Comparison of XAdES TS 101 903 and EN 319 132 (draft v0.0.11 June 2015)

**101 903 Forms**

|  |  |
| --- | --- |
| BES (Basic) | SigningCertificate or (KeyInfo with X509Data and SignedInfo with Reference to KeyInfo) |
| EPES (Basic + signature policies) | BES + SignaturePoilcyIdentifier |
| Validation data | |
| T (Timestamp) | BES/EPES + SignatureTimeStamp or application-defined time mark |
| C (Timestamp + references to validation data) | T + CompleteCertificateRefs and CompleteRevocationRefs |
| Extended | |
| X (Extended – type 1 and type 2) | C + timestamp |
| X-L (Extended long-term) | T/X + all actual validation data |
| A (Archive) | XL + timestamp |

**319 132 Forms**

|  |  |
| --- | --- |
| B-B (Basic) | SigningCertificateV2, KeyInfo with X509Data and SignedInfo with Reference to KeyInfo, SigningTime |
| B-T (Timestamp) | B-B + SignatureTimeStamp |
| B-LT (Long-term – timestamp + validation data) | B-T + ((TimeStampValidationData which includes CertificateValues and RevocationValues) or cert & rev values embedded in timestamp) |
| B-LTA (Archive) | B-LT + ArchiveTimeStamp |

**Approximate Analogs**

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| --- | --- |
| **101903** | **319132** |
| BES/EPES | B-B |
| T | B-T |
| C | -- |
| X | -- |
| X-L | B-LT |
| A | B-LTA |

|  |  |  |
| --- | --- | --- |
| **Element/Property** | **101903** | **319132** |
| X509Data  SigningCertificate/SigningCertificateV2 | Required (BES+) – at least one | Both (all) |
| ds:Reference | Required if ds:SignedInfo (BES+) | Required (all) |
| SigningTime | Optional (BES+) | Required (all) |
| DataObjectFormat | Optional (BES+) | Required (all) |
| SignerRole/SignerRoleV2 | Optional (BES+) | Optional (all) |
| CommitmentTypeIndication | Optional (BES+) | Optional (all) |
| SignatureProductionPlace/SignatureProductionPlaceV2 | Optional (BES+) | Optional (all) |
| CounterSignature | Optional (BES+) | Optional (all) |
| AllDataObjectTimeStamp | Optional (BES+) | Optional (all) |
| IndividualDataObjectsTimeStamp | Optional (BES+) | Optional (all) |
| SignaturePolicyIdentifier | Optional (EPES+) *Note 1* | Optional (all) |
| SignaturePolicyStore | N/A | Conditional (all) |
| SignatureTimeStamp | Optional (T+) | Discouraged (B-B)  Required (B-T+) |
| CompleteCertificateRefs/CompleteCertificateRefsV2 | Optional (C+) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| AttributeCertificateRefs/AttributeCertificateRefsV2 | Optional (C+) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| CompleteRevocationRefs | Optional (C+) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| AttributeRevocationRefs | Optional (C+) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| SigAndRefsTimeStamp/SigAndRefsTimeStampV2 | Optional (X+ type 1) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| RefsOnlyTimeStamp/RefsOnlyTimeStampV2 | Optional (X+ type 2) | Discouraged (B-B, B-T)  Prohibited (B-LT+) |
| CertificateValues | Optional (X-L+) | Discouraged (B-B, B-T)  Conditional (B-LT+) |
| AttrAuthoritiesCertValues | Optional (X-L+) | Discouraged (B-B, B-T)  Conditional (B-LT+) |
| RevocationValues | Optional (X-L+) | Discouraged (B-B, B-T)  Conditional (B-LT+) |
| AttributeRevocationValues | Optional (X-L+) | Discouraged (B-B, B-T)  Conditional (B-LT+) |
| TimeStampValidationData | Optional (A) | Discouraged (B-B, B-T)  Conditional (B-LT+) |
| ArchiveTimeStamp | Optional (A) | Discouraged (B-B, B-T, B-LT)  Required (B-LTA) – v1.4.1 only |
| RenewedDigests | ?? | Discouraged (B-B, B-T, B-LT)  Conditional (B-LTA) |

*Note 1* – This element seems to be the only differentiator between BES and EPES and 9.2 requires systems supporting policy to support this element but the schema in 4.4.2 shows it as optional (in parentheses). Support required on read but optional on write?