

# INSTALLING CORRESPONDENCE MANAGEMENT SOLUTION

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# Chapter 1: About This Document

This guide provides information about how to install, configure, and deploy Correspondence Management Solution.

This guide provides information for administrators who are responsible for installing, configuring, and deploying Correspondence Management Solution. The information provided is based on the assumption that anyone reading this guide has installed and worked on Adobe® LiveCycle® Enterprise Suite 4 (ES4).

## 1.1 Conventions used in this document

This guide uses the following naming convention.

Name	Default value	Description
[LiveCycle root]	Windows: C:\Adobe\Adobe LiveCycle ES4 Unix: opt/adobe/adobe_livecycle_ES4	The installation directory that is used for all LiveCycle modules. The installation directory contains subdirectories for Adobe® LiveCycle® Configuration Manager. This directory also includes directories relating to third-party products.

## 1.2 Documentation and resources

The documentation set and associated resources are a guide for planning, installing, developing, and delivering Correspondence Management Solution using the LiveCycle.

Architects, designers, and developers also have access to a range of support offerings and resources through Adobe and its partner community. The complete documentation is available at [http://www.adobe.com/go/learn\\_lc\\_documentation\\_11](http://www.adobe.com/go/learn_lc_documentation_11).

Resource	Audience	Description
Solution Guide for Correspondence Management Solution	Solution architects, business analysts, project managers, designers, application specialists, and developers	<p>Introduces the Solution and provides the following information:</p> <ul style="list-style-type: none"> <li>• Overview of the Solution</li> <li>• Analyzing your current correspondence</li> <li>• User stories</li> <li>• Solution walk-through</li> </ul>
Developer guide	Developers, Administrators	<p>Provides technical details on the following information:</p> <ul style="list-style-type: none"> <li>• Architecture</li> <li>• Components of the Solution</li> <li>• How to set up your development environment.</li> <li>• Developer user stories</li> </ul>
Building block technical guides	Developers	<p>Provides technical details about how to implement the building block components in your solution. The building block technical guides include this information:</p> <ul style="list-style-type: none"> <li>• Overview of the building block</li> <li>• Architecture</li> <li>• How the building block works</li> <li>• Detailed descriptions of building block assets such as services, processes, tooling, and schemas.</li> <li>• Implementation details about the user stories</li> </ul>
ActionScript® 3.0 Reference	Developers	<p>Contains the ActionScript language elements, core libraries, and component packages and classes for the tools, runtimes, services, and servers in the Flash® Platform.</p>
API Reference (JavaDocs)	Developers	<p>Describes the Java® API interfaces and classes for the Correspondence Management Solution.</p>
Adobe Developer Connection	Solution architects, business analysts, project managers, designers, and developers	<p>The LiveCycle Developer Center includes Quick Start content, tutorials, videos, downloads, sample, technical guides, blogs, and much more.</p>

# Chapter 2: Overview

Correspondence Management Solution is an extendable and customizable solution that helps you create personalized correspondences using pre-defined fragments of content 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.

Review the following steps to install and configure Correspondence Management Solution.

- 1 Install or upgrade to LiveCycle ES4. For information, see the appropriate installation or upgrade documentation at [http://www.adobe.com/go/learn\\_lc\\_documentation\\_11](http://www.adobe.com/go/learn_lc_documentation_11).
- 2 Install Correspondence Management Solution. See “[Install Correspondence Management Solution](#)” on page 4.
- 3 Configure Correspondence Management Solution using LiveCycle Configuration Manager. See “[Configuring and Deploying Correspondence Management Solution](#)” on page 6.
- 4 Perform post-deployment activities. See “[Post-Deployment Activities](#)” on page 7.

# Chapter 3: Install Correspondence Management Solution

The installation, configuration, and deployment of Correspondence Management Solution involves installing the product files and running the LiveCycle Configuration Manager.

*Note:* Before installing Correspondence Management Solution, ensure that you have installed LiveCycle ES4. If you are on LiveCycle ES update 1, LiveCycle ES2, or LiveCycle ES2.5, you first need to upgrade to LiveCycle ES4. See the LiveCycle ES4 upgrade documentation for more information.

## 3.1 Checking the installer

Ensure that the installation media that you received is not damaged. If you copy the installer media contents to the hard disk of your computer, ensure that you copy the entire DVD contents on to the hard disk.

*Note:* To avoid installation errors, do not copy the DVD install image to a directory path that exceeds the Windows maximum path length limit.

If you downloaded the installer from the Adobe website, verify the integrity of the installer file using any system utility, such as MD5 checksum. Click [here](#) for LiveCycle MD5 checksum codes.

*Note:* Ensure that you do not modify the directory structure of the extracted installation package.

## 3.2 Install the product files

1 Start the installation program.

- **(Windows)** Do one of the following:
  - Navigate to the `solutions` directory and launch the `run_windows_installer.bat` file. This batch file launches the appropriate installer (32-bit or 64-bit), depending on the Windows version.
  - Navigate to the directory where you copied the installer, and double-click the `install.exe` file.
    - (32-bit)** `\solutions\Disk1\InstData\Windows\VM`
    - (64-bit)** `\solutions\Disk1\InstData\Windows_64\VM`
- **(AIX, Linux, and Solaris)** Navigate to the directory where you copied the installer, and execute the `./install.bin` command from a command prompt:
  - **(AIX)** `/solutions/Disk1/InstData/AIX/NoVM`
  - **(Linux)** `/solutions/Disk1/InstData/Linux/NoVM`
  - **(Solaris)** `/solutions/Disk1/InstData/Solaris/NoVM`

*Note:* For AIX, Linux, and Solaris, you must set executable permissions on the installation file.

2 When prompted, select the language for the installation to use and click **OK**.

3 On the Introduction screen, click **Next**.

- 4 Read the License Agreement, select **I accept the terms of the License Agreement** to accept the terms of the license agreement, and click **Next**.
- 5 On the Choose a Folder screen, ensure that the LiveCycle ES4 installation directory is specified, and click **Next**.
- 6 Review the pre-installation summary, and click **Install** to install Correspondence Management Solution.
- 7 Review the Adobe LiveCycle ES4 Release Notes, and click **Next**.
- 8 Review the information on the Installation Complete screen. The **Start LiveCycle Configuration Manager** checkbox is selected by default. Click **Done** to run the Configuration Manager.

***Note:** To run Configuration Manager later, deselect the Start LiveCycle Configuration Manager option before you click Done. You can start LiveCycle Configuration Manager later using the appropriate script in the [LiveCycle root]/configurationManager/bin directory.*

### 3.3 Next steps

Configure Correspondence Management Solution by running Configuration Manager. For more information, see [“Configuring and Deploying Correspondence Management Solution”](#) on page 6.



# Chapter 4: Configuring and Deploying Correspondence Management Solution

After you have installed Correspondence Management Solution, you must run Configuration Manager to configure the installation. Configuration Manager configures LiveCycle modules in EAR files for deploying them to the application server and also deploys the LiveCycle components.

**Important:** In addition to the Configuration Manager screens for configuring LiveCycle, you will be presented with screens specific to Correspondence Management Solution. See [Run Configuration Manager](#) for details.

**Important:** Correspondence Management Solution relies on specific LiveCycle modules and tasks. While running Configuration Manager, you must ensure that these modules and tasks are selected. Review the information at [“4.1 Dependencies on LiveCycle modules and tasks”](#) on page 6 before you run the Configuration Manager.

## 4.1 Dependencies on LiveCycle modules and tasks

For successful configuration and smooth running of Correspondence Management Solution, you must select the following modules on the Modules selection screen:

- Adobe Livecycle Forms ES4, version 11.0.0
- Adobe Livecycle Output ES4, version 11.0.0
- Content Repository, version 11.0.0

**Note:** 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 LiveCycle** screens, you could modify the directories for temporary files, global document storage (GDS), or fonts.

## 4.2 Access solution template

You can verify the Correspondence Management Solution deployment by visiting `http://[host]:[port]/lc/cm` and logging in using admin/admin as the username/password. Solution template is a reference implementation of Correspondence Management Solution.

**Note:** In a non-turnkey deployment, if you encounter an error while accessing the solution template, you must integrate LiveCycle with Correspondence Management Solution as described in [“5.3 Configure publish nodes to Integrate with LiveCycle”](#) on page 9.

## 4.3 Next step

Now that you have installed, configured, and deployed the Correspondence Management Solution and LiveCycle ES4, there are additional configurations required for Correspondence Management Solution to be fully functional. For details, see [“Post-Deployment Activities”](#) on page 7.

# Chapter 5: Post-Deployment Activities

## 5.1 Author-instance clustering for Correspondence Management

When the Correspondence Management solution is deployed, the author instance runs on the same server as LiveCycle ES4. However, setting up the LiveCycle cluster doesn't automatically configure the Correspondence Management author-instance cluster. You must set up this cluster manually.

Author-instance clustering has no dependency on LiveCycle clustering. The LiveCycle cluster acts as a backend system for author instance clustering when LiveCycle is integrated with the Correspondence Management solution (see “5.3 Configure publish nodes to Integrate with LiveCycle” on page 9. The *shared nothing* mode of clustering is supported for Correspondence Management.

**Note:** See [this technical article](#) for more information about the *shared nothing* mode.

Follow these steps to configure clustering for Correspondence Management:

- 1 Decide which instance will be the master instance. Note the host name and port number of this instance. For example, if you are running the master instance on machine *node1*/port 8080, its address is *node1:8080*.
- 2 Every instance other than the master instance is a slave instance. The CRX console for any instance is located at *http://<slave-address>/crx/index.jsp*.  
  
For example, if you are running a slave instance on machine *node2:port 8080*, you can log in to its CRX console at *http://node2:8080/crx/index.jsp*.
- 3 After logging in to the console of a slave instance, click **Repository Configuration**.
- 4 On the **Repository Configuration** page, in the Tools list, click **Cluster**.
- 5 On the Cluster Configuration page, enter the Web address of the master instance in the **Master URL** field. Enter this information in the following format:  
  
`http://<master-address>/crx/config/cluster.jsp`  
  
For example, if the master and slave instances are running on *node1* and *node2* respectively, enter:  
  
`http://node1:8080/crx/config/cluster.jsp`
- 6 Enter the CRX user name and password and then click **Join**. Admin access is a prerequisite for setting up a cluster.
- 7 Joining the cluster may take a few minutes. Once it is confirmed that the joining request was successful, repeat the joining procedure on each of the other slave instances.

**Note:** You may need to restart the slave instance to avoid stale sessions.

**Important:** All author instances in the cluster should be time synchronized. You can use an NTP (Network Time Protocol) server to ensure time synchronization.

**Important:** If you are setting up clustering on your Correspondence Management solution, you need to ensure that there are no spaces in your CRX repository path.

## 5.1.1 WebSphere-specific requirements

Some additional configuration is necessary for using the Dispatcher with the WebSphere application server. The following properties need to be set to `true` for the Web container:

```
com.ibm.ws.webcontainer.extractHostHeaderPort  
trusthostheaderport
```

Set these properties as follows:

- 1 In the LiveCycle Administration Console, click **Servers > Server Types > WebSphere application servers > [server\_name] > Web Container Settings > Web container**.
- 2 Under Additional Properties, click **Custom Properties**.
- 3 On the Custom Properties page, click **New**.
- 4 On the settings page, enter the name of the custom property that you want to configure in the **Name** field and the value that you want to set it to in the **Value** field.
- 5 Click **Apply** or **OK**.
- 6 Click **Save** on the console task bar to save your configuration changes.
- 7 Repeat steps 1-6 for each server in the cluster.
- 8 Restart the cluster.

*Note:* Ensure that the `default_host aliases` list has the same port numbers as the Web server running atop the WebSphere cluster.

## 5.2 Configure the publish instance

You must run separate author and publish instances for Correspondence Management Solution. However, you can configure the two instances on the same or on different machines.

*Note:* Before configuring the publish instance, ensure that your author instance is configured and deployed. You can verify by successfully logging in to the solution template for Correspondence management Solution. See “[4.2 Access solution template](#)” on page 6 for more information.

- 1 Create a new appserver profile for the publish instance on the same or on a different machine.
- 2 On the author instance, navigate to the `[LiveCycle root]/configurationManager/export/` directory.
- 3 Copy the `adobe-livecycle-cq-publish.ear` file and deploy it to the appserver profile created in step 1.
- 4 Copy the `[LiveCycle root]/configurationManager/export/crx-quickstart` directory to the file server for the publish instance.
- 5 Start the publish server with `-Dcom.adobe.livecycle.crx.home=<location for crx-quickstart>` parameter, where `<location for crx-quickstart>` is the location where you copied the `crx-quickstart` directory for the publish instance.

*Note:* If author and publish instances are on the same machine, ensure that you start the publish instance using a different port.

Now that the publish instance is up and running, you need to configure the two instances to communicate with each other.

*Important:* If you are setting up clustering on your Correspondence Management solution, you need to ensure that there are no spaces in your CRX repository path.

## 5.2.1 Configure the Author Instance

### 5.2.1.1 Define publish instance URL

- 1 Go to `http://<authorHost>:<authorPort>/lc/etc/replication/agents.author/publish.html`.
- 2 Click **Edit**. The Agent Settings dialog opens.
- 3 Click the **Transport** tab and specify the URL to the publish server in the URI field.  
`http://<publishHost>:<publishPort>/lc/bin/receive?slings:authRequestLogin=1`
- 4 Click **OK**.

*Note:* For author clusters, these steps need to be performed on one author instance (preferably a master instance).

### 5.2.1.2 Define publish instance URL for ActivationManagerImpl

- 1 Go to `http://<authorHost>:<authorPort>/lc/system/console/configMgr`.
- 2 Find and click the Edit icon next to the  
`com.adobe.livecycle.content.activate.impl.ActivationManagerImpl.name` setting.
- 3 In the ActivationManager Publish URL field, specify the URL for the corresponding publish instance.
- 4 Click **Save**.

### 5.2.1.3 Configure reverse replication queue

- 1 Go to `http://<authorHost>:<authorPort>/lc/etc/replication/agents.author/publish_reverse.html`.
- 2 Click **Edit**. The Agent Settings dialog opens.
- 3 Click the **Transport** tab and specify the URL to the corresponding publish server in the URI field.
- 4 Click **OK**.

## 5.2.2 Configure the publish instance

### 5.2.2.1 Define author instance URL

- 1 Go to `http://<publishHost>:<publishPort>/lc/system/console/configMgr`.
- 2 Find and click the Edit icon next to the  
`com.adobe.livecycle.content.activate.impl.VersionRestoreManagerImpl.name` setting.
- 3 In the VersionRestoreManager Author URL field, specify the URL for the corresponding author instance.
- 4 Click **Save**.

## 5.3 Configure publish nodes to Integrate with LiveCycle

*Important:* Perform these steps on all publish instances in a non-turnkey deployment.

- 1 Go to `http://[host]:[port]/lc/system/console/configMgr` and log in using admin/admin as username/password.
- 2 Search and click **Edit** next to the **Adobe LiveCycle Client SDK Configuration** setting.
- 3 In the Server Url field, ensure that `http://[host]:[port]` is specified.

**Important:** Ensure that the document server is listening on the specified host and port combination. The following three scenarios are possible in the case of a LiveCycle server cluster:

- All LiveCycle server instances are running on *localhost* and the same port. In this case use *localhost:[port]*.
- All LiveCycle server instances are running on *localhost* but on different ports. In this case, use a load balancer host name and port combination—*[loadbalancer\_host]:[loadbalancer\_port]*.
- All LiveCycle server instances are running on a particular host name (not *localhost*) and different/same ports. In this case, use a load balancer host name and port—*[loadbalancer\_host]:[loadbalancer\_port]*.

If you need to use a load balancer URL to access the LiveCycle server cluster (as mentioned above), ensure that the required communication ports between Author instances and the load balancer are open.

- 4 Specify LiveCycle administrator credentials in the Username as Password fields.
- 5 Click **Save**.

## 5.4 Install sample users and assets

You can install sample users with predefined user permissions to further explore the solution template, which you can customize to build your own solution.

- 1 Go to `http://<authorHost>:<authorPort>/lc/libs/cq/core/content/welcome.html`. The CQ home page opens.
- 2 Click **Packages** and log in using `admin/admin` as the username/password.
- 3 In Package Manager, click **Upload Package**.
- 4 Browse to `[LiveCycle root]/configurationManager/deploy/crx` directory on the author instance.
- 5 Select **samples-correspondencemanagement-pkg-\*.zip**, and click **Ok**.
- 6 Click **Install** on the confirmation dialog to install the sample users and assets.

For more information about the sample users and guidelines to implement a solution using the solution template, see [Correspondence Management Solution Guide](#).

**Note:** For author clusters, these steps need to be performed on one author instance (preferably a master instance).

## 5.5 Configure IPv6 implementation

**Note:** Perform these steps only if Correspondence Management Solution 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 Correspondence Management Solution.

## 5.6 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](#).