

# Secure electronic documents drive efficient online business processes

Adobe® document security and control services help organizations protect mission-critical information



## Expand electronic document use with Adobe document security and control services

Without proper protection of electronically maintained information, organizations face serious risks to their financial performance, intellectual property, customer privacy, and more.

Adobe security solutions provide greater assurances of document confidentiality, authorization, accountability, authenticity, integrity, and non-repudiation to accelerate the use of electronic documents in efficient online business processes.

For thousands of businesses and governments, exchanging documents with customers, partners, and constituents is crucial to their success. Because these organizations rely on rapid, easy information sharing, they are bringing document-based business processes online to improve the quality, efficiency, and cost-effectiveness of their operations. But the use of electronic documents must not compromise the privacy of information. Organizations must protect document confidentiality at all times to comply with tough government regulations and meet customer expectations of privacy. Whether it's a financial statement, medical record, or license approval—access and use must be precisely controlled and monitored.

With Adobe document security and control services, organizations can take advantage of the convenience and cost savings of online business processes with more secure, reliable electronic document exchange. By combining sophisticated solutions for document control, electronic signatures and document certification with the capabilities of leading security vendors, Adobe helps organizations maintain the confidentiality, authorization, accountability, authenticity, integrity, and non-repudiation of electronic documents throughout their lifecycle.

Hundreds of organizations around the globe are using Adobe security solutions to:

- Bring more mission-critical processes online to boost employee productivity and increase customer satisfaction
- Simplify security measures and reduce the cost of distributing confidential information
- Ensure greater compliance with government privacy regulations for electronically distributed information
- Preserve control over sensitive information, while increasing the flexibility of using electronic documents
- Integrate document security with current online workflows and enterprise infrastructure to streamline business processes and extend the value of current investments

**Adobe security solution key capabilities**

- Persistent document security
- Document security management online and offline, inside and outside the network
- Electronic signatures with ability to audit activities
- Digital signatures with ability to preserve signatures for long-term validation
- Integration with current document-based processes
- Integration with enterprise security and content administration infrastructure
- Platform-independent access to protected documents

Adobe Acrobat® family*	Adobe Reader®	Adobe LiveCycle® Reader Extensions ES	Adobe LiveCycle Digital Signatures ES	Adobe LiveCycle Rights Management ES
Quickly create protected documents from native applications	Use the free, cross-platform solution to view and interact with protected documents	Easily share protected interactive Adobe PDF documents with external parties	Automate the process of encrypting and digitally signing thousands of electronic documents	Dynamically apply document usage rights to manage use online, offline, inside the network, and outside the network
Encrypt/decrypt documents using digital certificates (public and private keys), shared passwords, and Adobe LiveCycle Rights Management ES	Validate recipient's digital signatures	Activate additional functionality in free Adobe Reader to enable offline form filling and digital signatures	Encrypt/decrypt documents using shared passwords and Public Key Infrastructure	Control printing, copying content form filling, digital signature use, screen reader access, review and comment use, page insertion, deletion, rotation
Apply digital signatures; validate digital signatures as a relying party	Verify author-certified documents		Automatically apply digital signatures	Control online and offline access
Publish certified documents or forms, and control changes that can occur downstream	Apply recipient digital signatures†		Automatically verify digital signatures	Change usage rights after distribution
Control printing, copying content form filling, digital signature use, screen reader access, review and comment use, page insertion, deletion, rotation	Supports signing and encryption with digital IDs on smart cards and tokens using PKCS#11 interface or Microsoft CryptoAPI (Windows® only)		Create and verify author-certified documents	Revoke access after distribution
Supports signing and encryption with digital IDs on smart cards and tokens using PKCS#11 interface or Microsoft CryptoAPI (Microsoft® Windows® only)	Decrypt documents using shared passwords, Public Key Infrastructure, and Adobe LiveCycle Rights Management ES		Supports Hardware Security Modules using PKCS#11	Establish time controls for access  Supports FIPS operating mode and AES-256 encryption
Get easy provisioning of digital IDs and true roaming support for digital signatures (Roaming ID) using Adobe Signature Service Protocol (ASSP) in Acrobat and Reader 8 or later‡				
Acrobat and Reader 9 include RSA Security BSAFE Crypto-C Micro Edition 2.1.0.3 for cryptographic operations. Acrobat and Reader 9 can operate in FIPS mode; they rely on the cryptographic module in RSA Security's BSAFE Crypto-C Micro Edition 2.1.0.3, which has been validated as meeting all FIPS 140-2 Level 1 security requirements§			Supports FIPS mode	Supports FIPS operating mode and AES-256 encryption  Audit user actions
This info is valid for Acrobat/Reader				Apply policies to PDF files, Microsoft Word, Excel, and PowerPoint documents, as well as CAD document formats including support for PTC Pro/ENGINEER and CATIA
Enable electronic signatures using Acrobat plug-in architecture**				

\* Includes Adobe Acrobat Professional, Adobe Acrobat Standard, and Adobe Acrobat Elements; not all security features are available in all products.  
† Requires documents to be rights-enabled with Adobe LiveCycle Reader Extensions ES.  
‡ ASSP has a server component for the Roaming ID solution; see [http://partners.adobe.com/public/developer/security/index\\_security\\_partners.html](http://partners.adobe.com/public/developer/security/index_security_partners.html).  
§ See <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401val2007.htm#865>.  
\*\* [http://partners.adobe.com/public/developer/security/index\\_security\\_partners.html](http://partners.adobe.com/public/developer/security/index_security_partners.html).

### **Document control enhances electronic document security and privacy**

- More effectively control access with industry-standard encryption and fine-grained usage permissions
- Manage document security online, offline, inside, and outside the firewall
- Apply expiration dates and revoke access to previously distributed documents
- Leverage current authentication systems to check user credentials
- Integrate with content management systems to extend version control to documents outside of the content repository
- Implement customized document control needs with an open API

### **Digital signatures supply document integrity and authenticity**

- Apply author and recipient digital signatures
- Tightly integrate PKI from leading digital signature vendors
- Automatically sign and validate server-based documents in an electronic workflow or deposited in a watch folder
- Detect changes in the document by viewing the signed version; or, by comparing the current version of the document with the signed version
- Combine existing PKI, including smart cards and token support, with Adobe digital signature support to encrypt and decrypt documents
- Use native support for Microsoft CryptoAPI for additional functions such as certificate revocation checks, smart card integration, and user credential sharing across applications

### **Adobe security solution highlights**

As organizations accelerate online processing, the Adobe suite of desktop and server-based security solutions delivers document control, digital signature, and document certification services that simplify the process of protecting sensitive information. Because Adobe solutions are designed to dynamically protect electronic documents inside and outside the network, online and offline, you can more easily communicate with your customers while at the same time significantly reducing the costs for distributing confidential information.

### **Desktop and server solutions for persistent security**

Unlike most solutions for protecting electronically delivered information, Adobe document security provides persistent, end-to-end protection throughout an electronic document's lifecycle. Simply by applying encryption, access rights, user permissions, digital signatures, and certification to an Adobe PDF file, you can rest assured that the file will be subject to the same access controls even when it travels outside the network or is used offline. The Adobe desktop solutions make it easy for every user in your organization to protect documents, encouraging them to maintain security best practices. The server-based solutions automate the application and monitoring of document security on an enterprise-wide basis.

### **Designed for enterprise business processes**

With the ease of integrating Adobe document security solutions into current business processes and enterprise infrastructure, you can support a wide range of simple and complex processes. Whether e-mailing monthly statements, making tax forms available on citizen portals, sending design documents to partners for review, approving loan applications, or preparing financial reports, Adobe security solutions allow you to conduct these processes with greater assurances of document authenticity, integrity, and confidentiality. And because Adobe security solutions take advantage of the worldwide acceptance of Adobe Reader, authorized users on any platform can always access protected Adobe PDF files without the cost of installing desktop software.

### **Increase information confidentiality with strict document control**

Online communication channels such as e-mail and the web make exchanging electronic documents fast and easy. However, when electronically sharing sensitive information, organizations must be able to lock down access to electronic documents in order to maintain information confidentiality.

Adobe document control is an ideal solution to manage the access and use of electronic documents. By applying document control to an Adobe PDF file, you gain greater assurances that unauthorized individuals will not be able to view and modify the file. Because the access controls remain with the file at all times, you can distribute electronic documents over any communication channel with more assurance that confidentiality will be maintained even after the document is delivered. Whether documents are used online or offline, inside or outside the network, Adobe document control keeps working.

Adobe solutions for document control include desktop and server-based options. Integration with Adobe Acrobat lets authors quickly encrypt and assign usage controls to Adobe PDF files. Server-based solutions enable you to integrate Adobe document control within your enterprise infrastructure to dynamically and automatically manage document use. No matter which solutions you use, recipients on any platform can view protected documents with free Adobe Reader.

With Adobe document control you can:

- Encrypt documents with a shared password, PKI certificates, or Adobe LiveCycle Rights Management ES. Adobe PDF files are encrypted using industry-standards including RSA, RC4, and AES.
- Set fine-grained permissions that define exactly what a user can do with an Adobe PDF file to prevent unauthorized attempts to view, forward, modify, print, or copy content from it.
- Help prevent access and use at the enterprise level with dynamic document control policies. Consistently apply policies to help control use of online and offline documents inside and outside the firewall as well as restrict the amount of time users have access to offline documents.

- Integrate Adobe document control with current user administration and content management systems for cost-effective, centralized document control. Use LDAP implementations to authenticate recipients. Maintain policies assigned to documents in content management systems wherever the document travels to ensure that appropriate versions are used after publication and outside the network.
- Effectively audit each recipient's use of a protected document and always know whenever a document has been viewed, printed, content copied, modified, and more.
- Meet specialized document exchange requirements and quickly customize Adobe PDF document security with an open and extensible API.
- Apply persistent and dynamic rights management policies to sensitive Adobe PDF files, Microsoft Word, and Excel documents.

### **Move more mission-critical business processes online with digitally signed documents**

For organizations that want to accelerate their use of electronic documents, digital signatures are essential as they validate the identity of the sender and provide additional assurances that no unauthorized users have tampered with a document after it was signed.

You can easily integrate the use of digitally signed documents into your online processes with Adobe desktop and server-based digital signature solutions. Adobe has established partnerships with leading security vendors to provide quick, convenient ways to apply digital signatures to Adobe PDF files. In addition, Adobe has extended the value of digital signatures with document certification, which allows authors to specify and prevent changes to content using certifying signatures.

With these capabilities, you can rely on electronic documents for a wide variety of one-way and round-trip business tasks. For example, use digitally signed Adobe PDF documents to deliver earnings reports or benefits statements outside the network with added assurances that the information will arrive exactly as it was released. Using certified documents, you can monitor document integrity throughout complex online processes that require multiple participants and signatures, such as prospectus preparation, loan rate setting, HR processes, and claims approvals.

With Adobe solutions for digital signatures, you can:

- Allow authors and recipients to digitally sign Adobe PDF files. Authors use Adobe Acrobat to create signature fields and sign documents. Recipients can use Adobe Reader to apply signatures to Adobe PDF files that have been rights-enabled via Adobe LiveCycle Reader Extensions ES.
- Validate signatures using digital certificates from leading security vendors including Entrust, GeoTrust, RSA Security, Verisign, and more.
- More effectively control the use of electronic documents with certifying signatures that specify changes allowed to a document, such as limiting changes to form filling and commenting, or preventing any changes.
- Streamline one-way business processes by automatically applying digital signatures and enterprise watermarks to multiple Adobe PDF documents at one time.
- Automatically validate digitally signed Adobe PDF documents before they are delivered to the end-user.
- Encrypt and decrypt Adobe PDF files automatically using the Adobe server-based digital signature solution, if your organization has an existing PKI implementation.
- Integrate with Hardware Security Modules for highly secure cryptographic functions such as storing digital certificates.
- Enable electronic signature solutions using Adobe Acrobat plug-in architecture, and/or use the Adobe LiveCycle platform to authenticate users, audit events, and activities in document-based approval workflows.

#### **For more information**

For more details about Adobe security solutions, visit [www.adobe.com/security](http://www.adobe.com/security).



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