

# PDF Signing for Adobe CDS - eVAT Invoicing in Europe

Certified Document Services (CDS) provides a cost effective PDF digital signing solution.

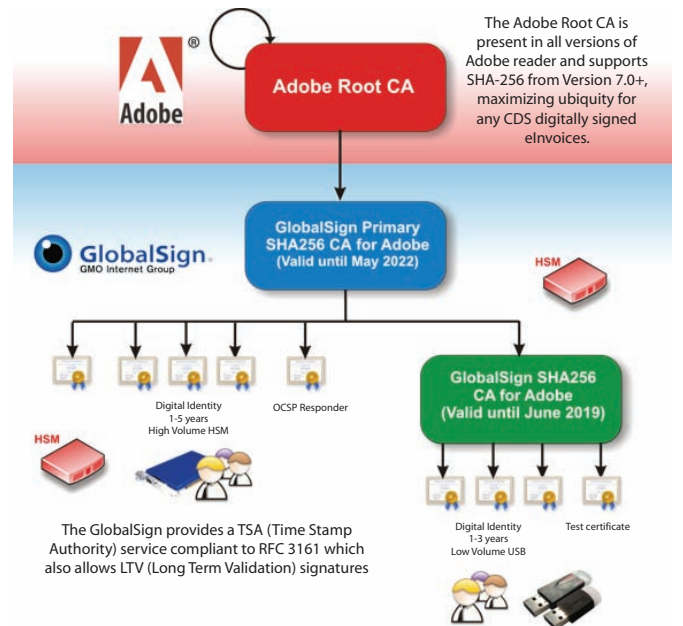
## eVAT Invoicing within the European Community

On 20 December 2001, Council Directive (2001/115/EC) on eVAT Invoicing was adopted across Europe. It required that the stipulations of the directive were to be implemented into national Law before the 1st January 2004. Organizations operating within Europe were to gain significant practical benefit by ensuring they had only to deal with a single, simplified set of rules on invoicing from the country in which they were operating that would then be valid throughout the EU rather than having to comply with multiple sets of legislation.

(Historically, firms established in several member states required special authorization in certain countries to apply cross-border invoicing arrangements and had to use a technology specific to each Member State for the creation, transmission and storage of the electronic invoices. They also had to cope with recording different items of information for each country, storing information for a different periods in each country and sometimes even making simultaneous electronic and paper transmissions of data.)

Now the situation is far more simplistic in that a business entity must comply with the legislation of the country in which they are located. This is both in terms of the creation of invoices but also in regard to the storage of invoices. Storage requirements across Europe vary in the length of time for which an invoice needs to be retained. It can be anywhere up to 20 years. Generally one thing remains consistent, the authenticity of the origin and the integrity of the information must be guaranteed throughout the storage period. It is therefore essential that a solution is used which provides long lived digital signatures. The Adobe CDS platform offers this capability in that a CRL (Certificate Revocation List) and Secure Time Stamp can be embedded into the document thereby meeting the requirements of long term storage.

The growth of the Internet facilitates wider cross border possibilities for eBusiness. However, traders should ensure they are aware of the storage requirements for invoices that will be sent to customers outside of their home territory. In not providing an embedded mechanism for ensuring the integrity and authenticity of an invoice, the supplier leaves open the possibility for future claims by customers requiring auditable proof of invoice legitimacy. The future support effort required may be extensive especially as eInvoicing is expected to increase.



For more information about GlobalSign solutions, please call 603-570-7060 or 877-775-4562

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## Operating a more profitable business

Although meeting regulatory requirements is essential to any organization the pressure to remain competitive through cost reduction and efficiency gains drives the need for eBusiness processes, especially eInvoicing. Adapting traditional paper-based transactions to electronic processes reaps huge financial rewards providing immediate benefits both in terms of direct cost saving over paper based systems, but also meeting the needs of the environment; firstly from a paperwork elimination standpoint, but also from a reduced carbon footprint by not sending invoices by surface mail delivery systems.

PDF Signing for Adobe CDS certificates tie critical transactions to key personnel. When authors, approvers, and reviewers of Adobe PDF documents apply a digital signature to an Adobe PDF, they bind their identity within an organizational affiliation to precise content which helps to meet the requirements of the most common VAT invoicing criteria for creation and storage of invoices: "on condition that the authenticity of origin and integrity of data are guaranteed through the use of electronic signatures"

The table below illustrates the extent to which PDF Signing for Adobe CDS is able to help meet the requirements on a Country/Country basis. i.e. the Creation of invoices in the Netherlands or the UK or France is acceptable for storage across Europe in an eArchive.

	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SL	ES	SE	GB	CH	NO	
2A																														
2B																														
2C																														
2D																														
2E																														
3A																														
3B																														
3C																														
CDS eInvoice	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
CDS eArchive	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
GES eInvoice																														

■ - Not Applicable within this chart. T - Timestamping mandatory

- 2A. Acceptance of 'advanced e-signatures' to send e-invoices (■ = yes / ■ = no)
- 2B. If yes, can AES be used without obligation to use a qualified certificate (■ = yes or not applicable / ■ = no)
- 2C. If yes, are qualified certificates from other EU Member States accepted (■ = yes / ■ = subject to conditions)
- 2D. If yes, can AES be used without obligation to use a secure signature-creation device (■ = yes / ■ = no)
- 2E. If yes, can the recipient process the invoice without verifying the signature (■ = yes / ■ = no)
- 3A. Other means than AES or EDI accepted? (■ = yes / ■ = only "other" electronic signatures / ■ = no)
- 3B. If yes, can other means be used without prior approval? (■ = yes / ■ = in some cases / ■ = no)
- 3C. Unsigned pdf invoice accepted? (■ = as an e-invoice in case authenticity and integrity are guaranteed by other means / ■ = as a paper invoice ■ = no)

## Customer Case Study

### Port of Antwerp

The Port of Antwerp is the gateway to Europe, handling 157.8 million tonnes of freight in 2009. Antwerp is the second largest port in Europe for international shipping freight and the seventh largest in the world. With this comes the requirement to issue 120,000 Electronic Invoices per year to a multitude of jurisdictions world wide.

Using an Adobe Lifecycle solution with GlobalSign provided the port with a way to be fully compliant with Belgian eVAT rules which stress the need for authenticity and integrity for both the sender and the recipient during the storage period of 7+ years. The Antwerp Port Authority have renewed the solution 3 years running.



# PDF Signing for Adobe CDS - How it Works & Solutions by Industry

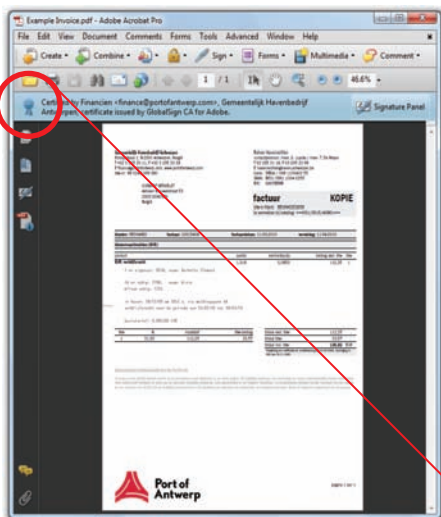
Certified Document Services (CDS) provides a cost effective PDF digital signing solution.

## How it Works...

Certified Document Services (CDS) is a service which is enabled by the Adobe root certificate authority and was introduced into the Adobe® Acrobat® product range supporting SHA-256 signatures from version 7.0 onwards. CDS empowers document authors to digitally sign Portable Document Format (PDF) files, using an industry standard X.509 digital certificates chained to the Adobe Root Authority to allow automatic validation of authenticity of the author using the free Adobe Reader software. No additional client software or configuration is required.

A major advantage to any organization with stakeholders in multiple countries, is the built-in international language support within the PDF reader itself. Available in over 30+ languages, Adobe Reader ensures a consistent digital signature experience worldwide. CDS was designed specifically to enable any organization providing documents to large and disparate recipients, who may be in multiple countries, to increase the assurance level of the document. The document's integrity and authenticity are digitally preserved by the addition of the CDS signature to the PDF. Document authors are able to increase this assurance level without requiring recipients to deploy additional processes - it simply works, ensuring an effective ROI through a vast reduction in the investment normally associated with supporting a proprietary security system.

Following a thorough verification of the 'Applicant' requesting a PDF Signing for Adobe CDS certificate, GlobalSign will issue a 'pickup' link which allows a certificate to be generated and securely stored on a SafeNet® hardware cryptographic device. Authors can digitally certify PDFs using certificates "chained" up to the trusted Adobe Root. Recipients simply need to open the document using the Adobe free reader to instantly verify the authenticity and integrity of the document. Adobe's simple to interpret "Blue Ribbon, Yellow Warning Triangle, and Red X" trust messaging allows even novice users an easy to understand method to determine if the document is legitimate.



**Valid and certified!**  
Authenticity and Integrity are verified  
Pass



**Error!**  
Authenticity Check Fails



**Error!**  
Integrity Check Fails

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## Solutions by Industry

### Electronic Invoicing

Electronic VAT invoicing offers numerous advantages to organizations both large and small – cost reductions, low carbon footprint ecosystems, greater security and trust for all stakeholders and faster cash collection than traditional out-dated paper billing.

<http://www.globalsign.co.uk/solutions/industry-solutions/e-invoicing.html>

### Healthcare

The New England Journal of Medicine, 2004, reports "paperwork represent 31% of all healthcare costs". CDS can help relieve the burden on physicians surrounding cumbersome processes involving patient paper-work while being part of a CFR 21 Part 11 compliant solution.

<http://www.globalsign.co.uk/solutions/industry-solutions/healthcare.html>

### Manufacture and Design

Architecture, Engineers and Construction (AEC) professionals benefit from CDS with faster design collaboration, more efficient and less expensive electronic document storage, and stronger protection via tamper evident engineering and product documentation as documents are exchanged among customers, partners, contractors, and building departments.

<http://www.globalsign.co.uk/solutions/industry-solutions/manufacturing.html>

### Education

More and more educational institutions are increasing student and alumni satisfaction as universities and colleges disseminate sensitive documents like transcripts and admissions letters electronically in a fraction of the time and costs seen with their paper equivalent.

<http://www.globalsign.co.uk/solutions/industry-solutions/education.html>

### Government

CDS supports both local and federal government initiatives including the Government Paperwork Elimination Act helping reduce costs, enhance citizen accessibility to government information and reduce unnecessary environmental waste while at the same time providing high assurances to its citizens that the information is legitimate.

<http://www.globalsign.co.uk/solutions/industry-solutions/government.html>

### Financial Services

Industry best practices coupled with government imposed regulation like Sarbanes-Oxley make CDS an attractive option as a thorough audit of the signature properties are embedded in the document itself. Well after the Digital ID expires, the signature characteristics are preserved providing relying parties strong authentication of both the organization and individual or role that signed the PDF, whether the content is still intact, and the exact date and time of the transaction as determined by a RFC 3161 compliant time-stamp.

<http://www.globalsign.co.uk/solutions/industry-solutions/financial-services.html>

### The Notarial and Legal Professions

CDS provides unequalled support of trusted documents in multiple languages. This alone facilitates cross border transactions as both sides are able to interrogate the authenticity of a document in their local language; the ideal solution for e-Notarization.

<http://www.globalsign.co.uk/solutions/industry-solutions/notary-legal.html>

## The SafeNet iKey 4000 & 5100

GlobalSign's PDF Signing for Adobe CDS Certificates are usually provided with either a SafeNet iKey 4000 (SHA1 capable) or a SafeNet iKey 5100 (SHA256 capable). As an extension of smart card technology both keys plug into any USB port to provide strong portable user authentication without the need for costly reader devices. Certificates installed on to either token ensure regulatory compliance with the FIPS 140-2 Level 2 requirements of the Adobe CDS program.

For organizations with high volume signing requirements or the need for automation, GlobalSign is able to provide a HSM (Hardware Security Module) in either PCI, PCI(e) or Network attached.

In addition, GlobalSign's ePKI (Enterprise PKI) solution is available for companies that require multiple digital identities.

