A view on related ETSI Standards

How the eArchiving Initiative can help in the eIDAS Electronic Archiving Trust Services

Dr. Ignacio Alamillo-Domingo, 22nd September 2023

ETSI TC ESI

TECHNICAL COMMITTEE (TC) ELECTRONIC SIGNATURES AND INFRASTRUCTURES (ESI)

Our work deals with digital signatures and related trust services.

This activity covers the format of digital signatures, as well as procedures and policies for creation and validation. TC ESI also covers policy, security and technical requirements for trust service providers (TSP) such as certification authorities, time-stamping authorities, TSP providing remote signature creation or validation functions, registered e-delivery providers, and long-term data preservation providers. We address Trusted Lists that enhance the confidence of parties relying on certificates or other services related to digital signatures by indicating whether a given TSP was operating under the approval of any recognized scheme.

Our work also aims at supporting the eIDAS Regulation as well as the general requirements of the international community to provide trust and confidence in electronic transactions.

European Commission

Signature/Seal formats

ETSI EN 319 122-1 V1.2.1 (2021-10)

EUROPEAN STANDARD

Electronic Signatures and Infrastructures (ESI);
CAdES digital signatures;
Part 1: Building blocks and CAdES baseline signatures

ETSI EN 319 122-2 V1.1.1 (2016-04)

EUROPEAN STANDARD

Electronic Signatures and Infrastructures (ESI);
CAdES digital signatures;
Part 2: Extended CAdES signatures

European Commission

Signature/Seal formats

Signature fields / Attributes / Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
SignedData.certificates	shall be present	shall be present	shall be present	shall be present	1	Clause 4.4	a, b, c, d, e 2, 3, 4
content-type	shall be present	shall be present	shall be present	shall be present	1	Clause 5.1.1	f
message-digest	shall be present	shall be present	shall be present	shall be present	1	Clause 5.1.2	
Service: protection of signing certificate	shall be provided	shall be provided	shall be provided	shall be provided	1	Clause 5.2.2	
SPO: ESS signing-certificate	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.2.2	g, h, j
SPO: ESS signing-certificate-v2	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.2.3	g, i, j
signing-time	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.1	
commitment-type-indication	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.3	
Service: identifying the signed data type	should be present	should be present	should be present	should be present	0 or 1	Clause 5.2.4	t, 6,7
SPO: content-hints	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.4.1	
SPO: mime-type	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.4.2	
signer-location	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.5	
signer-attributes-v2	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.6.1	
countersignature	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.7	
content-time-stamp	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.8	5
signature-policy-identifier	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.9.1	
signature-policy-store	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.10	k
content-reference	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.11	
content-identifier	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.12	
cms-algorithm-protection	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.13	8
signature-time-stamp	*	shall be present	shall be present	shall be present	≥ 1	Clause 5.3	l, m, 5

European Commission

Signature/Seal formats

Signature fields / Attributes / Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
certificate-values	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 / B-LT, B-LTA: 0	Clause A.1.1.2	
complete-certificate-references	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 / B-LT, B-LTA: 0	Clause A.1.1.1	g
revocation-values	*	*	shall not be present	shall not be present	B-B, B-T : 0 or 1 / B-LT, B-LTA: 0	Clause A.1.2.2	
complete-revocation-references	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 / B-LT, B-LTA: 0	Clause A.1.2.1	
attribute-certificate-references	*	*	shall not be present	shall not be present	B-B, B-T : 0 or 1 / B=LT, B=LTA: 0	Clause A.1.3	j, n
attribute-revocation-references	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 / B-LT, B-LTA: 0	Clause A.1.4	n
CAdES-C-timestamp	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 / B-LT, B-LTA: 0	Clause A.1.5.2	5
time-stamped-certs-crls-references	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 / B-LT, B-LTA: 0	Clause A.1.5.1	5
Service: revocation values in long-term validation	*	*	shall be provided	shall be provided	1		o, p
SPO: SignedData.crls.crl	*	*	conditioned presence	conditioned presence	0 or 1	Clause 4.4	q
SPO: SignedData.crls.other	*	*	conditioned presence	conditioned presence	0 or 1	Clause 4.4	r
archive-time-stamp-v3	*	*	*	shall be provided	≥ 1	Clause 5.5.3	s

Signature/Seal formats

ETSI EN 319 132-1 V1.2.1 (2022-02)

EUROPEAN STANDARD

Electronic Signatures and Infrastructures (ESI);
XAdES digital signatures;
Part 1: Building blocks and XAdES baseline signatures

ETSI EN 319 132-2 V1.1.1 (2016-04)

EUROPEAN STANDARD

Electronic Signatures and Infrastructures (ESI);
XAdES digital signatures;
Part 2: Extended XAdES signatures

European Commission

Signature/Seal formats

Elements/Qualifying properties/Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
ds:KeyInfo/X509Data	shall be present	shall be present	shall be present	shall be present	1	XMLDSIG [1], clause 4.5.4	a, b, c 3, 4, 5
ds:SignedInfo/ds:CanonicalizationMethod	shall be present	shall be present	shall be present	shall be present	1	XMLDSIG [1], clause 4.4.1	d, e 6
ds:Reference	shall be present	shall be present	shall be present	shall be present	≥ 2	XMLDSIG [1], clause 4.4.3	
ds:Reference/ds:Transforms	may be present	may be present	may be present	may be present	0 or 1	XMLDSIG [1], clause 4.4.3.4	f, g
SigningTime	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.1	h
SigningCertificateV2	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.2	i, j 7
SigningCertificate	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
DataObjectFormat	conditioned presence	conditioned presence	conditioned presence	conditioned presence	≥ 0	Clause 5.2.4	k
DataObjectFormat/Description	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.4	l 8
DataObjectFormat/ObjectIdentifier	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.4	l
DataObjectFormat/MimeType	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.4	l
DataObjectFormat/Encoding	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.4	l

European Commission

Signature/Seal formats

Elements/Qualifying properties/Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
DataObjectFormat's ObjectReference attribute	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.4	l
SignerRole	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
SignerRoleV2	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.6	
CommitmentTypeIndication	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.3	
SignatureProductionPlaceV2	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.5	
SignatureProductionPlace	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
CounterSignature	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.7.2	
AllDataObjectsTimeStamp	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.8.2	10
IndividualDataObjectsTimeStamp	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.8.1	10
SignaturePolicyIdentifier	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.9	
SignaturePolicyStore	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.10	m
SignatureTimeStamp	*	shall be present	shall be present	shall be present	B-B: ≥ 0 B-T, B-LT, B-LTA: ≥ 1	Clause 5.3	n, o 10
CertificateValues	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.4.1	p, q
CompleteCertificateRefsV2	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.1	j
CompleteCertificateRefs	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
AttrAuthoritiesCertValues	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.4.3	q, r
AttributeCertificateRefsV2	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.3	j, s
AttributeCertificateRefs	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
RevocationValues	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.4.2	t, u, v,
CompleteRevocationRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.2	
AttributeRevocationValues	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.4.4	v, w
AttributeRevocationRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.4	s

Signature/Seal formats

Elements/Qualifying properties/Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
SigAndRefsTimeStampV2	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 B-LT, B-LTA: 0	Clause A.1.5.1	
SigAndRefsTimeStamp	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
RefsOnlyTimeStampV2	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 B-LT, B-LTA: 0	Clause A.1.5.2	
RefsOnlyTimeStamp	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
Service: Incorporation of validation data for electronic time-stamps	*	*	shall be provided	shall be provided	-	-	x, y 9
SPO: TimeStampValidationData	*	*	conditioned presence	conditioned presence	≥ 0	Clause 5.5.1	y
SPO: certificate and revocation values embedded in the electronic time-stamp itself	*	*	conditioned presence	conditioned presence	≥ 0	-	y
ArchiveTimeStamp (defined in namespace whose URI is "http://uri.etsi.org/01903/v1.4.1#")	*	*	*	shall be present	≥ 1	Clause 5.5.2	z, aa
ArchiveTimeStamp (defined in namespace whose URI is "http://uri.etsi.org/01903/v1.3.2#")	shall not be present	shall not be present	shall not be present	shall not be present	0	-	
RenewedDigestsV2	*	*	*	conditioned presence	≥ 0	Clause 5.5.3	bb

European Commission

Signature/Seal formats

ETSI EN 319 142-1 V1.1.1 (2016-04)

EUROPEAN STANDARD

ETSI EN 319 142-2 V1.1.1 (2016-04)

EUROPEAN STANDARD
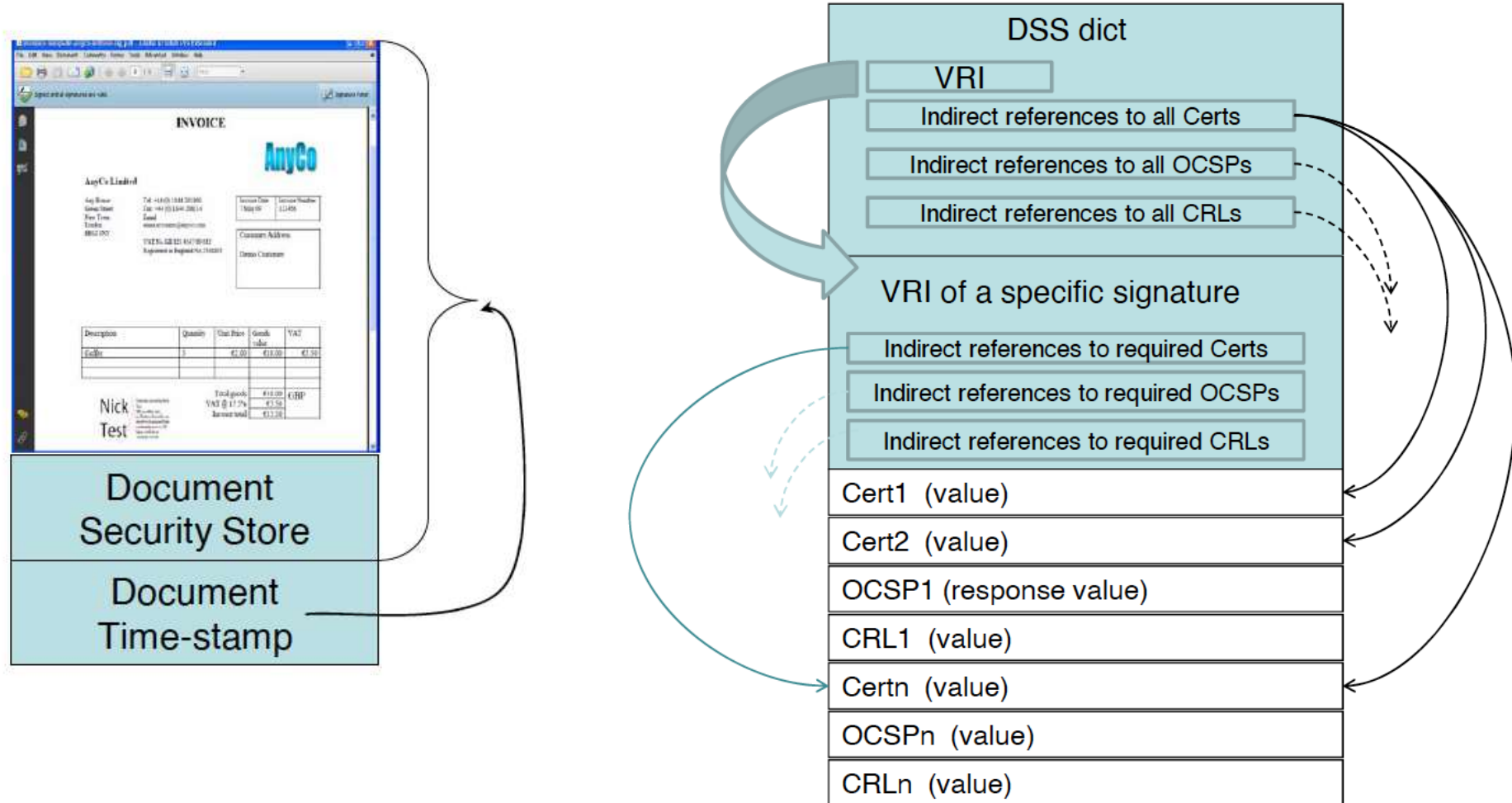
Electronic Signatures and Infrastructures (ESI);
PAdES digital signatures;
Part 1: Building blocks and PAdES baseline signatures

Electronic Signatures and Infrastructures (ESI);
PAdES digital signatures;
Part 2: Additional PAdES signatures profiles

Signature/Seal formats

Signature/Seal formats

Attributes / Fields / Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
SignedData.certificates	shall be present	shall be present	shall be present	shall be present	1	IETF RFC 5652 [3], clause 5.1	a, b, notes 1 and 2
content-type	shall be present	shall be present	shall be present	shall be present	1	ETSI EN 319 122-1 [2], clause 5.1.1	c
message-digest	shall be present	shall be present	shall be present	shall be present	1	ETSI EN 319 122-1 [2], clause 5.1.2	-
signer-attributes-v2	may be present	may be present	may be present	may be present	0 or 1	ETSI EN 319 122-1 [2], clause 5.2.6	-
content-time-stamp	may be present	may be present	may be present	may be present	≥ 0	ETSI EN 319 122-1 [2], clause 5.2.8	-
signature-policy-identifier	may be present	may be present	may be present	may be present	0 or 1	ETSI EN 319 122-1 [2], clause 5.2.9	-
commitment-type-indication	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	ETSI EN 319 122-1 [2], clause 5.2.3	d
SERVICE: protection of signing certificate	shall be provided	shall be provided	shall be provided	shall be provided	-	-	e, f
SPO: ESS signing-certificate	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	ETSI EN 319 122-1 [2], clause 5.2.2.2	-
SPO: ESS signing-certificate-v2	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	ETSI EN 319 122-1 [2], clause 5.2.2.3	-
Service: provide claimed time of signing	shall be provided	shall be provided	shall be provided	shall be provided	-	-	-
SPO: entry with the key M in the Signature Dictionary	shall be present	shall be present	shall be present	shall be present	1	ISO 32000-1 [1], clause 12.8.1	g
SPO: signing-time attribute in CMS signature	shall not be present	shall not be present	shall not be present	shall not be present	0	-	-
entry with key Contents in the Signature Dictionary	shall be present	shall be present	shall be present	shall be present	1	ISO 32000-1 [1], clause 12.8.1	h, i
entry with key Filter in the Signature Dictionary	shall be present	shall be present	shall be present	shall be present	1	ISO 32000-1 [1], clause 12.8.1	j
entry with key ByteRange in the Signature Dictionary	shall be present	shall be present	shall be present	shall be present	1	ISO 32000-1 [1], clause 12.8.1	k
entry with key SubFilter in the Signature Dictionary	shall be present	shall be present	shall be present	shall be present	1	ISO 32000-1 [1], clause 12.8.1	l
entry with key Location in the Signature Dictionary	may be present	may be present	may be present	may be present	0 or 1	ISO 32000-1 [1], clause 12.8.1	-
entry with key Reason in the Signature Dictionary	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	ISO 32000-1 [1], clause 12.8.1	m
entry with key Name in the Signature Dictionary	may be present	may be present	may be present	may be present	0 or 1	ISO 32000-1 [1], clause 12.8.1	-
entry with key ContactInfo in the Signature Dictionary	may be present	may be present	may be present	may be present	0 or 1	ISO 32000-1 [1], clause 12.8.1	-

Signature/Seal formats

Attributes / Fields / Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
entry with key *Cert* in the Signature Dictionary	shall not be present	shall not be present	shall not be present	shall not be present	0	ISO 32000-1 [1], clause 12.8.1	-
SERVICE: provide trusted time for existence of the signature	*	shall be provided	shall be provided	shall be provided	-	-	n
SPO: signature-time-stamp	*	conditioned presence	conditioned presence	conditioned presence	≥ 0	ETSI EN 319 122-1 [2], clause 5.3	o, p, q
SPO: document-time-stamp	*	conditioned presence	conditioned presence	conditioned presence	≥ 0	clause 5.4.3	
SERVICE: provide certificate and revocation values	*	*	shall be provided	shall be provided	-	-	-
SPO: DSS	*	*	shall be present	shall be present	B-B, -T: ≥ 0 / B-LT, -LTA: ≥ 1	clause 5.4.2.2	r, s, t, u, v
SPO: DSS / VRI	*	*	conditioned presence	conditioned presence	≥ 0	clause 5.4.2.3	-
SERVICE: provide trusted time for existence of the validation data	*	*	*	shall be provided	-	-	note 3
SPO: document-time-stamp	*	*	*	shall be present	B-B, -T, -LT: ≥ 0 / B-LTA: ≥ 1	clause 5.4.3	w, x, y

Signature/Seal formats

ETSI EN 319 162-1 V1.1.1 (2016-04)

ETSI EN 319 162-2 V1.1.1 (2016-04)
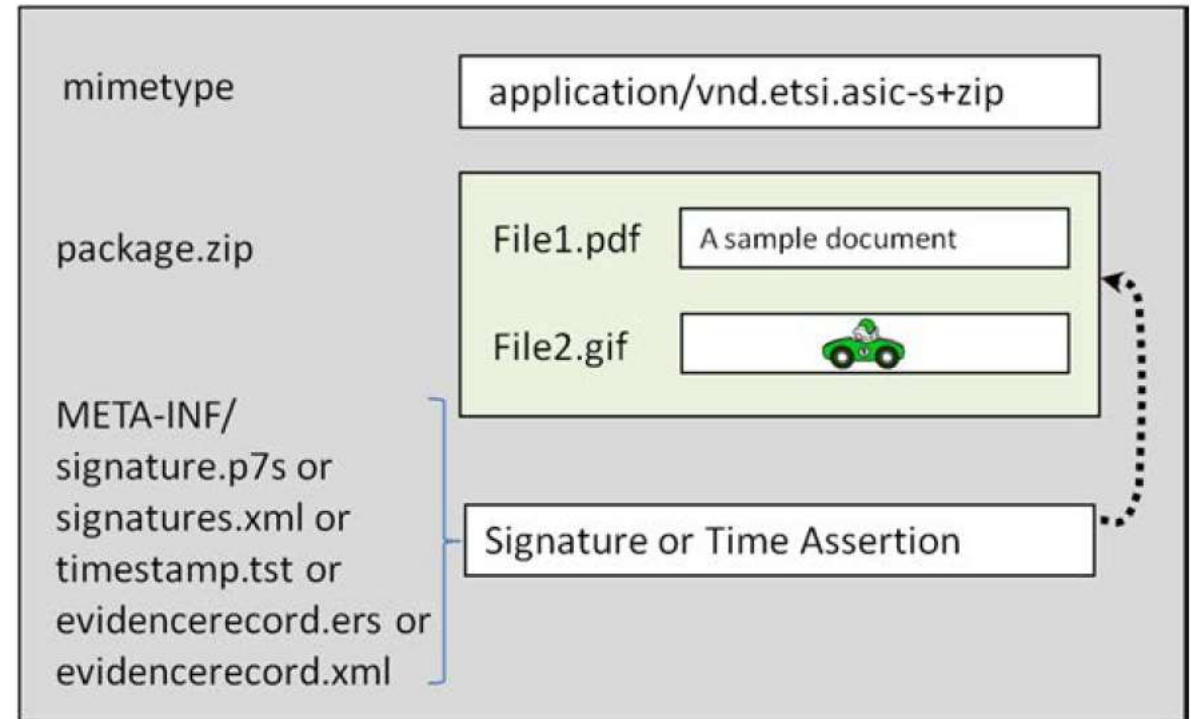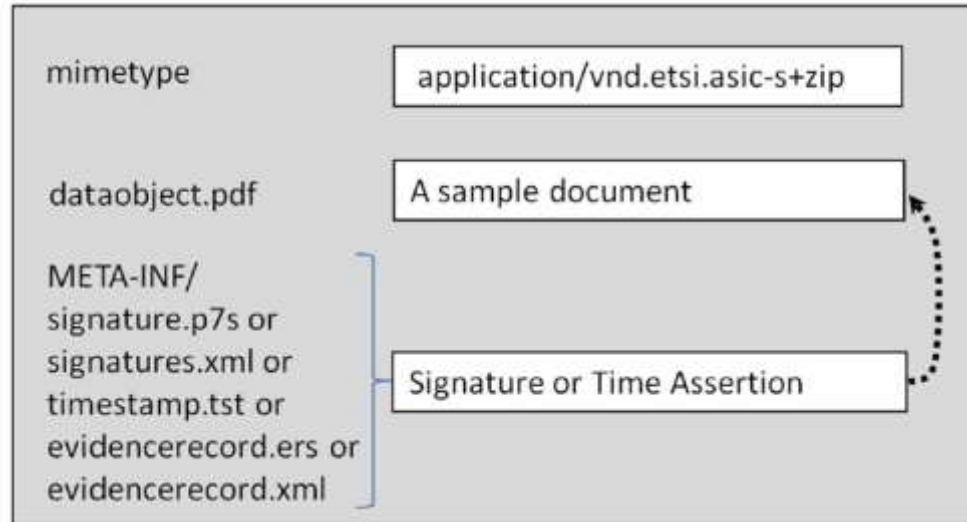
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Electronic Signatures and Infrastructures (ESI);
Associated Signature Containers (ASiC);
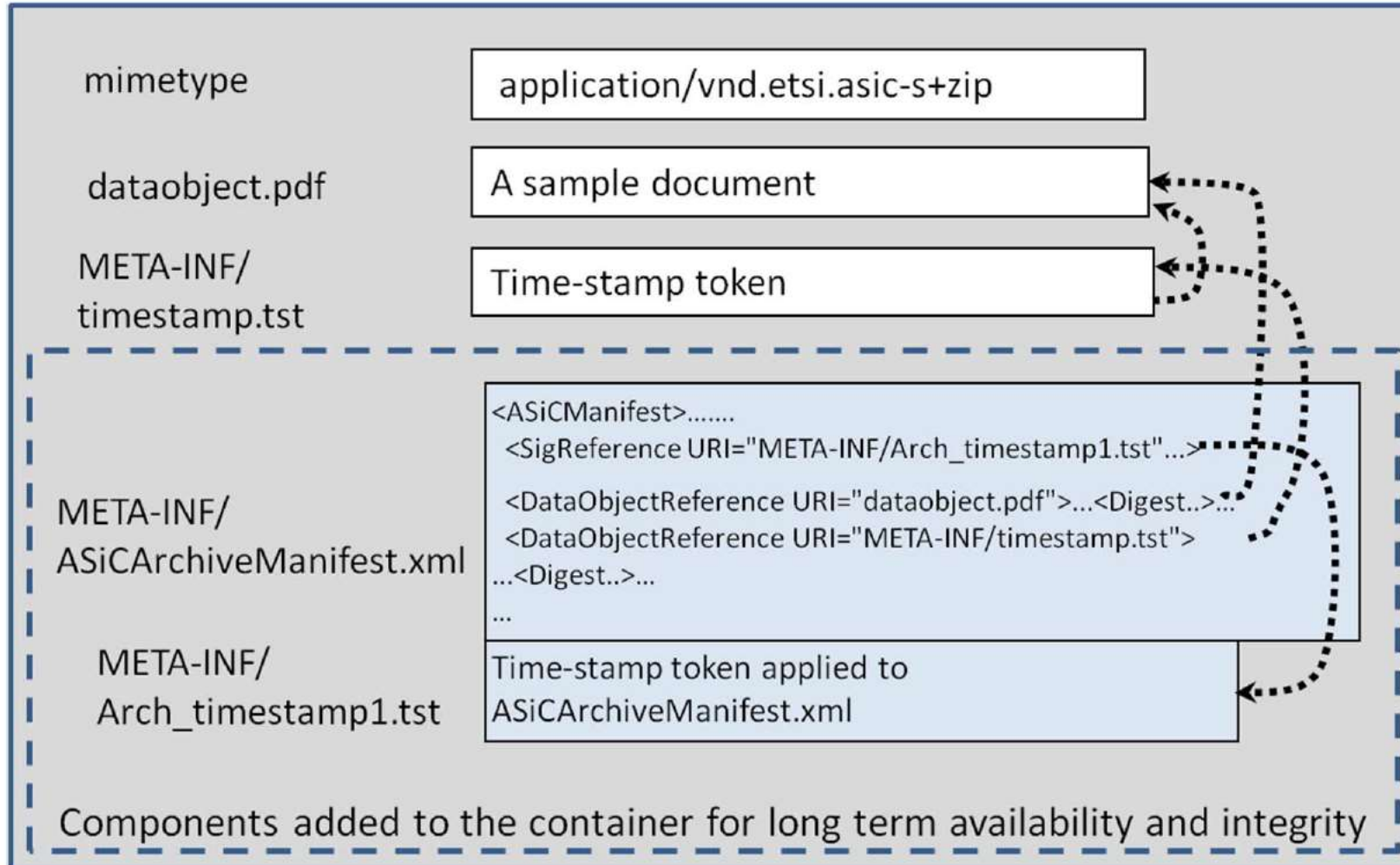Part 1: Building blocks and ASiC baseline containers

Electronic Signatures and Infrastructures (ESI);
Associated Signature Containers (ASiC);
Part 2: Additional ASiC containers

European Commission

Signature/Seal formats

Signature/Seal formats

Signature/Seal formats

ETSI TS 119 182-1 V1.1.1 (2021-03)

TECHNICAL SPECIFICATION

Electronic Signatures and Infrastructures (ESI);
JAdES digital signatures;
Part 1: Building blocks and JAdES baseline signatures

Signature/Seal formats

Header parameters/Elements in etsiU unsigned header parameter/Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
alg	shall be present	shall be present	shall be present	shall be present	1	Clause 5.1.2	
cty	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.1.3	2
kid	may be present	may be present	may be present	may be present	0 or 1	Clause 5.1.4	
x5u	may be present	may be present	may be present	may be present	0 or 1	Clause 5.1.5	
x5c	Conditioned presence	Conditioned presence	Conditioned presence	Conditioned presence	0 or 1	Clause 5.1.8	3
crit	Conditioned presence	Conditioned presence	Conditioned presence	Conditioned presence		Clause 5.1.9	4
sigT	shall be present	shall be present	shall be present	shall be present	1	Clause 5.2.1	a
Service: signing a reference of the signing certificate	Conditioned presence	Conditioned presence	Conditioned presence	Conditioned presence	1		3
SPO: x5t#256	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.1.7	
SPO: x5t#o	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.2	
SPO: sigX5ts	conditioned presence	conditioned presence	conditioned presence	conditioned presence	0 or 1	Clause 5.2.2	
sigD	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.8	
srAts	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.5	
srCms	may be present	may be present	may be present	may be present	≥ 0	Clause 5.2.3	
sigPl	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.4	
sigPId	may be present	may be present	may be present	may be present	0 or 1	Clause 5.2.7	
cSig	may be present	may be present	may be present	may be present	≥ 0	Clause 5.3.2	
adoTst	may be present	may be present	may be present	may be present	≥ 0	Clause 5.3.3	5
sigPSt	may be present	may be present	may be present	may be present	0 or 1	Clause 5.3.3	b
sigTst	*	shall be present	shall be present	shall be present	B-B: ≥ 0 B-T, B-LT, B-LTA: ≥ 1	Clause 5.3.4	c, d 5
xVals	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.3.5.1	e, 6
xRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.1	f, g
axVals	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.3.5.3	e, 7
axRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.3	f, g, h

European Commission

Signature/Seal formats

Header parameters/Elements in otsiU unsigned header parameter/Services	Presence in B-B level	Presence in B-T level	Presence in B-LT level	Presence in B-LTA level	Cardinality	References	Additional requirements and notes
rVals	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.3.5.2	i, 8
rRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.2	
arVals	*	*	conditioned presence	conditioned presence	0 or 1	Clause 5.3.5.4	i, 9
arRefs	*	*	shall not be present	shall not be present	B-B, B-T: 0 or 1 B-LT, B-LTA: 0	Clause A.1.4	h
sigRTst	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 B-LT, B-LTA: 0	Clause A.1.5.1	
rfsTst	*	*	shall not be present	shall not be present	B-B, B-T: ≥ 0 B-LT, B-LTA: 0	Clause A.1.5.2	
Service: Incorporation of validation data for electronic time-stamps	*	*	shall be provided	shall be provided	-	-	j, k 10
SPO: tstVD	*	*	conditioned presence	conditioned presence	≥ 0	Clause 5.3.6.1	
SPO: certificate and revocation values embedded in the electronic time-stamp itself	*	*	conditioned presence	conditioned presence	≥ 0	-	
arcTst	*	*	*	shall be present	≥ 1	Clause 5.3.6.2	l, m

European Commission

Signature/Seal preservation service

ETSI TS 119 511 V1.1.1 (2019-06)

TECHNICAL SPECIFICATION

Electronic Signatures and Infrastructures (ESI);
Policy and security requirements for
trust service providers providing long-term preservation
of digital signatures or general data using
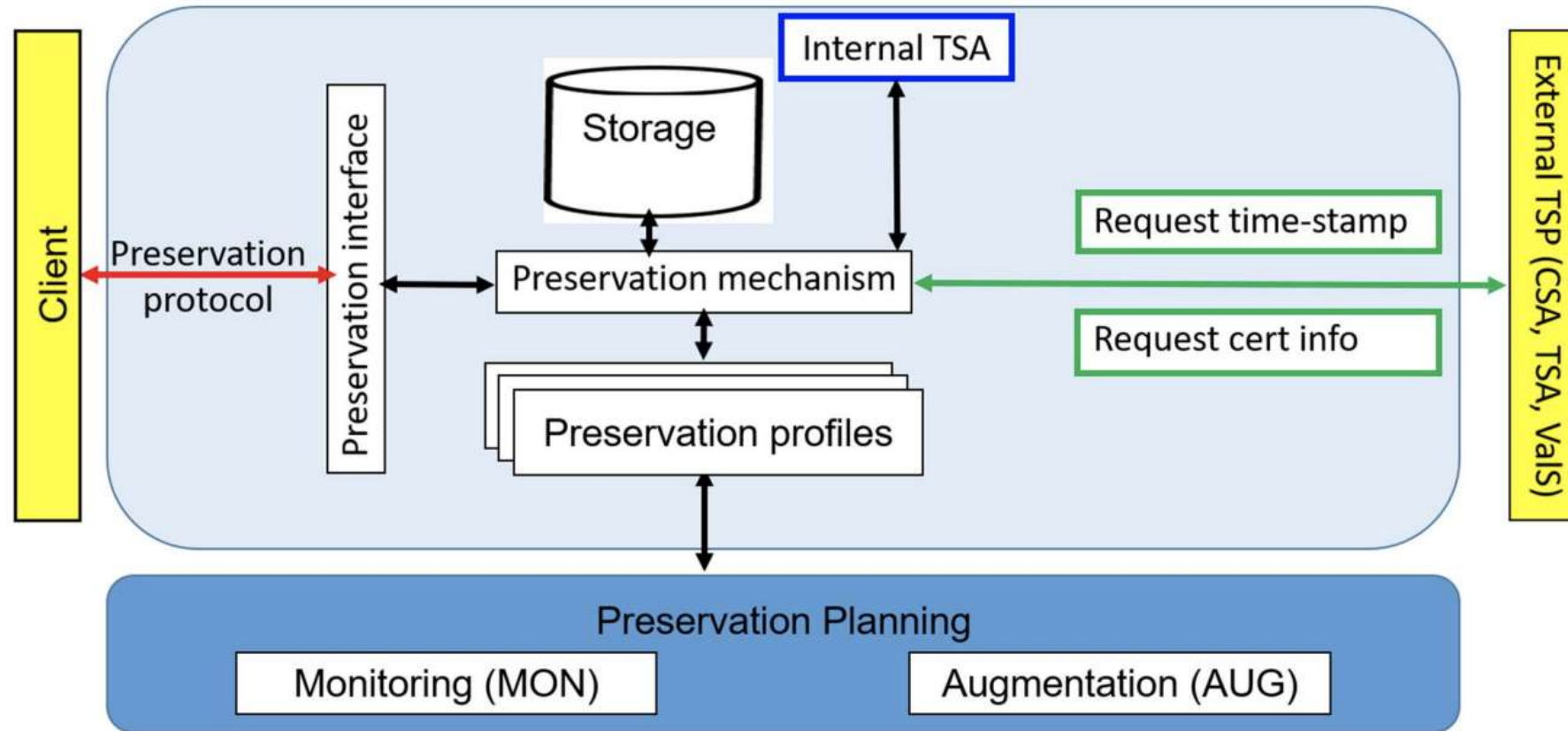digital signature techniques

Signature/Seal preservation service

Figure 1: Functional model of a preservation service with storage [WST]
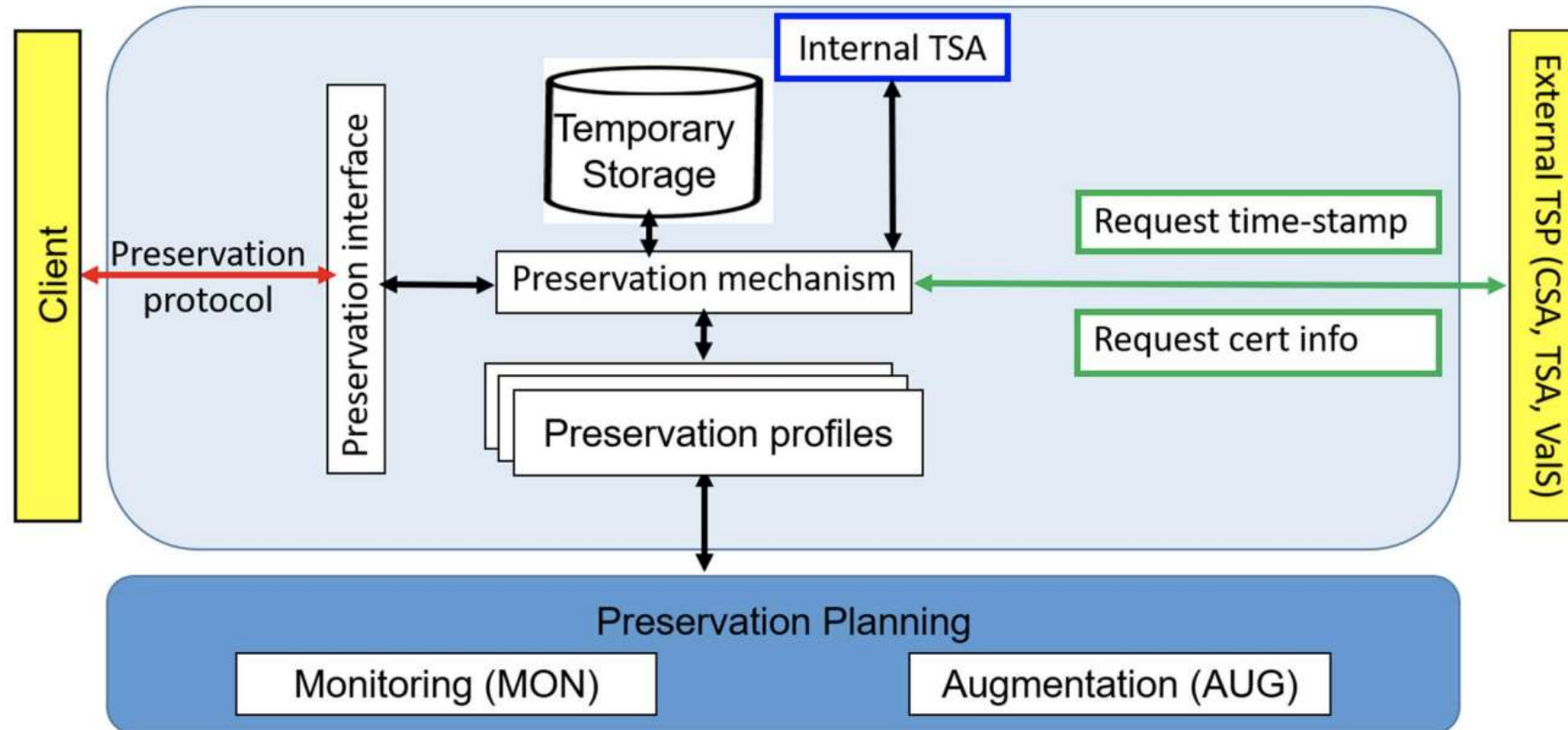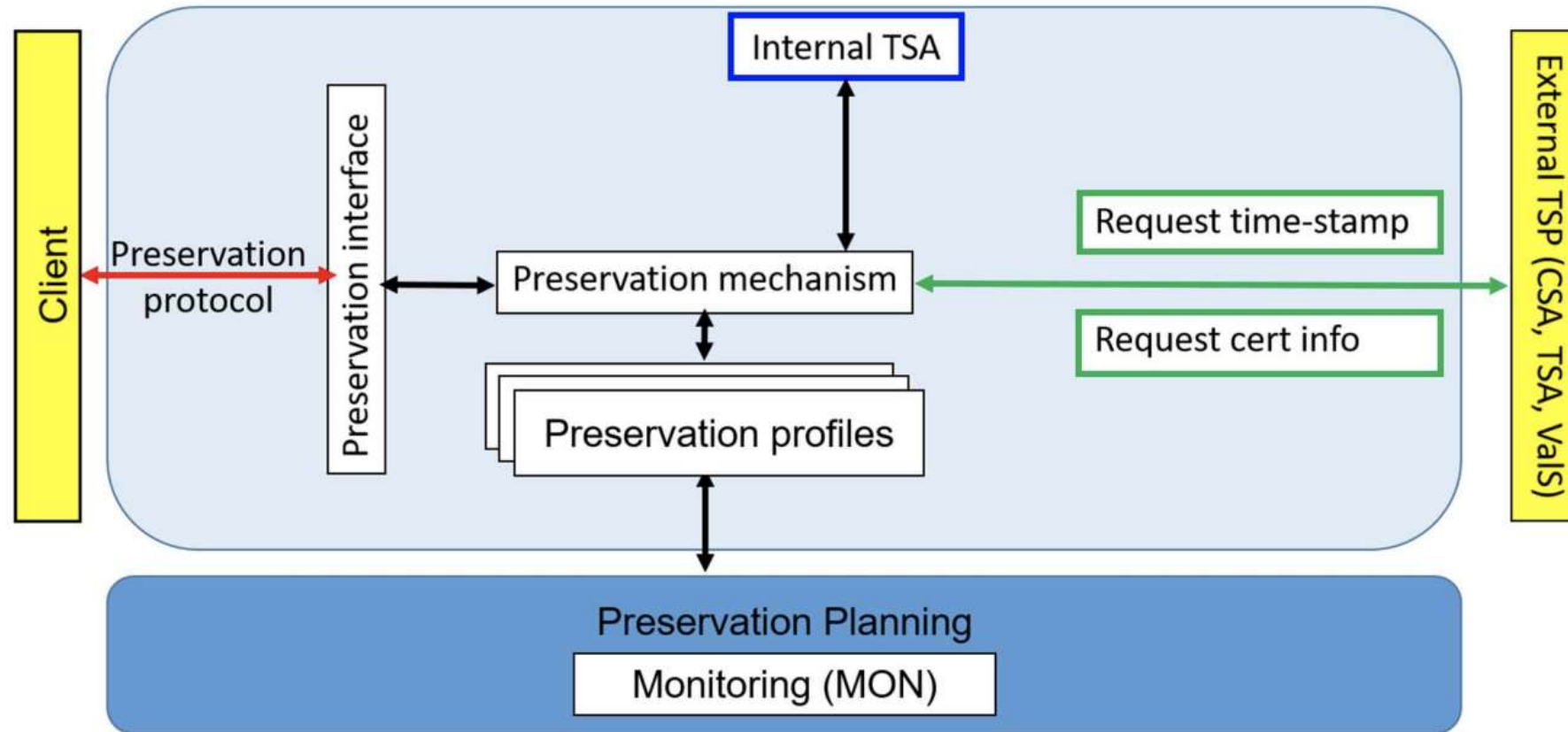
Signature/Seal preservation service

Figure 2: Functional model of a preservation service with temporary storage [WTS]

Signature/Seal preservation service

Figure 3: Functional model of a preservation service without storage [WOS]

Signature/Seal preservation service

C.3 Comparison of archival services with preservation services

For a digital archival service, the demonstration of a proof of existence can be based on an audit of the archival service against some criteria, e.g. ISO 14721:2012 [i.16], ISO 16363 [i.17], ISO 14641-1:2018 [i.15] or other similar norms.

For a preservation service as defined in the present document, the demonstration of a proof of existence will be based on two factors:

1) an audit of the Preservation service against some criteria, e.g. the present document; and

2) the use of digital signature techniques to demonstrate that some data has not been modified since a given date.

A digital archival service may use digital signature techniques to provide proofs of existence for some data but is not required to use them.

A preservation service can be part of an archival service.

A difference between a preservation service and an archival service is that an archival service without a preservation service does not capture nor verify any validation data associated with a digital signature.

C.4 Relationships between archival services and preservation services

A digital archival service can use a preservation service to provide proofs of existence of data based on digital signature techniques. It needs to manage all the metadata required by an archival service.

A preservation service with storage (WST) can use an archival service for the goal of storing data.

Signature/Seal preservation service

ETSI TS 119 512 V1.2.1 (2023-05)

TECHNICAL SPECIFICATION

Electronic Signatures and Infrastructures (ESI); Protocols for trust service providers providing long-term data preservation services

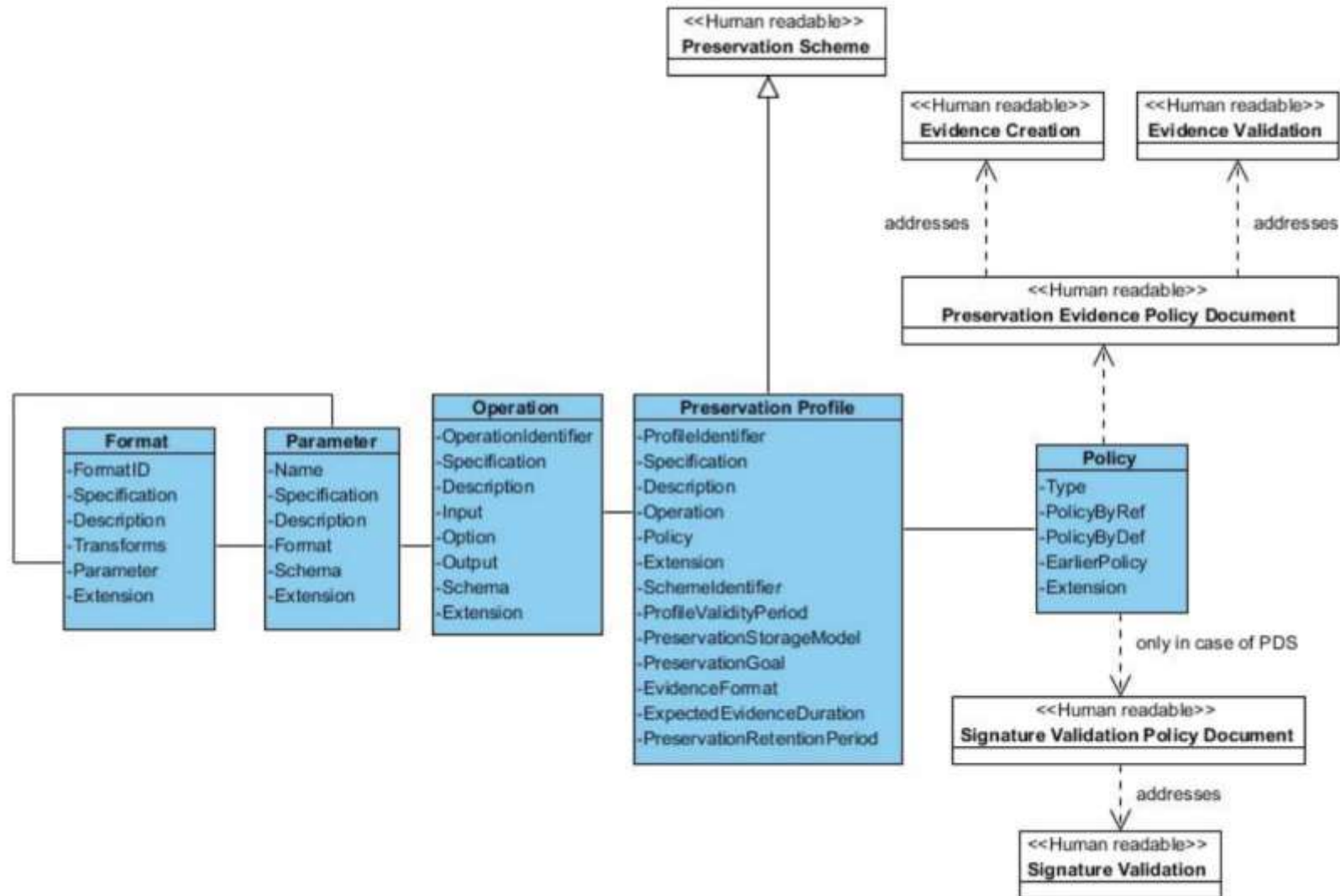# Signature/Seal preservation service

Figure 2: Relationship between preservation scheme, profile and policy

Final remarks

- Maturity of the trust service (eIDAS Regulation) for the preservation of qualified electronic signatures or seals, with standards and products on the market.

- Emergence of national approaches aimed at regulating electronic archiving as a digital service, with a strictly technical vision.

- Reception and harmonization through regulation as a trust service in the eIDAS 2 Regulation, whose approval is expected by the end of 2023.

- New predictable offering service in the Cloud that helps, but does not displace, the function of archivists.

European Commission

Thank you