

ETSI EN 319 412-4 V1.2.1 (2021-11)



**Electronic Signatures and Infrastructures (ESI);
Certificate Profiles;
Part 4: Certificate profile for web site certificates**

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Foreword

ETSI EN 319 412-4 V1.2.1 (2021-11)

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

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The present document is part 4 of multi-part deliverable covering the Certificates Profiles. Full details of the entire series can be found in part 1 [i.5].

National transposition dates

Date of adoption of this EN:	9 November 2021
Date of latest announcement of this EN (doa):	28 February 2022
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 August 2022
Date of withdrawal of any conflicting National Standard (dow):	31 August 2022

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).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

Introduction

ITU and ISO issued standards for certification of public keys in ITU X.509 | ISO/IEC 9594-8 [i.4] which are used for the security of communications and data for a wide range of electronic applications.

Regulation (EU) No 910/2014 [i.3] 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 defines requirements on specific types of certificates named "qualified certificates". Implementation of the Directive 1999/93/EC [i.2] and deployment of certificate infrastructures throughout Europe as well as in countries outside of Europe, have resulted in a variety of certificate implementations for use in public and closed environments, where some are declared as qualified certificates while others are not.

The CA/Browser Forum released the Extended Validation Certificate Guidelines [3] and the Baseline Requirements for the issuance and management of publicly trusted TLS/SSL certificates [2] to mitigate website spoofing attacks.

The present document aims to maximize the interoperability of systems issuing and using certificates both in the European context under the Regulation (EU) No 910/2014 [i.3] and in the wider international environment, also by meeting requirements from CA Browser Forum.

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1 Scope

The present document specifies a certificate profile for web site certificates that are accessed by the TLS protocol [i.1].

The profile defined in the present document builds on the CA/Browser Forum Baseline requirements [2], Extended validation guidelines [3] and other parts of the present multipart deliverable.

The present document focuses on requirements on certificate content. Requirements on decoding and processing rules are limited to aspects required to process certificate content defined in the present document. Further processing requirements are only specified for cases where it adds information that is necessary for the sake of interoperability.

This profile can be used for legal and natural persons. For certificates issued to legal persons, the profile builds on the CAB Forum EV Profile [3] or baseline requirements [2]. For certificates issued to natural persons, the profile builds only on CAB Forum baseline requirements [2].

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] ETSI EN 319 412-5: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 5: QCStatements".
- [2] CA/Browser Forum: "Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates".
- [3] CA/Browser Forum: "Guidelines for The Issuance and Management of Extended Validation Certificates".
- [4] ETSI EN 319 412-2: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 2: Certificate profile for certificates issued to natural persons".
- [5] ETSI EN 319 412-3: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 3: Certificate profile for certificates issued to legal persons".
- [6] ETSI EN 319 411-1: "Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 1: General requirements".
- [7] 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".
- [8] IETF RFC 5280: "Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile".

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] IETF RFC 5246: "The Transport Layer Security (TLS) Protocol Version 1.2".
- [i.2] Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures.
- [i.3] 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.4] Recommendation ITU-T X.509 | ISO/IEC 9594-8: "Information technology - Open Systems Interconnection - The Directory: Public-key and attribute certificate frameworks".
- [i.5] ETSI EN 319 412-1: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 1: Overview and common data structures".

3 Definition of terms, symbols and abbreviations

3.1 Terms

[ETSI EN 319 412-4 V1.2.1 \(2021-11\)](https://standards.iteh.ai/catalog/standards/sist/673dea6c-c264-4ad5-b48e-9705ca9c9e95/etsi-en-319-412-4-v1-2-1-2021-11)

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For the purposes of the present document, the terms given in ETSI EN 319 412-1 [i.5] apply.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI EN 319 412-1 [i.5] and the following apply:

TLS	Transport Layer Security
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4 Profile requirements

4.1 Generic profile requirements

4.1.1 Certificates following DVCP, IVCP or OVCP

For certificates issued following the certificate policies DVCP, IVCP or OVCP, as defined in ETSI EN 319 411-1 [6], all certificate fields and extensions shall comply with requirements on subscriber certificates stated in the BRG [2].

NOTE: According to BRG [2], section 7.1.6.4 implementations systems complying to the certificate policy for domain-validated certificates 2.23.140.1.2.1 cannot contain natural person or legal person related attributes.

Certificates following IVCP or OVCP may include one or more semantics identifiers as specified in clause 5 of ETSI EN 319 412-1 [i.5] to provide relevant semantics definitions to determine the identity of the subject of the certificate.

4.1.2 Certificates following EVCP or QEVCP-w

For certificates issued following the certificate policies EVCP, as defined in ETSI EN 319 411-1 [6], or QEVCP-w, as defined in ETSI EN 319 411-2 [7], all certificate fields and extensions shall comply with requirements on subscriber certificates stated in the EVCG [3], with the amendments specified in clauses 4.2 and 4.3 of the present document for EU Qualified Certificates.

Certificates may include one or more semantics identifiers as specified in clause 5 of ETSI EN 319 412-1 [i.5] to provide relevant semantics definitions to determine the identity of the subject of the certificate.

4.1.3 Certificates following NCP or QNCP-w

For certificates issued following the certificate policies NCP, as defined in ETSI EN 319 411-1 [6], or QNCP-w, as defined in ETSI EN 319 411-2 [7], the following requirements apply:

NCP-w-1: If the certificate is issued to a natural person the requirements specified in ETSI EN 319 412-2 [4] clause 4.2 shall apply.

NCP-w-2: If the certificate is issued to a legal person the requirements specified in ETSI EN 319 412-3 [5] clause 4.2 shall apply.

NCP-w-3: The following certificate profile requirements specified in the BRG [2], section 7.1 shall apply:

- a) 7.1.1: version number
- b) 7.1.2.3: Subscriber Certificate profile: excluding requirement that the certificatePolicies:policyIdentifier "indicates a Certificate Policy asserting the issuing CA's adherence to and compliance with these [BRG] Requirements"
- c) 7.1.2.4: All certificates: except that the size limits specified in IETF RFC 5280 [8] may be relaxed as specified in ETSI EN 319 412-2 [4] and ETSI EN 319 412-3 [5]
- d) 7.1.4.2: Subject Information - Subscriber Certificates
- e) 7.1.6.1: Reserved Certificate Policy Identifiers

NCP-w-4: The amendments specified in clauses 4.2 and 4.3 of the present document apply for EU Qualified Certificates.

NCP-w-5: Certificates may include one or more semantics identifiers as specified in clause 5 of ETSI EN 319 412-1 [i.5] to provide relevant semantics definitions to determine the identity of the subject of the certificate.

4.2 EU Qualified Certificate statements for Certificates following QEVCP-w or QNCP-w

When certificates are issued as EU Qualified Certificates, they shall include QCStatements as specified in clauses 4 and 5 of ETSI EN 319 412-5 [1].

4.3 Certificate policies for Certificates following QEVCP-w or QNCP-w

When the certificates are issued as EU Qualified Certificates, they should include, in the certificate policies extension, one of the certificate policy identifiers defined in clause 5.3 of ETSI EN 319 411-2 [7]. Policy identifiers included in the certificate policies extension of EU Qualified Certificates shall be consistent with the EU Qualified Certificate Statements according to clause 4.2.

Annex A (informative): Change history

Date	Version	Information about changes
July 2021	1.1.4	CR to include alternative certificate profile based on ETSI EN 319 412-3 and CABF Baseline

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History

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V1.2.0	August 2021	EN Approval Procedure AP 20211109: 2021-08-11 to 2021-11-09
V1.2.1	November 2021	Publication

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