

# ETSI EN 319 422 V1.1.1 (2016-03)



**Electronic Signatures and Infrastructures (ESI);  
Time-stamping protocol and time-stamp token profiles**

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**Reference**

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## Foreword

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

The present document was previously published as ETSI TS 101 861 [i.1].

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Date of adoption of this EN:	22 February 2016
Date of latest announcement of this EN (doa):	31 May 2016
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2016
Date of withdrawal of any conflicting National Standard (dow):	30 June 2017

## Modal verbs terminology

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## Introduction

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.2].

Time-stamping is critical for digital signatures in order to know whether the digital signature was affixed during the validity period of the certificate. One method of assuring the signing time is to affix a time-stamp bound to the signature as defined in IETF RFC 3161 [1].

IETF RFC 3161 [1] defines a time-stamp protocol and a time-stamp token format. The present document limits the number of options by placing some additional constraints.

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# 1 Scope

The present document defines a profile for the time-stamping protocol and the time-stamp token defined in IETF RFC 3161 [1] including optional ESSCertIDv2 update in IETF RFC 5816 [4].

It defines what a time-stamping client supports and what a time-stamping server supports.

Time-stamp validation is out of scope and is defined in ETSI EN 319 102 [i.4].

Annex C defines media type and file-extension for time-stamp tokens.

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## 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.

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

- [1] IETF RFC 3161: "Internet X.509 Public Key Infrastructure Time-Stamp Protocol (TSP)".
- [2] ETSI EN 319 412-2: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 2: Certificate profile for certificates issued to natural persons".
- [3] ETSI EN 319 412-3: "Electronic Signatures and Infrastructures (ESI); Certificate Profiles; Part 3: Certificate profile for certificates issued to legal persons".
- [4] IETF RFC 5816: "ESSCertIDV2 update to RFC 3161".
- [5] IETF RFC 7230 to RFC 7235: "Hypertext Transfer Protocol -- (HTTP/1.1)".
- [6] IETF RFC 2818: "HTTP Over TLS".
- [7] ETSI EN 319 421: "Electronic Signatures and Infrastructures (ESI); Policy and Security Requirements for Trust Service Providers issuing Time-Stamps".

### 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.

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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] ETSI TS 101 861: "Electronic Signatures and Infrastructures (ESI); Time stamping profile".
- [i.2] Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.
- [i.3] IETF RFC 3739: "Internet X.509 Public Key Infrastructure: Qualified Certificates Profile".