

# Description of a SDO

A digitally signed document is often represented in formats that are challenging to visualize for the customer. Digitally signed documents also require a compilation of data to be able to prove in a future conflict (court case, dispute etc.) that a specific person actually signed this specific document at a proven time in the past.

The SEID SDO is a XML based data package designed to act as a self-contained validation of one or more digital signatures on one or more documents. The reason for this format is to be able to confirm non repudiation and integrity of the signed document independent of time. Thus the result of a digital signing process can be packaged into a SEID SDO format to simplify validation, traceability and visualization of the signed document. The basic requirements for the standard was long term storage and exchange of electronic signatures.

A comparable format is PAdES which uses Acrobat reader to visualize the digital signature embedded in a .pdf document. The challenge with PAdES is that it is not supported by the major eID providers and thus cannot be used in conjunction with these. PAdES also has a vast variety of profiles and thus not as standardized as it looks at first glance but also that the resulting PDF is tampered with to be able to contain the electronic signature. Thus the hash of the signed PDF is not the same as the unsigned PDF.

The Nets E-Signing service produces an SDO as the result of a digital signing process.

## The format is structured as an SDOList with one or more SDOs. Each SDO consist of

- One or more signatures
- One seal
- One document
- Signing time or validation time

### SDOList

#### SDO1

##### SIGNATURES

1-n SIGNATURE

VALIDATION DATA (OCSP or CRL)

SIGNATURE DATA

##### SEAL

SIGNATURE

VALIDATION DATA (OCSP or CRL)

SIGNATURE DATA

##### DOCUMENT

##### METADATA

1-n KEYVALUEPAIR

#### SDO2

##### SIGNATURES

1-n SIGNATURE

VALIDATION DATA (OCSP or CRL)

SIGNATURE DATA

##### SEAL

SIGNATURE

VALIDATION DATA (OCSP or CRL)

SIGNATURE DATA

##### DOCUMENT

##### METADATA

1-n KEYVALUEPAIR

A seal is a signature over the document and the signatures. The customer's merchant/organization certificate hosted by E-Signing is used to seal the document.

The E-Signing service can also make partial SDO's available. A Partial SDO is a SDO including only one document and one signer. A partial SDO is generated after each signing process in the Signing order. The partial SDO is available using the GetDocuments message in the TrustSignMessage XML interface.