Adobe® solutions for document security

Secure electronic documents drive efficient online business processes and help organizations protect mission-critical data

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 or authenticity of the 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—accesses, use, and integrity must be precisely controlled and monitored.

With Adobe document and information assurance portfolio, 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 highlights

As organizations accelerate online processing, the Adobe desktop and server-based security solutions deliver rights management 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 significantly reducing the costs for distributing confidential information.

Adobe security solution key capabilities

- Persistent document security
- Manage security 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[1]	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 digitally signing and validating thousands of electronic documents	Dynamically apply document usage rights to manage use online, offline, inside the network, and outside the network
Encrypt and decrypt documents using digital certificates (public and private keys), shared passwords, and LiveCycle Rights Management	Validate recipient's digital signatures	Activate additional functionality in free Adobe Reader to enable offine form filling and digital signatures	[6]	Control printing, copying content, form filling, dynamic watermarks, digital signature use, screen reader access, review and comment use, page insertion, deletion, rotation
Apply digital signatures; validate digital signatures as a relying party	Apply recipient digital signatures[2]		Automatically apply digital signatures	Control online and offline access
Publish certified documents or forms, and control changes that can occur downstream	Verify author-certified documents		Automatically verify digital signatures	Change usage or revoke 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 (Microsoft® Windows® only)		Create and verify author-certified documents	Leverage the LiveCycle Launchpad ES user interface for easy and consistent policy application via an Adobe® AIR® application directly on the desktop.
Supports signing and encryption with digital IDs on smart cards and tokens using PKCS#11 interface or Microsoft CryptoAPI (Microsoft Windows only) 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[3]	Decrypt documents using shared passwords, Digital IDs, and LiveCycle Rights Management 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[3]		Supports Hardware Security Modules using PKCS#11	Establish time controls for access Supports FIPS operating mode and AES-256 encryption

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 existing 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.

Adobe® Acrobat® family[1]	Adobe Reader®	Adobe LiveCycle® Reader® Extensions ES	Adobe LiveCycle Digital Signatures ES	Adobe LiveCycle Rights Management ES
Acrobat and Reader 9 (or later) include RSA Security BSAFE Crypto-C Micro Edition 2.1.0.3 for cryptographic operations Acrobat and Reader 9 (or later) 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[4]	Acrobat and Reader 9 (or later) include RSA Security BSAFE Crypto-C Micro Edition 2.1.0.3 for cryptographic operations Acrobat and Reader 9 (or later) 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[4]		*Supports FIPS mode*	Supports FIPS operating mode and AS-256 encryption Audit user actions
Enable use of other electronic signature types, including signature pads, using plug-in architecture[5]	Enable use of other electronic signature types, including signature pads, using plug-in architecture[5]			Apply policies to PDF files, Microsoft Office documents, and CAD document formats, including support for PTC Pro/ENGINEER

[1] Includes Adobe Acrobat Professional, and Adobe Acrobat Standard; not all security features are available in all products.
[2] Requires documents to be rights-enabled with Adobe LiveCycle Reader Extensions.
[3] ASSP has a server component for the Roaming ID solution; see *http://partners.adobe.com/public/developer/security/index_security_partners.html*.
[4] See *http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401val2007.htm#865*.
[5] For more information, visit *http://partners.adobe.com/public/developer/security/index_security_partners.html* or *http://www.adobe.com/devnet/acrobat/* or *http://www.adobe.com/devnet/reader/ikla.html*.
[6] Encryption and decryption delivered through LiveCycle Foundation.

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. By applying encryption, access rights, user permissions, digital signatures, and certification to an Adobe PDF file, the file is subject to the same access controls, even when it travels outside the network or is used offline. Adobe desktop solutions can make it easy for every user in your organization to protect documents, encouraging them to maintain security best practices. By leveraging LiveCycle LaunchPad ES, desktop users can now easily drag and drop documents to be rights protected based on policies delivered directly from IT. The server-based solutions automate the application and monitoring of document security on an enterprise-wide basis.

Digital signatures supply document integrity and authenticity

- Apply author and recipient digital signatures
- Tightly integrate digital IDs from leading certificate authorities
- 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
- Use existing digital IDs, including those on smart cards and tokens to encrypt and decrypt documents

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 accessibility 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

By applying document control to an Adobe PDF file, unauthorized individuals cannot view and modify the file. Access controls remain with the file at all times, so you can distribute electronic documents over many communication channel, such as e-mail and the web, with more assurance that confidentiality is maintained, even after the document is delivered.

With Adobe document control you can:

- Encrypt documents with a shared password, PKI certificates, or Adobe LiveCycle Rights Management. Adobe PDF files are encrypted using industry standards, including 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.
- Apply persistent and dynamic rights management policies to sensitive Adobe PDF files and Microsoft Office documents.
- Help prevent access and use at the enterprise level with dynamic document policies that help control the 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 a cost-effective, centralized solution. 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.
- Audit each recipient's use of a protected document and know whenever a document has been viewed, printed, copied, modified, and more.
- Meet specialized document exchange requirements and quickly customize Adobe PDF document security with an open and extensible API.

Move more mission-critical business processes online with electronically signed documents

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

Adobe has established partnerships with leading security vendors to provide quick, convenient ways to apply a variety of electronic signatures to Adobe PDF files, depending on the specific application or process. 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 to have the information arrive 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, human resources 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.*
- More effectively control the use and authenticity of electronic documents with certifying signatures that specify the changes allowed to a document, such as preventing or limiting modifications to form filling and commenting.
- Streamline one-way business processes by automatically applying digital signatures to multiple Adobe PDF documents in bulk.
- Automatically validate inbound digitally signed Adobe PDF documents before they are processed by the system.
- 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, or use the Adobe LiveCycle platform to authenticate users and audit activities in document-based approval workflows.
- Create automatically trusted digital and certification signatures using digital IDs from Adobe CDS Providers and Adobe Approved Trust List (AATL) members.

* CDS digital IDs are trusted in Adobe Acrobat and Reader 6.0 and above.
CDS Providers listed here: *http://www.adobe.com/security/partners_cds.html.*
AATL digital IDs are trusted in Acrobat and Reader 9.0 and above.
AATL Members listed here: *http://www.adobe.com/security/approved-trust-list.html*

For more information
www.adobe.com/livecycle

Adobe Systems Incorporated
345 Park Avenue
San Jose, CA 95110-2704
USA
www.adobe.com

Adobe, the Adobe logo, Adobe AIR, Acrobat, LiveCycle, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective owners.

© 2013 Adobe Systems Incorporated. All rights reserved. Printed in the USA.

91069493 1/13