

# DSS: tool for Europe-wide eSignature interoperability

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- Services Directive – obligation on MS to make available administrative procedures online.
- Two streams to facilitate the cross-border aspects of interoperable e-signatures:
  - **legislative** via comitology: Decisions on interoperable eSig formats and TSL.
  - **practical assistance** (asked for by the MS!) in the form of OSS (ISA programme funded).
  - **eIDAS regulation**: to adopt interoperability and trust elements for eSignature

# Action 1.9: DSS tool



- This action (now under **CEF** programme) supports development of a software tool DSS (Digital Signature Software) that creates and verifies **legally binding, interoperable and highly** secure electronic signatures.
- The tool makes use of the MS Trust Status Lists (TSLs) to check the trustworthiness of the signing certificates.
- Open source.
- Available to all MS and for any electronic procedure.

# What is it?



- SD-DSS
  - Service Directive
  - Digital Signature Services
- A framework for SW solutions
  - realised in Java
  - Open Source under LGPL
- To
  - Create a Signature
  - Validate a Signature
  - A separate module for TL manager

# What is it?



- Interoperable Formats
  - XAdES / PAdES / CAdES
  - ASiC-S
- Levels
  - BES to LTV
- Packaging
  - detached, enveloped, enveloping
- Main Artefacts
  - TL Manager (LoTL/TL)
  - Core (the framework) + WebServices
  - Demo
    - User Applet
    - Web application

# Current status DSS 4.6



## Based on standards:

- Signature formats when creating a signature: baseline profiles
  - Signature formats when validating a signature: baseline profiles, and core specs
  - Signature validation process ETSI TS 102 853
  - Improvements in packaging and core functionalities:
- CAAdES optimisation, CAAdES multiple Signer Information.
  - Changes resulting from a PlugTest will be included in this release. CAAdES countersignature will not be supported.
  - Impacts from XAdES PlugTest of October 2015
  - Processing of large files
  - Further refactoring of demo applet (size, validation policy editor)
  - SOAP and REST Web Services
  - Standalone demo application

# Planning (I)



## **December 2015: CEF eSig Portal and IA Art. 22.5 (TL)**

- The delivery of a first version of the CEF eSig portal to improve the visibility of DSS, and facilitate the work of implementers.
- Refinement of the validation report structure, as a potential contribution to the future ETSI EN 319 102-2.
- Implementation in DSS will be considered after ETSI EN 319 102-2.
- Extension of DSS validation policy configuration
- DSS demonstrations

## **CEF eSig portal**

- This portal consolidates multiple sources of info for implementers and integrators, as a single point of contact. The actual resources can be hosted on other platforms and pointed to with hyperlinks.
- In this release, a first version of the portal is delivered:
  - Static content (documentation, presentations)
  - Community tools (JIRA, Wiki, Forum)
  - Centralization of existing developer resources



## March 2016: IA Art. 22.5 (TL)

The main purpose of this milestone is to align TL Manager with eIDAS. This portal will also bring more portal functionalities.

- **TL Manager 5.0**

- Impacts of eIDAS:
- Trusted List ETSI TS 119 612 v2.1.1 and Implementing Act Art. 22.5
- New features:
- Integration of ETSI TL conformance checks
- TL Browsing and monitoring

## CEF eSig portal

- More functionalities are added to the CEF eSig portal:
- Developers resources such as testing materials, demo SCA / SVA, demo certificate testing, demo Web Service
- A second set of demonstrations is hosted on the portal regarding mobile signing / server signing.
- Improvements to the TL notification and monitoring processes (e.g. electronic forms)





## DSS 4.7

- A XAdES PlugTest is planned in October / November 2015. Remaining changes resulting from this PlugTest and not included in v4.6 may be included in this release.
- Other potential improvements and features:
- Extension of signature validation policy support
- CAdES attribute certificates
- CRL in multiple parts
- Distributed timestamps method
- Support of cross-certification in path building

## June 2016: ETSI EN 319 1x2 (new eSig EN)

## DSS 5.0

- Impacts of revised Implementing Acts and new ETSI EN:
- Signature formats ETSI TS 319 1x2 (Implementing Acts Art. 27 & 37)
- Trusted List ETSI TS 119 612 v2.1.1 (Implementing Act Art. 22.5)
- Signature validation process ETSI TS 319 102

# DSS: Beneficiaries and benefits



## Public administrations,

- **Governance** of the MS trusted lists
- Easier setting up of **secure eGovernment** services
- To implement **interoperable e-signatures** for national & cross border completion of administrative formalities
- Possibility to **validate electronically signed documents** coming from different competent authorities
- Fully aligned with **eIDAS regulation**

## For business and citizens,

- Higher levels of trust and **confidence on electronic transactions**
- Access to **fully-fledged transactional** public services, saving time

# Get in touch



<https://joinup.ec.europa.eu/software/sd-dss/release/all>



European  
Commission



**Questions?**