

Adobe® LiveCycle® Managed Services

Deploy LiveCycle Enterprise Suite 2 in the cloud

In brief

Adobe LiveCycle ES2 is a software suite that extends the value of existing back-end systems by engaging users with collaborative rich Internet applications (RIAs) and guided forms, streamlining internal processes, managing correspondence, and strengthening information and document security.

LiveCycle Managed Services is a hosted and fully managed web service that provides an alternative deployment model for most Adobe LiveCycle ES2 modules. It is offered in conjunction with Amazon Web Services¹, the industry leader in IaaS cloud computing and leverages the power and security of both the Amazon EC2 platform and Red Hat² Enterprise Linux.

LiveCycle ES2 modules available with Managed Services include:

- LiveCycle Forms ES2
- LiveCycle Reader³ Extensions ES2
- LiveCycle Rights Managements ES2
- LiveCycle Digital Signatures ES2
- LiveCycle PDF Generator ES2⁴
- LiveCycle Output ES2
- LiveCycle Process Management ES2
- LiveCycle Content Services ES2

The Internet is completely transforming the way consumers interact with—and pay for—software services. Powerful infrastructure-as-a-service (IaaS) offerings, such as Amazon⁵ Elastic Compute Cloud (Amazon EC2), have spawned a vast array of online software-as-a-service (SaaS) businesses offering monthly subscriptions and usage-based billing models. In an IDC research analysis, the worldwide forecast for cloud computing services in 2009 was \$17.4 billion and is estimated to grow to \$44.2 billion by 2013¹. This paradigm shift is changing the way enterprise companies deliver and consume IT services. The cloud's economy of scale, on-demand flexibility, and subscription pricing models have compelled enterprises around the world to begin using this new method for delivering computing services.

According to Forrester Research, the need to bring new products and services to market more quickly is a key driver for the adoption of cloud computing. They cite multiple use cases in the enterprise, including new business ventures, customer service, online collaboration, content management, R&D projects, and partner integration². Governments in the United States and Europe see a huge opportunity to share pooled IT resources, reduce costs, and reduce energy consumption as well. As a result, they have taken significant steps to enable cloud computing. The U.S. government General Services Administration (GSA), for instance, offers a portal for cloud computing services that is shared among federal government agencies³. The European Network and Information Security Agency (ENISA), which is the center of excellence for the European member states and EU institutions, published a 125-page guidance document outlining the benefits, risks, and recommendations for ensuring information security with cloud computing⁴.

There is no doubt that cloud computing is a powerful change agent in the marketplace. Industry analyst Gartner lists cloud computing as No. 1 among the top 10 "technologies CIOs can't afford to ignore" in 2010.⁵ Similarly, IDC and Forrester are encouraging their enterprise clients to pick a few projects and start working with the cloud immediately. The critical question is which projects? As it turns out, many of the applications created with Adobe LiveCycle Enterprise Suite 2 (ES2) are excellent candidates for consideration.

Adobe LiveCycle ES2 is an enterprise software environment that propels business innovation by delivering interactive customer experiences. It extends the value of existing back-end systems by engaging users with guided forms, streamlining internal processes, managing correspondence, and strengthening information and document security. Applications that could be an excellent fit for cloud computing include building new interactive online customer self-service, creating collaborative document review and approval processes with business partners, and more.

While most LiveCycle applications today use on-premise deployment, projects that are well suited for cloud deployment typically have one or more of the following characteristics.

- Need for rapid business innovation
- Inability to make the capital expenditures needed for an on-premise deployment
- Limited project lifespan
- Lack of IT resource availability or expertise (or a strong desire to reduce the requirement)
- Difficulty predicting the scale of internal resources or software utilization needed over time
- Need to develop, test, and implement applications quickly or on demand

1 *IDC Cloud Computing 2010—An IDC Update*, September 2009—Doc # TB20090929

2 *Cloud Computing for the Enterprise*—Forrester Research, February 2009, also *Software-As-A-Service Adoption Expands*—Forrester Research, February 2009

3 *Apps.gov*—US Federal government cloud computing home page

4 *Cloud Computing, Benefits, risks and recommendations* ENISA. November 2009

5 *Gartner Top 10 Strategic Technologies for 2010*

Customer spotlight

A large multinational construction management contractor uses LiveCycle Managed Services to support the construction of a new \$20 billion petrochemical site in the Middle East. Using several LiveCycle ES2 modules, they built a secure, managed, and scheduled process for the review and approval of critical engineering documents and drawings. Managed Services was an excellent fit for them because they needed to deploy immediately after the contract was awarded, and the project had a fixed timeline.

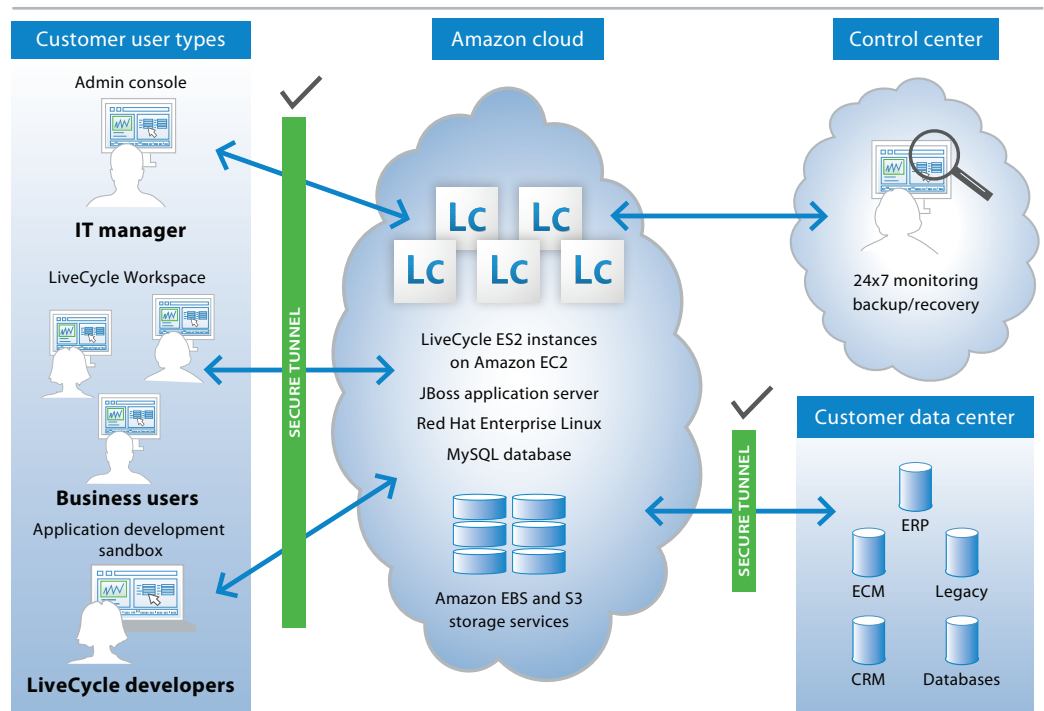
Adobe LiveCycle ES2 in the cloud

Adobe LiveCycle Managed Services are hosted web services that provide an alternative deployment model for the purchase of most Adobe LiveCycle ES2 modules. With it, you can buy the services you need on a subscription basis. These services are offered in partnership with Amazon, the industry leader in IaaS cloud computing, and leverages the power and security of the Amazon Web Services™ (AWS) platform. LiveCycle ES2 modules available with Managed Services include LiveCycle Forms, Reader® Extensions, Rights Management, Digital Signatures, PDF Generator⁶, Output, Process Management, and Content Services.

LiveCycle Managed Services is a fully managed end-to-end solution with the assurance and isolation provided by a single-tenant hosted model. Adobe provides all the hardware, software, application servers, database, facilities, support, maintenance, system monitoring, and system updates. A key component of the offering is the Adobe Network Operations Center (NOC), which gives you one centralized point of contact for all your operations management needs. NOC service professionals work behind the scenes to manage your LiveCycle instances, handling installation, backup, recovery, upgrades, and more to make sure that your LiveCycle services are running in peak condition whenever you need them.

Adobe LiveCycle Managed Services deployment architecture

Managed services workflow



When LiveCycle ES2 is deployed in the cloud, LiveCycle ES2 instances are available in the Amazon EC2 environment and are also attached to the Amazon storage services, Elastic Block Storage (EBS) and Simple Storage Service (S3). The Adobe NOC team does the day-to-day monitoring with the control center. Information passing to and from the business can be passed through a secure, private tunnel or the public Internet-based on the company's profile and IT security policies.

Encourage business innovation

In today's marketplace, line of business managers know they need to innovate and go to market quickly to stay ahead of the competition. Similarly, government business managers need to innovate to improve delivery of critical services. More than ever, they need the flexibility to test their ideas, build them quickly, and scale them up or down to meet market demands. LiveCycle Managed Services offers unique benefits over traditional deployment models to encourage this type of business innovation.

⁶ Some LiveCycle PDF Generator ES2 file format conversions are not available with Managed Services. For details, see the *Supported formats* web page

With a subscription pricing model, businesses don't have to take the operational risk that goes with upfront capital expenditures. While on-premise deployments make sense for core business projects and many long-term projects, the fact that they involve hardware and software licenses, installation, and maintenance means the cost of switching to another approach can be significant. Subscription-based deployments, on the other hand, give business managers more flexibility. They can initiate a project quickly with a minimal commitment, scale it dynamically to adjust to market demand, and avoid the lengthy planning cycles that go with capital expenditures. The subscription approach is also ideal for shorter projects too, because on-premise deployments take time to deliver a return on investment.

Free IT managers to be trusted advisors rather than tactical implementers

Business innovation creates a unique challenge for IT managers. Experimenting with a new technology can be difficult because organizations lack the infrastructure, IT expertise, or personnel to support the effort. With LiveCycle Managed Services, the Adobe NOC fills the gap. Project development can begin immediately. IT managers can focus on strategic priorities such as managing their organization's exploration and adoption of the cloud. Team members take on the role of trusted advisors and integration experts, rather than spending cycles on tactical activities like installation, upgrades, and system maintenance.

Complexity and risk are reduced as well. An on-premise implementation involves deployment of a sophisticated hardware and software environment as well as managing the integration with multiple back-end systems. A LiveCycle Managed services cloud implementation is deployed by Adobe experts while IT professionals focus on integration management, effectively reducing the "new technology" learning curve that invariably delays new projects. And with one point of contact from Adobe, it is easier and more efficient to manage hardware, software, and service level agreements (SLAs).

Speed development time for testing and implementation

For developers, it's all about faster time to production, which means faster time to value for the business. With traditional on-premise deployments, enterprise developers use up valuable time as they install and troubleshoot test and development instances. With LiveCycle Managed Services, however, developers can go straight to work with preconfigured instances of the software. Or, they can quickly and easily create staging servers on demand for testing. Either way, this approach gives them the freedom and flexibility to support a larger number of test scenarios without becoming a bottleneck to the process of business innovation.

Protect confidential information and ensure regulatory compliance

Line of business managers know that innovation won't succeed unless it meets corporate and regulatory requirements for security and compliance. LiveCycle Managed Services integrates two proven systems to deliver the assurances that the IT, legal, and compliance teams are looking for: the AWS architecture and the LiveCycle ES2 architecture. Amazon provides numerous mechanisms for securing compute resources. For an excellent overview, including discussions of certification and accreditations, secure design principles, physical security, backups, network security, and AWS security, see the white paper, *Amazon Web Services: Overview of Security Processes*. Similarly, each LiveCycle ES2 module provides extensive options for protecting and securing information. In addition, LiveCycle Managed Services offers security capabilities in several areas including network filtering, user access controls and advanced data protection.

For more information

For more details about Adobe LiveCycle ES, visit www.adobe.com/products/livecycle.



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