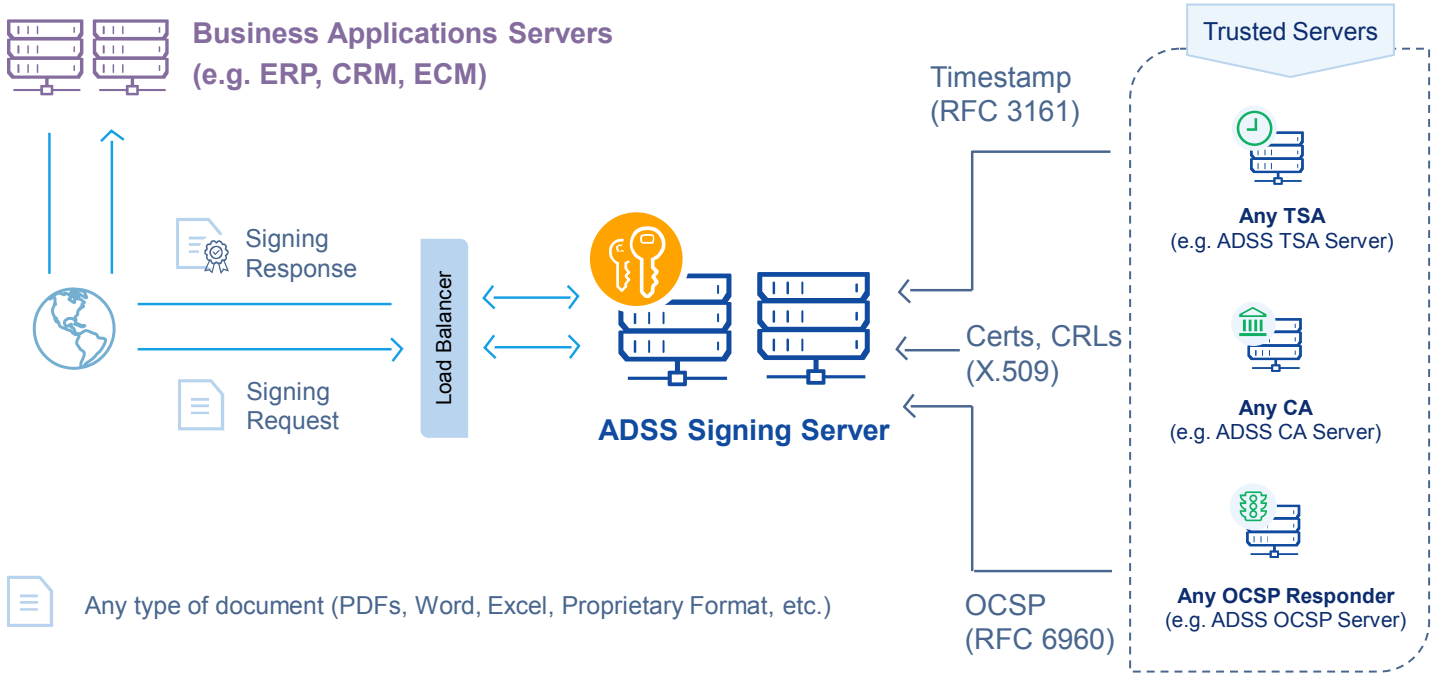
# ADSS Signing Server

## ETSI PAdES, XAdES, CAdES Signatures

Organisations continue to face a variety of pressures to provide enhanced security of documents, data and transactions. They need to provide better data integrity, non-repudiation, accountability, traceability and secure audit services to aid compliance with local legislation, regional directives and internal needs.

From a commercial and efficiency perspective there is also a strong drive to replace paper-based processes with secure, electronic ones. Digital signatures provide all of the security, user and/or organisation identification services that are needed. ADSS Server provides the high trust security services needed to create these and provide secure log evidence. ADSS Signing Server meets the EN 319 142, EN 319 132, EN 319 122 and EN 319 102 standards.

ADSS Server provides all of the ETSI PAdES, XAdES, CAdES digital signature trust services for a wide range of business documents, data and information workflows. It can be simply and easily integrated with ECM, CRM or ERP business applications via high speed APIs, OASIS DSS web services, Auto File Processor (Watched Folder) or even via Email. A minimum of application development or integration is required since ADSS Server maintains all the management knowledge to understand how to sign, where to sign, with what keys, where these are kept, which CAs to trust how to validate certificates, etc. Thus small changes do not affect the applications.




The common use cases for ADSS Signing Server are:

**Bulk signing of PDF, XML and other documents** such as invoices, reports, statements, etc.
- using Qualified or AATL or other high trust certificates
- using OASIS DSS web services or fast HTTP/S APIs
- using high level DotNet or Java APIs
- using Auto File Processor watched folder client
- using Secure Email Server

**Signing keys and certificates can be held:**
- in HSMs, in smartcards, in mobile devices, in software
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**User-based Qualified Remote Signing**
- ADSS Server and Go>Sign Mobile enable Qualified Remote Signature creation using Level 2 Sole Control

**User-based Advanced Remote Signing**
- ADSS Server supports advanced signature creation using AATL or other keys/certificates held centrally

**User-based signing using local smartcards**
- Go>Sign Desktop is used to sign within web-browsers
- using Qualified or AATL or other keys/certificates

And finally, ADSS Server powers SigningHub. SigningHub harnesses all this signing power within a market leading document workflow and digital signature approval application – see **www.SigningHub.com** for details.

# ADSS Server – High Trust Signing Services

ADSS Server provides high-level security services whilst removing all the lower-level complexities from the business environment. ADSS Server administrators define acceptable policies and profiles as well as how they will be applied and how they will be presented. They then permit or deny client applications the right to use these, e.g. the "invoice signing" profile should only be allowed by the specific finance department invoicing application.

There are various ways in which ADSS Server can be integrated with business applications:

## OASIS DSS Signing Capabilities

- ➔ Sign various document / data formats
  - PDF, Office, XML, File, Form (PKCS#7) and S/MIME
- ➔ Sign using various format options
  - Embedded – e.g. PDF, Office, XML DSig
  - Detached – e.g. XML DSig, PKCS#7, CMS
  - Wrapping – e.g. PKCS#7 / CMS / XML DSig
  - Plus timestamps (PAdES-T, XAdES-T, CAdES-T, and -A)
  - Plus validation status (PAdES, XAdES, CAdES)
  - PAdES part 2,3,4 signatures
- ➔ Notary / archive / timestamp / evidence archive
  - LTANS Archiving, plus PAdES-A, XADES-A, CAdES-A
- ➔ For use with any internal or external document
  - Signing using corporate or user, server or client keys/certs
  - Local signing uses ADSS Go>Sign Applet

## OASIS DSS-X Verification Capabilities

- ➔ Verify & Trust various document / data formats
  - PDF, Office, XML DSig, PKCS#7, CMS and S/MIME
- ➔ Verify various signature types
  - Embedded – e.g. PDF, Office, XML DSig
  - Wrapping – e.g. PKCS#7 / CMS / XML DSig
  - Detached – e.g. XML DSig, PKCS#7, CMS
- ➔ Special options
  - Add/check timestamp information (XAdES, CAdES, PAdES-T)
  - Add/check validation status information (AdES -X-L -A) PAdES part 2,3,4,5 signatures
  - Optional Historic verification of any signature
- ➔ For use with any internal or external document
  - Use with any received signatures at a server
  - Use with any received signature at a desktop

With so many options Ascertia and its delivery partners can help you to define the best options to meet the various business, legislative and regulatory needs and reduce the risks and costs involved in creating, sending, receiving and storing unprotected business documents. The multiple capabilities of ADSS Server can be used to solve today's needs and also offer tremendous investment protection to meet the changing needs of tomorrow.

ADSS Server has been designed to meet the needs of SMEs, large multi-national organisations, managed service providers and regional trust schemes. It does this by providing flexibility, resilience, scalability, combined with well-designed internal security, management, audit logging and reporting that is designed to meet CWA 14167-1 requirements for trustworthy systems.

For bulk signing of invoices and other documents review the Auto File Processor option for ADSS Server. To sign existing PDFs being emailed from ERP system such as SAP look at the Secure Email Server option.

ADSS Server also supports Qualified Seals when used together with QTSP services. Speak to Ascertia or our local partners about this option.

| **ADSS Signing Server Standards Compliance:** | |
|---|---|
| **Interface standards:** | OASIS DSS and OASIS DSS-X services (including over SSL/TLS), high speed HTTP/S protocols, Auto File Processor (AFP) Watched folders, Secure Email Server for email support, Java and .NET APIs |
| **Algorithms and keys:** | RSA 1024, 2048, 4096, 8192, ECDSA 256, 384, 521, SHA1, SHA-256, SHA-384, SHA-512, RIPEMD |
| **Signature generation**: | PDF, PDF/A, XML DSig, PAdES 2, 3, 4, XAdES, CAdES (ES, -T, -C, -X, -Long, -EPES, -A), PKCS#7, CMS, S/MIME |
| **Signature verification:** | One or multiple ETSI PAdES, XAdES, CAdES, PDF, XML DSig, PKCS#7, CMS and S/MIME signatures |
| **Signature enhancement:** | Enhances PAdES 3,4,5, XAdES and CAdES signatures to include timestamp and certificate status data |
| **Certificate validation:** | Requests validation using OCSP, CRLs, Delta CRLs, DPD/DPV or even XKMS and SCVP |
| **OCSP & Time stamping:** | Has an RFC 6960 OCSP client and an RFC 3161 timestamp client as standard |
| **HSM Support:** | PKCS#11 or CAPI/CNG compliant HSMs, smartcards or tokens, Gemalto/SafeNet, Thales, Utimaco Cloud HSMs including Azure Key Vault, Amazon AWS Cloud HSM |
| **Operating Systems:** | Windows Server 2016, 2012 R2, 2012, 2008 R2, Linux (RedHat, Centos, SuSe, others), Solaris (on request) |
| **Databases:** | SQL Server 2016, 2014, 2012, Oracle 12c, 11g, PostgreSQL 9, 8, MySQL 5.x (Percona & Oracle), Azure SQL |
| **Trust Server Options:** | **ADSS CA, TSA and OCSP Servers can also be used to provide advanced trust infrastructure services** |

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