ADOBE® LIVECYCLE® ES3
UPGRADE CHECKLIST AND PLANNING

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Chapter 1: Upgrade overview

An upgrade project is required when upgrading from one major release to another (for example, upgrading from Adobe® LiveCycle® Enterprise Suite 2 (ES2) to Adobe® LiveCycle® Enterprise Suite 3 (ES3)). Besides protecting the investment you made in developing forms, processes, and applications, upgrading to LiveCycle ES3 allows you to take advantage of several new features.

Upgrade limits changes only to the middle tier of your enterprise infrastructure. This minimizes the disruption to your enterprise infrastructure and other custom applications. However, if your existing LiveCycle installation runs on a 32-bit operating system, upgrade to LiveCycle ES3 will not be supported. For more information, see: "LiveCycle version and supporting software infrastructure compatibilities" on page 3.

Upgrade project involves tasks ranging from initially surveying your current LiveCycle environment to finally validating the upgraded environment. The tasks should be carried out by personnel with specific skill sets as described in the "Required Skill Sets" on page 2.

After upgrading to LiveCycle ES3, you must carry out verification and user-acceptance tests, to ensure that forms, processes, and applications continue to run and perform as expected. Upgrading to LiveCycle ES3 is designed to provide an automated experience with minimal manual tasks.

About the Upgrade Checklist document

This guide outlines analyses, verification tasks, and validation checks that must be carried out to ensure a successful upgrade to LiveCycle ES3. The checklist contains task items that constitute various stages of upgrade.

Check or Task Item Item against which verification tasks or validation checks should be performed.

Action Item Required course of action to be performed for the check or task item.

Failure Point Condition or state that is a potential blocker and prevents you from continuing to upgrade.

Additional Information Information that will help you perform an action item or over come a failure point.

Chapter 2: Required Skill Sets

Forming a team with personnel who have the necessary skill sets is the first step when upgrading. The personnel, based on the skill sets they possess, should carry out specific tasks during different stages of upgrade.

The personnel responsible for upgrading should comprise of members with the following skill sets to perform a successful upgrade to Livecycle ES3.

- Installing and administering application servers, databases, and operating systems, the ones that currently run LiveCycle in particular. These skill sets are necessary for surveying your enterprise infrastructure prior to upgrading during the "Pre-upgrade analyses" on page 7 stage.

- Installing and administering LiveCycle. These skill sets are necessary to execute the upgrade project during the "Upgrade Execution" on page 17 stage.

- Managing and developing LiveCycle applications, processes, and other artifacts (forms, third party libraries, etc.). These skill sets are necessary for verifying your LiveCycle ES3 installation and enterprise infrastructure after upgrading during the "Post-upgrade Validation" on page 17 stage.

- End-users to test the upgraded system and end-user interfaces.

Chapter 3: Upgrade workflow

Personnel directly responsible for the upgrade project should perform all applicable tasks outlined for different stages of upgrade sequentially:

1 Compatibilities verification and upgrade decision making

2 Pre-upgrade analyses

3 Upgrade execution

4 Post-upgrade validation

5 Workflow verification and modification

Compatibilities verification

The personnel responsible for upgrade should first survey the existing LiveCycle environment to determine if the software infrastructure continues to be supported by LiveCycle ES3. The survey results help estimate the effort required to upgrade and also determine the upgrade path.

The personnel can either manually examine the target environment or they could download and run the Enterprise Readiness Tool to perform these analyses. See Using the Enterprise Readiness Tool for more information.

When upgrading from LiveCycle ES Update 1 or LiveCycle ES2, two scenarios influence how you can upgrade to LiveCycle ES3.

In-place upgrade: If you choose to upgrade to LiveCycle ES3 using the existing application server instance, then it is considered an in-place upgrade. For example, continued usage of a WebSphere 7 instance from LiveCycle ES2 to LiveCycle ES3 having installed necessary fix packs.

Using the same application server instance implies that changes need not be made to the operating system or the server machine.

Out-of-place upgrade: The following scenarios are considered out-of-place upgrade:

• **Change of computers**: If you change your server machine from the one that runs your existing LiveCycle installation to use a new machine when upgrading to LiveCycle ES3.

• **Upgrading the application server**: If you are upgrading your application server with a major version revision. For example, upgrading WebSphere 6.1 to WebSphere 7.0.0.15.

• **Application server migration**: If you are migrating from a 32-bit application server to a 64-bit variant. For example, 32-bit JBoss to 64-bit JBoss application server.

Note: You cannot upgrade if you are changing your application server, your operating system, or your database; it is considered a fresh installation. For example, if you are changing your application server from WebLogic to JBoss.

LiveCycle version and supporting software infrastructure compatibilities

Some platforms that are supported with LiveCycle ES Update 1 and LiveCycle ES2 continue to be supported with LiveCycle ES3. However, LiveCycle ES3 supports the more recent versions of all software, so you should upgrade to or use supported versions of all software.

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle 7.x	N/A	Direct upgrade to LiveCycle ES3 not supported.	Upgrade to LiveCycle ES U1 first before you can upgrade to LiveCycle ES3. See Preparing to Upgrade to LiveCycle ES Update 1 from 7.x guide.
LiveCycle ES (8.0.x)	N/A	Direct upgrade to LiveCycle ES3 not supported.	Upgrade to LiveCycle ES Update 1 or LiveCycle ES2 first before you can upgrade to LiveCycle ES3. See Preparing to Upgrade to LiveCycle ES from 8.0.x or Preparing to Upgrade to LiveCycle ES2, as applicable.
LiveCycle ES Update 1 (8.2.1.x)	N/A	Direct upgrade to LiveCycle ES3 supported.	N/A
LiveCycle ES2 (9.0.0.x)	N/A	Direct upgrade to LiveCycle ES3 supported.	N/A
LiveCycle Deployment Type	Check if the deployment type is single server or server cluster.	N/A	N/A
Operating System	Check if the version is supported in Supported Platform Combinations.	Version not supported.	Install or upgrade to a supported version. Note that changing the operating system or upgrading it to a major version revision will be an out-of-place upgrade.
Application server	Check if the version is supported in Supported Platform Combinations.	Version not supported.	Install or upgrade to a supported version. If supported, it is recommended that you apply application server patches and continue to run the updated application server before you upgrade. This approach helps ensure that the application server is running correctly when you are ready to upgrade.
Database	Check if the version is supported in Supported Platform Combinations.	Version not supported.	Install or upgrade to a supported version.
Database driver	Check if the version is supported in Supported Platform Combinations.	Version not supported.	Install or upgrade to a supported version.
JDK	Check if the version is supported in Supported Platform Combinations.	Version not supported.	Install or upgrade to a supported version.

Check or Task Item	Action Item	Failure Points	Additional Information
Hardware support	Check if the server machine conforms to the hardware requirements specified in the System Requirements section in the Preparing to Upgrade guide.	N/A	Ensure sufficient hard disk space and RAM are allocated on the server.
Firewall	Check if Firewall is enabled.	Is enabled.	Deactivate Firewall.
Antivirus	Check if Antivirus is installed and enabled.	N/A	Disable Antivirus during upgrade.
Custom applications	Track all custom applications.	N/A	Make necessary modifications after upgrade.
Custom WAR/EAR	Track all custom WARs and EARs.	Not upgraded during upgrade to LiveCycle ES3.	Redeploy after upgrade.
Application Server Client JARs	Track all client JAR.	N/A	If necessary, modify them after upgrade.

Client-side applications compatibility

It is necessary to ensure that your client-side applications are upgraded to supported versions to ensure that the end-user interfaces of LiveCycle ES3 continue to be functional.

Checklist/Task Item	Action Item	Failure Points	More Information
Adobe® Flash® Player	Download and install Flash Player 10.2.	Workspace fails to render post-upgrade.	N/A
Browser	See Supported Platform Combinations and install a supported version.	Adobe® LiveCycle® Forms 10 fail to render post-upgrade.	N/A
Adobe® Reader®	Note the version of Adobe Reader.	Versions lesser than Adobe Reader 8 are not supported.	See Adobe Reader compatibility for more information.
Adobe® LiveCycle® Workbench 10	Download and install Workbench.	N/A	For more information, see: Installing Workbench
Adobe® LiveCycle® Designer 10	Download and install Designer.	N/A	For more information, see: Installing Workbench

Data, process, and API compatibility

On the server, process data and configuration information is migrated automatically so that it is available for LiveCycle ES3. For example, old process data continues to be available so that users can run queries that span the upgrade. The configuration information of the existing LiveCycle installation, that LiveCycle ES3 requires, is migrated. Changes in schema are also handled automatically during the upgrade.

Processes that are developed in or updated to LiveCycle ES Update 1 or LiveCycle ES2 run natively in LiveCycle ES3. Long-lived processes will resume after the upgrade. For processes that are migrated from an existing LiveCycle system, end users can continue to log in to Workspace and see processes in the state that they left them in. Most APIs that are used with LiveCycle ES Update 1 and LiveCycle ES2 are compatible with LiveCycle ES3.

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle 7.x QPAC-based processes	Check if currently in use.	Not supported with LiveCycle ES3.	Upgrade to LiveCycle ES3 compatible DSCs using Workbench Process Upgrade tool. For more information, see: Upgrading LiveCycle 7.x QPAC processes in Workbench help.
LiveCycle ES Update 1 Processes	Check if currently in use.	N/A	Can be upgraded to LiveCycle ES3 compatible applications. For more information, see: Upgrading legacy artifacts in Workbench help.
LiveCycle ES2 Processes and Applications	Check if currently in use.	N/A	Will continue to work with LiveCycle ES3.
Custom QPACs	Check if currently in use.	Not supported with LiveCycle ES3.	Replace with LiveCycle ES3 compatible DSCs after upgrade. For more information, see Upgrading LiveCycle 7.x QPAC processes in Workbench help.
LiveCycle 7.x APIs	Check if currently in use.	Not supported with LiveCycle ES3.	Replace with LiveCycle ES3 APIs after upgrade.
Custom DSCs	Track all custom DSCs.	N/A	After upgrade, update the versions of custom DSCs.
LiveCycle Client APIs	Track all client APIs.	N/A	After upgrade, modify the existing APIs to take advantage of the new APIs available with LiveCycle ES3.

LiveCycle ES3 Component Patching

Two scenarios determine how a Document Service Component is patched:

- **Patching a DSC with a new version**: When a DSC is deployed with a new version, it co-exists with the older version instead of patching it with additional configuration parameters. This behavior applies to all LiveCycle DSCs and to any custom DSCs you have deployed.

  For example, if you are upgrading from LiveCycle ES Update 1(8.2.1.x), SignatureService 1.0 and 1.1 exist prior to upgrading. Post upgrade, configuration parameters of SignatureService 1.1 are copied to SignatureService 2.0. And both, SignatureService versions, 1.1 and 2.0 will be made available for usage.

- **Patching a DSC with the same version**: When a DSC is deployed with the same version, it overwrites the existing DSC, but retains the configuration parameters.

  For example, if you have versions 1.0, 1.1, 1.2 already deployed, and the patching DSC version is 1.2, then the existing DSC version 1.2 will be overwritten by the new DSC with version 1.2. However, the configuration parameters of the old DSC version 1.2 will be retained. Also currently the endpoint/security configurations assume default values and no existing values are carried over.

Pre-upgrade analyses

The pre-upgrade analyses stage requires the personnel to examine the existing LiveCycle environment. Apart from providing a measure of the state of the environment, it helps estimate the effort required to upgrade.

Analysing your existing LiveCycle environment using Enterprise Readiness Tool

You can use the Enterprise Readiness Tool to test the preparedness of your LiveCycle environment to upgrade to LiveCycle ES3. For more information, see: Using the Enterprise Readiness Tool.

Note: It is necessary that you follow this guide to its entirety as the Enterprise Readiness Tool does not perform all the necessary pre-upgrade analyses.

Analyze your existing LiveCycle installation

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle Service Packs	Check if latest service packs are applied.	You have not applied the latest service packs for your existing LiveCycle installation.	**(Upgrading from LiveCycle ES Update 1 only)** Download and install Service Pack 4. **(Upgrading from LiveCycle ES2 only)** Download and install Service Pack 2.
7.x Compatiblity Layer	Check if installed and currently in use.	Not supported with LiveCycle ES3.	Migrate the solutions based on compatiblity layer to LiveCycle ES Update 1 or LiveCycle ES2.
Quick fixes	Track all quick fixes installed.	N/A	If you are upgrading from LiveCycle ES Update 1, after applying service pack 3, download and install Quick Fix 3.19. Contact Adobe support for more information.
Fonts	Back up all system and custom fonts.	N/A	N/A

Checklist/Task Item	Action Item	Failure Points	More Information
(LiveCycle ES2.5 only) Solution Accelerators	Check if Solution Accelerators are installed.	Cannot be upgraded using LiveCycle ES3 Configuration Manager.	Contact Adobe support for more information.
(JBoss only) Crypto Jar Files	Check if you are using Adobe pre-configured JBoss 4.2.1.	If you do not copy the crypto jar files, LiveCycle ES3 Core EAR file will fail to deploy.	Crypto Jar Files are not present in Adobe pre-configured JBoss 4.2.1 provided with LiveCycle ES2 or LiveCycle ES2.5. If you are leveraging LiveCycle ES2 or LiveCycle ES2.5's, Adobe pre-configured JBoss 4.2.1 for upgrade to LiveCycle ES3, manually copy the *jsafeJCEFIPS.jar*, *jsafeFIPS.jar* and *certjFIPS.jar* files from *JBoss_DVD/third_party/jboss-4.2.1_jars/crypto* to *[LiveCycle ES2 or LiveCycle ES2.5 JBoss 4.2.1 Home]/server/<server_profile>/lib*
(JBoss only) EJB Applications	Check if you have EJB applications built against JBoss 4.2.1.	If you are migrating to JBoss 5.1, these EJB applications will not function.	You can choose to reuse JBoss 4.2.1 or recompile EJB applications with JBoss 5.1 libraries and jdk1.6_26. **Note**: JBoss 4.2.1 will be end of life by the end of 2012; therefore, it is recommended to use JBoss 5.1 during upgrade.

Analyze your Database and GDS

Backing up the database is one of the most critical tasks to be performed when upgrading to avoid data losses. Besides storing data, the database also contains references to the contents of Global Document Storage directory (GDS) and Content Storage Root directory. In addition, all configurations made to your existing LiveCycle system using the LiveCycle Administration Console are also stored in the database. For example, User Management configurations such as LDAP server configuration, Users, Roles, Permissions, or component configurations such as LiveCycle PDF Generator customizations.

Database

Checklist/Task Item	Action Item	Failure Points	More Information
Back up	Perform a cold backup of the database.	N/A	If you configured SSL on the LiveCycle server, then you cannot place the LiveCycle server in back up mode using LCBackupMode.CMD script. However, you can also use LiveCycle ES3 Administration Console (see LiveCycle Administration Help for more information) or Backup and Restore APIs (see for API Reference for LiveCycle information) to place the LiveCycle server in back up mode. For more information, see: Maintaining the LiveCycle Database in LiveCycle Administration Help.
Size	Note the Size of your database.	N/A	N/A
Tables	Note the names and number of tables.	N/A	N/A
Custom tables	Note the names and number of custom tables.	N/A	After upgrade, create custom data sources with the application server pointing to them.
Character Set	Track all character sets.	N/A	After upgrade, ensure that these character sets are retained.
(If applicable) National Character Set	Track all national character sets.	N/A	After upgrade, ensure that these character sets are retained.
Database Customizations	Track all customizations made to roles, privileges, profiles, and tablespaces.	N/A	Migrate the customization along with the data during upgrade.
Database locks	Check if there are locks on any tables in the database.	Upgrade may fail while trying to access these tables.	Clear all locks.

Global Document Storage directory (GDS)

Checklist/Task Item	Action Item	Failure Points	More Information
Size	Note the Size of GDS.	N/A	For more information, see: Sizing factors for the global document storage directory
Location and Accessibility	Note the location of GDS. Ensure that it continues to be accessible to your existing LiveCycle system. Also, access the GDS from the system that will host the upgraded LiveCycle server.	LiveCycle component deployment (when running the Configuration Manager to configure and deploy LiveCycle) will fail if GDS is inaccessible.	If GDS is on a shared network folder, ensure that the user account used to upgrade has Administrator credentials. For more information, see Location of the global document storage directory.
Security	Check if access to the GDS is secured.	N/A	For more information, see: Securing the global document storage directory
Backup	Perform cold backup of your GDS.	N/A	For more information, see: • **(Upgrading from LiveCycle ES Update 1)** Backup and recovery for LiveCycle ES section in Administering LiveCycle ES guide. • **(Upgrading from LiveCycle ES2)** LiveCycle ES2 Backup and Recovery section in LiveCycle ES2.5 Administration Help.

LiveCycle Components Verification

Business Activity Monitoring (BAM)

Checklist/Task Item	Action Item	Failure Points	More Information
BAM installation and continued usage	Check if BAM is installed.	LiveCycle ES3 is the last release to support BAM	**Note**: You can only reuse an existing instance of LiveCycle BAM with LiveCycle ES3 You can continue using BAM and the existing processes that use BAM will continue to work with LiveCycle ES3. Proceed with the next task item listed in the table. If you wish to discontinue using BAM, back up existing data, uninstall BAM, and discontinue its resource allocation. See Uninstalling the BAM Server manually for more information.
New Database	If you wish to use a new database, migrate existing BAM data after creating the new database.	N/A	For more information, see: Export and backup Business Activity Monitoring metadata
BAM Publisher DSC	Check if installed (using Workbench, verify if the DSC is active in the components view).	N/A	If you wish to, you could install the BAM Publisher DSC afresh. See the *bam_wizard_guide.pdf* document found at *<LiveCycle root>*\LiveCycle_ES_SDK\misc\Business_Activity_Monitoring\LavaActivitySuite\BAMWizard\

Adobe LiveCycle 10 Connectors for ECM

Checklist/Task Item	Action Item	Failure Points	More Information
ECM Connector	Note the ECM connector in use.	N/A	N/A
ECM Server	Note the version and check if supported.	Not supported with LiveCycle ES3	Upgrade to a supported version.
ECM Client	Note the version and check if supported	Not supported with LiveCycle ES3	Upgrade to a supported version.
ECM Form Templates	Back up form templates and associated data	N/A	N/A
adobe-component-ext.properties file	Should be copied from the old application server profile to the new application server profile in case of an out-of-place upgrade	N/A	N/A

Content Services (deprecated)

Note: Adobe is migrating Adobe® LiveCycle® Content Services ES customers to the Content Repository built on the modern, modular CRX architecture, acquired during the Adobe acquisition of Day Software. The Content Repository is provided with LiveCycle Foundation and is available as of the LiveCycle ES3 release.

Checklist/Task Item	Action Item	Failure Points	More Information
Content Storage Root directory (lccs_data)	Perform cold backup of Content Services (deprecated) data and note the size.	Unable to find `lccs_data`.	When installing LiveCycle ES2 (service pack 2), LiveCycle Configuration Manager did not append **lccs_data** to the custom path specified for Content Storage Root directory. Hence, the folder name of the Content Storage Root directory may be different.
LiveCycle AMPs	Track all LiveCycle AMPs.	N/A	Reimport all existing and any additional LiveCycle AMPs when running the Configuration Manager.
Merged Custom AMPs	Track any additional custom AMPs added.	Custom AMPs will be overridden on upgrade.	Remerge the AMPs carefully, paying attention to any potential conflicting changes in the properties.
Content Services (deprecated) APIs	Deprecated. LiveCycle ES3 is the last release supporting these APIs.	N/A	N/A
Database Locks	Check if there are locks on Content Services (deprecated) tables.	Content Services (deprecated) EAR deployment will fail.	Clear all database locks.
ALF_BOOTSTRAP_LOCK	Check if the table is present.	If present, Content Services (deprecated) EAR deployment will fail.	Delete the table.
ALF_NODE_ASPECTS	Check for duplication in the table.	Content Services (deprecated) EAR deployment will fail.	See TechNote for more information.
ALF_ACCESS_CONTROL_ENTRY **ALF_ACCESS_CONTROL_LIST** **ALF_NODE** **ALF_NODE_ASSOC** **ALF_NODE_PROPERTIES** **ALF_CHILD_ASSOC** **ALF_ACL_MEMBER** **ALF_AUDIT_*** (that is all tables beginning with alf_audit_)	Note the size of each of these tables.	Content Services (deprecated) EAR deployment may fail due to server timeout if the data volume is large.	For more information, see: Troubleshooting LiveCycle guide

Adobe LiveCycle Data Services 10

Checklist/Task Item	Action Item	Failure Points	More Information
Custom DSC and Data Management DSC	Check if deployed.	N/A	If the DSCs are deployed correctly, the end points are created. Keep track of these end points.
FML TLO Handler	Check if `com.adobe.livecycle.datatypeutility.FMLTLOHandler record` is present in the `tb_sc_tlo` registry table. The record is deleted by the upgrade process.	Upgrade does not delete the record.	Manually delete the record.
Legacy LCAs that use FML	Track LCAs that use FML.	N/A	N/A
Classes in DSCs	Check if the classes being serialized are serializable.	N/A	Only serializable classes can be serialized.

Adobe LiveCycle Digital Signatures 10

Checklist/Task Item	Action Item	Failure Points	More Information
HSM-based signatures	Note expiry dates of certificates and credentials.	N/A	N/A
Signatures	Note expiry dates of certificates and credentials.	N/A	N/A
Web Services based implementation for HSM-based Signatures	Redeploy if you are migrating to a new system.	N/A	You can also switch to BMC implementation. For more information, see: HSM-based Signatures on 64-bit Windows Computers.

End points

Checklist/Task Item	Action Item	Failure Points	More Information
Email	Note the email addresses assigned to email end points.	The addresses are invalid.	Provide valid email addresses by logging in to Administration Console. See Configuring email endpoints for more information.
Watched Folder	Note the paths assigned to watched folders.	The paths do not exist and the watched folders are inaccessible.	Set up watched folders at locations that are highly available by logging in to Administration Console. See Configuring watched folder endpoints for more information.

Forms

Checklist/Task Item	Action Item	Failure Points	More Information
Number of forms	Note the number of forms.	N/A	N/A
Web Services used within forms	Note the URLs for usage post-upgrade.	N/A	N/A
Types of forms	Note the types of forms in use (PDF, HTML, Adobe® Flex®, Guides (deprecated), etc.)	N/A	N/A

Guides (deprecated)

Note: *Effective March 10th, 2012, Adobe is deprecating the Guides capabilities of Adobe® LiveCycle® ES. The Guides functionality is available for upgrade purposes only and will be removed from the product after two major releases.*

Checklist/Task Item	Action Item	Failure Points	More Information
Customized Guide system (1.0)	If customized, then back up the customized files.	N/A	N/A

Mobile

Checklist/Task Item	Action Item	Failure Points	More Information
Provisioning Profile	Check the settings for • Encryption • Time to Live • Forms Application • Tasks Application • Content Services (deprecated) Application • Offline support • Android • Apple iOS • AIR • BlackBerry • Windows Mobile • Android Microsoft eXchange ActiveSync (R) required • Android Minimum Pin Length • Android Maximum Password Retries before Wipe • Android Wipe on Removal.	If no pin is used on the Mobile Client, 0 should be set for both settings "Minimum Pin Length" and "Maximum Password Retries before Wipe". Otherwise, no form will be downloaded to the form list on the client.	By default, the Android Minimum Pin Length is set with 4 and Android Maximum Password Retries before Wipe is set with value 5.

Adobe LiveCycle Output 10 Services

Checklist/Task Item	Action Item	Failure Points	More Information
Printers	Note the IP addresses of all printers, and check if they are accessible.	Printers are inaccessible.	N/A

Adobe LiveCycle PDF Generator 10

Checklist/Task Item	Action Item	Failure Points	More Information
PDFG 3D		Not supported with LiveCycle ES3.	PDFG-3D has to be uninstalled manually. See Uninstalling components for more information. Adobe's partner Prostep AG is now responsible for the support and upgrade of the PDFG 3D service. When planning your upgrade of PDFG 3D, contact Prostep AG. Contact details and additional information about PDFG 3D is available from their website at: http://www.prostep.com/.
Adobe® Acrobat® Version	Note the Acrobat version.	N/A	Install Acrobat X

Adobe LiveCycle Process Management 10 / Adobe LiveCycle Workspace 10

Checklist/Task Item	Action Item	Failure Points	More Information
End-user Interfaces	See Supported Platform Combinations and install supported versions of Flex SDK, Flash Player, and Browser.	N/A	N/A
Number of processes	Using the LiveCycle Administration Console note the number of processes.	N/A	N/A
Service States	Using LiveCycle Administration Console track the service states for all services.	Some services maybe inactive causing exceptions during upgrade.	If these services are not expected to be inactive, start them using Workbench.

Checklist/Task Item	Action Item	Failure Points	More Information
TB_PROCESS_INSTANCE **TB_FORM_DATA** **TB_JOB_INSTANCE**	Note the data volume.	N/A	N/A
Process States	Using the LiveCycle Administration Console note the number of Stalled and Running processes.	N/A	Stalled and Running processes can be resumed after upgrading.
Workspace Customization	Check if Workspace is customized.	Customization cannot be migrated.	Workspace must be recustomized after upgrade. Export and backup `adobe-workspace-client.ear`. After upgrade, replace the default Workspace client with the old EAR file.

Adobe LiveCycle Reader Extensions 10

Checklist/Task Item	Action Item	Failure Points	More Information
Credentials	Note the expiry date.	N/A	N/A
Custom Credential Files	Locate the custom credential file, if any.	N/A	If you are upgrading from ES2, note down the default credential file.
Certificates	Note the expiry date.	N/A	N/A

Adobe LiveCycle Rights Management 10

Checklist/Task Item	Action Item	Failure Points	More Information
URL of the LiveCycle Server	Note the landing URL of your existing LiveCycle installation.	N/A	To ensure that your existing policies continue to work with an out-of-place upgrade to LiveCycle ES3, ensure that the Host Name and Port (landing URL) of the upgraded system remains the same as the existing system.
Policies	Note the number of policies, policy sets, and permissions these policies or policy sets may have.	N/A	N/A
Database size	Note the size of the Rights Management database.	N/A	N/A

User Management

Checklist/Task Item	Action Item	Failure Points	More Information
LDAP Synchronization	Ensure that the LDAP is synchronized and the authentications function as expected.	N/A	N/A
Canonical names	N/A	N/A	Canonical names of users are not visible on the UI, but will be visible after Upgrade.

Upgrade Execution

Execute the upgrade project by first preparing your environment (see Preparing to Upgrade guide) and then upgrading your existing LiveCycle installation to LiveCycle ES3 (see Upgrading to LiveCycle ES3 guide for your application server).

Post-upgrade Validation

Checklist/Task Item	Action Item	Failure Points	More Information

Custom Applications	Verify if the number of custom applications post-upgrade is intact and is equal to the number noted before upgrading
	
	Invoke custom applications.
		(JBoss 5.1 only) If `axis-jaxrpc-1.4.jar` is bundled with your custom application, invocation fails with the following exception:
		
		`java.lang.IllegalState Exception:`
		`java.lang.NoClassDefFo undError:`
		`javax/xml/namespace/QN ame`
			Delete `axis-jaxrpc-1.4.jar` and redeploy the application.
			
			You may encounter `NoClassDefFoundErrors` for other jars bundled with your custom applications which are also existing in the JBoss 5.1 tree.

Application Server Client JARs	N/A	N/A	If necessary, modify them.
Custom WAR/EAR	N/A	N/A	Redeploy all custom WAR/EAR files.
LiveCycle 7.x APIs	N/A	N/A	Replace with LiveCycle ES3 APIs.
Administration Console	Log in to the Administration Console.	Unable to log in.	Check and log in using your pre-upgrade LiveCycle Administrator user credentials.
Reader Extensions	N/A	N/A	Perform the tasks outlined at: Access the Reader Extensions web application.

Checklist/Task Item	Action Item	Failure Points	More Information
Process Management/Workspace	Replace the new `adobe-workspace-client.ear` with the old one you had backed up prior to upgrading. Ensure all stalled and running processes resume functioning. Ensure that all pre-upgrade process and service states have been persisted with.	N/A	For more nformation, see: Access Workspace.
Content Services (deprecated)	Verify if the size of lccs_data is intact and is comparable to its pre-upgrade size.	N/A	For more information, see: Access the Content Services web application.
PDF Generator	Log in to the Administration Console and create a PDF.	N/A	For more information, see: Create a PDF file.
Rights Management	Access Rights Management Administration Console. Open a rights-enabled PDF document created using your previous LiveCycle installation.	N/A Cannot open the document.	For more information, see: Access Rights Management If the host name was not retained, the pre-upgrade encryption will not persist and rights-enabled PDF documents cannot be opened.
Forms	Use Forms IVS to render forms. Log in to Workspace and using samples, check if forms are rendered correctly. Check if number of forms are intact. Check if forms continue to be rendered from an external location.	N/A	N/A
End points	Ensure that email addresses provided for Email end point continue to be valid. Ensure that folder paths provided for Watched Folder end point continue to be valid and the folders accessible.	Email addresses are invalid. Folders are inaccessible.	Provide valid email addresses by logging in to Administration Console. See Configuring email endpoints for more information. Set up watched folders at locations that are highly available by logging in to Administration Console. See Configuring watched folder endpoints for more information.

Checklist/Task Item	Action Item	Failure Points	More Information
Data Services	Check if all LCAs that use FML are deployed. Ensure that `com.adobe.livecycle.datatypeutility.FMLTLOHandler` record is not present in the `tb_sc_tlo registry` table. If present, delete the record. Check for the new feature (FIRE DS). An FML with valid FIRE DS annotations should be able to deploy and FIRE DSC should be able to generate properly.	N/A	You can choose to allow serialization of non-serializable classes. In the Administration Console, go to **Services** > **Applications and Services** > **Service Management**. In Remoting Service, under Configuration tab, select **Allow serialization of non-Serializable classes** option.
Guides (deprecated)	If Guides (1.0) system was customized replace Guides (2.0) system.	N/A	If you want to migrate the customized Guides (1.0) system to Guides (2.0), then reinstall and redeploy the files manually. See Guides for more information.
User Manager	Authenticate users and evaluate permissions on them with several authentication schema. Verify if LDAP, users, and groups are synchronized. Also check for data losses. Check to see if canonical names of the users are visible on the UI.	Unable to authenticate user or permission evaluation is incorrect. Possible data loss.	N/A

Workflows verification and modification

Checklist/Task Item	Action Item	Failure Points	More Information
Workflows	Execute custom Workflows using Workspace or any other start point. Ensure that the workflow continues to perform as expected during each stage.	N/A	N/A
LiveCycle ES Processes and other assets	Upgrade to LiveCycle ES3 compatible applications using the Upgrade Legacy Artifacts tool.	N/A	For more information, see: Upgrading legacy artifacts
LiveCycle Archive files	Upgrade LCAs to LiveCycle ES3 Compatible archive files using the Arhive Migration tool	N/A	For more information, see: Migrating LCAs to LiveCycle ES3
Service operations	Modify your processes to use new service operations.	N/A	N/A