

Adobe Certified Expert: LiveCycle ES2 Solution Architect Exam



Adobe Enterprise Training has created and published this exam guide to help prepare partners, customers and consultants who are actively seeking accreditation in the Adobe Certified Expert program. This guide, while designed to describe the exam in detail and provide as much information as possible, is not meant to be the sole means of exam preparation. Adobe Enterprise Training offers courses that provide in-depth training on the exam content. Hands-on experience with the Adobe LiveCycle suite of tools is also a critical element in preparing to pass any Adobe certification exam.

Adobe® LiveCycle® Enterprise Suite 2.5 software can help extend the value of existing back-end systems by enabling developers to build and deploy applications quickly and easily, and by empowering business users to manage application environments based on their specific needs. LiveCycle ES2.5 makes it easier for people to interact with information through intuitive user experiences, improved efficiencies through business process automation, and enhanced customer service through personalized communications management.

To be certified as an Adobe Certified Expert - LiveCycle ES2 Solution Architect, you must pass this exam. Other LiveCycle certification exams include LiveCycle Form Developer, LiveCycle RIA Developer and LiveCycle Developer. For the LiveCycle Developer certification, you must pass the LiveCycle Core exam and at least one LiveCycle elective exam. The following table lists the available LiveCycle Developer certification elective exams.

| Elective Exams |
|--|
| 9A0-137 Adobe LiveCycle ES2 Process Automation |
| 9A0-138 Adobe LiveCycle ES2 Document Output |
| 9A0-139 Adobe LiveCycle ES2 Data Capture |
| 9A0-140 Adobe LiveCycle ES2 Digital Security |

Exam Description

The certification consists of achieving the minimum passing score on a multiple choice test. The certification exam has a time limit of 60 minutes, and includes a timer so that the student is aware of how much time is remaining.

The following lists the topic areas and percentage of questions delivered in each topic area.

| Topic Area | % of Exam | # of Questions |
|--|-----------|----------------|
| Positioning Adobe's Enterprise solutions | 15% | 6 |
| Understanding Adobe's Enterprise products and technologies | 30% | 12 |
| Understanding Enterprise infrastructure and solutions | 15% | 6 |
| Integrating with 3rd-party systems | 28% | 11 |
| Deploying solutions | 12% | 5 |

Exam Scoring

The exam contains 40 questions and an overall score of 64% is required to pass the test. After taking the test, test takers will be immediately provided with the official score for the exam. They will also receive an email with the official exam result.

Scheduling Exams

The LiveCycle ES2 Solution Architect ACE Exam is delivered via testing centers in 270 locations throughout the U.S. and 17 other countries around the world. Students may create a certification account through Adobe's Web site and schedule their certification in the location of their choice and at a time that is convenient for them. To register for the LiveCycle ES2 Solution Architect ACE exam, go to the *Pearson VUE website* and click the link to register for the exam.

Exam Preparation

If you have been exposed to LiveCycle Designer for at least one year and have hands on development experience, it is likely that you will be able to pass the Solution Architect exam with only a review of the preparation guide and the associated product documentation related to each of the topics. However, if you are new to LiveCycle Designer, you should plan on several months of use before being prepared to pass this certification.

Exam Topics

Following is a detailed outline of the information covered on the exam.

Positioning Adobe's Enterprise solutions

- Gathering insight into user requirements
- Ability to understand and explain what an Experience-Oriented Architecture (XOA) is
- Translating user requirements to Adobe products

Understanding Adobe's Enterprise products and technologies

- Compare and contrast when you would use Flex (browser-based solution) versus AIR (desktop-based solution)
- Understand the architecture of a Flex solution
- Understand the architecture of an AIR solution
- Understand the architecture of a Reader-based solution
- Understand how Reader can integrate with Flex and AIR when creating a solution
- Accessibility of Adobe client runtimes
- List and describe the capabilities of products used for Enterprise RIA solutions
- List and describe the capabilities of products used for Process Management solutions
- List and describe the capabilities of products used for Document Services solutions
- Understand the development, testing and build tools used to implement Adobe Enterprise solutions
- Understand standards (e.g. PDF, PDF/A) related to Adobe enterprise solutions

Understanding Enterprise infrastructure and solutions

- List and describe differences between internal facing and external facing solutions (e.g. do you need to deal with a DMZ)
- Understand how network storage devices may impact a solution
- Understand issues related to items such as load balancing, proxies, firewalls
- Understanding and provide recommendations for a backup strategy
- Provide a recommendation for system capacity (e.g. CPU and memory requirements)
- Provide a recommendation for requirements related to monitoring resources
- Security options with respect to client and server operations (e.g. will SSL be needed)
- Understanding requirements for digital security and digital signatures
- Understanding the cross-domain security model and its impact on application configuration
- Understanding user authentication mechanisms and integrating with user directory services
- Understanding of using Spring for single sign-on and LiveCycle Data Services
- Understanding of remote invocation mechanisms such as SOAP, REST, EJB and remoting
- Understand what types of design diagrams (e.g. UML) can be used to support the design of a solution component
- Familiarity with XML technologies (such as XSD, XPath, XSLT, JAXB)

Integrating with 3rd party systems

- Understanding of SQL (e.g. should a stored procedure be used instead of a query)
- Understand entity relationship diagrams and their role in the solution implementation
- Understand existing persistence frameworks (e.g. Hibernate)
- List and describe issues associated with database connectivity
- Integrating with existing authentication providers
- List and describe the connectors that ship with LiveCycle
- Given a use case, determine which capabilities a connector can provide
- Describe how or when you would use a specific connector with respect to content management (Connectors include: Documentum, SharePoint, IBM Content Manager and FileNet)
- List and describe the tools that are available for monitoring an application
- Describe the log files that are available when monitoring an application
- Understand how to monitor Java Virtual Machine resources (e.g. heap size)
- List and describe the patterns and strategies that are used when designing reporting
- Understand JMS and the difference between queues and topics
- Understand Service Oriented Architecture (SOA)
- Explain the role of an Enterprise Service Bus (ESB)
- Describe what is involved and when to connect to an email server and send messages on behalf of LiveCycle and/or the application
- Understand the issues associated with configuring LiveCycle to connect to an email server
- Given an application server, describe the capabilities of that application server
- List the application servers that are supported by LiveCycle
- Understand how to connect to and transact with CRM systems
- Integration with legacy systems (e.g. mainframe systems)
- Knowing when and how to use the File System

Deploying solutions

- Understand issues related to deploying Flex solutions
- Understand issues related to deploying Air solutions
- Understand issues related to deploying LiveCycle solutions

Study Suggestions

This exam relies heavily on having real world, hands-on experience. Following are suggested steps to help you prepare for the LiveCycle ES2 Solution Architect ACE Exam.

Community Content

- *3D Methodology and Experience Oriented Architecture*
- *A technical guide for monitoring Adobe® LiveCycle® ES deployments*
- *RIA + SOA = XOA (Experience Oriented Architecture)*

Online Resources

- *LiveCycle Documentation*
- *Flex and Flash Builder Documentation*
- *Flex architecture*

Exam Preparation Checklist

The checklist below will help guide you through the process of obtaining ACE certification.

- Review this exam guide to become familiar with the topic areas and objectives of the exam
- Identify the topic areas and objectives you need to study
- Determine which study materials you need to improve your skills
- Study for the exam
- Contact Pearson VUE to register for an exam
- Take the exam - Your score is electronically reported to Adobe

Recertify when necessary

Once obtained, your certification is valid until 90 days after the exam version of your certification is retired. Adobe will e-mail you a reminder when your certification is due for renewal and will let you know when you need to take another exam.

Sample Exam Questions

Following are sample questions to help you prepare for the LiveCycle ES2 Solution Architect ACE Exam.

1. Which open source project aims to raise the awareness of Flash application security?

- A. OpenAMF
- B. Open Screen
- C. OWASP
- D. OSFLV

Correct Answer: C

2. What is the purpose of a demilitarized zone (DMZ)?

- A. Adds the ability to assign roles and policies and deploy software
- B. Provides indirect access to internal resources from the Internet
- C. Adds an additional layer of security to an organization's local area network
- D. Provides a secure area to store confidential information

Correct Answer: C

3. Which two should you use to monitor the health of your application? (Choose two.)

- A. JMX management of LiveCycle
- B. Firewall denial of service attacks
- C. Application server (connection pools, thread pools, JVM heap)
- D. Broken links in website
- E. Web server logs

Correct Answer: A, C

4. Which should you use to secure your data as it's being transmitted from the client to the server?

- A. SSO
- B. SSL/TLS
- C. SMTP
- D. SNMP

Correct Answer: B

5. Which two single sign-on technologies does LiveCycle ES2.5 support out-of-the-box? (Choose two.)

- A. Integrated Windows Authentication
- B. Smart card based
- C. OTP Token
- D. HTTP Headers
- E. Two-way authentication

Correct Answer: A, D

6. You want to use the Spring BlazeDS Integration. Which central component should be configured?

- A. MessageBrokerServlet
- B. MessageBroker
- C. Spring MVC
- D. Spring AOP

Correct Answer: B

7. You need to efficiently parse a large XML document. Which should you choose?

- A. SAX
- B. DOM
- C. E4X
- D. ANTLR

Correct Answer: A

8. Which type of domain requires scheduled synchronization?

- A. Enterprise Domain
- B. Hybrid Domain
- C. Local Domain
- D. Public Domain

Correct Answer: A

9. You need configure the LiveCycle Connector for Microsoft SharePoint 2010 for your new site. Which steps should you follow?
- A. Edit and run the install.bat file, copy the service model configuration, and configure the LiveCycle settings
 - B. Copy the service model configuration, edit and run the install.bat file, and configure the LiveCycle settings
 - C. Configure the LiveCycle settings, copy the service model configuration, and edit and run the install.bat file
 - D. Edit and run the install.bat file, configure the LiveCycle settings, and copy the service model configuration

Correct Answer: A

10. Which two types of destinations should you deploy on the LiveCycle Data Service Edge Service to optimize application performance? (Choose two.)
- A. Subscribe-only Message Service destinations
 - B. Read-write auto-synced Data Management Service destinations
 - C. Read-only auto-synced Data Management Service destinations
 - D. Publish and subscribe Message Service destinations
 - E. Database update Remote Service destination

Correct Answer: A, C



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