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Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 1: General requirements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Electronic Signatures and Infrastructures (ESI).

The present document is part 1 of a multi-part deliverable covering policy requirements for Trust Service Providers issuing certificates, as identified below:

Part 1: "General requirements";

Part 2: "Requirements for trust service providers issuing EU qualified certificates";

Part 4: "Checklist supporting audit of TSP against ETSI EN 319 411-1 or ETSI EN 319 411-2".

NOTE: Part 3 of this multi-part deliverable has been withdrawn.

The present document is derived from the requirements specified in ETSI TS 102 042 [i.6].

National transposition dates	
Date of adoption of this EN:	23 April 2018
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Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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Introduction

Electronic commerce, in its broadest sense, is a way of doing business and communicating across public and private networks. An important requirement of electronic commerce is the ability to identify the originator and protect the confidentiality of electronic exchanges. This is commonly achieved by using cryptographic mechanisms which are supported by a Trust Service Provider (TSP) issuing certificates, commonly called a Certification Authority (CA).

For participants of electronic commerce to have confidence in the security of these cryptographic mechanisms they need to have confidence that the TSP has properly established procedures and protective measure in order to minimize the operational and financial threats and risks associated with public key cryptographic systems.

The present document is aiming to meet the general requirements of the international community to provide trust and confidence in electronic transactions including, amongst others, applicable requirements from Regulation (EU) No 910/2014 [i.14] and those from CA/Browser Forum, BRG [5].

Bodies wishing to establish policy requirements for TSPs issuing certificates in a regulatory context other than the EU can base their requirements on those specified in the present document and specify any additional requirements in a manner similar to ETSI EN 319 411-2 [i.5], which builds on the present document requirements so as to benefit from the use of generally accepted global best practices.

1 Scope

The present document specifies generally applicable policy and security requirements for Trust Service Providers (TSP) issuing public key certificates, including trusted web site certificates.

The policy and security requirements are defined in terms of requirements for the issuance, maintenance and life-cycle management of certificates. These policy and security requirements support several reference certificate policies, defined in clauses 4 and 5.

A framework for the definition of policy requirements for TSPs issuing certificates in a specific context where particular requirements apply is defined in clause 7.

The present document covers requirements for CA hierarchies, however this is limited to supporting the policies as specified in the present document. It does not include requirements for root CAs and intermediate CAs for other purposes.

The present document is applicable to:

- the general requirements of certification in support of cryptographic mechanisms, including digital signatures for electronic signatures and seals;
- the general requirements of certification authorities issuing TLS/SSL certificates;
- the general requirements of the use of cryptography for authentication and encryption.

The present document does not specify how the requirements identified can be assessed by an independent party, including requirements for information to be made available to such independent assessors, or requirements on such assessors.

NOTE: See ETSI EN 319 403 [i.2] for guidance on assessment of TSP's processes and services. The present document references ETSI EN 319 401 [8] for general policy requirements common to all classes of TSP's services.

The present document includes provisions consistent with the requirements from the CA/Browser Forum in EVCG [4] and BRG [5].

2 References

2.1 Normative 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 https://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.

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

[1] ISO/IEC 15408 (parts 1 to 3): "Information technology - Security techniques - Evaluation criteria for IT security".

[2] ETSI EN 319 412-4: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 4: Certificate profile for web site certificates".

[3] ISO/IEC 19790:2012: "Information technology - Security techniques - Security requirements for cryptographic modules".

[4] CA/Browser Forum (V1.6.1): "Guidelines for The Issuance and Management of Extended Validation Certificates".

[5] CA/Browser Forum (V1.4.2): "Baseline Requirements Certificate Policy for the Issuance and Management of Publicly-Trusted Certificates".

[6] ISO/IEC 9594-8/Recommendation ITU-T X.509: "Information technology - Open Systems Interconnection - The Directory - Part 8: Public-key and attribute certificate frameworks".

[7] IETF RFC 5280: "Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile".

[8] ETSI EN 319 401: "Electronic Signatures and Infrastructures (ESI); General Policy Requirements for Trust Service Providers".

[9] ETSI EN 319 412-2: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 2: Certificate profile for certificates issued to natural persons".

[10] ETSI EN 319 412-3: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 3: Certificate profile for certificates issued to legal persons".

[11] IETF RFC 6960: "X.509 Internet Public Key - Infrastructure Online Certificate Status Protocol - OCSP".

[12] FIPS PUB 140-2 (2001): "Security Requirements for Cryptographic Modules".

2.2 Informative 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.

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

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] Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures.

[i.2] ETSI EN 319 403: "Electronic Signatures and Infrastructures (ESI); Trust Service Provider Conformity Assessment - Requirements for conformity assessment bodies assessing Trust Service Providers".

[i.3] IETF RFC 3647: "Internet X.509 Public Key Infrastructure - Certificate Policy and Certification Practices Framework".

[i.4] ISO 19005 (parts 1 to 3): "Document management - electronic document file format for long-term preservation".

[i.5] ETSI EN 319 411-2: "Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 2: Requirements for trust service providers issuing EU qualified certificates".

[i.6] ETSI TS 102 042: "Electronic Signatures and Infrastructures (ESI); Policy requirements for certification authorities issuing public key certificates".

[i.7] ISO/IEC 27002:2013: "Information technology - Security techniques - Code of practice for information security management".

[i.8] ISO/IEC 7498-2/Recommendation ITU-T X.800: "Data communications network - Open systems interconnection - Security, structure and applications: Security architecture for open systems interconnection for CCITT applications".

[i.9] CEN TS 419 261: "Security requirements for trustworthy systems managing certificates and time stamps".

[i.10] ETSI TS 119 312: "Electronic Signatures and Infrastructures (ESI); Cryptographic Suites".

[i.11] IETF RFC 5246: "The Transport Layer Security Protocol Version 1.2".

[i.12] ETSI TS 119 612: "Electronic Signatures and Infrastructures (ESI); Trusted Lists".

[i.13] ETSI TS 101 533-1: "Electronic Signatures and Infrastructures (ESI); Data Preservation Systems Security; Part 1: Requirements for Implementation and Management".

[i.14] Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.

[i.15] ETSI EN 319 421: "Electronic Signatures and Infrastructures (ESI); Policy and Security Requirements for Trust Service Providers issuing Time-Stamps".

[i.16] CEN TS 419 221-2: "Protection profiles for TSP Cryptographic modules - Part 2: Cryptographic module for CSP signing operations with backup".

[i.17] CEN TS 419 221-3: "Protection profiles for TSP Cryptographic modules - Part 3: Cryptographic module for Cryptographic module for CSP key generation services".

[i.18] CEN TS 419 221-4: "Protection profiles for TSP Cryptographic modules - Part 4: Cryptographic module for CSP signing operations without backup".

[i.19] CEN EN 419 221-5: "Protection profiles for TSP Cryptographic modules - Part 5: Cryptographic module for trust services".

[i.20] ETSI TR 119 411-4: "Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 4: Checklist supporting audit of TSP against EN 319 411-1 or EN 319 411-2".