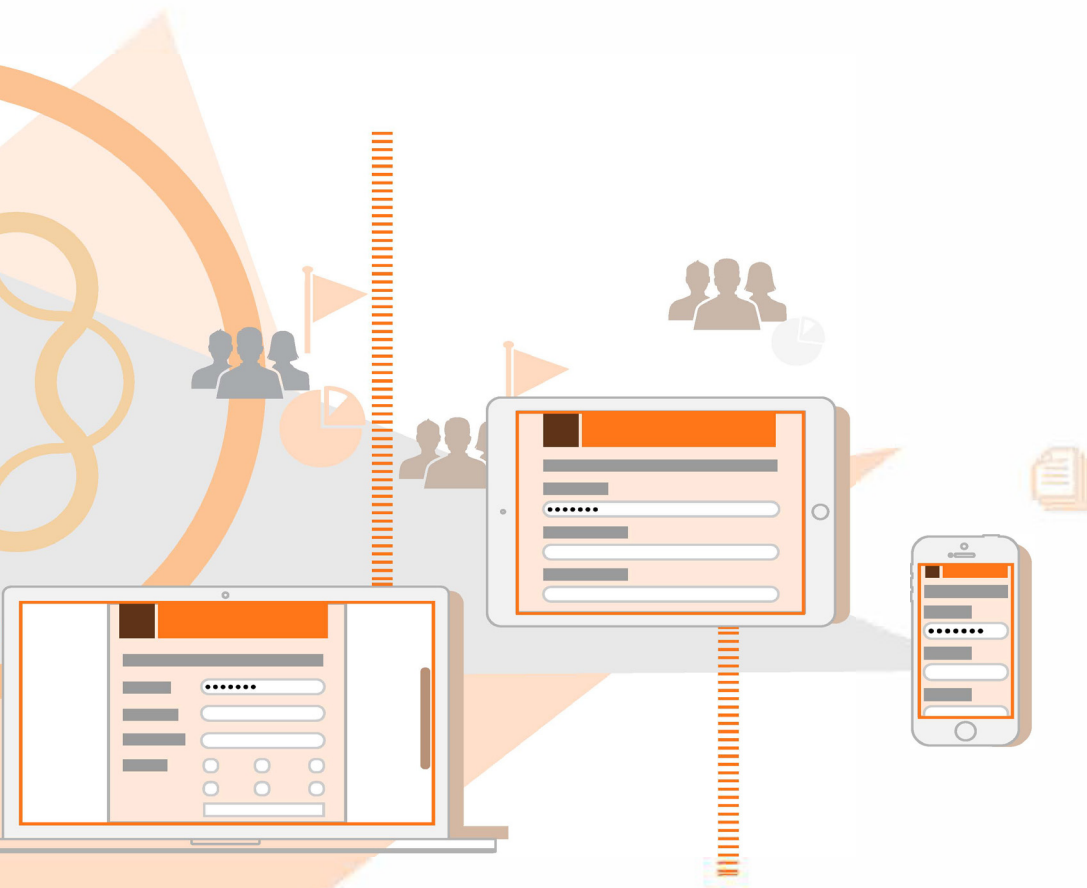

Adobe Experience Manager Forms on JEE upgrade checklist and planning



AEM 6.3 Forms

Legal notices

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Upgrade overview

An upgrade project is required when upgrading from AEM 6.1 Forms or AEM 6.2 Forms to Adobe Experience Manager (AEM) 6.3 Forms. Besides protecting the investment you made in developing Forms, processes, and applications, upgrading to AEM 6.3 Forms on JEE 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. For more information, see [Supporting software infrastructure compatibilities](#).

Upgrade project involves tasks ranging from initially surveying your existing 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](#).

After upgrading, you must carry out verification and user-acceptance tests, to ensure that AEM Forms processes, and applications continue to run and perform as expected. Upgrading to AEM 6.3 Forms on JEE 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 AEM Forms on JEE. 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 overcome a failure point.

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 AEM Forms on JEE.

- Installing and administering application servers, databases, and operating systems, the ones that currently run AEM Forms on JEE in particular. These skill sets are necessary for surveying your enterprise infrastructure prior to upgrading during the [Pre-upgrade analyses](#) stage.
- Installing and administering AEM Forms on JEE. These skill sets are necessary to execute the upgrade project during the [Upgrade Execution](#) stage.
- Managing and developing applications, processes, and other artifacts (Forms, third party libraries, etc.) for AEM Forms on JEE. These skill sets are necessary for verifying your AEM Forms on JEE installation and enterprise infrastructure after upgrading during the [Post-upgrade Validation](#) stage.
- End-users to test the upgraded system and end-user interfaces.

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 environment to determine if the software infrastructure continues to be supported by AEM Forms on JEE. The survey results help estimate the effort required to upgrade and also determine the upgrade path.

When upgrading, two scenarios influence how you can upgrade to AEM Forms on JEE.

In-place upgrade: If you choose to upgrade to AEM 6.3 Forms on JEE using the existing application server instance, then it is considered an in-place upgrade. For example, continued usage of a WebSphere instance from previous installation to AEM 6.3 Forms on JEE.

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 installation to use a new machine when upgrading to AEM 6.3 Forms on JEE.
- **Upgrading the application server:** If you are upgrading your application server with a major version revision.

NOTE: You cannot upgrade if you are changing your application server, your operating system, or your database. For example, if you are changing your application server from WebLogic to JBoss.

Supporting software infrastructure compatibilities

Some platforms that are supported with previous versions continue to be supported with AEM Forms on JEE. However, AEM Forms on JEE 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 AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES Update 1 first, followed by upgrade to LiveCycle ES2 and followed by upgrade to LiveCycle ES4 SP1, then upgrade to AEM 6.1 Forms. Now, perform an upgrade to AEM 6.3 Forms.</p> <ul style="list-style-type: none"> • LiveCycle ES Update 1 documentation • LiveCycle ES2 documentation • LiveCycle ES4 documentation • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES (8.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES2 first, followed by an upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> • LiveCycle ES2 documentation • LiveCycle ES4 documentation • AEM Forms on JEE documentation • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES Update 1 (8.2.1.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES2 first, followed by an upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> • LiveCycle ES2 documentation • LiveCycle ES4 documentation • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES2 (9.0.0.x)	N/A	Direct upgrade to AEM Forms on JEEAEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> • LiveCycle ES3 documentation • LiveCycle ES4 documentation • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES3 (10.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> • LiveCycle ES4 documentation • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES4 (11.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Apply a minimum of service pack 1 on top of LiveCycle ES4 and then upgrade to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation:</p> <ul style="list-style-type: none"> • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation
AEM 6.0 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is not supported.	<p>Upgrade to AEM 6.2 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation:</p> <ul style="list-style-type: none"> • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
AEM 6.1 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is supported.	See appropriate upgrade documentation: <ul style="list-style-type: none"> AEM 6.3 Forms on JEE documentation
AEM 6.2 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is supported.	See appropriate upgrade documentation: <ul style="list-style-type: none"> AEM 6.3 Forms on JEE documentation
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.

Check or Task Item	Action Item	Failure Points	Additional Information
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.
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.

Check or Task Item	Action Item	Failure Points	Additional Information
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 AEM Forms on JEE.	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 AEM Forms on JEE continue to be functional.

Checklist/Task Item	Action Item	Failure Points	More Information
Adobe® Flash® Player	Download and install Flash Player. See Supported Platform Combinations and install a supported version.	Workspace fails to render post-upgrade.	N/A
Browser	See Supported Platform Combinations and install a supported version.	N/A	N/A
Adobe® Reader®	Note the version of Adobe Reader.	Versions lesser than Adobe Reader 10 are not supported.	See AdobeReaderCompatibility for more information.

Checklist/Task Item	Action Item	Failure Points	More Information
Workbench	Download and install Workbench.	N/A	For more information, see: Installing Workbench
Designer	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 AEM Forms on JEE. 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 installation, that AEM Forms on JEE requires, is migrated. Changes in schema are also handled automatically during the upgrade.

Processes that are developed in or updated to LiveCycle ES4 run natively in AEM Forms on JEE. Long-lived processes will resume after the upgrade. For processes that are migrated from an existing 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 previous versions are compatible with AEM 6.3 Forms on JEE.

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle 7.x QPAC-based processes	Check if currently in use.	Not supported with AEM Forms on JEE.	Upgrade to DSCs compatible with AEM Forms on JEE.
LiveCycle ES Update 1 Processes	Check if currently in use.	Not supported with AEM Forms on JEE.	Upgrade to DSCs compatible with AEM Forms on JEE.
LiveCycle ES2 Processes and Applications	Check if currently in use.	Not supported with AEM Forms on JEE.	Will continue to work with AEM Forms on JEE.
LiveCycle ES3 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle ES4 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
AEM Forms 6.0, 6.1, and 6.2 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
ADEP Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
LiveCycle ES3 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
Guides Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
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 AEM Forms on JEE.

AEM Forms on JEE 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 AEM Forms environment. Apart from providing a measure of the state of the environment, it helps estimate the effort required to upgrade.

Analyze your existing installation

Checklist/Task Item	Action Item	Failure Points	More Information
Service Packs	Check if latest service packs are applied.	You have not applied the latest service packs for your existing installation.	Download and install the latest service pack.
Fonts	Back up all system and custom fonts.	N/A	N/A
Solution Accelerators	Check if Solution Accelerators are installed.	Cannot be upgraded using AEM Forms on JEE Configuration Manager.	Contact Adobe support for more information.

Analyze your Database, GDS, and CRX repository

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 system using the administration console are also stored in the database.

For example, User Management configurations such as LDAP server configuration, Users, Roles, Permissions, or component configurations like PDF Generator customizations.

Database

Checklist/Task Item	Action Item	Failure Points	More Information
Back up	Perform a cold backup of the database.	N/A	Note: If you configured SSL on your LiveCycle ES4 server, you cannot place it in back-up mode using LCBackupMode.CMD script. For more information, see: Backup and Recovery section in Administration Guide .
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.

Checklist/Task Item	Action Item	Failure Points	More Information
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 system. Also, access the GDS from the system that will host the upgraded J2EE server for AEM Forms.	Component deployment (when running the Configuration Manager to configure and deploy AEM Forms on JEE) 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

Checklist/Task Item	Action Item	Failure Points	More Information
Backup	Perform cold backup of your GDS.	N/A	Note: If you configured SSL on your existing server, you cannot place it in the back-up mode using LCBackupMode.CMD script. For more information, see Backup and Recovery section in AEMFormsadministrationhelp .

CRX repository

Perform steps described in [Preparing the source instance](#) before upgrading your CRX repository.

Components Verification

ECM Connectors for AEM Forms on JEE

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 AEM Forms on JEE	Upgrade to a supported version.
ECM Client	Note the version and check if supported	Not supported with AEM Forms on JEE	Upgrade to a supported version.
ECM Form Templates	Back up form templates and associated data	N/A	N/A

Checklist/Task Item	Action Item	Failure Points	More Information
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

Data Services

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.

Digital Signatures

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.

Checklist/Task Item	Action Item	Failure Points	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

Mobile

Checklist/Task Item	Action Item	Failure Points	More Information
Provisioning Profile	Check the settings for <ul style="list-style-type: none"> • Encryption • Time to Live • Forms Application • Tasks 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 	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.

Output

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

PDF Generator

Checklist/Task Item	Action Item	Failure Points	More Information
PDFG 3D		Not supported with AEM Forms on JEE.	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 XI

Forms Workflow

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 administration console note the number of processes.	N/A	N/A
Service States	Using 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.
TB_PROCESS_INSTANCE TB_FORM_DATA TB_JOB_INSTANCE	Note the data volume.	N/A	N/A
Process States	Using the administration console note the number of Stalled and Running processes.	N/A	Stalled and Running processes can be resumed after upgrading.

Checklist/Task Item	Action Item	Failure Points	More Information
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.

Acrobat Reader DC extensions

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	N/A
Certificates	Note the expiry date.	N/A	N/A

Document Security add-on for AEM Forms

Checklist/Task Item	Action Item	Failure Points	More Information
URL of the Forms server	Note the landing URL of your existing installation.	N/A	To ensure that your existing policies continue to work with an out-of-place upgrade to AEM Forms on JEE, 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

Checklist/Task Item	Action Item	Failure Points	More Information
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 AEM Forms installation to AEM Forms on JEE (see [Upgrading to AEM Forms on JEE](#) 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 only) If axis-jaxrpc-1.4.jar is bundled with your custom application, invocation fails with the following exception: <code>java.lang.IllegalStateException: java.lang.NoClassDefFoundError: javax/xml/namespace/QName</code>	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 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.

Checklist/Task Item	Action Item	Failure Points	More Information
administration console	Log in to the administration console.	Unable to log in.	Check and log in using your pre-upgrade Administrator user credentials.
Acrobat Reader DC extensions	N/A	N/A	Perform the tasks outlined at: Access the Acrobat Reader DC Extensions web application.
Forms Workflow/Workspace	Replace the new <code>adobe-workspace-client.ear</code> 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 information, see: Access Workspace.
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 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.

Checklist/Task Item	Action Item	Failure Points	More Information
administration console	Log in to the administration console.	Unable to log in.	Check and log in using your pre-upgrade Administrator user credentials.
Acrobat Reader DC extensions	N/A	N/A	Perform the tasks outlined at: Access the Acrobat Reader DC Extensions web application.
Forms Workflow/Workspace	Replace the new <code>adobe-workspace-client.ear</code> 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 information, see: Access Workspace.
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 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.

Checklist/Task Item	Action Item	Failure Points	More Information
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 Configuringemailendpoints for more information. Set up watched folders at locations that are highly available by logging in to Administration Console. See Configuringwatchedfolderendpoints for more information.

Checklist/Task Item	Action Item	Failure Points	More Information
Data Services	<p>Check if all LCAs that use FML are deployed.</p> <p>Ensure that <code>com.adobe.livecycle.datatypeutility.FMLTLOHandler</code> record is not present in the <code>tb_sc_tlo</code> registry table. If present, delete the record.</p> <p>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.</p>	N/A	<p>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.</p>
User Manager	<p>Authenticate users and evaluate permissions on them with several authentication schema.</p> <p>Verify if LDAP, users, and groups are synchronized. Also check for data losses.</p> <p>Check to see if canonical names of the users are visible on the UI.</p>	<p>Unable to authenticate user or permission evaluation is incorrect.</p> <p>Possible data loss.</p>	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
Processes and other assets	Upgrade to AEM Forms on JEE compatible applications using the Upgrade Legacy Artifacts tool.	N/A	For more information, see: Upgrading legacy artifacts .
Archive files	Upgrade LCAs to AEM Forms on JEE Compatible archive files using the Archive Migration tool	N/A	For more information, see: Migrating LCAs to AEM Forms on JEE .
Service operations	Modify your processes to use new service operations.	N/A	N/A

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1. Upgrade overview

An upgrade project is required when upgrading from AEM 6.1 Forms or AEM 6.2 Forms to Adobe Experience Manager (AEM) 6.3 Forms. Besides protecting the investment you made in developing Forms, processes, and applications, upgrading to AEM 6.3 Forms on JEE 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. For more information, see [Supporting software infrastructure compatibilities](#).

Upgrade project involves tasks ranging from initially surveying your existing 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](#).

After upgrading, you must carry out verification and user-acceptance tests, to ensure that AEM Forms processes, and applications continue to run and perform as expected. Upgrading to AEM 6.3 Forms on JEE is designed to provide an automated experience with minimal manual tasks.

1.1. 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 AEM Forms on JEE. 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 overcome a failure point.

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 AEM Forms on JEE.

- Installing and administering application servers, databases, and operating systems, the ones that currently run AEM Forms on JEE in particular. These skill sets are necessary for surveying your enterprise infrastructure prior to upgrading during the *Pre-upgrade analyses* stage.
- Installing and administering AEM Forms on JEE. These skill sets are necessary to execute the upgrade project during the *Upgrade Execution* stage.
- Managing and developing applications, processes, and other artifacts (Forms, third party libraries, etc.) for AEM Forms on JEE. These skill sets are necessary for verifying your AEM Forms on JEE installation and enterprise infrastructure after upgrading during the *Post-upgrade Validation* stage.
- End-users to test the upgraded system and end-user interfaces.

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

3.1. Compatibilities verification

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

When upgrading, two scenarios influence how you can upgrade to AEM Forms on JEE.

In-place upgrade: If you choose to upgrade to AEM 6.3 Forms on JEE using the existing application server instance, then it is considered an in-place upgrade. For example, continued usage of a WebSphere instance from previous installation to AEM 6.3 Forms on JEE.

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 installation to use a new machine when upgrading to AEM 6.3 Forms on JEE.
- **Upgrading the application server:** If you are upgrading your application server with a major version revision.

NOTE: You cannot upgrade if you are changing your application server, your operating system, or your database. For example, if you are changing your application server from WebLogic to JBoss.

Supporting software infrastructure compatibilities

Some platforms that are supported with previous versions continue to be supported with AEM Forms on JEE. However, AEM Forms on JEE 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 AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES Update 1 first, followed by upgrade to LiveCycle ES2 and followed by upgrade to LiveCycle ES4 SP1, then upgrade to AEM 6.1 Forms. Now, perform an upgrade to AEM 6.3 Forms.</p> <ul style="list-style-type: none">• LiveCycle ES Update 1 documentation- http://www.adobe.com/support/documentation/en/live-cycle/82/ LiveCycle ES2 documentation LiveCycle ES4 documentation AEM 6.0 Forms on JEE documentation AEM 6.2 Forms on JEE documentation AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES (8.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES2 first, followed by an upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none">• LiveCycle ES2 documentation LiveCycle ES4 documentation AEM Forms on JEE documentation AEM 6.0 Forms on JEE documentation AEM 6.2 Forms on JEE documentation AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES Update 1 (8.2.1.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES2 first, followed by an upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none">• LiveCycle ES2 documentation LiveCycle ES4 documentation AEM 6.0 Forms on JEE documentation AEM 6.2 Forms on JEE documentation AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES2 (9.0.0.x)	N/A	Direct upgrade to AEM Forms on JEEAEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> LiveCycle ES3 documemntation LiveCycle ES4 documentation AEM 6.0 Forms on JEE documenta-tion AEM 6.2 Forms on JEE documenta-tion AEM 6.3 Forms on JEE documenta-tion
LiveCycle ES3 (10.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Upgrade to LiveCycle ES4 and then to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation.</p> <ul style="list-style-type: none"> LiveCycle ES4 documentation AEM 6.0 Forms on JEE documenta-tion AEM 6.2 Forms on JEE documenta-tion AEM 6.3 Forms on JEE documenta-tion

Check or Task Item	Action Item	Failure Points	Additional Information
LiveCycle ES4 (11.0.x)	N/A	Direct upgrade to AEM Forms on JEE not supported.	<p>Apply a minimum of service pack 1 on top of LiveCycle ES4 and then upgrade to AEM 6.1 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation:</p> <ul style="list-style-type: none"> • AEM 6.0 Forms on JEE documentation • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation
AEM 6.0 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is not supported.	<p>Upgrade to AEM 6.2 Forms on JEE. Now, perform an upgrade to AEM 6.3 Forms. See appropriate upgrade documentation:</p> <ul style="list-style-type: none"> • AEM 6.2 Forms on JEE documentation • AEM 6.3 Forms on JEE documentation
AEM 6.1 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is supported.	<p>See appropriate upgrade documentation:</p> <ul style="list-style-type: none"> • AEM 6.3 Forms on JEE documentation

Check or Task Item	Action Item	Failure Points	Additional Information
AEM 6.2 Forms on JEE	N/A	Direct upgrade to AEM Forms on JEE is supported.	See appropriate upgrade documentation: <ul style="list-style-type: none"> AEM 6.3 Forms on JEE documentation
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.

Check or Task Item	Action Item	Failure Points	Additional Information
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.
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 AEM Forms on JEE.	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 AEM Forms on JEE continue to be functional.

Checklist/Task Item	Action Item	Failure Points	More Information
Adobe® Flash® Player	Download and install Flash Player. See Supported Platform Combinations and install a supported version.	Workspace fails to render post-upgrade.	N/A
Browser	See Supported Platform Combinations and install a supported version.	N/A	N/A
Adobe® Reader®	Note the version of Adobe Reader.	Versions lesser than Adobe Reader 10 are not supported.	See AdobeReaderCompatibility for more information.
Workbench	Download and install Workbench.	N/A	For more information, see: Installing Workbench
Designer	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 AEM Forms on JEE. 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 installation, that AEM Forms on JEE requires, is migrated. Changes in schema are also handled automatically during the upgrade.

Processes that are developed in or updated to LiveCycle ES4 run natively in AEM Forms on JEE. Long-lived processes will resume after the upgrade. For processes that are migrated from an existing 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 previous versions are compatible with AEM 6.3 Forms on JEE.

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle 7.x QPAC-based processes	Check if currently in use.	Not supported with AEM Forms on JEE.	Upgrade to DSCs compatible with AEM Forms on JEE.
LiveCycle ES Update 1 Processes	Check if currently in use.	Not supported with AEM Forms on JEE.	Upgrade to DSCs compatible with AEM Forms on JEE.

Checklist/Task Item	Action Item	Failure Points	More Information
LiveCycle ES2 Processes and Applications	Check if currently in use.	Not supported with AEM Forms on JEE.	Will continue to work with AEM Forms on JEE.
LiveCycle ES3 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
LiveCycle ES4 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
AEM Forms 6.0, 6.1, and 6.2 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
ADEP Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
LiveCycle ES3 Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
Guides Processes and Applications	Check if currently in use.	N/A	Will continue to work with AEM Forms on JEE.
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 AEM Forms on JEE.

AEM Forms on JEE 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.

3.2. Pre-upgrade analyses

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

Analyze your existing installation

Checklist/Task Item	Action Item	Failure Points	More Information
Service Packs	Check if latest service packs are applied.	You have not applied the latest service packs for your existing installation.	Download and install the latest service pack.
Fonts	Back up all system and custom fonts.	N/A	N/A
Solution Accelerators	Check if Solution Accelerators are installed.	Cannot be upgraded using AEM Forms on JEE Configuration Manager.	Contact Adobe support for more information.

Analyze your Database, GDS, and CRX repository

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 system using the administration console are also stored in the database. For example, User Management configurations such as LDAP server configuration, Users, Roles, Permissions, or component configurations like PDF Generator customizations.

Database

Checklist/Task Item	Action Item	Failure Points	More Information
Back up	Perform a cold backup of the database.	N/A	Note: If you configured SSL on your LiveCycle ES4 server, you cannot place it in back-up mode using LCBakupMode.CMD script. For more information, see: Backup and Recovery section in Administration Guide .
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: Sizingfactorsfortheglobaldocumentstagedirectory
Location and Accessibility	Note the location of GDS. Ensure that it continues to be accessible to your existing system. Also, access the GDS from the system that will host the upgraded J2EE server for AEM Forms.	Component deployment (when running the Configuration Manager to configure and deploy AEM Forms on JEE) 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 Locationoftheglobaldocumentstagedirectory.
Security	Check if access to the GDS is secured.	N/A	For more information, see: Securingtheglobaldocumentstagedirectory
Backup	Perform cold backup of your GDS.	N/A	Note: If you configured SSL on your existing server, you cannot place it in the back-up mode using LCBackupMode.CMD script. For more information, see Backup and Recovery section in AEMFormsadministrati onhelp .

CRX repository

Perform steps described in [Preparing the source instance](#) before upgrading your CRX repository.

Components Verification

ECM Connectors for AEM Forms on JEE

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 AEM Forms on JEE	Upgrade to a supported version.
ECM Client	Note the version and check if supported	Not supported with AEM Forms on JEE	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

Data Services

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 <code>com.adobe.livecycle.datatypeutility.FMLTLOHandler</code> record is present in the <code>tb_sc_tlo</code> registry table. The record is deleted by the upgrade process.	Upgrade does not delete the record.	Manually delete the record.

Checklist/Task Item	Action Item	Failure Points	More Information
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.

Digital Signatures

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: <code>HSM-basedSignatures on 64-bit Windows Computers</code> .

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 <code>Configuring email endpoints</code> for more information.

Checklist/Task Item	Action Item	Failure Points	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

Mobile

Checklist/Task Item	Action Item	Failure Points	More Information
Provisioning Profile	Check the settings for <ul style="list-style-type: none"> Encryption <i>Time to Live</i> <i>Forms Application</i> <i>Tasks Application</i> <i>Offline support</i> <i>Android</i> <i>Apple iOS</i> <i>AIR</i> <i>BlackBerry</i> <i>Windows Mobile</i> <i>Android Micro-soft eXchange Ac-tiveSync (R) required</i> <i>Android Mini-mum Pin Length</i> <i>Android Maxi-mum Password Retries before Wipe</i> <i>Android Wipe on Removal.</i> 	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.

Output

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

PDF Generator

Checklist/Task Item	Action Item	Failure Points	More Information
PDFG 3D		Not supported with AEM Forms on JEE.	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 XI

Forms Workflow

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 administration console note the number of processes.	N/A	N/A

Checklist/Task Item	Action Item	Failure Points	More Information
Service States	Using 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.
TB_PROCESS_INSTANCE TB_FORM_DATA TB_JOB_INSTANCE	Note the data volume.	N/A	N/A
Process States	Using the 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 <code>adobe-workspace-client.ear</code> . After upgrade, replace the default Workspace client with the old EAR file.

Acrobat Reader DC extensions

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	N/A
Certificates	Note the expiry date.	N/A	N/A

Document Security add-on for AEM Forms

Checklist/Task Item	Action Item	Failure Points	More Information
URL of the Forms server	Note the landing URL of your existing installation.	N/A	To ensure that your existing policies continue to work with an out-of-place upgrade to AEM Forms on JEE, 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.

3.3. Upgrade Execution

Execute the upgrade project by first preparing your environment (see [Preparing to Upgrade](#) guide) and then upgrading your existing AEM Forms installation to AEM Forms on JEE (see [Upgrading to AEM Forms on JEE](#) guide for your application server).

3.4. 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 only) If <code>axis-jaxrpc-1.4.jar</code> is bundled with your custom application, invocation fails with the following exception: <code>java.lang.IllegalStateException:</code> <code>java.lang.NoClassDefFoundError:</code> <code>javax.xml.namespace.QName</code>	Delete <code>axis-jaxrpc-1.4.jar</code> and redeploy the application. You may encounter <code>NoClassDefFoundErrors</code> for other jars bundled with your custom applications which are also existing in the JBoss 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.
administration console	Log in to the administration console.	Unable to log in.	Check and log in using your pre-upgrade Administrator user credentials.
Acrobat Reader DC extensions	N/A	N/A	Perform the tasks outlined at: <code>AccesstheAcrobatReaderDCextensionswebap</code> <code>plication.</code>

Checklist/Task Item	Action Item	Failure Points	More Information
Forms Workflow/Workspace	Replace the new <code>adobe-workspace-client.ear</code> 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 information, see: AccessWorkspace .
PDF Generator	Log in to the administration console and create a PDF.	N/A	For more information, see: CreateaPDFfile .
Rights Management	Access Rights Management Administration Console. Open a rights-enabled PDF document created using your previous installation.	N/A Cannot open the document.	For more information, see: AccessRightsManagement . 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

Checklist/Task Item	Action Item	Failure Points	More Information
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 <code>Configuringemailendpoints</code> for more information. Set up watched folders at locations that are highly available by logging in to Administration Console. See <code>Configuringwatchedfolderendpoints</code> for more information.
Data Services	Check if all LCAs that use FML are deployed. Ensure that <code>com.adobe.livecycle.datatypeutility.FMLTLOHandler</code> record is not present in the <code>tb_sc_tlo</code> 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.

Checklist/Task Item	Action Item	Failure Points	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

3.5. 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
Processes and other assets	Upgrade to AEM Forms on JEE compatible applications using the Upgrade Legacy Artifacts tool.	N/A	For more information, see: Upgradinglegacyartifacts.
Archive files	Upgrade LCAs to AEM Forms on JEE Compatible archive files using the Arhive Migration tool	N/A	For more information, see: MigratingLCAstoAEMFormson JEE.
Service operations	Modify your processes to use new service operations.	N/A	N/A