:

- Integrated Content Review 10.0 (ICR)
- Customer Communications-Interactive Statements 10.0
- Customer Communications-Correspondence Management 10.0
- Web Experience Management 5.4 (WEM)

1.2 Who should read this document?

This guide provides information for administrators or developers who are responsible for installing, configuring, and deploying Customer Experience Solutions. The information provided is based on the assumption that anyone reading this guide has installed and worked on Adobe Digital Enterprise Platform (ADEP) and has basic understanding about Adobe Digital Enterprise Platform Experience Services platform.

1.3 Conventions used in this document

This guide uses the following naming conventions for common file paths.

Name	Default value	Description
[solutions root]	NA	The installation directory from where you run the Solutions Quickstart JAR file.
[DocumentServices root]	Windows: C:\Adobe\ADEP\Document Services 10.0 Unix: /adobe/adeP/document_services_10.0	The installation directory that is used for all Document Services modules. The installation directory contains subdirectories for Document Services Configuration Manager. This directory also includes directories relating to third-party products.
[appserver root]	The home directory of the application server that runs Document Services.	JBoss 5.1 on Windows: C:\jboss WebSphere on Windows: C:\Program Files\IBM\WebSphere\AppServer WebSphere on Linux and Solaris: /opt/IBM/WebSphere/AppServer WebSphere on AIX: /usr/IBM/WebSphere/AppServer, or, /opt/IBM/WebSphere/AppServer WebLogic 11g on Windows: C:\Oracle\Middleware\wlserver_10.3 WebLogic 11g on Linux and Solaris: /opt/Oracle/Middleware/wlserver_10.3
[appserverdomain]	The domain that you configured on WebLogic. The default domain is called <i>base_domain</i> .	WebLogic 11g on Windows: C:\Oracle\Middleware\user_projects\domains\base_domain WebLogic 11g on Linux and Solaris: /opt/Oracle/Middleware
[dbserver root]	The location where the Document Services database server is installed.	Depends on the database type and your specification during installation.

Chapter 2: Introduction

2.1 Customer Experience Solutions overview

Customer Experience Solutions are extendable and customizable solutions to reduce development time and increase quality. They are packaged with a set of production-ready building blocks that consist of reusable components and technical guides.

The following Customer Experience Solutions are available as part of the Adobe Digital Enterprise Platform (ADEP):

Integrated Content Review 10.0 (ICR) Enables you to create, manage, review, and approve assets used in digital marketing campaign.

Customer Communications-Interactive Statements 10.0 Enables you to create and deliver personalized interactive statements that customer can use to interact directly with businesses.

Customer Communications-Correspondence Management 10.0 Empowers customer interfacing agents to create personalized correspondences using pre-defined fragments of content.

Web Experience Management 5.4 (WEM) Is a suite of applications for organizations to leverage the online channels to engage their customers and prospects. It allows you to create and manage marketing campaigns and digital assets, and build and collaborate with customer communities.

For information about ADEP platform, see [Adobe Digital Enterprise Platform Overview](#).

2.2 Installation and configuration overview

- Review the system requirements for installing Customer Experience Solutions. See “[System requirements](#)” on page 4 for more information.
- Install Customer Experience Solutions. See “[Install Customer Experience Solutions](#)” on page 6 for more information.
- Install Document Services configure using Document Services Configuration Manager.
For complete documentation, see http://www.adobe.com/go/learn_dep_documentation_10.
- Perform post-deployment activities. See “[Post-Deployment Activities](#)” on page 18.
- Configure data source for your application server, if applicable. See “[Appendix - Manually Configuring Data Sources](#)” on page 30.

Chapter 3: System requirements

Server-side requirements

Operating System	Architecture	JDK
Microsoft Windows® Server 2008 R1/R2	64-bit OS / 64-bit JVM	Sun™ Java™ 6 update 26 or later updates to Java 6 (64-bit)

Note: The 32-bit and 64-bit versions of Windows 7 and Windows Vista operating systems with a minimum of 4 GB RAM are supported for evaluation and development purposes only.

Client-side requirements

Solution	Operating System	Adobe Acrobat®/Reader®	Browser	Designer	Flash® Player	Flash Builder
ICR	Windows 7 Windows XP	Acrobat/Reader 9.2 or later	Windows Internet Explorer 7 or later		Flash Player 10.2	Flash Builder 4.0 or later
Interactive Statements	Windows 7 Windows XP	Acrobat/Reader 9.0	Windows Internet Explorer 7 or later	Designer	Flash Player 10.1.0 or later	Flash Builder 4.0 or 4.0.1
Correspondence Management	Windows 7 Windows XP	Acrobat/Reader 9.2 or later	Windows Internet Explorer 6 or later Safari 4.0 or later Firefox 3.6 or later	Designer	Flash Player 10.2 or later	Flash Builder 4.0 or later

In addition, Adobe® Creative Suite® Task List Extension for ICR is an extension for Adobe Photoshop®, Adobe Illustrator®, and Adobe InDesign® that allows the creative professional to manage and work with design tasks.

ICR Task List Extension is supported on the following platforms:

- Windows XP, Windows Vista, Windows 7
- Mac OS X 10.5, 10.6 and 10.7

For more information, see [Installing and Configuring the ICR Task List Extension](#).

3.1 JAVA_HOME environment variable

Before you install Customer Experience Solutions, ensure that you have the supported version of Sun JDK installed on your machine. Also, you must create or set the JAVA_HOME environment variable to point to the location where the Sun Java JDK is installed.

3.1.1 Set the JAVA_HOME and Path environment variables

- 1 Select **Start** > **Control Panel** > **System**.
- 2 Click the **Advanced** tab and click **Environment Variables**.
- 3 In the **System Variables** area, click **New**.
- 4 In the **New System Variable** box, type `JAVA_HOME` as the variable name.
- 5 In the **Value** field, specify the path to the directory where you installed the Java JDK. The specified directory should contain the `/bin` subdirectory. For example, `C:\Program Files\Java\jdk1.6.0_26`.
- 6 Click **Ok**.
- 7 In the System Variables area, select **Path** and click **Edit**.
- 8 Append `%JAVA_HOME%\bin;` at the beginning of the value.
- 9 Click **Ok**.

3.1.2 Verify the JAVA_HOME environment variable setting

Open the command prompt and execute the following command:

```
java -version
```

The command returns the JRE version installed on your machine (for example, `1.6.0_26`).

Chapter 4: Install Customer Experience Solutions

The installation and configuration of the Customer Experience Solutions involves running a Quickstart JAR file and then running the Document Services Configuration Manager.

Note: Ensure that you have the 64-bit Sun JDK 6 update 26 or later installed on your machine. For information on system requirements, see “[System requirements](#)” on page 4.

Before proceeding to install the Customer Experience Solutions Quickstart, review the [Before you Install ADEP](#) guide.

4.1 General consideration for installing Customer Experience Solutions

Pre-installation

- Customer Experience Solutions are installed in the same directory where the Quickstart JAR file is placed. Therefore, you must download or move the file to the desired installation directory.
The installation directory for Customer Experience Solutions is referred to as `<solutions root>` in ADEP documentation.
- The installation directory path must not contain any space characters.
- Ensure that there is no other JAR file or `crx-quickstart` directory present in the installation directory. It will cause problems with the installation.

During installation

- If the default or the specified port is not available, Quickstart configures the next available port. The default port number for the Experience Server is **4502**.
- When installed using the GUI mode, a Quickstart window is displayed, which displays an ON button when the Experience Server is running.
You can click the ON button to stop the running Experience Server. The ON button changes to OFF as the Experience Server stops. To restart the Experience Server, double-click the JAR file.
- The first time you run the JAR file, it extracts all the files contained in it, which may take several minutes. The subsequent startups are quicker as the repository and other associated files have already been extracted and placed in the installation directory.
- The Experience Server is extracted into the `<solutions root>/crx-quickstart` directory.

Post-installation

- Do not delete the Quickstart from the installation directory as it will cause some operations to fail. Also, the JAR file is required to restart the Experience server.



You can also install a Windows service for your Experience Server as described in <http://blogs.adobe.com/ADEPhelp/2011/09/installing-windows-service-for-ade-experience-server.html>.

- If you used a port number different from the default **4502**, you can determine the port number for the `crx.quickstart.server.port` string in the `stderr.log` file present in the `<solutions root>\crx-quickstart\log` directory.

4.2 Run the Quickstart

- 1 Obtain the Customer Experience Solutions Quickstart JAR from the Adobe representative for your organization. You can also request for a consultation by submitting the consultation form at <https://www.adobe.com/cfusion/mmform/index.cfm?name=solutions>. A representative from Adobe will contact you. Once you have received the Quickstart JAR file, download or copy it to your machine.

- 2 To integrate Customer Experience Solutions with the Document Services platform, append `-ds` to the JAR filename. For example, `adep-solutions-quickstart-ds.jar`. This configuration is required for your Customer Experience Solutions to interact with the Document Services components and services.

The default port number for the Experience Server is **4502**. You can change the default port number by renaming the JAR file as `adep-solutions-quickstart-ds-p<port>.jar`. Replace `<port>` with the port number for the CRX server.

Important: For Correspondence Management, you must run two instances of the Quickstart in author mode and publish mode. In this case, you need to keep two copies of the JAR file in different directories for the author and publish instances, and add `-author` and `-publish` to the filename, respectively. Also, ensure to use different port number to avoid any conflict. For example, you can rename the two files as `adep-solutions-author-ds-p4502.jar` and `adep-solutions-publish-ds-p4503.jar`.

Important: By default, the author and publish instances are configured to run on the same machine port 4502 and 4503, respectively. However, you may choose to run the two instances on different machines. Once the two instances are running on different machines, you must configure your publish instance as described in “7.3.2.1 Configure the publish instance” on page 19.

- 3 Do one of the following:

- **Run the Quickstart in GUI mode**

Double-click the JAR file to begin the installation program. It launches the Quickstart window, which displays the progress of the installation.

- **Run the Quickstart in CLI mode**

Execute the following command to begin the installation program.


```
java -jar adep-solutions-quickstart-10-0-all-all.jar
```

There are more options available with the Quickstart file to customize your installation as described in “4.4 CLI Options for the Quickstart” on page 8. You can also use the `-help` option to view the available options.

Note: When you fork the process using the `-fork` argument or the process is forked automatically in cases of lesser memory arguments passed, ensure that you specify any VM argument (for example, DataServices clustering argument) with `forkargs` parameter. As you start the Solutions quickstart using the `java -jar` command, you will find information about processes being forked on System Out.

When the installation is complete and the Experience Server is running, the Adobe Digital Enterprise Platform - License page opens in a browser window.

If the License page does not open automatically, go to `http://[host]:[port]/`. The default values for host and port are **localhost** and **4502**, respectively.

 If you used a different port number, you can determine the port number from the `stderr.log` file present in the `<solutions root>\log\` directory.

Note: The first time you run the JAR file, it extracts all the files contained in it, which may take several minutes. The subsequent startups are quicker as the repository and other associated files have already been extracted and placed in the installation directory.

- 4 On the Adobe Digital Enterprise Platform - License page, click **Click here to obtain a free trial license**.
- 5 Log in using your Adobe ID and password.
- 6 Click **Retrieve License Key**. The license key is sent to the email ID associated with your Adobe ID.
- 7 Go to the Welcome page or `http://[host]:[port]/`. Review and accept the End User License Agreement, specify the customer name and the license key, and click **Register** to register your license key.
The confirmation page with the registration details opens.
- 8 Click **Close** on the registration details page. The Adobe Digital Enterprise Platform - Sign In page opens.
- 9 Specify `admin/admin` as the username/password and click **Sign In**. The ADEP Customer Experience Solutions Welcome page opens.

4.3 Install a Windows Service for Experience Server

You can optionally install a Windows services for your Experience Server to ensure that your Experience Server runs automatically each time your Windows restarts. Also, it will allow you to control the start and stop operations by using the Services control panel.

For more information, see <http://blogs.adobe.com/ADEPhelp/2011/09/installing-windows-service-for-adep-experience-server.html>.

4.4 CLI Options for the Quickstart

The following table lists all the options available with the Quickstart file.

Option	Description
<code>(-p,-port) <port></code>	Sets the port number for the Experience Server The default port number is 4502 .
<code>-nobrowser</code>	Indicates not to open browser at startup
<code>-unpack</code>	Unpacks installation files but does not start the server
<code>-fe (-filename-regexp) <expr></code>	Specifies regular expression used to select part of the jar filename to use for setting system properties. Must contain one (group) used to extract the part of the filename to use. Use the java Pattern class syntax
<code>-v (-verbose)</code>	Indicates not to redirect stdout/stderr to files and do not close stdin
<code>-sp <prop> [<prop> ...]</code>	Sets a system property It overrides any other start up setting.
<code>-nofork</code>	Indicates not to fork the JVM, even if not running on a console

Option	Description
-fork	Enables forced forking the JVM if running on a console, using recommended default memory settings for the forked JVM
-forkargs <args> [<args> ...]	Specifies additional arguments for the forked JVM; defaults to -Xmx1792M -XX:MaxPermSize=256m Use -- to specify values starting with a hyphen (-). For example: -forkargs -- -server
-a (--interface) <interface>	Specifies the optional IP address (interface) to bind to
-ss (-shutdown-string) <string>	Specifies the string used to shutdown this application, when received on standard input
-pt <string>	Specifies the process type (main/fork) Note: do not use directly, used when forking a process
-r <string> [<string> [<string> [<string> [<string> [<string> [<string> [<string> [<string> [<string>]]]]]]]]]	Enables you to define the run mode(s)
-b <string>	Enables you to define the path under which the quickstart work folder is created
-low-mem-action <string>	Specifies the low memory action when the memory is insufficient at startup

4.5 Next steps

Install Document Services and run Document Services Configuration Manager to deploy Customer Experience Solutions on the Document Server. For more information, see [“Configuring and Deploying Customer Experience Solutions”](#) on page 10.

Chapter 5: Configuring and Deploying Customer Experience Solutions

After you have run the Solutions Quickstart, you must install Document Services and run Document Services Configuration Manager to configure the installation.

Configuration Manager configures Document Services modules in EAR files for deploying them to the application server and deploys the Document Services components.

***Important:** In addition to the Configuration Manager screens for configuring Document Server, you will encounter screens specific to the Customer Experience Solutions installed on your system. See “[5.2.1 Configure Customer Experience Solutions](#)” on page 11 for details.*

***Important:** Customer Experience Solutions rely on specific Document Services modules and tasks. While running Configuration Manager, you must ensure that these modules and tasks are selected. Review the information at “[5.1 Dependencies on Document Services modules and tasks](#)” on page 10 before you run the Configuration Manager.*

5.1 Dependencies on Document Services modules and tasks

For successful configuration and smooth running of Customer Experience Solutions, you must ensure the following while running Configuration Manager.

- On the **Module Selection screen**, select the following modules for Customer Experience Solutions:
 - **Integrated Content Review:** Adobe Digital Enterprise Platform Document Services - PDF Generator 10.0, Adobe Digital Enterprise Platform Document Services - Process Management 10.0, Adobe Digital Enterprise Platform Document Services - Forms 10.0, Adobe Digital Enterprise Platform Document Services - Output 10.0, and Adobe Digital Enterprise Platform Document Services - Reader Extensions 10.0
 - **Correspondence Management:** Forms, and Output
 - **Interactive Statements:** Adobe Digital Enterprise Platform Document Services - Digital Signatures 10.0, Adobe Digital Enterprise Platform Document Services - Rights Management 10.0, Forms, Output, and Reader Extensions
- On the **Task Selection screen**, select the following tasks:
 - Deploy Document Services components deployment
 - Validate Document Services components
 - Import Document Services Samples
- Parameters that are already configured are shown as non-editable during this run. Click **Edit configurations** to make these fields editable and modify values, if necessary. For example, on **Configure Document Services** screens, you could modify the directories for temporary files, global document storage (GDS), or fonts.

5.2 Run Configuration Manager

You must now configure Document Services by running Configuration Manager. See the *Installing and Deploying Document Services* guide for your application server. The complete ADEP documentation is available at [ADEP Documentation website](#).

5.2.1 Configure Customer Experience Solutions

You will come across the following screens for Customer Experience Solutions while running the Configuration Manager.

5.2.1.1 Customer Experience Solution Deployment Step

Note: Ensure that Experience Server is running.

On the **Customer Experience Solutions Deployment Step** screen, provide the required information for the following fields and click **Download**.

Host The name or the IP address of the computer that hosts the CRX server. The default value is **localhost**.

HTTP Port The HTTP service port that the CRX server uses. The default port number is **4502**.

Admin User ID An administrator user account to connect to the CRX server. The default user ID is **admin**.

Admin Password The password for the specified administrator user account. The default password is **admin**.

5.2.1.2 Customer Experience Solution Selection

On the **Customer Experience Solution Selection** screen, select the Customer Experience Solutions you want to configure and click **Next**.

5.2.1.3 Datasource Configuration - Customer Experience Solutions

Note: For JBoss application server, the data source configuration screen appears only in case of partial Turnkey. For Turnkey and non-Turnkey deployments on JBoss, you must configure your data sources manually as described in “Appendix - Manually Configuring Data Sources” on page 30.

Note: For WebLogic and WebSphere application servers, this screen appears only if you selected Configure Data source option with globally scoped Data source on the Application Server Configuration Selection screen.

On the **Datasource Configuration - Customer Experience Solutions** screen, specify the information and click **Test Database Connection**. When the connection is tested successfully, click **Next**.

Press F1 for details about the required information.

Note: You can choose to configure data sources manually for WebLogic and WebSphere as well. To override automatic data source configuration, select Manually configure data source now before continuing. Without exiting Configuration Manager, configure the data sources for your application server as described in “Appendix - Manually Configuring Data Sources” on page 30.

5.2.1.4 Configure Data source JDBC Driver Classpath for Customer Experience Solutions (WebLogic only)

Note: This screen appears only if you selected Configure Data source option with Packaged JDBC Modules on Application Server Configuration Selection screen.

Configuration Manager allows you to update the classpath on your Document Server to reflect the JDBC driver used to secure the data source for Customer Experience Solutions. On the Configure Data source JDBC Driver Classpath for Customer Experience Solutions screen:

- Select your database type from the DB Type drop-down list.
- Specify the path to the JDBC driver.
- Click Next.

5.2.1.5 Package JDBC Modules for Customer Experience Solutions into Document Services EARs (1(b) of 2) (WebLogic only)

Note: This screen appears only if you selected Configure Data source option with Packaged JDBC Modules on Application Server Configuration Selection screen.

Configuration Manager configures the JDBC modules and deploys the EAR file to your application server. On the Package JDBC Modules for Customer Experience Solutions into Document Services EARs screen:

- Specify the type of database you are using as the Document Services database.
- Specify the name of the database you are connecting to.
- Specify the name or IP address of the computer that hosts the database server.
- Specify the port used to access the database service.
- Specify the name of the user account that accessed the database server specified in the database.
- Specify the password for the user account specified for the database.
- Specify the name and path of the JDBC driver file that the application server uses to connect to the database. If you are configuring a remote application server, provide the path on the application server that contains the database drivers (the path must be accessible from the remote application server).

Click Test Database Connection to ensure that the values entered are valid. Press F1 for details about the required information.

Note: Although you can proceed to the next screen if the test fails, you should determine the causes for a failure message before you click Next. Configuration Manager does not validate the JDBC driver location if it is located on a remote server. Instead, it validates the JDBC drivers on the local host. If the test fails because the JDBC local driver was not set, the configuration is valid if the remote path is correct.

5.2.1.6 Package JDBC Modules into Document Services EARs (2 of 2) (WebLogic only)

Note: This screen is not specific to Customer Experience Solutions. However, the following fields appear only if you have installed Customer Experience Solutions.

- Encrypted password (SA): Specify an existing data source password encrypted by WebLogic for Customer Experience Solutions, if exists.
- Password (SA): If you do not have an existing data source password encrypted by WebLogic, specify a password you would like to encrypt.

For more information about other fields, press F1.

5.3 Next step

Now that you have installed, configured, and deployed the Customer Experience Solutions and Document Server, there are additional configurations required for Customer Experience Solutions to be fully functional. For details, see [“Post-Deployment Activities”](#) on page 18.

Chapter 6: Integrating Experience Server with Document Server

For your Customer Experience Solutions to interact with Document Server and leverage Document Services User Management, you must do the following configurations:

- Configure Experience Server security.

Important: Experience Server security is configured automatically if you renamed the Quickstart JAR filename to include **-ds** before installing Customer Experience Solutions. Otherwise, you need to manually configure Experience Server security as described in “6.1 Manually configure Experience Server” on page 14.

- Configure the Document Services SOAP endpoint in your Experience Server. For details, see “6.2 Integrate Experience Server with Document Server” on page 15.
- Enable Single Sign-On authentication. See “6.3 Enable Single Sign-On authentication on Experience Server” on page 15.
- Enable PIN authenticator. See “6.4 Enable secure file uploads” on page 16.
- Verify security configuration. See “6.5 Verify Experience Server security configuration” on page 16.

6.1 Manually configure Experience Server

Important: The Experience Server security is configured automatically if you renamed the Quickstart JAR filename to include **-ds** before installing Customer Experience Solutions. In that case, skip this configuration.

- 1 Open the `<solutions root>/crx-quickstart/repository/repository.xml` file, and comment out the following lines of code:

```
<LoginModule class="com.day.crx.core.CRXLoginModule">
  <param name="anonymousId" value="anonymous"/>
  <param name="adminId" value="admin"/>
</LoginModule>
```

- 2 Add the following module:

```
<Module class="com.adobe.livecycle.usermanager.crx.clientsdk.LCClientSDKModule">
  <param name="configWspName" value="crx.default"/>
  <param name="configPath" value="/apps/docservices/config" />
</Module>
```

- 3 Verify the following entry in the `<solutions root>/crx-quickstart/server/etc/jaas.cofig` file:

```
com.day.crx {
com.adobe.livecycle.usermanager.crx.loginmodule.LCAwareCRXLoginModule sufficient
principalProvider="com.adobe.livecycle.usermanager.crx.loginmodule.UMPrincipalProvider"
;
com.adobe.livecycle.usermanager.crx.loginmodule.LCLoginModule required
principalProvider="com.adobe.livecycle.usermanager.crx.loginmodule.UMPrincipalProvider"
;
};
```

- 4 Open the `server.bat` file present in the `<ExperienceServices root>/crx-quickstart/server/` directory in a text editor.

- 5 Change the values for the `JVM_MAXHEAP` and `JVM_PERMGEN` properties according to the recommended memory settings for JVM, if required.
- 6 Save and close the `server.bat` file.
- 7 Restart the server using the `server.bat` file.

Important: To retain the security settings, you must use the `server.bat` file for any subsequent server restart.

6.2 Integrate Experience Server with Document Server

- 1 Go to `http://<host>:<port>` and click **OSGi Console**. Log in using `admin/admin` as the username/password.
- 2 Click the **Document Services Settings** tab.
- 3 Specify the following information:
 - In the **Document Server URL** field, specify the fully qualified URL to the machine where the Document Server is installed.
 - In the **Username** and **Password** field, specify the Super Administrator credentials for the Document Server. The default username and password are `administrator` and `password`, respectively.
 - In the **Experience Server URL** field, specify the fully qualified URL to the machine where the Experience Server is installed.
 - In the **System user for accessing Experience Server**, use the default value, `crxuserfordsc`, or specify a Experience Server user for accessing the Experience Server from within the Document Server.
 - In the **System user for accessing Document Server**, use the default, `dscuserforcrx`, or specify a Document Server user for accessing the Document Server from within the Experience Server.

Important: Deselect **Reset password for Document Server System User** if you do not want to reset the password.

- 4 Click **Configure**.

Important: If your Experience Server and Document Server are on different machines, ensure that you synchronize their system clocks. Otherwise, Document Server may not recognize the session from the Experience Server.

6.3 Enable Single Sign-On authentication on Experience Server

To configure header-based Single Sign-On (SSO) authentication on Experience Server:

Modify the `jaas.config` file

- 1 Open the `<solutions root>/crx-quickstart/server/etc/jaas.config` file in a text editor.
- 2 Locate the following lines and add the text in bold.

```
com.day.crx {
  com.adobe.livecycle.usermanager.crx.loginmodule.LCAwareCRXLoginModule sufficient
  principalProvider="com.adobe.livecycle.usermanager.crx.loginmodule.UMPrincipalProvider"
  trust_credentials_attribute="attribute_name"
  ;
  com.adobe.livecycle.usermanager.crx.loginmodule.LCLoginModule required
  principalProvider="com.adobe.livecycle.usermanager.crx.loginmodule.UMPrincipalProvider"
  trust_credentials_attribute="attribute_name"
  ; } ;
```

Note: Replace **attribute_name** with any attribute name of your choice. However, ensure that you specify the same attribute name when configuring the SSO authentication handler.

- 3 Save and close the file.
- 4 Restart the Experience Server.

Configure SSO authentication handler

- 1 Go to `http://<host>:<port>/system/console/configMgr` and log in using `admin/admin` as the username/password.
- 2 In the Configuration tab, click **Adobe Granite SSO Authentication Handler**.
- 3 Specify the following information:
 - In the **Header Names** field, specify the name of the header that contains the value as `userID`.
 - In the Format field, type **AsIs** or **Basic**, based on your requirement:
 - AsIs** Configures the SSO solution to send the user ID as the value of the header in plain text or any regular expression
 - Basic** Configures the SSO solution to send the user ID as the value of the header encoded with Base64 encoding in the HTTP Basic Authentication format
 - In the **Trusted Credential Attribute** field, specify the attribute name you added in the `jaas.config` file.
- 4 Click **Save**.

6.4 Enable secure file uploads

Note: Before enabling secure file uploads, ensure that you have enabled SSO as described in “6.3 Enable Single Sign-On authentication on Experience Server” on page 15.

- 1 Go to `http://<host>:<port>` and click **OSGi Console**. Log in using `admin/admin` as the username/password.
- 2 In the **Configuration** tab, click **Day CQ PIN Authentication Handler**.
- 3 Click + (plus) next to the **URL Root Path** field. It adds a blank text field.
- 4 Click **Save**.

6.5 Verify Experience Server security configuration

To verify that the Experience Server security is configured to authenticate users against the Document Server:

- 1 Go to `http://[host]:[port]/` and click **Sign Out**.

- 2 Go to the Experience Server repository, `http://[host]:[port]/crx/`, and log in using the administrator credentials for the Document Server. The default user name and password are administrator and password, respectively.
- 3 Log out and log in again using admin/admin as the username/password.
- 4 Click **User Administration**.
- 5 Expand the folder **l > lc**.

If you see **lcu::DefaultDom::SuperAdmin** in the list of users, your Experience Server security is properly configured.

Important: *Users will have limited access to the protected resources on the Experience Server unless they are assigned to some group and given appropriate rights. For information about how to administering user, groups, and rights, see [Administering ADEP Experience Services](#).*

6.6 Next Steps

Complete the post-deployment activities for your Customer Experience Solutions as described in “[Post-Deployment Activities](#)” on page 18.

Chapter 7: Post-Deployment Activities

7.1 Install Flash Builder

Obtain the Flash Builder installer from the following URLs and install the software.

- (Flash Builder 4.5) http://www.adobe.com/go/adeq_qstooling_fb450
- (Flash Builder 4.0) http://www.adobe.com/go/adeq_qstooling_fb401

Note: For Interactive Statements, you must install Flash Builder 4.0 or 4.0.1.

7.2 Configure IPv6 implementation

Note: Perform these steps only if your Experience Server is running on a machine that uses an IPv6 address.

To map the IPv6 address to a hostname on the server and client machines:

- 1 Navigate to the C:\Windows\System32\drivers\etc directory.
- 2 Open the `hosts` file in a text editor.
- 3 Add a mapping for the IPv6 address to a host name. For example:

```
2001:1890:110b:712b:d1d:9c99:37ef:7281 <ipv6_hostname>
```
- 4 Save and close the file.

Ensure that you use the mapped host name instead of the IPv6 address to access Customer Experience Solutions.

7.3 Configure Customer Experience Solutions

You need to perform additional configurations to get started with using the Customer Experience Solutions.

7.3.1 WEM

7.3.1.1 Configure Externalizer URL

Note: Perform these steps only if you access WEM using a URL other than `http://localhost:4502`.

- 1 Go to `http://[hostname]:[port]/system/console/configMgr/` and log in using `admin/admin` as the username/password.
- 2 Click **Day CQ Link Externalizer**.
- 3 In the Host name field, replace the default (**localhost:4502**) to the host name and port for your Experience Server.
For example:

```
my.host.domain.com:8080
```
- 4 Click **Save** to save the configuration.

7.3.2 Correspondence Management

7.3.2.1 Configure the publish instance

Note: Perform these steps only if you are running the author and publish instances of the Quickstart on different machines.

- 1 On the author instance, go to `http://[hostname]:[port]/libs/crx/core/content/welcome.html`.
- 2 Click **Replication**.
- 3 Click **Agents on author**.
- 4 Click **Default Agent (publish)**.
- 5 Click **Edit**. The **Agent Settings** dialog opens.
- 6 Click the **Transport** tab and specify the URL to the publish server in the **URI** field.
- 7 Click **OK**.
- 8 Repeat these steps to configure the **Reverse Replication Agent (publish reverse)** agent on the author instance.
- 9 On the publish instance, go to `http://[hostname]:[port]/system/console/configMgr`.
- 10 Click **com.adobe.livecycle.content.activate.impl.VersionRestoreManagerImpl.name**.
- 11 In the **VersionRestoreManager Author URL** field, specify the remote URL for VersionRestoreManager on the author instance.
- 12 Click **Save**.

7.3.2.2 Install Japanese fonts for Adobe Reader

If your Correspondence Management assets use Japanese fonts, you must install the Japanese Language Support Package for Adobe Reader. Otherwise, your letters and forms will not render and function properly. For installing language packs, visit the downloads page for Adobe Reader.

7.3.2.3 Access solution template

Go to `http://[host]:[port]/cm/manageassets.html` and log in using `tgoldman/password` as the username/password.

7.3.3 Interactive Statements

Before performing the post-deployment activities for Interactive Statements, ensure that you:

- Configured the Experience Server security by using one of the following methods:
 - You can automatically configure Experience Server security by adding **-ds** to the Quickstart filename before running the Quickstart for the first time. See [“4.2 Run the Quickstart”](#) on page 7 for more information.
 - You can manually configure Experience Server security as described in [“6.1 Manually configure Experience Server”](#) on page 14.
- Integrated Experience Server with Document Server as described in [“6.2 Integrate Experience Server with Document Server”](#) on page 15.

7.3.3.1 Configure Experience Server for Secure Sockets Layer (SSL)

For HTTPS access to the Experience Server, you need to configure SSL. Perform the steps as described in the [CQSE: setup and configure SSL](#) article.

7.3.3.2 Install demo users

Note: Skip these steps if you imported samples while running the Configuration Manager.

To install demo users, Akira Tanaka and John Jacobs:

- 1 Go to http://help.adobe.com/en_US/livecycle/9.0/samples/lc_sample_product.html.
- 2 Download **Sample Setup Utility (prepopulate LiveCycle database)**.
- 3 Extract the downloaded zip file, and import and deploy the Adobe-Samples-SetupUtility.lca file using Document Services Administration Console.

For details, see *Import and manage Document Services applications and archives* section in the [Document Services Administration Help](#).

When you import and deploy the samples LCA, it also imports AKIRATANAKA, and JOHNJACOBS certificates into the Document Services trust store for validation of digital signatures and certificate authentication. These certificates are required to run the Finance Corp solution template.

7.3.3.3 Import a Reader Extensions credential

Note: Skip this step if you already configured the Reader Extensions credentials using Configuration Manager.

- 1 Log on to Document Services Administration Console.
- 2 Click **Settings > Trust Store Management > Local Credentials**.
- 3 Click **Import** and, under Trust Store Type, select **Reader Extensions Credential**.
- 4 (Optional) To indicate that this is the default credential to use with Reader Extensions, select **Default**.
- 5 In the Alias box, type **READER**. It will be used as the display name for the credential in Reader Extensions. This alias is also used to access the credential programmatically using the Document Services SDK.

Note: The alias name is automatically converted to uppercase for display purposes. The alias name is not case-sensitive when you refer to it in a process.

- 6 Click **Browse** to locate the credential, type the password of the credential, and then click **OK**.
If the error message "Failed to import credential due to either incorrect file format, or incorrect password" appears, verify that the password is valid.

7.3.3.4 Configure email service

Interactive Statements sample processes use the Document Services email service to receive emails from a POP3 or IMAP server and send emails to an SMTP server.

To configure the email service using Document Services Administration Console, see the *Email service settings* section of the [Document Services Administration Help](#) for details.

7.3.3.5 Configure Document Server for SSL

Note: Skip this configuration if your Document Server is already configured for SSL.

For secure communication with your application server, you need to configure SSL. See the *Configuring SSL* section of the [Document Services Administration Help](#) for details.

Important: The domain name that you specify while configuring SSL should match with the domain name of the application server and the domain name used while configuring the `DSC_DEFAULT_SOAP_ENDPOINT` property.

7.3.3.6 Install SSL certificate on the client machines

Note: Perform these steps only in the development environment and if your server uses self-signed certificate. The production environment is expected to have proper SSL certificate, in which case, these steps are not required. If you are using Internet Explorer 8, see http://kb2.adobe.com/cps/915/cpsid_91551.html for detailed steps.

Note: The client machines that access the FinanceCorp portal must have the SSL certificates installed for the browser to communicate with the Document Server and Experience Server using HTTPS. Acrobat/Reader also require this certificate to open policy-protected documents.

To install the SSL certificate on client machines:

- 1 Go to `https://[app_server]:[app_server_port]/`. The default port for the JBoss application server is 8443. Ignore the security warning displayed by your browser and continue to the website.
- 2 Click **Certificate Error** and then click **View Certificates**.
- 3 Click **Install Certificate**. The Certificate Import wizard opens. Click **Next**.
- 4 Select **Place all certificates in the following store**.
- 5 Click **Browse** and select **Trusted Root Certification Authorities**. Click **Ok**.
- 6 Click **Next**.
- 7 Review the settings and click **Finish**.

Note: Repeat these steps for Experience Server if it uses a self-signed certificate, which is different from the certificate used by Document Server.

7.3.3.7 Configure Rights Management

- 1 Log on to the Document Services Administration Console.
- 2 Click **Services > Rights Management > Configuration > Server Configuration**.
- 3 In the Base URL field, specify the fully qualified base URL of the Rights Management server, containing the server name and port. For example, `https://[host]:[port]`, where [host] and [port] correspond to the fully qualified hostname and port number for your Document Server.
- 4 Select **Allow Extended Authentication**.
- 5 Specify `https://[host]:[port]/adobe-sa-is-financecorp/pages/rm/landing.html` in the Extended Authentication Landing URL field. The [host] and [port] correspond to the fully qualified hostname and port number for your Experience Server.
- 6 Set the default page size to **640x480**.
- 7 Click **Ok** to save the changes.

7.3.3.8 Create demo policies

- 1 Log on to the Document Services Administration Console.
- 2 Click **Services > Rights Management > Policies**. The Global Policy Set is created by default.
- 3 Click **Global Policy Set** and navigate to the **Visible Users and Groups** tab.
- 4 Click **Add Domains**.
- 5 Select **SampleOrganization, PublicationsGroup** and click **Add**. Click **OK** when asked for confirmation.
- 6 Click the **Policies** tab.
- 7 Click **New** to create a new policy.

- 8 Name the policy **AkiraTanaka** (no spaces).
- 9 Click **Add User or Group**.
- 10 Click **Advanced Search** and search for Akira Tanaka.
- 11 Select **Akira Tanaka** from the search results and click **Add**.
- 12 Set the permissions for Akira Tanaka to **Print/Modify/Copy**.
- 13 Select **Encrypt only file attachments** to restrict the policy only to the attachments.
- 14 Click **Save**.
- 15 Create another policy named JohnJacobs for the user John Jacobs and repeat steps 7-14.
- 16 Select the policies you created and click **Enable** to enable the policies.

7.3.3.9 Configure User Management

- 1 Log on to the Document Services Administration Console.
- 2 Click **Settings > User Management > Configuration**.
- 3 Select **Import and export Configuration files**.
- 4 Click **Export** and save the file to the local disk.
- 5 Open the XML file in a text editor.
- 6 Search for the `<node name = "SSO">` element. Under the `<map>` element of `<node name="AllowedUrls">` element, add the following entries:

```
<entry key="fc-s" value="https://[host]:[port]/adobe-sa-is-  
financecorp/pages/rm/secured/welcome.html"/>  
<entry key="fc-l" value="https://[host]:[port]/adobe-sa-is-  
financecorp/pages/rm/landing.html"/>
```

Note: Replace the text in bold with the fully-qualified URL for your Experience Server.

- 7 Save the file.
- 8 From User Management Manual Configuration, click **Browse** and import the modified file.
- 9 Click **Ok**.

7.3.3.10 Install Flex SDKs

You must install Flex 4.1 SDK for Acrobat 10.1 and Flex 3.0.1 SDK for Acrobat 9.

- 1 Depending on your Acrobat version, download the Flex SDK from <http://opensource.adobe.com/wiki/display/flexsdk/> to your local machine.
- 2 Open Flash Builder and expand the **Window** menu.
- 3 Click **Preferences**.
- 4 In the left panel, expand Flash Builder and select **Installed Flex SDKs**.
- 5 Add a new Flex SDK and point it to the Flex SDK directory.

7.3.3.11 Install the asset placement plug-in for Designer

Note: The Asset Placement plug-in requires Designer 10.0 or higher. Do not perform these steps if you installed Designer during the Workbench installation.

If Designer is not installed

- 1 Double click the setup.exe file on the Designer installation media.
- 2 Click **Next** on the Welcome screen.
- 3 Provide the serial number and click **Next**.
- 4 Read and accept the agreement and click **Next**.
- 5 On the Setup Type screen, select **Custom** and click **Next**.
- 6 On the Custom Setup screen, select **Asset Placement** and click **Next**.
- 7 Click **Install** to complete the installation.

If Designer is already installed

- 1 Double click the setup.exe file on the Designer installation media.
- 2 Click **Next** on the Welcome screen.
- 3 On the Program Maintenance screen select **Modify**.
- 4 On the Custom Setup screen, select **Asset Placement** and click **Next**.
- 5 Click **Install** to complete the installation.

7.3.3.12 Install the asset placement plug-in for Flash Builder

Note: Ensure that you have installed Flash Builder as described in “7.1 Install Flash Builder” on page 18.

- ❖ Select **Start > All Programs**, right-click **Adobe Flash Builder**, and select **Run as administrator** to launch Flash Builder as an Administrator.

Note: On a Windows 7 system, ensure that you logged in as an Administrator.

- 1 Click **Help > Install New Software**.
- 2 Click **Add**.
- 3 Specify <http://aesplugins.adobe.com/aes/tooling/plugin/is/10.0> in the **Location** field and click **OK**.
- 4 In the Available Software section, select **Adobe Systems Incorporated: Asset Placement Project plug-in**, and Click **Next**.
- 5 Review installation details and click **Next**.
- 6 Review licensing details and click **Accept**.
- 7 Click **Finish**. The plug-in is installed.

7.3.3.13 Configure System User Trust Store Entry

Note: This is an optional configuration.

The AssetPlacement service can be configured to run as a system user. When run as a system user, the service uses the credentials of a Experience Server user. These credentials are also identified by Document Server.

- 1 Log on to the Document Services administrative console.
- 2 Click **Home > Settings > Trust Store Management > User and Password Credentials**.
- 3 Click **Add**.
- 4 In the Profile Name field, specify **CRXSIGNINGKEY**.
- 5 In the User Name field, specify **CRXSIGNINGKEY**.

- 6 In the Password field, specify a password of your choice.
- 7 Click **Ok** to save the settings.
- 8 Repeat steps 3 – 7 to create a user profile with the following details.
 - **Profile Name** - CRXSYSTEMUSER
 - **User Name** - Any Experience Server user
 - **Password** - Password associated with the specified Experience Server user

You are now set up to use System User authentication and to configure the AssetPlacement service to run as System.

7.3.3.14 Configure the Experience Server Integration Service

The AssetPlacement service can be configured to retrieve assets from CRX. The service is identified in Document Services using the CRXIntegrationService.

- 1 Log on to the Document Services administrative console.
- 2 Click **Services > Applications and Services > Service Management**.
- 3 Specify CRXIntegrationService in the **Name** field and click **Filter**.
- 4 Click **CRXIntegrationService: 1.0**.
- 5 In the **Experience Server URL** field of the Configuration tab, specify the hostname and port for your Experience Server, if different from the default value.

*Note: If you decide to use a Experience Server system user for authentication, in the **Integration User Credential Alias** field, specify the profile name created in “7.3.3.13 Configure System User Trust Store Entry” on page 23.*

- 6 Click **Ok** to save the settings.

7.3.3.15 Configure the BatchProcessor service

7.3.3.15.1 Configure the base file path

Note: This is an optional configuration. If you do not configure the base file path, ensure that you provide the full path to the batch input files.

The Run XML File Job and Run Flat File Job operations of the BatchProcessor service require batch input data to process it and return data as output. The Base File Path operation property stores the location to the input data and where the output data is written.

Note: In clustered configurations, the base file path must be a shared file system location to which all cluster nodes have read-write access.

You can configure the base file path using Adobe Digital Enterprise Platform Document Services - Workbench 10.0 application or Document Services Administration Console.

- 1 Log on to the Document Services Administration Console.
- 2 Click **Services > Applications and Services > Service Management**.
- 3 Click **BatchProcessor:2.0**.
- 4 In the Configuration tab, specify the base file path.
- 5 Save the settings.

For more information, see *Input and output data for operations* in the Workbench Help or *Batch Processor service settings* in [Document Services Administration Help](#).

7.3.3.15.2 Configure XA data source (WebSphere only)

You must configure the BatchProcessor service to use the AdobeDefaultSA_DS data source by using Workbench application or Document Services Administration Console.

Follow the steps mentioned in “7.3.3.15.1 Configure the base file path” on page 24 to edit BatchProcessor configuration. In the Data Source Name field, specify AdobeDefaultSA_DS to configure the data source.

Note: SQL Server database, in some scenarios, needs additional configurations to use XA data sources. For more information, see “7.3.3.16 Configure SQL Server to use XA data source” on page 25.

For manual configuration of XA data source for your application server, see “Appendix - Manually Configuring Data Sources” on page 30.

7.3.3.16 Configure SQL Server to use XA data source

You must configure your SQL Server database in the following scenarios as described in [Understanding XA Transactions](#):

- (WebSphere only) If AdobeDefaultSA_DS data source connects to the SQL Server database.
Note: For WebLogic and JBoss, the BatchProcessor service can use the IDP_DS data source created by Document Services installer. In this case, SQL Server database does not require any additional configuration.
- To use runJDBCCursorJob and runJDBC PagingJob operations of the BatchProcessor service.
- To use SQL Server database with Microsoft SQL Server XA-capable JDBC Driver for distributed transactions.

7.3.3.17 Recommendations to improve performance

Interactive Statements is typically used in a volume batch scenario, where the system generates large numbers of statements in the minimal time. Therefore, to achieve better performance, it is recommended to set the max Inline size to a size slightly larger than the final assembled statements. However, large values of max inline size are not recommended for Document Services applications in which user-interactive, non-batch, or mixed-load profile usage patterns are common.

Important: Max inline size is a global setting, which affects all Document Services components installed on the same server. Therefore, it is recommended to install Interactive Statements in a dedicated environment.

Important: Increasing the max inline size causes all documents smaller than that size to store in the memory. It reduces the hard disk usage, but increases the memory utilization. Therefore, max Java heap size must be increased accordingly to avoid Out Of Memory issues.

7.3.3.17.1 Set the document maximum inline size

- 1 Log on to the Document Services Administration Console.
- 2 Click **Settings > Core System Settings > Configurations**.
- 3 In the Default Document Max Inline Size box, specify the approximate size of the interactive statements you will generate. For example: 1500000.
- 4 Click **OK**.
- 5 Restart the application server.

7.3.3.17.2 Configure SignatureService

- 1 Log on to the Document Services Administration Console.
- 2 Click **Services > Application and Services. > Service Management**.

- 3 Type **Signature** in the **Name** field and click **Filter**.
- 4 Click **SignatureService: 2.0**.
- 5 Deselect **Certification to include Form Load Changes**.
- 6 Click **Save**.

7.3.3.17.3 Configure FormsService

To configure the `FormsService` to run on multiple threads, you need to add a JVM argument to your application server.

JBoss

- 1 Navigate to the `<DocumentServices root>\jboss\bin` directory and open the `run.conf.bat` file in a text editor.
- 2 At the end of the file, add the following line:

```
set JAVA_OPTS=%JAVA_OPTS% -Dcom.adobe.xmlform.bmc.POOL_MAX=n+1
```

where **n = number of threads** you need `FormsService` to use.
- 3 Save the file.
- 4 Restart the application server.

WebSphere

- 1 On the WebSphere Administrative Console, select **Servers > Server Types > WebSphere application servers** and click the name of the server instance to configure (for example, `server1`).
- 2 Under Server Infrastructure, select **Java and Process Management > Process Definition**.
- 3 Under Additional Properties, click **Java Virtual Machine**.
- 4 In the Generic JVM arguments field, add the following:

```
-Dcom.adobe.xmlform.bmc.POOL_MAX=n+1
```

where **n=the number of threads** you want `FormsService` to use.
- 5 Restart the application server.

WebLogic

- 1 On the WebLogic Server Administration Console, under Domain Structure, select **Environment > Servers** and, in the right pane, click the managed server name.
- 2 In the **Configuration** tab, click the **Server Start** tab.
- 3 In the Arguments box, add the following:

```
-Dcom.adobe.xmlform.bmc.POOL_MAX=n+1
```

where **n = the number of threads** you want `FormsService` to use.
- 4 Restart the WebLogic managed server.

7.3.3.17.4 Increase the heap size

If the available RAM on your system is 8 GB or more, perform the following steps for your application server to set the heap size to 3 GB.

Note: If the server memory configuration does not support a Java heap size of 3 GB, the batch process may not be able to support as many concurrent threads for execution. The optimal number of threads for a given memory configuration depends on the processing being done for each batch item and the size of the documents.

JBoss

- 1 On the Document Server, open to edit the run script in the [appserver root]/bin/ directory.
- 2 Locate the following line and replace the text in bold with 3g:

```
"set JAVA_HEAP_ARGS=-XX:PermSize=128m -XX:MaxPermSize=192m -Xms1024m -Xmx1024m"
```
- 3 Restart the JBoss service.

WebLogic

- 1 On the WebLogic Server Administration Console, under Domain Structure, click **Environment > Servers** and, in the right pane, click the managed server name.
- 2 On the next screen, click the **Configuration** tab > **Server Start** tab.
- 3 In the Arguments box, update the -Xms and -Xmx arguments to read as follows:
-Xms3g -Xmx3g
- 4 Restart the WebLogic managed server.

WebSphere

- 1 On the WebSphere Administrative Console, click **Servers > Server Types > WebSphere application servers**, and then click the name of the server instance to configure (for example, server1).
- 2 Under Server Infrastructure, click **Java and Process Management > Process Definition**.
- 3 Under Additional Properties, click **Java Virtual Machine**.
- 4 Set the value for initial heap size and maximum heap size as **3072**.
- 5 Restart the WebSphere server.

7.3.3.18 Access solution template

You can email the policy-protected and password-protected documents using the sample FinanceCorp portal.

- 1 Log on to the following URLs using *jjacobs* or *atanaka* as the username and *password* as the password.
 - **Password-protected documents** - `http://[host]:[port]/adobe-sa-is-financecorp`
 - **Policy-protected documents** - `https://[host]:[port]/adobe-sa-is-financecorp`

Note: The [host] and [port] correspond to the Experience Server; however, ensure that you specify the Experience Server SSL port.

- 2 Specify the email ID and click **E-mail Statement**.

7.3.4 Integrated Content Review

Important: Perform the configurations in this section only when your Document Server and Experience Server are deployed on different machines.

7.3.4.1 Configure Document Services

For implementing an advanced workflow using Integrated Content Review Solution, you need to configure the following services using Document Services Administration Console:

- External User Registration
- Review, Commenting, and Approval

Note: While configuring the **ReviewCommentingAndApprovalService**, specify the URL to the Experience Server for the Experience Server URL parameter. The default value is **http://localhost:4502**.

- Review, Commenting, and Approval Utility
- Server-side Signature

For information on how to configure settings for these services, see the *Managing Services* section in [Document Services Administration Help](#).

In addition, Integrated Content review Solution requires email notifications to review participants at different stages of a review and approval process. To enable this, you can configure the email service using Document Services Administration Console. See the *Email service settings* section in [Document Services Administration Help](#).

7.3.4.2 Configure the RCA service on the Experience Server

- 1 Go to `http://[host]:[port]/system/console` and log in as an administrator. The default username/password is `admin/admin`.
- 2 Click the **Configuration** tab.
- 3 Look for Review Commenting and Approval (RCA) and click the **Edit** icon.
- 4 In the URL for accessing Experience Server field, specify the URL to the Experience Server. The default value is **http://localhost:4502**.
- 5 Click **Save**.

7.3.4.3 Install ICR Task List Extension

The ICR Task List Extension is an extension for Adobe Photoshop, Adobe Illustrator, and Adobe InDesign that lets the Creative Professional interact with the Integrated Content Review solution through tasks and notifications in a way similar to ADEP Workspace interactions.

Note: The extension is compatible with Adobe Creative Suite 5 and 5.5.

For information on how to install Creative Suite Task List Extension, see [Installing and Configuring the ICR Task List Extension](#).

For information on how this extension fits in the ICR workflow, see [ICR Solution Guide](#).

7.3.4.4 Access solution template

Go to `http://[host]:[port]/content/icr/managecampaigns.html` and log in using a Document Services user account. The default username/password is `administrator/password`.

7.4 Next steps

If you deployed Document Services on JBoss application server, configure the data sources manually as described in [“9.1 Create XA Data Source for Customer Experience Solutions in JBoss”](#) on page 30.

Also, you must manually configure the data sources for WebLogic or WebSphere application server if you didn't configure the data sources the Configuration Manager. See [“9.2 Create XA Data Source for Customer Experience Solutions in WebLogic”](#) on page 32 or [“9.3 Creating XA data source for Customer Experience Solutions in WebSphere”](#) on page 37.

Chapter 8: Troubleshooting Customer Experience Solutions

This section discusses issues you may encounter when installing and deploying or working with Customer Experience Solutions, and suggests steps for avoiding these issues.

8.1 Interactive Statements

8.1.1 The runJDBCCursorJob service fails

The runJDBCCursorJob service fails when the input data for batch processing comes from a database table. The symptom of this failure is an SQL exception that indicates that the ResultSet is closed while attempting to process the next row.

To avoid this issue, it is recommended to use the runJDBCPagingJob operation instead of runJDBCCursorJob.

8.1.2 Threads running longer than 20 minutes are killed by WebLogic

Threads running batch processes for more than 20 minutes are considered as stuck and killed by the WebLogic application server. The StuckThreadMaxTime parameter defines the maximum amount of time that a thread must be continually working before the server considers the thread stuck. The default value for the StuckThreadMaxTime parameter set by Document Services is 1200 seconds.

To avoid this issue, perform the following steps to increase the value of the StuckThreadMaxTime parameter:

- 1 Log on to the WebLogic Administrator console.
- 2 In the Domain Structure pane, select **Environment > Servers**.
- 3 In the right pane, click the managed server name.
- 4 Under the Configuration tab, click **Tuning**.
- 5 Set the variable Stuck Thread Max Time as per your requirement.

For more information, see the WebLogic documentation.

Chapter 9: Appendix - Manually Configuring Data Sources

9.1 Create XA Data Source for Customer Experience Solutions in JBoss

To enable JBoss to connect to your database that stores data related to Customer Experience Solutions, you must complete the following tasks:

- Create a data source file, `adobe-sa-ds.xml`. See “9.1.1 Create `adobe-sa-ds.xml` file” on page 30.
- Encrypt the password in the data source files (`adobe-sa-ds.xml` and `database-ds.xml`) and the `login-config.xml` file using one of the methods described at <http://community.jboss.org/wiki/EncryptingDataSourcePasswords>. You can also use the instructions available at http://blogs.adobe.com/livecycle/2009/10/livecycle_-_encrypting_clearite.html.

Note: For Oracle and MS SQL Server databases, locate the `login-config.xml` file in the `[JBoss Home]/server/all/conf` directory. In the file, search for the `<module-option name="managedConnectionFactoryName">` tag and ensure that the value for the service property is `XATxCM`.

9.1.1 Create `adobe-sa-ds.xml` file

- 1 Create an xml file, namely `adobe-sa-ds.xml`, in the `<JBoss root>/server/aep_turnkey/deploy` directory.
- 2 Depending on your database, copy the following lines to the `adobe-sa-ds.xml` file.

Note: Make sure you replace the text in bold with values specific to your database.

Oracle

```
<?xml version="1.0" encoding="UTF-8"?>
<datasources>
<xa-datasource>
<jndi-name>AdobeDefaultSA_DS</jndi-name>
<xa-datasource-class>oracle.jdbc.xa.client.OracleXADataSource</xa-datasource-class>
<xa-datasource-property name="URL"> jdbc:oracle:thin:@databaseHostName:port/sid</xa-
datasource-property>
<use-java-context>>false</use-java-context>
<user-name>username</user-name>
<password>password</password>
<min-pool-size>10</min-pool-size>
<max-pool-size>30</max-pool-size>
<exception-sorter-class-name>org.jboss.resource.adapter.jdbc.vendor.
OracleExceptionSorter</exception-sorter-class-name>
<blocking-timeout-millis>20000</blocking-timeout-millis>
<idle-timeout-minutes>2</idle-timeout-minutes>
<prepared-statement-cache-size>20</prepared-statement-cache-size>
<transaction-isolation>TRANSACTION_READ_COMMITTED</transaction-isolation>
<isSameRM-override-value>>false</isSameRM-override-value>
<track-connection-by-tx>>true</track-connection-by-tx>
  <no-tx-separate-pools>>true</no-tx-separate-pools>
<metadata>
<type-mapping>Oracle9i</type-mapping>
</metadata>
</xa-datasource>
</datasources>
```

MySQL

```
<?xml version="1.0" encoding="UTF-8"?>
<datasources>
<local-tx-datasource>
<jndi-name>AdobeDefaultSA_DS</jndi-name>
<connection-url>jdbc:mysql://databaseHostName:port/dbName</connection-url>
<driver-class>com.mysql.jdbc.Driver</driver-class>
<user-name>username</user-name>
<password>password</password>
<min-pool-size>1</min-pool-size>
<max-pool-size>30</max-pool-size>
<valid-connection-checker-class-
name>com.mysql.jdbc.integration.jboss.MySqlValidConnectionChecker</valid-connection-checker-
class-name>
<exception-sorter-class-
name>com.mysql.jdbc.integration.jboss.ExtendedMySQLExceptionSorter</exception-sorter-class-
name>
<new-connection-sql>SELECT count(*) from DUAL</new-connection-sql>
<check-valid-connection-sql>SELECT count(*) from DUAL</check-valid-connection-sql>
<blocking-timeout-millis>20000</blocking-timeout-millis>
<idle-timeout-minutes>2</idle-timeout-minutes>
<prepared-statement-cache-size>20</prepared-statement-cache-size>
<transaction-isolation>TRANSACTION_READ_COMMITTED</transaction-isolation>
</local-tx-datasource>
</datasources>
```

MS SQL Server

```
<?xml version="1.0" encoding="UTF-8"?>
<datasources>
<xa-datasource>
<jndi-name>AdobeDefaultSA_DS</jndi-name>
<xa-datasource-class>com.microsoft.sqlserver.jdbc.SQLServerXADataSource</xa-datasource-
class>
<xa-datasource-property name="URL">jdbc:sqlserver://databaseHostName:port;DatabaseName=
dbname</xa-datasource-property>
<use-java-context>>false</use-java-context>
<user-name>username</user-name>
<password>password</password>
<min-pool-size>1</min-pool-size>
<max-pool-size>30</max-pool-size>
<blocking-timeout-millis>20000</blocking-timeout-millis>
<idle-timeout-minutes>2</idle-timeout-minutes>
<prepared-statement-cache-size>20</prepared-statement-cache-size>
<transaction-isolation>TRANSACTION_READ_COMMITTED</transaction-isolation>
<isSameRM-override-value>>false</isSameRM-override-value>
<track-connection-by-tx>>true</track-connection-by-tx>
  <no-tx-separate-pools>>true</no-tx-separate-pools>
<metadata>
<type-mapping>MS SQLSERVER2000</type-mapping>
</metadata>
</xa-datasource>
</datasources>
```

- ❖ Save the file

9.2 Create XA Data Source for Customer Experience Solutions in WebLogic

9.2.1 Configure Oracle database connectivity

To enable WebLogic Server and your Document Services deployment to connect to the Oracle database, you must create a database connection for WebLogic Server by setting up a connection pool and a data source.

9.2.1.1 Create a new data source for Oracle

- 1 Start the WebLogic Administration Console by typing `http://[host name]:[port]/console` in the URL line of a web browser.
- 2 Type the user name and password that you created for the WebLogic Server domain and click Log In.
- 3 Under Change Center, click Lock & Edit.
- 4 Under Domain Structure, click Services > JDBC > Data Sources and, in the right pane, click New.
- 5 On the next screen, set the following properties and click Next:
 - In the Name box, type `AdobeDefaultSA_DS`.
 - In the JNDI name box, type `AdobeDefaultSA_DS`.
 - In the Database Type list, select Oracle and click Next.
 - In the Database Driver list, select Oracle's Driver (Thin XA) for Service connections; Versions: 9.0.1,9.2.0,10,11.

- 6 On the Transaction Options screen, click Next.
- 7 Define the following properties that apply to the Oracle database that you created during your Document Services installation preparations and click Next.
 - Database Name: The name of the database you have created. For Oracle RAC, specify the service name specific to your database.
 - Host Name: The name or IP address of the computer on which Oracle is running.
 - Port: Database Port. The default is 1521.
 - Database User Name: The name of the user you created on Oracle database.
 - Password and Confirm Password: The password associated with the user.
- 8 (Only for Oracle RAC) Replace the contents of the URL field with the following connection URL:

```
jdbc:oracle:thin:@(DESCRIPTION=(ENABLE=broken) (ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=yourhost1) (PORT=1521)) (ADDRESS=(PROTOCOL=TCP) (HOST=yourhost2) (PORT=1521)) (LOAD_BALANCE=on) (FAILOVER=on)) (CONNECT_DATA=(SERVER=dedicated) (SERVICE_NAME=service.yourcompany.com) (FAILOVER_MODE=(TYPE=session) (METHOD=basic) (RETRIES=10) (DELAY=3))))
```
- 9 Replace the highlighted text in the above connection URL with the following values:
 - yourhost1: The name, IP address, or fully-qualified domain name of the first node in the cluster that hosts the database.
 - yourhost2: The name, IP address, or fully-qualified domain name of the second node in the cluster that hosts the database.
 - service.yourcompany.com: The service name for the Oracle RAC database.

Note: The cluster hosting the database could have *n* nodes. *yourhost1* and *yourhost2* are examples in the case of a two-node cluster.
- 10 Click Test Configuration to verify the configuration settings.

Note: If the test is successful, a "Connection test succeeded" message appears. Click Next. If the test is not successful, review the error message and modify the settings as required until the test succeeds.
- 11 On the next screen, select the server that the data source will connect to (in this case, the managed server) and then click Finish.
- 12 From the Home page, navigate to Summary of JDBC Data Sources > AdobeDefaultSA_DS.
- 13 In Transaction tab, select Set XA Transaction Timeout and ensure that the value for XA Transaction Timeout is 0.

9.2.1.2 Configure the connection pool settings

- 1 Under Domain Structure, click Services > JDBC > Data Sources.
- 2 In the right pane, click AdobeDefaultSA_DS.
- 3 On the next screen, click Configuration > Connection Pool.
- 4 In the Maximum Capacity box, type 30.
- 5 In the Statement Cache Size box, type 80.
- 6 Click Save and then click Activate Changes.
- 7 Restart WebLogic managed server.

9.2.2 Configure MySQL database connectivity

Important: *Integrated Content review Solution does not use AdobeDefaultSA_DS data source for MySQL database on a WebLogic server. Instead, you must use the IDP_DS data source. See the Configuring MySQL database connectivity section in Installing and deploying Document Services for WebLogic. In addition, you must set the RCA_UseIDP_DS=true JVM argument for WebLogic as follows:*

- 1 Log on to the WebLogic Administration console.
- 2 Under Domain Structure, click Environment > Servers, and click the name of your server.
- 3 Click the Configuration tab and then click Server Start.
- 4 Under Change Center, click Lock & Edit.
- 5 In the Arguments box, enter the following text:

```
-DRCA_UseIDP_DS=true
```

- ❖ Click Save.

For other Customer Experience Solutions, to enable WebLogic Server and your Document Services deployment to connect to a manually installed MySQL database, you must create a database connection for WebLogic server by setting up a connection pool and the AdobeDefaultSA_DS data source.

9.2.3 Configure DB2 database connectivity

To enable WebLogic Server and your Document Services deployment to connect to the DB2 database, you must create a database connection for WebLogic Server by setting up a connection pool and a data source.

9.2.3.1 Install the DB2 database driver

Copy the db2jcc.jar and db2jcc_license_cu.jar files from one of these locations to the [appserverdomain]/idplib directory:

- The java directory under your [dbserver root] directory. For example, [dbserver root]/ibm/Sqllib/java on Windows or [dbserver root]/java on UNIX.
- [DocumentServices root]\lib\db\db2

9.2.3.2 Create a new data source for DB2

- 1 Start the WebLogic Administration Console by typing http://[host name]:[port]/console in the URL line of a web browser.
- 2 Type the user name and password that you created for the WebLogic Server domain and click Log In.
- 3 Under Change Center, click Lock & Edit.
- 4 Under Domain Structure, click Services > JDBC > Data Sources.
- 5 In the right pane, click New.
- 6 On the next screen, set the following properties and click Next.
 - In the Name box, type AdobeDefaultSA_DS.
 - In the JNDI name box, type AdobeDefaultSA_DS.
 - In the Database Type list, select DB2 and click Next.
 - In the Database Driver list, select IBM DB2 Driver (Type 4 XA) for JDBC and SQLJ.

7 Click Next and, on the next screen, define the following properties that apply to the database you created during your Document Services install preparations:

- Database Name: The name of the database you have created.
- Host Name: The name or IP address of the computer on which DB2 is running.
- Port: Database port. The default is 50000.
- Database User Name: The name of the user you created on the DB2 database.
- Password and Confirm Password: The password associated with the user.

8 Click Next and set the following properties:

- In the Properties box, define the following properties:
 - user=<user ID> (user ID as mentioned in Database User Name)
 - driverType=<value>
 - portNumber=<value>
 - databaseName=<value>
- serverName=<value>

For example:

- user=db2admin
- driverType=4
- portNumber=50000
- databaseName=MRA
- serverName=10.40.129.160

9 Click Test Configuration to verify the configuration settings.

Note: If the test is successful, a "Connection test succeeded" message appears. Click Next. If the test is not successful, review the error message and modify the settings as required until the test succeeds.

- 1 On the next screen, select the server that the data source will connect to (in this case, the managed server).
- 2 Click Finish and then click Activate Changes.

9.2.3.3 Configure the connection pool settings for DB2

- 1 Under Domain Structure, click Services > JDBC > Data Sources.
- 2 In the right pane, click AdobeDefaultSA_DS.
- 3 On the next screen, click the Configuration > Connection Pool.
- 4 In the Maximum Capacity box, type 30.
- 5 In the Statement Cache Size box, type 80.
- 6 Click Save and then click Activate Changes.
- 7 Restart WebLogic managed server.

9.2.4 Configure SQL Server database connectivity

To enable WebLogic Server and your Document Services deployment to connect to the SQL Server database, you must create a database connection for WebLogic Server by setting up a connection pool and a data source.

9.2.4.1 Install the SQL Server database driver

- If you have not done so already, download the SQL Server 2005 JDBC Driver 1.2 from the Microsoft Download Center.
- Follow the instructions on the website for downloading and installing the driver. Make a note of the directory location where you install the driver on your system.

Note: Use SQL Server JDBC Driver 1.2 for both Microsoft SQL Server 2005 SP2 and Microsoft SQL Server 2008.

9.2.4.2 Add the sqljdbc.jar file to the class path

- 1 Start the WebLogic Administration Console by typing `http://[host name]:[port]/console` in the URL line of a web browser.
- 2 Type the user name and password that you created for the WebLogic Server domain and click Log In.
- 3 Under Change Center, click Lock & Edit.
- 4 Under Domain Structure, click Environment > Servers.
- 5 In the right pane, click the managed server name.
- 6 On the next screen, click the Configuration > Server Start.
- 7 In the Class Path box, type the location and file name for the `sqljdbc.jar` file to class path, such as in this example:
`DOMAIN_HOME\idplib\sqljdbc.jar`
where `DOMAIN_HOME` is the location of the base domain, such as `c:/bea/user_projects/domains/base_domain`.
- 8 Click Save and then click Activate Changes.

9.2.4.3 Create a new data source for SQL Server

- 1 Under Change Center, click Lock & Edit.
- 2 Under Domain Structure, click Services > JDBC > Data Sources.
- 3 In the right pane, click New.
- 4 On the next screen, set the following properties and click Next:
 - In the Name box, type `AdobeDefaultSA_DS`.
 - In the JNDI name box, type `AdobeDefaultSA_DS`.
 - In the Database Type list, select MS SQL Server.
- 5 On JDBC Data Source Properties screen, select Microsoft's MS SQL Server Driver (Type 4 XA) Versions:2005, 2008 from the Database Driver list, and click Next.
- 6 On the Transaction Options screen, click Next.
- 7 (Only for integrated authentication) Add the `sqljdbc_auth.dll` file to the Windows systems path on the computer running the application server. The `sqljdbc_auth.dll` file is located with the Microsoft SQL JDBC 1.2 driver installation (the default is `<InstallDir>/sqljdbc_1.2/enu/auth/x86`).
- 8 Define the following properties that apply to the SQL Server database you created during your Document Services install preparations:
 - Database Name: The name of the database you have created
 - Host Name: The name or IP address of the computer on which SQL Server is running
 - Port: The database port. The default is 1433
 - Database User Name: The name of the user you created on the SQL Server database

- Password and Confirm Password: The password associated with the user

9 Click Next and then click Test Configuration to verify the configuration settings.

Note: If the test is successful, a "Connection test succeeded" message appears. Click Next. If the test is not successful, review the error message and modify the settings as required until the test succeeds.

- 1 On the next screen, select the server that the data source will connect to (in this case, the managed server.)
- 2 Click Finish and then click Activate Changes.

9.2.4.4 Configure the connection pool settings

- 1 Under Domain Structure, click Services > JDBC > Data Sources.
- 2 In the right pane, click AdobeDefaultSA_DS.
- 3 On the next screen, click the Configuration > Connection Pool.
- 4 In the Maximum Capacity box, type 30.
- 5 In the Statement Cache Size box, type 80.
- 6 Click Save and then click Activate Changes.
- 7 Restart WebLogic managed server.

9.3 Creating XA data source for Customer Experience Solutions in WebSphere

9.3.1 Configure J2C authentication for data source

- 1 In the WebSphere Administrative Console navigation tree, click Security > Global Security.
- 2 In the right pane, under Authentication, click Java Authentication and Authorization Service > J2C authentication data and then click New.
- 3 Provide the appropriate information in these boxes:

Alias: Type a name that is appropriate for the database user (for example, type AdobeDefaultSA_DS/database-databaseUser).

User ID: Enter a user ID. This ID is the login credential that is used to access whichever database will be used with the IDP_DS data source (for example, db2user).

Password: Type a password for this user.

- 4 Click OK or Apply and then click Save directly to master configuration.

9.3.2 Create your DB2 data source

9.3.2.1 Create a DB2 JDBC provider

- 1 Log in to WebSphere Integrated Solutions Console with your user ID.
- 2 In the WebSphere Administrative Console navigation tree, click Resources > JDBC > JDBC Providers.
- 3 In the Scope drop-down list in the right pane, select Node=NodeName as the level, and then click New.

4 Set the JDBC provider configuration as follows, and click Next.

- Database type: DB2
- Provider type: DB2 Universal JDBC Driver Provider
- Implementation type: XA data source
- Name: AdobeDefaultSA_DS

5 The Class path field includes the following information. Click Next.

```
CLASSPATH: ${DB2UNIVERSAL_JDBC_DRIVER_PATH}/db2jcc.jar  
${UNIVERSAL_IDBC_DRIVER_PATH}/db2jcc_license_cu.jar  
${DB2UNIVERSAL_JDBC_DRIVER_PATH}/db2jcc_license_cisuz.jar
```

1 Verify the summary and click Finish.

2 In the Messages box at the top of the page, click Save directly to master configuration.

The XA JDBC provider is now created.

9.3.2.2 Create the DB2 JDBC XA data source

1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click the provider that you created in “[9.3.2.1 Create a DB2 JDBC provider](#)” on page 37.

2 Under Additional Properties, click Data sources and then click New.

3 In the Step 1 pane, set the following configurations and then click Next:

- In the Data source name box, type AdobeDefaultSA_DS.
- In the JNDI name box, type AdobeDefaultSA_DS.

4 In the Step 2 pane, type the driver type, database name, server name, and port number of the database that you created in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.

5 Ensure that Use this data source in container managed persistence (CMP) is selected, and then click Next.

6 In the Step 3 pane, set the following configurations:

- In the Authentication alias for XA recovery list, enable Specify and select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.
- In the list under Component-managed authentication alias, select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37, and then click Next.
- In the Mapping-configuration alias list, select DefaultPrincipalMapping.
- In the Container-managed authentication alias list, select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.

7 Click Finish in the Step 4 pane.

8 Click OK or Apply and then click Save directly to master configuration.

9 Change the statement cache size:

- In WebSphere Administrative Console, click JDBC > Data sources.
- Click the data source you just created and under Additional Properties, click WebSphere Application Server data source properties.
- Change the value of the Statement cache size field to 80.
- Click OK or Apply and the click Save directly to the master configuration.

10 Select the data source you just created and select Test Connection to ensure that the data source connection is functioning correctly.

9.3.2.3 Configure AdobeDefaultSA_DS connection pools

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click the JDBC provider you just created (either DB2 Universal JDBC Driver Provider or AdobeDefaultSA_DS) as used as an example in “9.3.2.1 Create a DB2 JDBC provider” on page 37.
- 2 Under Additional Properties, click Data sources and then select AdobeDefaultSA_DS.
- 3 On the next screen, under Additional Properties, click Connection Pool Properties and set the properties as follows:
 - In the Maximum connections box, type 30 (or higher if required).
 - In the Minimum connections box, type 1.
- 4 Click OK or Apply and then click Save directly to master configuration.

9.3.2.4 Set default isolation level (DB2 only)

- 1 Log in to WebSphere Integrated Solutions Console.
- 2 In the WebSphere Administrative Console navigation tree, click Resources > JDBC > Data Sources.
- 3 From the drop-down list in the right pane, select Node=Nodename. All data sources under the node are displayed.
- 4 Click Document Services - DB2 - IDP_DS with JNDI name IDP_DS.
- 5 Click Custom Properties.
- 6 Search for webSphereDefaultIsolationLevel property, and click to open it for edit.
- 7 Set value as 2. The value 2 denotes Read Committed.
- 8 Click Apply and then click OK.
- 9 In the Messages box at the top of the page, click Save directly to master configuration.
- 10 Follow steps 4 through 9 for data source AdobeDefaultSA_DS with JNDI name AdobeDefaultSA_DS to change the default isolation level to 2.
- 11 Restart WebSphere.

9.3.3 Create your SQL Server data source

9.3.3.1 Create an SQL Server JDBC provider

- 1 In the WebSphere Administrative Console navigation tree, click Environment > WebSphere Variables and, in the right pane, click one of the following:
 - MICROSOFT_JDBC_DRIVER_PATH
- 2 Under General Properties, in the Value box, type the path to the sqljdbc.jar file ((the default location is [DocumentServices root]\lib\db\mssql). Click OK.
- 3 In the Messages box, click Save directly to master configuration.
- 4 In the navigation tree, click Resources > JDBC > JDBC Providers.
- 5 In the Scope drop-down list in the right pane, select Node=NodeName as the level, and then click New.
- 6 In the Create new JDBC provider pane, set the following configurations and then click Next:
 - In the Database type list, select SQL Server.

- In the Provider Type list, select Microsoft SQL Server JDBC Driver.
 - In the Implementation type list, select XA Data Source.
 - In the Name box, type AdobeDefaultSA_DS. The default is Microsoft SQL Server JDBC Driver (XA).
- 7 In the Enter database class path information pane, ensure that it includes the following information, and click Next:
- `${MICROSOFT_JDBC_DRIVER_PATH}/sqljdbc.jar`
- Note: If you have set the WebSphere variable MICROSOFT_JDBC_DRIVER_PATH, the database class path information is populated automatically.*
- 8 In the Summary pane, click Finish and then click Save directly to master configuration.

9.3.3.2 Create the SQL Server XA data source

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click the provider that you created in “9.3.3.1 Create an SQL Server JDBC provider” on page 39.
- 2 Under Additional Properties, click Data sources and then click New.
- 3 In the Enter basic data source information pane, set the following configurations and then click Next:
 - In the Data source name box, type AdobeDefaultSA_DS.
 - In the JNDI name box, type AdobeDefaultSA_DS.
- 4 In the Enter database specific properties for the data source pane, enter the database name, server name, and port.
- 5 In the Setup security aliases pane, set the following, and click Next.
 - In the Authentication alias for XA recovery list, enable Specify and select the authentication alias that you created for this data source in “9.3.1 Configure J2C authentication for data source” on page 37.
 - In the Component managed authentication alias list, select the authentication alias that you created for this data source in “9.3.1 Configure J2C authentication for data source” on page 37.
 - In the Mapping-configuration alias list, select DefaultPrincipalMapping.
 - In the Container managed authentication alias list, select the authentication alias that you created for this data source in “9.3.1 Configure J2C authentication for data source” on page 37.
- 6 In the Summary pane, click Finish, and then click Save directly to the master configuration.
- 7 Set the data store helper class for the data source:
 - In the navigation tree, click Resources > JDBC > Data sources and, in the right pane, click the data source that you created.
 - In the next screen, under Data store helper class name, select Specify a user-defined data store helper, and replace the existing entry with the following text:
`com.ibm.websphere.rsadapter.GenericDataStoreHelper`
- 8 Change the statement cache size:
 - In WebSphere Administrative Console, click JDBC > Data sources.
 - Click the data source you just created and under Additional Properties, click WebSphere Application Server data source properties.
 - Change the value of the Statement cache size field to 80.
 - Click OK or Apply and then click Save directly to the master configuration.

9.3.3.3 Configure AdobeDefaultSA_DS connection pools

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click Microsoft SQL Server JDBC Driver.
- 2 Under Additional Properties, click Data sources and then select AdobeDefaultSA_DS.
- 3 On the next screen, under Additional Properties, click Connection Pool Properties and, in the Maximum connections box, type 30.
- 4 Click OK or Apply and then click Save directly to master configuration.

9.3.4 Creating your Oracle data source

9.3.4.1 Create an Oracle JDBC provider

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers.
- 2 In the Scope drop-down list in the right pane, select Node=NodeName as the level, and then click New.
- 3 In the Step 1 pane, set the following configuration and click Next:
 - In the Database type list, select Oracle.
 - In the Provider type list, select Oracle JDBC Driver.
 - In the Implementation type list, select XA data source.
 - In the Name text box, type AdobeDefaultSA_DS.
- 4 In the Step 2 pane, accept the default database class path and click Next.
- 5 In the Step 3 pane, click Finish, and then click Save directly to master configuration.

9.3.4.2 Create the Oracle XA data source:

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click the provider that you created in “[9.3.4.1 Create an Oracle JDBC provider](#)” on page 41.
- 2 Under Additional Properties, click Data sources and then click New.
- 3 Set the following configurations and then click Next:
 - In the Data source name box, type AdobeDefaultSA_DS.
 - In the JNDI name box, type AdobeDefaultSA_DS.
- 4 In the Step 2 pane, type the following line in the URL field:
`jdbc:oracle:thin:@[server_host]:[port]:[SID]`
where [server_host] is the IP address of the database server, [port] is the port that the database is listening on (default 1521), and [SID] is the service ID of the database.
- 5 Select Oracle 10g data store helper and click Next.
- 6 In the Setup security aliases pane, set the following, and click Next.
 - In the Authentication alias for XA recovery list, enable Specify and select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.
 - In the Component managed authentication alias list, select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.
 - In the Mapping-configuration alias list, select DefaultPrincipalMapping.

- In the Container managed authentication alias list, select the authentication alias that you created for this data source in “[9.3.1 Configure J2C authentication for data source](#)” on page 37.
- 7 Click Finish.
 - 8 Click Save directly to master configuration.
 - 9 Click OK or Apply and then click Save directly to master configuration.
 - 10 Change the statement cache size:
 - In WebSphere Administrative Console, click JDBC > Data sources.
 - Click the data source you just created and under Additional Properties, click WebSphere Application Server data source properties.
 - Change the value of the Statement cache size field to 80.
 - Click OK or Apply and then click Save directly to the master configuration.

9.3.4.3 Configure AdobeDefaultSA_DS connection pools

- 1 In the navigation tree, click Resources > JDBC > JDBC Providers and, in the right pane, click the Oracle JDBC Driver data source you just created.
- 2 Under Additional Properties, click Data sources and then select AdobeDefaultSA_DS.
- 3 Under Additional Properties, click Connection Pool Properties and, in the Maximum connections box, type 30.
- 4 Click OK or Apply and then click Save directly to master configuration.