



**Electronic Signatures and Infrastructures (ESI);  
Associated Signature Containers (ASiC) -  
Testing Conformance and Interoperability;  
Part 1: Overview**

---

Reference

DTR/ESI-0019164-1

---

Keywords

ASiC, conformance, e-commerce, electronic signature, profile, security, testing

**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

---

**Important notice**

The present document can be downloaded from:  
<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at  
<https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:  
<https://portal.etsi.org/People/CommiteeSupportStaff.aspx>

---

**Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.  
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2016.  
All rights reserved.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.  
**3GPP™** and **LTE™** are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.  
**GSM®** and the GSM logo are Trade Marks registered and owned by the GSM Association.

---

# Contents

Intellectual Property Rights .....	4
Foreword.....	4
Modal verbs terminology.....	4
Introduction .....	4
1 Scope .....	5
2 References .....	5
2.1 Normative references .....	5
2.2 Informative references.....	5
3 Definitions and abbreviations.....	6
3.1 Definitions .....	6
3.2 Abbreviations .....	6
4 Testing Conformance and Interoperability.....	6
4.1 Part 2: Test suites for testing interoperability of ASiC baseline containers .....	6
4.2 Part 3: Test suites for testing interoperability of additional ASiC containers .....	7
4.3 Part 4: Testing Conformance for ASiC baseline containers .....	7
4.4 Part 5: Testing Conformance for additional ASiC containers .....	7
<b>Annex A (informative): Bibliography.....</b>	<b>8</b>
History .....	9

---

## Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

---

## Foreword

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

The present document is part 1 of a multi-part deliverable covering ASiC containers - Testing Conformance and Interoperability, as identified below:

- ETSI TR 119 164-1: "Overview";
- ETSI TS 119 164-2: "Test suites for testing interoperability of ASiC baseline containers";
- ETSI TS 119 164-3: "Test suites for testing interoperability of ASiC containers other than baseline";
- ETSI TS 119 164-4: "Testing Conformance of ASiC baseline containers";
- ETSI TS 119 164-5: "Testing Conformance of additional ASiC containers.

---

## Modal verbs terminology

In the present document "**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

The multi-part deliverable defines test suites for testing interoperability and conformance of ASiC containers. The set of Technical Specifications consists of four documents.

The test suites for testing interoperability of ASiC baseline containers (Part 2) and the specification required for building software tools for testing technical conformity of ASiC baseline containers (Part 4) are defined against ETSI EN 319 162-1 [i.1]. The test suites for testing interoperability of additional ASiC containers (Part 3) and the specification required for building software tools for testing technical conformity of additional ASiC containers (Part 5) are defined against ETSI EN 319 162-2 [i.2].

The test suites for testing interoperability of ASiC containers other than baseline (Part 3) and the specifications required for building software tools for testing technical conformity of ASiC containers other than baseline (Part 5) are defined against:

- containers based on the building blocks specified in ETSI EN 319 162-1 [i.1], clause 4.3 for ASiC-S containers and clause 4.4 for ASiC-E containers; and
- additional containers as specified in ETSI EN 319 162-2 [i.2].

---

# 1 Scope

The present document provides an overview of the set of test suites for testing interoperability and conformance of ASiC containers.

The present document:

- a) provides a general description of the set of test suites for testing interoperability and conformance of ASiC containers; and
- b) lists the features of every test suite for testing interoperability and conformance of ASiC containers.

The present document is for information only. Normative requirements of each test suite are in other parts of this multi-part deliverable.

---

# 2 References

## 2.1 Normative references

As informative publications shall not contain normative references this clause shall remain empty.

## 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] ETSI EN 319 162-1: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC); Part 1: Building blocks and ASiC baseline containers".
- [i.2] ETSI EN 319 162-2: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC); Part 2: Additional ASiC containers".
- [i.3] ETSI TR 119 001: "Electronic Signatures and Infrastructures (ESI); The framework for standardization of signatures; Definitions and abbreviations".
- [i.4] ETSI EN 319 102-1: "Electronic Signatures and Infrastructures (ESI); Procedures for Creation and Validation of AdES Digital Signatures; Part 1: Creation and Validation".
- [i.5] ETSI EN 319 122-2: "Electronic Signatures and Infrastructures (ESI); CAAdES digital signatures; Part 2: Extended CAAdES signatures".
- [i.6] ETSI EN 319 132-2: "Electronic Signatures and Infrastructures (ESI); XAdES digital signatures; Part 2: Extended XAdES signatures".
- [i.7] ETSI TS 119 124-3: "Electronic Signatures and Infrastructures (ESI); CAAdES digital signatures - Testing Conformance and Interoperability; Part 3: Test suites for testing interoperability of extended CAAdES signatures".
- [i.8] ETSI TS 119 134-3: "Electronic Signatures and Infrastructures (ESI); XAdES digital signatures - Testing Conformance and Interoperability; Part 3: Test suites for testing interoperability of extended XAdES signatures".

- [i.9] ETSI TS 119 164-2: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC) - Testing Conformance and Interoperability; Part 2: Test suites for testing interoperability of ASiC baseline containers".
- [i.10] ETSI TS 119 164-3: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC) - Testing Conformance and Interoperability; Part 3: Test suites for testing interoperability of ASiC containers other than baseline".
- [i.11] ETSI TS 119 164-4: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC) - Testing Conformance and Interoperability; Part 4: Testing conformance of ASiC baseline containers".
- [i.12] ETSI TS 119 164-5: "Electronic Signatures and Infrastructures (ESI); Associated Signature Containers (ASiC) - Testing Conformance and Interoperability; Part 5: Testing conformance of additional ASiC containers".

---

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI TR 119 001 [i.3] apply.

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI TR 119 001 [i.3] apply.

---

## 4 Testing Conformance and Interoperability

### 4.1 Part 2: Test suites for testing interoperability of ASiC baseline containers

ETSI TS 119 164-2 [i.9] specifies the test suites for testing interoperability of ASiC baseline containers against ETSI EN 319 162-1 [i.1].

ETSI EN 319 162-1 [i.1] defines four different levels of ASiC baseline containers.

The test suites are defined with different layers reflecting the levels of ASiC baseline containers specified in [i.1]:

- Testing ASiC containers interoperability between applications claiming B-B level conformance.
- Testing ASiC containers interoperability between applications claiming B-T level conformance.
- Testing ASiC containers interoperability between applications claiming B-LT level conformance.
- Testing ASiC containers interoperability between applications claiming B-LTA level conformance.
- Testing augmentation of ASiC containers from B-T level to B-LTA level.
- Testing ASiC baseline containers where the validation of the container signature(s) according to ETSI EN 319 102-1 [i.4] would not result in TOTAL\_PASSED:
  - ASiC B-B level containers test cases;
  - ASiC B-T level containers test cases;
  - ASiC B-LTA level containers test cases.

## 4.2 Part 3: Test suites for testing interoperability of additional ASiC containers

ETSI TS 119 164-3 [i.10] specifies the test suites for testing interoperability of additional ASiC containers against ETSI EN 319 162-2 [i.2].

ETSI EN 319 162-2 [i.2] defines additional containers including time assertions and signature(s) as defined in ETSI EN 319 122-2 [i.5] and ETSI EN 319 132-2 [i.6].

The test suites for containers including signatures are defined according to ETSI TS 119 124-3 [i.7] for signature(s) as defined in ETSI EN 319 122-2 [i.5] and according to ETSI TS 119 134-3 [i.8] for signature(s) as defined in ETSI EN 319 132-2 [i.6].

## 4.3 Part 4: Testing Conformance for ASiC baseline containers

ETSI TS 119 164-4 [i.11] defines the requirements for building software tools for testing technical conformance of ASiC baseline containers against ETSI EN 319 162-1 [i.1].

ETSI EN 319 162-1 [i.1] defines requirements for building blocks and ASiC baseline containers. For the purpose of identifying the whole set of test assertions required for testing conformance against ASiC baseline containers as specified in ETSI EN 319 162-1 [i.1], ETSI TS 119 164-4 [i.11] classifies the whole set of requirements specified in ETSI EN 319 162-1 [i.1] in two groups as follows:

- 1) requirements specific to ASiC baseline containers;
- 2) requirements common to both ASiC baseline containers as specified in ETSI EN 319 162-1 [i.1] and additional ASiC containers as specified in ETSI EN 319 162-2 [i.2].

## 4.4 Part 5: Testing Conformance for additional ASiC containers

ETSI TS 119 164-5 [i.12] defines the requirements for building software tools for testing technical conformance of additional ASiC containers against ETSI EN 319 162-2 [i.2].

ETSI EN 319 162-1 [i.1] defines requirements for building blocks and ASiC baseline containers. For the purpose of identifying the whole set of test assertions required for testing conformance against additional ASiC containers as specified in ETSI EN 319 162-2 [i.2], ETSI TS 119 164-5 [i.12] classifies the whole set of requirements specified in ETSI EN 319 162-1 [i.1] and in ETSI EN 319 162-2 [i.2] in two groups as follows:

- 1) requirements common to both ASiC baseline containers as specified in ETSI EN 319 162-1 [i.1] and additional ASiC containers as specified in ETSI EN 319 162-2 [i.2];
- 2) requirements specific to Additional ASiC containers as specified in ETSI EN 319 162-2 [i.2].

---

## Annex A (informative): Bibliography

- ETSI TS 119 122-3: "Electronic Signatures and Infrastructures (ESI); CAAdES digital signatures - Testing Conformance and Interoperability; Part 3: Test suites for testing Interoperability of extended CAAdES signatures".
- ETSI TS 119 132-3: "Electronic Signatures and Infrastructures (ESI); XAdES digital signatures - Testing Conformance and Interoperability; Part 3: Test suites for testing Interoperability of extended XAdES signatures".



---

## History

<b>Document history</b>		
V1.1.1	June 2016	Publication