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Technical Specification

**Electronic Signatures and Infrastructures (ESI);
XML Advanced Electronic Signature (XAdES)
Testing Compliance & Interoperability;
Part 5: Conformance Testing for XAdES Baseline Profile**

Reference

DTS/ESI-000095

Keywords

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Electronic Signatures and Infrastructures (ESI).

The present document is part 5 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.2].

1   Scope

The present document defines the full set of checks to be performed for testing actual conformity of XAdES signatures against TS 103 171: "XAdES Baseline Profile" [2], a profile specified for TS 101 903: "XML Advanced Electronic Signatures (XAdES)" [1].

The present document specifies the whole set of checks that any tool claiming conformance to the present document, will have to perform on XAdES signatures claiming conformance to TS 103 171: "XAdES Baseline Profile" [2] for fully assessing actual conformance. In consequence, any signature that is successfully tested by such a tool will actually be considered compliant with the TS 103 171 [2], and in consequence it is expected that such a signature will be treated as such by any application.

The present document does not specify checks leading to conclude whether a signature is technically valid or not (for instance, it does not specify checks for determining whether the cryptographic material present in the signature may be considered valid or not). In consequence, readers of the present document are kindly noticed that no conclusion may be inferred regarding the technical validity of a signature that has been successfully tested by any tool conformant to the present document. The only possible inferences are the ones explicitly mentioned in the second paragraph of the present clause.

Checks specified by the present document are exclusively constrained to elements specified by XAdES [1] and to certain elements specified by XMLSig [3] that are re-used in XAdES schema definition (like `ds:DigestMethod`, `ds:DigestValue`), or those ones on what XAdES baseline profile specifies additional requirements (like `ds:Transform`, `ds:CanonicalizationMethod`).

Regarding XAdES properties, the present document explicitly differentiates between structural requirements that are defined by the XAdES XML Schema, and the rest of the requirements specified by XAdES [1] and XAdES baseline profile [2]. Checks corresponding to the first set of requirements are specified in the normative Annex A. Checks corresponding to the second set of requirements are specified in the body part of the present document. Presentation of these checks is organized following the four conformance levels specified by XAdES Baseline Profile [2] as indicated below.

Clause 5 documents checks for testing conformance to B-Level as specified in XAdES Baseline Profile [2].

Clause 6 documents checks for testing conformance to T-Level as specified in XAdES Baseline Profile [2].

Clause 7 documents checks for testing conformance to LT-Level as specified in XAdES Baseline Profile [2].

Clause 8 documents checks for testing conformance to LTA-Level as specified in XAdES Baseline Profile [2].

Normative Annex A documents checks directly derived from XAdES XML Schema.

The present document is intentionally not linked to any software development technology and is also intentionally agnostic on implementation strategies. This is one of the reasons why the test assertions set specified in the present document includes tests on the correctness of the structure of all the elements specified by XAdES [1].

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are necessary for the application of the present document.

[1] ETSI TS 101 903: "Electronic Signatures and Infrastructures (ESI); XML Advanced Electronic Signatures (XAdES)".

[2] ETSI TS 103 171: "Electronic Signatures and Infrastructures (ESI); XAdES Baseline Profile".

[3] W3C (2008): "XML-Signature Syntax and Processing (Second Edition)", W3C Recommendation.

[4] IETF RFC 3061 (2001): "A URN Namespace of Object Identifiers".

[5] IETF RFC 2560 (1999): "X.509 Internet Public Key Infrastructure Online Certificate Status Protocol-OCSP".

[6] IETF RFC 3161 (2001): "Internet X.509 Public Key Infrastructure: Time-Stamp Protocol (TSP)".

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] OASIS: in "Test Assertions Guidelines Version 1.0".

[i.2] ETSI TS 119 134-1: "Electronic Signatures and Infrastructures (ESI); XML Advanced Electronic Signature (XAdES) Testing Compliance & Interoperability".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

BER   Basic Encoding Rules
CER   Canonical Encoding Rules
DER   Distinguished Encoding Rules
HTTP   Hyper Text Transfer Protocol
OCSP   Online Certificate Status Protocol
OID   Object IDentifier
PER   Packed Encoding Rules
TSP   Trusted Service Providers
URI   Uniform Resource Identifier
URN   Uniform Resource Name
XAdES   XML Advanced Electronic Signature
XER   XML Encoding Rules
XML   eXtensible Markup Language
XMLDSIG   eXtensible Markup Language Digital SIGnature

4 XAdES Baseline Profile conformity test specification overview

The present clause describes the main aspects of the technical approach used for specifying the whole set of tests to be performed for testing conformance to TS 103 171 [2].

a) In order to test conformity against the aforementioned specification, several types of tests are identified, namely:

1) Tests on the signature structure that are directly derived from the XML Schema of XAdES [1]. These tests are specified in annex A.

2) Tests on the signature structure that are not defined by the XML schema of XAdES [1] and that in consequence may not be tested by a XML Schema validator tool.

3) Tests on values of specific elements and/or attributes that cannot be either be tested by a XML Schema validator tool.

4) Tests on interrelationship between different elements present in the signature (URIs that shall point to certain elements, for instance).

5) Tests on computations reflected in the contents of the signatures (message imprints for a time-stamping service, computed by digesting the concatenation of a number of elements of the signature, for instance).

b) No tests will be included testing actual validity of the cryptographic material that might be present at the signature or should be used for its verification (status of certificates for instance).

c) The tests will be defined using recent developments in testing fields. The selected technology is the test assertions work produced by OASIS in "Test Assertions Guidelines Version 1.0" [i.1], Committee Specification Draft 06/Public Review Draft 03, 15 August 2011. In consequence, the tests will be defined as test assertions. Each test assertion will include:

1) Unique identifier for further referencing.

2) Reference to the **Normative source** for the test.

3) The **Target** of the assertion. In the normative part, this field identifies one of the four XAdES Baseline Profile [2] Conformance Levels. In annex A, this field does not include such an information, as some of the types whose checks are specified, may apply to more than one Conformance Level.

4) **Predicate** fully and unambiguously defining the assertion to be tested by tools claiming conformance to the present document.

5) **Prescription level**. Three levels are defined: mandatory, recommended and optional.

6) **Tag**: information on the element tested by the assertion. This indicates whether XAdES [1] or XAdES Baseline Profile [2] is the origin of the assertion. Additionally, if the origin is XAdES Baseline Profile [2], it also indicates in what conformance level the requirement was specified.

5 Testing Conformance to B-Level of XAdES Baseline Profile

The present clause specifies the whole set of assertions to be tested on applications claiming conformance to the B-Level of XAdES baseline profile as specified by TS 103 171 [2].

Clause 5.1 specifies the assertions for testing whether the elements that are specified by the W3C XML Signature Recommendation [3] and further profiled by TS 103 171 [2], are actually conformant to this profile.

Clause 5.2 specifies the assertions for testing whether the properties that are specified by the TS 101 903 (XAdES) [1] and further profiled by TS 103 171 [2], are actually conformant to the B-Level.

Clause 5.3 specifies the assertions for tests that are common to both specifications mentioned above.

5.1 Testing XML Signature elements

This clause specifies assertions for testing those constraints imposed by the XAdES Baseline Profile [2] to the XML Signature elements.

5.1.1 Testing ds: Reference element

5.1.1.1 Testing ds: Transforms element

This clause defines the test assertions for `ds:Reference`'s `ds:Transforms` child element.

TA id: TA/XMLSIG/REF/TR/1
Normative source: [2] – Clause 5.3.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: For new signatures, applications SHOULD restrict the range of the Transformation algorithms to the range identified in XAdES baseline profile clause 5.3.4.
Prescription level: **recommended**
Tag: conformance layer = B-Level of XAdES baseline profile.

5.1.2 Testing ds: Canonicalization element

This clause defines the test assertions for `ds:CanonicalizationMethod` element.

TA id: TA/XMLSIG/CAN-1
Normative source: [2] – Clause 5.3.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: For new signatures, applications SHOULD set ds:Canonicalization's Algorithm attribute value to one of the following three values: http://www.w3.org/2006/12/xml-c14n11, http://www.w3.org/2001/10/xml-exc-c14n#, http://www.w3.org/TR/2001/REC-xml-c14n-20010315.
Prescription level: **recommended**
Tag: conformance layer = B-Level of XAdES baseline profile.

TA id: TA/XAdES-BP-ST/CAN-1
Normative source: [2] – Clause 5.3.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: Already existing signatures may have ds:Canonicalization's Algorithm attribute value set to one of the following three values: http://www.w3.org/2006/12/xml-c14n11#WithComments, http://www.w3.org/2001/10/xml-exc-c14n#WithComments, http://www.w3.org/TR/2001/REC-xml-c14n-20010315#WithComments.
Prescription level: **optional**
Tag: conformance layer = B-Level of XAdES baseline profile.

5.1.3 Testing ds: KeyInfo element

This clause defines the test assertions for `ds:KeyInfo` element.

TA id: TA/XMLSIG/KEYINFO/1
Normative source: [2] – Clause 5.3.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The ds:KeyInfo **shall** include the signing certificate in one of its descendant X09Certificate elements
Prescription level: **mandatory**
Tag: conformance layer = B-Level of XAdES baseline profile.

TA id: TA/XAdES/XMLSIG/KEYINFO/2
Normative source: [2] – Clause 5.3.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The content of any ds:X509Certificate descendant element within the ds:KeyInfo element SHALL be a base-64 encoding of a X509 certificate.
Prescription level: **mandatory**
Tag: conformance layer = B-Level of XAdES baseline profile.

5.2   Testing XAdES qualifying properties

5.2.1   Testing incorporation of XAdES properties to the signature

XAdES Baseline Profile [2] specifies that the method for incorporating the XAdES qualifying properties to the signature is the direct incorporation.

This requirement results in the set of assertions shown below.

Below follow the test assertions on `ds:Object` elements element.

TA id: XAdES/PROPERTIES/INCORPORATION/1
Normative source: [2]- Clause 5.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain one and only one ds:Object element that includes exactly one xades:QualifyingProperties child element.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INCORPORATION/2
Normative source: [2]- Clause 5.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain a ds:Object element including a xades:QualifyingPropertiesReference element.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

Below follow the test assertions on `xades:QualifyingProperties` element.

TA id: XAdES/PROPERTIES/INCORPORATION/3
Normative source: [1]- Clause 6.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:QualifyingProperties element SHALL contain the attribute 'Target'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/4
Normative source: [1]- Clause 6.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:QualifyingProperties element SHALL NOT contain other children than xades:SignedProperties and xades:UnsignedProperties elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/5
Normative source: [1]- Clause 6.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:QualifyingProperties' 'Target' attribute SHALL refer to the 'Id' attribute of the XAdES signature being qualified by these properties and tested.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/6
Normative source: [1]- Clause 6.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:QualifyingProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:SignedProperties element.

TA id: XAdES/PROPERTIES/INCORPORATION/7
Normative source: [2]- Clause 5.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain one xades:SignedProperties child of the xades:QualifyingProperties element.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INCORPORATION/8
Normative source: [1]- Clause 6.2.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedProperties element SHALL NOT contain other children than xades:SignedSignatureProperties and xades:SignedDataObjectProperties.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/9
Normative source: [1]- Clause 6.2.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:SignedSignatureProperties element.

TA id: XAdES/PROPERTIES/INCORPORATION/10
Normative source: [2]- Clause 5.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain one xades:SignedSignatureProperties child of the xades:SignedProperties element.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INCORPORATION/11
Normative source: [1]- Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedSignatureProperties element SHALL NOT contain other children than xades:SigningTime, xades:SigningCertificate, xades:SignaturePolicyIdentifier, and xades:SignatureProductionPlace.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/12
Normative source: [1]- Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedSignatureProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:SignedDataObjectProperties element.

TA id: XAdES/PROPERTIES/INCORPORATION/13
Normative source: [2]- Clause 5.2:
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain one xades:SignedDataObjectProperties child of the xades:SignedProperties element.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

NOTE: The XAdES baseline profile makes mandatory the xades:DataObjectFormat element.

TA id: XAdES/PROPERTIES/INCORPORATION/14
Normative source: [1]- Clause 6.2.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedDataObjectProperties element SHALL NOT contain other children than xades:DataObjectFormat, xades:CommitmentTypeIndication, xades:AllDataObjectsTimeStamp, and xades: IndividualDataObjectsTimeStamp.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/15
Normative source: [1]- Clause 6.2.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SignedDataObjectProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:UnsignedProperties element.

TA id: XAdES/PROPERTIES/INCORPORATION/16
Normative source: [1]- Clause 6.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one xades:UnsignedProperties child of the xades:QualifyingProperties element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/17
Normative source: [1]- Clause 6.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:UnsignedSignatureProperties SHALL NOT contain other children than xades:UnsignedSignatureProperties and xades:UnsignedDataObjectProperties.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/18
Normative source: [1]- Clause 6.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:UnsignedProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:UnsignedSignatureProperties element.

TA id: XAdES/PROPERTIES/INCORPORATION/19
Normative source: [1]- Clause 6.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one xades:UnsignedSignatureProperties child of the xades:UnsignedProperties element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/20
Normative source: [1]- Clause 6.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:UnsignedSignatureProperties SHALL NOT contain other children than xades:CounterSignature, xades:SignatureTimeStamp, xades:CompleteCertificateRefs, xades:CompleteRevocationRefs, xades:AttributeCertificateRefs, xades:AttributeRevocationRefs, xades:SigAndRefsTimeStamp, xades:RefsOnlyTimeStamp, xades:CertificateValues, xades:AttrAuthoritiesCertValues, xades:AttributeRevocationValues, xades:ArchiveTimeStamp, xades141:ArchiveTimeStamp, xades141:TimeStampValidationData.
Prescription level: Mandatory

TA id: XAdES/PROPERTIES/INCORPORATION/21
Normative source: [1]- Clause 6.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:UnsignedSignatureProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on `xades:UnsignedDataObjectProperties` element.

TA id: XAdES/PROPERTIES/INCORPORATION/22
Normative source: [1]- Clause 6.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one xades:UnsignedDataObjectProperties child of the xades:UnsignedProperties element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INCORPORATION/23
Normative source: [1]- Clause 6.2.6
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:UnsignedDataObjectProperties element MAY contain the attribute 'Id'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

So far no property of this type has been specified within XAdES framework. It is out of the scope of the present document to specify any conformance assertion for this property or their potential children other than the two last assertions above.

5.2.2 Testing presence of qualifying properties

XAdES [1] defines a number of optional signed and unsigned properties. XAdES Baseline profile [2] adds additional requirements making some of them mandatory.

These requirements result in the set of assertions shown below.

TA id: XAdES/PROPERTIES/INSTANCES/ST/1
Normative source: [2]- Clause 5.4.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain the xades:SigningTime signed property.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/ST/2
Normative source: [2]- Clause 5.4.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain the xades:SigningCertificate signed property.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/ST/3
Normative source: [2]- Clause 5.4.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain as many xades:DataObjectFormat signed properties as signed data objects excluding the SignedProperties data object containing the XAdES signed qualifying properties.
Prescription level: Optional
Tag: conformance layer = B-Level of XAdES baseline profile

NOTE: No xades:DataObjectFormat will appear corresponding to xades:SignedProperties.

TA id: XAdES/PROPERTIES/INSTANCES/ST/4
Normative source: [1] – Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain the xades:SignaturePolicyIdentifier signed property.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/5
Normative source: [1] – Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain the xades:signatureProductionPlace signed property.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/6
Normative source: [1] – Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain the xades:SignerRole signed property.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/7
Normative source: [1] – Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one or more xades:CounterSignature unsigned properties.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/8
Normative source: [1] – Clause 6.2.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one xades:SignaturePolicyIdentifier signed property.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/9
Normative source: [1] – Clause 6.2.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain several xades:CommitmentTypeIndication signed properties.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/10
Normative source: [1] – Clause 6.2.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one or more xades:AllDataObjectsTimeStamp signed properties.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/INSTANCES/ST/11
Normative source: [1] – Clause 6.2.4
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain one or more xades:IndividualDataObjectsTimeStamp signed properties.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

5.2.3   Testing xades: SigningCertificate element

This clause defines test assertions for xades:SigningCertificate signed property that are not directly derived from its XML Schema definition. Clause A.1.4 specifies test assertions directly derived from the XML Schema definition of this element.

TA id: XAdES/PROPERTIES/SIGNINGCERTIFICATE/1
Normative source: [2] 5.4.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SigningCertificate signed property SHALL contain within one of its xades:Cert children, the identifier of the signing certificate present within the ds:KeyInfo, the base-64 encoded value of digest value of the digest computed on the DER-encoded signing certificate, and the identifier of the corresponding digest algorithm.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/SIGNINGCERTIFICATE/2
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SigningCertificate property MAY contain identifiers and digest values of certificates present within the ds:KeyInfo element, other than the signing certificate.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/SIGNINGCERTIFICATE/3
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:SigningCertificate signed property MAY contain the reference and the digest value of other certificates than the signing certificate, which MAY form a chain up to the point of trust.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

> NOTE 1: Assertion 1 is derived from a requirement specified by XAdES baseline profile [2].

> NOTE 2: Assertions 2 and 3 are derived from the semantics of xades:SigningCertificate as defined in XAdES mother specification [2].

TA id: XAdES/PROPERTIES/SIGNINGCERTIFICATE/4
Normative source: [2] 5.4.1
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:Cert children of xades:SigningCertificate SHALL NOT have the 'URI' attribute.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

> NOTE 3: While testing conformity of a signature against the XAdES baseline profile this assertion supersedes XAdES/SCHEMA/PROPERTIES/CERTID/5 and XAdES/SCHEMA/PROPERTIES/CERTID/6 specified in clause A.1.4.1.

5.2.4   Testing xades: SigningTime element

This clause defines the test assertions for xades:SigningTime signed property.

TA id: XAdES/PROPERTIES/SIGNINGTIME/1
Normative source: [2] 5.4.2
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The UTC time value of this property SHALL be previous to the testing time.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

5.2.5   Testing xades: DataObjectFormat element

This clause defines the test assertions for xades:DataObjectFormat signed property.

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/1
Normative source: [2] 5.4.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature compliant with the XAdES baseline profile SHALL contain a number of zades:DataObjectFormat signed properties equal to the number of signed data objects minus one (the one corresponding to the XAdES signed properties).
Prescription level: Conditional
Tag: conformance layer = B-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/2
Normative source: [2] 5.4.3
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat property SHALL contain one xades:MimeType.
Prescription level: Mandatory
Tag: conformance layer = B-Level of XAdES baseline profile

> NOTE: While testing conformity of a signature against the XAdES baseline profile this assertion supersedes XAdES/SCHEMA/PROPERTIES/DOFORMAT/8 specified in clause A.2.2.

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/3
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat's 'ObjectReference' attribute SHALL reference one ds:Reference in the signature.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/4
Normative source: [[1] 7.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A ds:Reference in the signature referenced by xades:DataObjectFormat's 'ObjectReference' attribute, SHALL not reference the xades:SignedProperties element containing the XAdES signed qualifying properties.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/5
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The ds:Reference in the signature referenced by xades:DataObjectFormat's 'ObjectReference' attribute, SHALL be a child of the ds:SignedInfo element or the child of a ds:Manifest referenced from the ds:SignedInfo.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/6
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: If a ds:Reference in the signature referenced by xades:DataObjectFormat's 'ObjectReference' attribute, refernces a ds:Object element AND this element contains a 'MimeType' attribute, its value SHALL be equal to the value of the xades:MimeType child of the referencing xades:DataObjectFormat.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/DATAOBJECTFORMAT/7
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: If a ds:Reference in the signature referenced by DataObjectFormat's 'ObjectReference' attribute, refernces a ds:Object element AND this element contains a 'Encoding' attribute, its value SHALL be equal to the value of the xades:Encoding child of the referencing xades:DataObjectFormat, if present.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

5.2.6   Testing xades: SignaturePolicyIdentifier element

This clause defines the test assertions for xades:SignaturePolicyIdentifier signed property.

TA id: XAdES/PROPERTIES/SIGPOL/1
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: If the xades:SignaturePolicyIdentifier property contains xades:SignaturePolicyId child element, then the digest computed on the de-referenced signature policy file, SHALL be equal than the value present within xades:SigPolicyHash.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

5.2.7   Testing xades: CounterSignature element

This clause defines the test assertions for xades:CounterSignature signed property.

TA id: XAdES/PROPERTIES/SIGPOL/1
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The xades:CounterSignature element SHALL contain a ds:Reference referencing the ds:SignatureValue of the signature being tested.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

It is out of the scope of the present document to specify additional checks for this XAdES property, others than the former one and the ones defined in annex A for XAdES signatures.

5.2.8   Testing xades: CommitmentTypeIndication element

This clause defines the test assertions for `xades:CommitmentTypeIndication` signed property.

TA id: XAdES/PROPERTIES/CTI/1
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:ObjectReference present child element SHALL reference a ds:Reference element within ds:SignedInfo.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/CTI/2
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A ds:Reference in the signature referenced by any present xades:ObjectReference child element, SHALL not reference the xades:SignedProperties element containing the XAdES signed qualifying properties.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

5.2.9   Testing xades: SignatureProductionPlace element

No specific tests are specified for this property. Checks directly derived from its XML Schema definition are specified in clause A.2.5.

5.2.10   Testing xades: SignerRole element

This clause defines specific test assertions for `xades:CommitmentTypeIndication` signed property. Test assertions directly derived from its XML Schema are specified in Annex A clause A.2.6.

TA id: XAdES/PROPERTIES/SIGROLE/1
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:SignatureRole SHALL NOT be empty.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/SIGROLE/2
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:SignedRole SHALL encapsulate a base-64 encoded Attribute Certificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

5.2.11   Testing xades: AllDataObjectsTimeStamp element

This clause defines specific test assertions for `xades:AllDataObjectsTimeStamp` signed property. Test assertions directly derived from its XML Schema are specified in clause A.1.3.

TA id: XAdES/PROPERTIES/ADOTST/1
Normative source: [1] 7.2.9
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:AllDataObjectsTimeStamp SHALL encapsulate one or more time-stamp tokens.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ADOTST/2
Normative source: [1] 7.2.9
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The messageImprint of any time-stamp token encapsulated by xades:AllDataObjectsTimeStamp SHALL have been computed by concatenation of the results of processing all the ds:Reference elements within the ds:SignedInfo (including final canonicalization if required), except the one referencing the xades:SignedProperties element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

5.2.12   Testing xades: IndividualDataObjectsTimeStamp element

This clause defines specific test assertions for xades:IndividualDataObjectsTimeStamp signed property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.1.3.

TA id: XAdES/PROPERTIES/IDOTST/1
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: xades:IndividualDataObjectsTimeStamp SHALL encapsulate one or more time-stamp tokens.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/IDOTST/2
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:Include descendant element SHALL reference one ds:Reference element within the ds:SignedInfo.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/IDOTST/3
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: A ds:Reference element within the ds:SignedInfo and referenced by a xades:Include descendant element, SHALL not reference the xades:SignedProperties element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/IDOTST/4
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:Include descendant element SHALL have its attribute 'referencedData' set to "true" value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/IDOTST/5
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to B-Level of XAdES baseline profile as specified in [2]
Predicate: The messageImprint of any encapsulated time-stamp token, SHALL have been computed as specified in XAdES mother specification.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

6   Testing Conformance to T-Level of XAdES Baseline Profile

XAdES signatures conformant to T-Level as specified in [2] are built on XAdES signatures already conformant to B-Level. In consequence, XAdES signatures conformant to T-Level have to fulfil the requirements specified in clause 5 of the present document and all the requirements defined in the present clause.

6.1   Testing presence of qualifying properties

This clause defines requirements on the presence of XAdES qualifying properties. These requirements result in the set of assertions shown below:

TA id: XAdES/PROPERTIES/INSTANCES/T/1
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to T-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain xades:SignatureTimeStamp property.
Prescription level: Mandatory
Tag: conformance layer = T-Level of XAdES baseline profile for the Long Term

6.2   Testing xades: SignatureTimeStamp element

This clause defines specific test assertions for xades:SignatureTimeStamp unsigned property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.1.3.

TA id: XAdES/PROPERTIES/T/STST/1
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to T-Level of XAdES baseline profile as specified in [2]
Predicate: xades:SignatureTimeStamp SHALL encapsulate one time-stamp token.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/SOTST/2
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to T-Level of XAdES baseline profile as specified in [2]
Predicate: The messageImprint of the encapsulated time-stamp token, SHALL have been computed by digesting the result of taking the ds:SignatureValue element and canonicalizing it as specified in XAdES mother specification.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/STST/3
Normative source: [1] 7.2.10
Target: XAdES signature generator claiming conformance to T-Level of XAdES baseline profile as specified in [2]
Predicate: Time indicated within any time-stamp token enveloped in this container SHALL be ulterior to the time indicated within any time-stamp token enveloped within xades:IndividualDataObjectsTimeStamp and xades:AllDataObjectsTimeStamp, if present and when it is possible to establish an order between these time-stamp tokens according to RFC 3161 [6] clause 2.4.2.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

7   Testing Conformance to LT-Level of XAdES Baseline Profile

XAdES signatures conformant to LT-Level as specified in [2] are built on XAdES signatures already conformant to T-Level. In consequence, XAdES signatures conformant to LT-Level have to fulfil the requirements specified in clauses 5, 6 of the present document, and all the requirements defined in the present clause.

7.1   Testing presence of qualifying properties

XAdES [1] defines a number of optional signed and unsigned properties. XAdES Baseline profile [2] adds additional requirements making some of them mandatory.

These requirements result in the set of assertions shown below:

TA id: XAdES/PROPERTIES/INSTANCES/LT/1
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:CompleteCertificateRefs property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/2
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:CompleteRevocationRefs property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/3
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:AttributeCertificateRefs property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/4
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:AttributeRevocationRefs property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/5
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:RefsOnlyTimeStamp property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/6
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL NOT contain xades:SigAndRefsTimeStamp property.
Prescription level: Mandatory
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/7
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain xades:CertificateValues under the conditions expressed in XAdES Baseline Profile [2].
Prescription level: Conditional
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/8
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate:A XAdES signature SHALL contain xades:RevocationValues under the conditions expressed in XAdES Baseline Profile [2].
Prescription level: Conditional
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/9
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain xades:AttrAuthoritiesCertValue under the conditions expressed in XAdES [1] clause 8.2.1.
Prescription level: Conditional
Tag: conformance layer = LT-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LT/10
Normative source: [2] – Clause 6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain xades:AttributeRevocationValues under the conditions expressed in XAdES [1] clause 8.2.1.
Prescription level: Conditional
Tag: conformance layer = LT-Level of XAdES baseline profile

7.2   Testing xades: CertificateValues element

This clause defines specific test assertions for xades:CertificateValues property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.2.7.

TA id: XAdES/PROPERTIES/CERTVAL/1
Normative source: [1] 7.6.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValues SHALL contain a set of certificates used for validating the electronic signature (it SHALL NOT be empty).
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/CERTVAL/2
Normative source: [2] 6.3.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValues SHOULD NOT contain certificates that are already present in ds:KeyInfo.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/CERTVAL/3
Normative source: [1] 7.6.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedX509Certificate child element SHALL contain a base-64 encoded X509 certificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

7.3   Testing xades: RevocationValues element

This clause defines specific test assertions for xades:RevocationValues property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.2.8.

TA id: XAdES/PROPERTIES/REVVAL/1
Normative source: [1] 7.6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:RevocationValues SHALL contain a set of revocation-related values used for validating the electronic signature (it SHALL NOT be empty).
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/REVVAL/2
Normative source: [2] 6.3.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:RevocationValues SHOULD NOT contain revocation-related values that are already present in ds:KeyInfo.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/REVVAL/3
Normative source: [1] 7.6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedCRLValue child element SHALL contain a base-64 encoded X509 Certificate Revocation List.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/REVVAL/4
Normative source: [1] 7.6.2
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedOCSPValue child element SHALL contain a base-64 encoded OCSPResponse as specified in RFC 2560 [5].
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

7.4 Testing xades: AttrAuthoritiesCertValues element

This clause defines specific test assertions for xades:AttrAuthoritiesCertValues property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.2.7.

TA id: XAdES/PROPERTIES/ATTRCERTVAL/1
Normative source: [1] 7.6.3
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:AttrAUthoritiesCertValues SHALL contain the set of Attribute Authorities certificates used for validating any present attribute certificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ATTRCERTVAL/2
Normative source: [2] 6.3.3
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:AttrAUthoritiesCertValues SHOULD NOT contain certificates that are already present in xades:CertificateValues or ds:KeyInfo.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/ATTRCERTVAL/3
Normative source: [1] 7.6.3
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedX509Certificate child element SHALL contain a base-64 encoded X509 certificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

7.5 Testing xades: AttributeRevocationValues element

This clause defines specific test assertions for xades:AttributeRevocationValues property. Test assertions directly derived from its XML Schema are specified in Annex A, clause A.2.8.

TA id: XAdES/PROPERTIES/ATTRREVVAL/1
Normative source: [1] 7.6.4
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:AttributeRevocationValues SHALL contain a set of revocation-related values used for validating any present attribute certificate(s).
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ATTRREVVAL/2
Normative source: [2] 6.3.4
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:AttributeRevocationValues SHOULD NOT contain revocation-related values that are already present in ds:KeyInfo or in xades:RevocationValues.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/ATTRREVVAL/3
Normative source: [1] 7.6.4
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedCRLValue child element SHALL contain a base-64 encoded X509 Certificate Revocation List.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ATTRREVVAL/4
Normative source: [1] 7.6.4
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedOCSPValue child element SHALL contain a base-64 encoded OCSPResponse as specified in RFC 2560 [5].
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

7.6 Testing xadesv141: TimeStampValidationData element

This clause defines test assertions for xadesv141:TimeStampValidationData property.

TA id: XAdES/PROPERTIES/TSTVALDAT/1
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xadesv141:TimeStampValidationData SHALL be child of xades:UnsignedSignatureProperties element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/2
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValues child SHALL contain certificates used for validating the time-stamp tokens within the corresponding time-stamp container (it SHALL NOT be empty).
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/3
Normative source: [2] 6.3.6
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValues child SHOULD NOT contain certificates that are already present within the time-stamp tokens or in other xadesv141:TimeStampValidationData elements.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/TSTVALDAT/4
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedX509Certificate descendant element SHALL contain a base-64 encoded X509 certificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/5
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:RevocationValues child SHALL contain a set of revocation-related values used for validating the time-stamp tokens (it SHALL NOT be empty).
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/6
Normative source: [2] 6.3.6
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: xades:RevocationValues child SHOULD NOT contain revocation-related values that are already present in the time-stamp tokens or in other xadesv141:TimeStampValidationData elements.
Prescription level: Recommended
Tag: conformance layer = XAdES baseline profile

TA id: XAdES/PROPERTIES/TSTVALDAT/7
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedCRLValue descendant element SHALL contain a base-64 encoded X509 Certificate Revocation List.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/8
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: Any xades:EncapsulatedOCSPValue descendant element SHALL contain a base-64 encoded OCSPResponse as specified in RFC 2560 [5].
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/9
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: If xadesv141:TimeStampValidationData appears immediately after an unsigned XAdES time-stamp container property, then it SHALL not have the 'URI' attribute.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/10
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: If xadesv141:TimeStampValidationData DOES NOT appear immediately after an unsigned XAdES time-stamp container property, then it SHALL have the 'URI' attribute.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/TSTVALDAT/11
Normative source: [1] 8.1
Target: XAdES signature generator claiming conformance to LT-Level of XAdES baseline profile as specified in [2]
Predicate: If xadesv141:TimeStampValidationData has the 'URI' attribute, then it SHALL reference one of the signed XAdES time-stamp token container (xades:IndividualDataObjectsTimeStamp or xades:AllDataObjectsTimestamp).
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

8 Testing Conformance to LTA-Level of XAdES Baseline Profile

XAdES signatures conformant to LTA-Level as specified in [2] are built on XAdES signatures already conformant to LT-Level. In consequence, XAdES signatures conformant to LTA-Level have to fulfil the requirements specified in clauses 5, 6 and 7 of the present document, and all the requirements defined in the present clause.

This conformance level is optional in XAdES Baseline Profile [2].

8.1 Testing presence of qualifying properties

Below follows the list of assertions that XAdES Baseline Profile defines for LTA-Level, regarding the presence of certain XAdES properties.

TA id: XAdES/PROPERTIES/INSTANCES/LTA/1
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature SHALL contain at least one xades:ArchiveTimeStamp or one xadesv141:ArchivetTimeStamp property.
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LTA/2
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain more than one xades:ArchiveTimeStamp properties.
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/INSTANCES/LTA/3
Normative source: [2] – Clause 6
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: A XAdES signature MAY contain more than one xadesv141:ArchiveTimeStamp properties.
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

8.2   Testing archive time-stamp elements

8.2.1   Testing xades:ArchiveTimeStamp element

This clause defines specific test assertions for xades:ArchiveTimeStamp. Test assertions directly derived from their XML Schema are specified in clause A.1.3.

TA id: XAdES/PROPERTIES/ATST/1
Normative source: [1] 7.7
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: xades:ArchiveTimeStamp SHALL encapsulate one or more time-stamp tokens.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ATST/2
Normative source: [2] 6.3.5
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: xades:ArchiveTimeStamp SHALL NOT contain any xades:Include element (implicit messageImprint referencing mechanism).
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/ATST/3
Normative source: XAdES v1.3.2, 7.7.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: The messageImprint of any encapsulated time-stamp token, SHALL have been computed as indicated in XAdES specification version 1.3.2 clause 7.7.1.
Prescription level: Mandatory
Tag: conformance layer = XAdES v1.3.2 mother specification

TA id: XAdES/PROPERTIES/ATST/4
Normative source: XAdES v1.3.2, 7.7.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: The time indication within any encapsulated time-stamp token SHALL NOT be ulterior to 31 December 2012 (time in UTC+0).
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/ATST/5
Normative source: XAdES v1.3.2, 7.7.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: Time indicated within any time-stamp token enveloped in this container SHALL be ulterior to the time indicated within any time-stamp token enveloped within previous xades:ArchiveTimeStamp (or xadesv141:ArchiveTimeStamp) elements, xades:SignatureTimeStamp element, and within xades:IndividualDataObjectsTimeStamp and/or xades:AllDataObjectsTimeStamp, if present. This assertion will only be tested when it is possible to establish an order between these time-stamp tokens according to RFC 3161 [6] clause 2.4.2.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/ATST/6
Normative source: XAdES v1.3.2, 7.7.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: Time indicated within any time-stamp token enveloped in this container SHALL be less or equal than 31/12/2012T23:59 UTC.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

8.2.2   Testing xadesv141: ArchiveTimeStamp elements

This clause defines specific test assertions for xadesv141:ArchiveTimeStamp property. Test assertions directly derived from its XML Schema are specified in clause A.1.3.

TA id: XAdES/PROPERTIES/V141ATST/1
Normative source: [1] 8.2
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: xadesv141:ArchiveTimeStamp SHALL be child of xades:UnsignedSignatureProperties element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/V141ATST/2
Normative source: [1] 8.2
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: xadesv141:ArchiveTimeStamp SHALL encapsulate one or more time-stamp tokens.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/PROPERTIES/V141ATST/3
Normative source: [2] 6.3.5
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: xadesv141:ArchiveTimeStamp SHALL NOT contain any xades:Include element (implicit messageImprint referencing mechanism).
Prescription level: Mandatory
Tag: conformance layer = LTA-Level of XAdES baseline profile

TA id: XAdES/PROPERTIES/V141ATST/4
Normative source: [1] 8.2.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: The messageImprint of any encapsulated time-stamp token, SHALL have been computed as indicated in XAdES specification version 1.4.2 clause 8.2.1.
Prescription level: Mandatory
Tag: conformance layer = XAdES v1.4.2 mother specification

TA id: XAdES/PROPERTIES/V141ATST/5
Normative source: XAdES v1.3.2, 7.7.1
Target: XAdES signature generator claiming conformance to LTA-Level of XAdES baseline profile as specified in [2]
Predicate: Time indicated within any time-stamp token enveloped in this container SHALL be ulterior to the time indicated within any time-stamp token enveloped within previous xades:ArchiveTimeStamp (or xadesv141:ArchiveTimeStamp) elements, xadesv141:ArchiveTimeStamp elements, xades:SignatureTimeStamp element, and within xades:IndividualDataObjectsTimeStamp and/or xades:AllDataObjectsTimeStamp, if present. This assertion will only be tested when it is possible to establish an order between these time-stamp tokens according to RFC 3161 [6] clause 2.4.2.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

Annex A (normative):
Test assertions derived from XML Schema

This annex specifies test assertions focussed on testing the structure of the elements specified by XAdES [1] according to its XML Schema.

A.1   Testing auxiliary types contents

XAdES [1] defines the `ObjectIdentifierType`, `EncapsulatedPKIDataType`, and `XAdESTimeStampType` types. Some of the qualifying properties are derived from some of these types or contain elements of one of these types.

This clause defines common test assertions for any element of this type.

A.1.1   Testing xades: ObjectIdentifierType instances

This clause defines test assertions for any element derived from or containing children instances of `xades:ObjectIdentifierType` type.

TA id: XAdES/SCHEMA/PROPERTIES/OID/1
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:ObjectIdentifierType SHALL NOT contain other children than xades:Identifier, xades:Description,and xades:DocumentationReferences.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/2
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:ObjectIdentifierType instances children is as follows: ds xades:Identifier, xades:Description,and xades:DocumentationReferences.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/3
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:ObjectIdentifierType SHALL contain a xades:Identifier child.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/4
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:ObjectIdentifierType MAY contain a xades:Description child.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/5
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:ObjectIdentifierType MAY contain a xades:DocumentationReferences child.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/5
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:ObjectIdentifierType SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:Identifier element.

TA id: XAdES/SCHEMA/PROPERTIES/OID/ID/1
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:Identifier element SHALL contain a valid URI as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/ID/2
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:Identifier element SHALL NOT contain any other attribute than 'Qualifier'.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/ID/3
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The value of 'Qualifier' attribute SHALL be "OIDAsURI" or "OIDAsURN".
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/ID/4
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: If 'Qualifier' attribute has a value of "OIDAsURN" then xades:Identifier vaule SHALL be compliant with RFC 3061.
Prescription level: Conditional
Tag: conformance layer = XAdES mother specification

Below follow the test assertions on xades:DocumentationReferences element.

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCREF/1
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DocumentationReferences SHALL NOT contain other child element than xades:DocumentationReference.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCREF/2
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:DocumentationReferences SHALL contain at least one xades:DocumentationReference child.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCREF/32
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:DocumentationReferences SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCREF/4
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The content of any xades:DocumentationReference element SHALL be a valid URI.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCERF/5
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DocumentationReference element SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/OID/DOCREF/6
Normative source: [1] 7.1.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:Description SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.1.2   Testing xades: EncapsulatedPKIDataType instances

This clause defines test assertions for instances of xades:EncapsulatedPKIDataType type.

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/1
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:EncapsulatedPKIDataType SHALL have be a valid base64 encoded data as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/2
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:EncapsulatedPKIDataType SHALL NOT have any children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/3
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:EncapsulatedPKIDataType SHALL NOT contain other attributes than 'Id' and 'Encoding'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/4
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:EncapsulatedPKIDataType MAY contain an 'Id' attribute.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/5
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:EncapsulatedPKIDataType MAY contain an 'Encoding' attribute.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/PKIDATA/6
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The value of attribute 'Encoding' of an instance of EncapsulatedPKIDataType element of this type SHALL be "http://uri.etsi.org/01903/v1.2.2#", "http://uri.etsi.org/01903/v1.2.2#DER", "http://uri.etsi.org/01903/v1.2.2#BER", "http://uri.etsi.org/01903/v1.2.2#CER", "http://uri.etsi.org/01903/v1.2.2#PER", or "http://uri.etsi.org/01903/v1.2.2#XER".
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.1.3   Testing xades: XAdESTimeStampType instances

This clause defines test assertions for instances of xades:XAdESTimeStampType type. As the XAdES baseline profile admits time-stamp tokens containers properties using the implicit and the explicit referencing mechanism to the time-stamped data objects, the assertions on xades: include elements are given in the clauses devoted to each type of time-stamp tokens container property.

TA id: XAdES/SCHEMA/PROPERTIES/TST/1
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: An instance of XadETimeStampType SHALL NOT have other children elements than ds:CanonicalizationMethod, xadesEncapsulatedTimeStamp, and xades:XMLTimeStamp.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/2
Normative source: [1] 7.1.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:XAdESTimeStamp instances children is as follows: ds xades:Include, ds:CanonicalizationMethod, and sequence of xades:EncapsulatedTimeStamp OR/AND xades:XMLTimeStamp elements in any order
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/3
Normative source: [1] 7.1.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2**]**
Predicate: Instances of xades:XadETimeStampType MAY have a ds:CanonicalizationMethod child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/4
Normative source: [1] 7.1.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:XadETimeStampType SHALL have at least one xades:XMLTimeStamp child or
one xades:EncapsulatedTimeStamp **child.**
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/5
Normative source: [1] 7.1.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:XadETimeStampType MAY have none or several xades:EncapsulatedTimeStamp
children elements.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/6
Normative source: [1] 7.1.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:XadETimeStampType MAY have none or more xades:XMLTimeStamp children
elements.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/TST/7
Normative source: [1] 7.1.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:XadETimeStampType MAY have only an 'Id' attribute.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Applications claiming conformance to the present document shall also test assertions specified in clause 5.2.3.2 when
testing xades:EncapsulatedTimeStamp children.

A.1.3.1   Testing xades: IncludeType instances

This clause defines generic test assertions for instances of xades:IncludeType type, used in certain time-stamp
tokens container properties.

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/1
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:IncludeType SHALL contain an 'URI' attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/2
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:IncludeType MAY contain an 'referencedData' attribute.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/3
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:IncludeType SHALL not contain any children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/4
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:IncludeType SHALL not contain other attributes than 'referencedData'
and 'URI'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/5
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: 'URI' attribute SHALL have a valid URI reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/INCLUDE/6
Normative source: [1] 7.1.4.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: 'referencedData' attribute SHALL have boolean value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.1.4   Testing xades: CertIDListType instances

This clause defines generic test assertions for instances of xades:CertIDListType type, used in xades:SigningCertificate, xades:CompleteCertificateRefs and xades:AttributeCertificateRefs properties. The present document defines additional specific assertions for instances of this type in the clauses corresponding to any of the aforementioned properties.

TA id: XAdES/SCHEMA/PROPERTIES/CERTLISTREF/1
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDListType SHALL contain one or more xades:Cert children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTLISTREF/2
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDListType SHALL NOT contain other children than xades:Cert elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTLISTREF/3
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDListType SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.1.4.1   Testing xades: CertIDType instances

Below follows the generic assertions to be tested on instances of xades:CertIDType type.

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/1
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDType SHALL contain one xades:CertDigest child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/2
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDType SHALL contain one xades:IssuerSerial child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/3
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDType SHALL NOT contain other children than xades:CertDigest and xades:IssuerSerial elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/4
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:CertIDType instances children is as follows: ds
xades:CertDigest, xades:IssuerSerial.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/5
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:CertIDType MAY contain only an 'URI' attribute.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTID/6
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: 'URI' attribute SHALL have an URI reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.1.4.1.1 Testing xades: DigestAlgAndValueType instances

Below follows the generic assertions to be tested on instances of xades:DigestAlgAndValueType type.

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/1
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:DigestAlgAndValueType SHALL contain one ds:DigestMethod child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/2
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:DigestAlgAndValueType instances children is as follows: ds
ds:DigestMethod, ds:DigestValue.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/3
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:DigestAlgAndValueType SHALL contain one ds:DigestValue child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/4
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:DigestAlgAndValueType SHALL NOT contain other children than
ds:DigestMethod and ds:DigestValue child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/5
Normative source: [1] 7.2.2
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of xades:DigestAlgAndValueType SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/6
Normative source: [3] 4.3.3.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: ds:DigestMethod MAY contain children elements.
Prescription level: Optional
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/7
Normative source: [3] 4.3.3.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: ds:DigestMethod SHALL contain an 'Algorithm' attribute.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/8
Normative source: [3] 4.3.3.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The value of 'Algorithm' attribute SHALL be one of the URI references defined as digest method identifier.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/9
Normative source: [3] 4.3.3.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: ds:DigestMethod SHALL NOT contain other attributes than 'Algorithm'.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/10
Normative source: [3] 4.3.3.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DigestValue SHALL NOT contain children elements.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/11
Normative source: [3] 4.3.3.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades: DigestValue SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/DIGALVAL/12
Normative source: [3] 4.3.3.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The value of xades: DigestValue SHALL be a base 64 encoded value.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

A.1.4.1.2   Testing ds: X509IssuerSerialType instances

Below follows the generic assertions to be tested on instances of ds:X509IssuerSerialType type.

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/1
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of ds:X509IssuerSerialType SHALL contain one ds:X509IssuerName child element.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/2
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of ds:X509IssuerSerialType SHALL contain one ds:X509SerialNumber child element.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/3
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of ds:X509IssuerSerialType SHALL NOT contain other children than
ds:X509IssuerName and ds:X509SerialNumber elements.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSER/4
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for ds:X509IssuerSerialType instances children is as follows: ds
ds:X509IssuerName, ds:X509SerialNumber.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/5
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Instances of ds:X509IssuerSerialType SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/6
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:X509SerialNumber SHALL have an integer value.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/7
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:X509SerialNumber SHALL NOT contain any children.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/8
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:X509SerialNumber SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/9
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds: X509IssuerName SHALL NOT contain any children.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

TA id: XAdES/SCHEMA/PROPERTIES/ISSSER/10
Normative source: [4] 4.4.4.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds: X509IssuerName SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XML Sig specification

A.1.5   Testing ds: Transforms instances

This clause defines generic test assertions for instances of ds:Transforms element, as derived from the
XMLDSIG XML Schema.

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/1
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transforms SHALL contain one or more ds:Transform children elements.
Prescription level: Mandatory
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transforms SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transform SHALL contain attribute 'Algorithm'.
Prescription level: Mandatory
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element Attribute 'Algorithm' SHALL have a valid URI Reference as value.
Prescription level: Mandatory
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transform MAY be empty.
Prescription level: Optional
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transform MAY contain one or more elements of any type as long as they are defined in other namespace.
Prescription level: Optional
Tag: conformance layer = XMLDSig specification

TA id: XAdES/SCHEMA/PROPERTIES/DSTRANSFS/2
Normative source: [4] 4.3.3.4
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element ds:Transform MAY contain one or more ds:Xpath children elements.
Prescription level: Optional
Tag: conformance layer = XMLDSig specification

A.2   Testing qualifying properties

This clause specifies test assertions derived from the XML Schema definition of the different XAdES qualifying properties.

A.2.1   Testing xades: SigningTime

This clause defines test assertions for xades:SigningTime signed property.

TA id: XAdES/SCHEMA/PROPERTIES/SIGNINGTIME/1
Normative source: [1] 7.2.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The content of the SigningTime signed property SHALL NOT have any child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGNINGTIME/2
Normative source: [1] 7.2.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The content of the SigningTime signed property SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGNINGTIME/3
Normative source: [1] 7.2.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The content of the SigningTime signed property SHALL be a UTC time value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.2   Testing xades: DataObjectFormat

This clause defines test assertions for xades:DataObjectFormat signed property directly derived from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/1
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat SHALL NOT contain other children than xades:Description, xades:ObjectIdentifier, xades:MimeTYpe and xades:Encoding.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/2
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:DataObjectFormat instances children is as follows: xades:Description, xades:ObjectIdentifier, xades:MimeTYpe and xades:Encoding.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/3
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat SHALL contain the 'ObjectReference' attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/4
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: 'ObjectReference' attribute SHALL have a valid URI Reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/5
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat SHALL NOT contain other attribute than 'ObjectReference'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/6
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat MAY contain one xades:Description child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/7
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat MAY contain one xades:ObjectIdentifier child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/8
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat MAY contain one xades:MimeType child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/9
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:DataObjectFormat MAY contain one xades:Encoding child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/DOFORMAT/10
Normative source: [1] 7.2.5
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:Enconding element SHALL have a valid URI Reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Test assertions specified in clause A.1.1 **shall** be checked on xades:ObjectIdentifier child element.

A.2.3   Testing xades: SignaturePolicyIdentifier

This clause defines test assertions for xades:SignaturePolicy signed property directly derived from its
XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/1
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyIdentifier SHALL contain one xades:SignaturePolicyId child OR one
xades:SignaturePolicyImplied child.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/2
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyIdentifier SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Below follows the generic assertions to be tested on instances of xades:SignaturePolicyId element.

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/3
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId SHALL NOT have other children than xades:SigPolicyId,
ds:Transforms, xades:SigPolicyHash or xades:SigPOlicyQualifiers element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/4
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:SignaturePolicyId instances children is as follows:
xades:SigPolicyId, ds:Transforms, xades:SigPolicyHash, xades:SigPolicyQualifiers.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/5
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/6
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId SHALL have one xades:SigPolicyId child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/7
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId MAY have one ds:Transforms child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/8
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId SHALL have one xades:SigPolicyHash child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/9
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignaturePolicyId MAY have one xades:SigPolicyQualifiers child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/10
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:SigPolicyQualifiers SHALL have ONLY one or more xades:SigPolicyQualifier
children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/11
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:SigPolicyQualifiers SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/12
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:SignaturePolicyImplied SHALL BE empty.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/13
Normative source: [1] 7.2.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:SignaturePolicyImplied SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Test assertions specified in clause A.1.1 **shall** be checked on xades:SigPolicyId child element.

Test assertions specified in clause A.1.5 **shall** be checked on ds:Transforms child element.

Test assertions specified in clause A.1.4.1.1 **shall** be checked on xades:SigPolicyHash child element.

If xades:SigPoliciQualifier contains a xades:SPURI or a xades:SPUserNotice then the test assertions specified in clause A.3.2.1 or A.3.2.2 respectively, will be checked on the corresponding child element.

A.2.3.1   Testing xades: SPURI qualifier

This clause defines test assertions for xades:SPURI qualifier directly derived from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPURI/1
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPURI SHALL NOT have any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPURI/2
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPURI SHALL have a valid URI Reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPURI/3
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPURI SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.3.2   Testing xades: SPUserNotice qualifier

This clause defines test assertions for xades:SPUserNotice qualifier directly derived from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/1
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPUserNotice SHALL NOT have other children than xades:NoticeRef or xades:ExplicitText elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/2
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPUserNotice SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/3
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPUSerNotice MAY have one xades:NoticeRef child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/4
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SPUSerNotice MAY have one xades:ExplicitText child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPUNOT/5
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:SPUserNotice instances children is as follows:
xades:NoticeRef, xades:ExplicitText.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/6
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:NoticeRef SHALL NOT have other children than xades:organization and
xades:NoticeNumbers elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/7
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:NoticeRef SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPUNOT/5
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:NoticeRef instances children is as follows:
xades:Organization, xades:NoticeNumbers.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/8
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:Organization SHALL NOT have any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/9
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:Organization SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/10
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:NoticeNumbers MAY have 0 or more xades:int children elements.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/11
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:NoticeNumbers SHALL NOT have other children than xades:int elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/12
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:int SHALL have an integer as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/13
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:int SHALL not have any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGPOL/QUAL/SPUNOT/14
Normative source: [1] 7.2.3.1
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: Element xades:int SHALL not have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.4   Testing xades: CommitmentTypeIndication

This clause defines test assertions for xades:CommitmentTypeIndication signed property directly derived from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/CTI/1
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeIndication SHALL NOT contain other children than
xades:CommitmentTypeId, xades:ObjectReference, xades:AllSignedDataObjects, or
xades:CommitmentTypeQualifiers.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/2
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeIndication SHALL contain one xades:CommitmentTypeId child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/3
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeIndication SHALL contain one choice between one
xades:AllSignedDataObjects child element or one or several xades:ObjectReference elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/4
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeIndication MAY contain one xades:CommitmentTypeQualifiers child
element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/5
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeIndication SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/6
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:CommitmentTypeIndication instances children is as follows:
xades:CommitmentTypeId, xades:ObjectReference OR xaes:AllSignedDataObjects,
xades:CommitmentTypeQualifiers.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/7
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:ObjectReference SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/8
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:ObjectReference SHALL have a valid URI reference as value.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/9
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:AllSignedDataObjects SHALL be empty.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/10
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:AllSignedDataObjects SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/11
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeQualifiers SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/12
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeQualifiers SHALL NOT have other children than
xades:CommitmentTypeQualifier element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/13
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeQualifiers SHALL have one or more xades:CommitmentTypeQualifier
elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CTI/14
Normative source: [1] 7.2.6
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CommitmentTypeQualifier SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.5   Testing xades: SignatureProductionPlace element

This clause defines test assertions for xades:SignatureProductionPlace signed property directly derived
from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/SPP/1
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property SHALL NOT be empty.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/2
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property SHALL not contain any other element than xades:City, xades:CountryName, xades:StateOrProvince or xades:PostalCode.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/3
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The SignatureProductionPlace property MAY contain one City child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/4
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property MAY contain one StateOrProvince child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/5
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property MAY contain one PostalCode child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/6
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property MAY contain one CountryName child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/7
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureProductionPlace property SHALL not contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/8
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:SignatureProductionPlace property children is as follows: xades:City, xades:StateOrProvince, xades:PostalCode, xades:CountryName.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/9
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:City SHALL not contain any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/10
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:City SHALL not contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/11
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:StateOrProvince SHALL not contain any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/12
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:StateOrProvince SHALL not contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/13
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:PostalCode SHALL not contain any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/14
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:PostalCode SHALL not contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/15
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CountryName SHALL not contain any children.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SPP/16
Normative source: [1] 7.2.7
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CountryName SHALL not contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.6   Testing xades: SignerRole element

This clause defines test assertions for xades:SignerRole signed property directly derived from its XML Schema definition.

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/1
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureRole SHALL NOT have other children than xades:ClaimedRoles or xades:CertifiedRoles.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/2
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureRole MAY contain one xades:ClaimedRoles child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/3
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureRole MAY contain one xades:Certified child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/4
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignatureRole SHALL NOT have any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/5
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:SignerRole instances children is as follows: xades:ClaimedRoles, xades:CertifiedRoles.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/6
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:ClaimedRoles SHALL NOT be empty.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/7
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignedRoles SHALL contain one or more xades:SignedRole children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/SIGROLE/8
Normative source: [1] 7.2.8
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:SignedRoles SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

A.2.7   Testing xades: CertificateValuesType content

This clause defines test assertions for xades:CertificateValuesType instances' content, directly derived from its XML Schema definition. These test assertions shall be checked when testing xades:CertificateValues, and xades:AttrAuthoritiesCertValues.

TA id: XAdES/SCHEMA/PROPERTIES/CERTVALS/1
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances SHALL NOT contain other elements than xades:EncapsulatedX509Certificate, and xades:OtherCertificate.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTVALS/2
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances SHALL NOT contain attribute than 'Id'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTVALS/3
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances MAY contain any number of xades:EncapsulatedX509Certificate elements, including zero.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/CERTVALS/4
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances MAY contain any number of xades:OtherCertificate elements, including zero.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

Test assertions specified in clause A.1.2 **shall** be checked in xades:EncapsulatedX509Certificate child.

A.2.8 Testing xades: RevocationValuesType content

This clause defines test assertions for xades:RevocationValuesType instances' content, directly derived from its XML Schema definition. These test assertions shall be checked when testing xades:Revocation, and xades:AttributeRevocationValues.

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/1
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:RevocationValuesType instances SHALL NOT contain other children than xades:CRLValues, xades:OCSPValues, and xades:OtherValues elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/2
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances SHALL NOT contain attribute than 'Id'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/3
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances SHALL contain one xades:CRLValues child element.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/4
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances MAY contain one xades:OCSPValues child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/5
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances MAY contain one xades:OtherValues child element.
Prescription level: Optional
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/6
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CertificateValuesType instances MAY contain attribute 'Id'.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/7
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: The specified order for xades:CertificateValuesType instances children is as follows: xades:CRLValues, xades:OCSPValues, xades:OtherValues.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Below follow the test assertions for xades:CRLValuesType content.

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/CRLVAL/1
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CRLValuesType instances SHALL NOT contain other children than xades:EncapsulatedCRLValue elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/CRLVAL/2
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CRLValuesType instances SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/CRLVAL/3
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:CRLValuesType instances SHALL ontain one or more xades:EncapsulatedCRLValue children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Test assertions specified in clause A.1.2 **shall** be checked in xades:EncapsulatedCRLValue child.

Below follow the test assertions for xades:OCSPValuesType content.

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/OCSPVAL/1
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:OCSPValuesType instances SHALL NOT contain other children than xades:EncapsulatedOCSPValue elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/OCSPVAL/2
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:OCSPValuesType instances SHALL NOT contain any attribute.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

TA id: XAdES/SCHEMA/PROPERTIES/REVVALS/OCSPVAL/3
Normative source: [1] 7.4.3
Target: XAdES signature generator claiming conformance to XAdES baseline profile as specified in [2]
Predicate: xades:OCSPValuesType instances SHALL ontain one or more xades:EncapsulatedOCSPValue children elements.
Prescription level: Mandatory
Tag: conformance layer = XAdES mother specification

Test assertions specified in clause A.1.2 **shall** be checked in xades:EncapsulatedOCSPValue child.

History

Document history		
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