The Standards People

Identity Proofing for Trust Service Subjects

Alliance pour la Confiance Numérique

12/05/2021

Presented by: **Stéphane Mouy - ETSI STF 588**

STF 588 - rationale

- The current European standards published by ETSI on trust services specify identity proofing only by generic requirements like “physical presence” or “*means which provide equivalent assurance as physical presence*” derived from eIDAS art. 24.1.
  - Physical presence as a benchmark is not well-defined as no requirements are posed neither for the quality of physical identity documents nor for the competence or procedures to be carried out by the person performing the check.
  - What constitutes “equivalent assurance” as physical presence is up to subjective judgement.
  - Guidelines for remote identity proofing are needed to avoid cumbersome and expensive physical presence procedures when possible.
- TSPs tend to outsource identity-proofing processes to dedicated service providers
- These needs become even more pressing under the options to review the eIDAS Regulation

ETSI STF 588 deliverables

ETSI TR 119 460 Electronic Signature and Infrastructures (ESI); Survey of technologies and regulatory requirements for identity proofing for trust service subjects. (18/12/2020)

This document surveys the technologies, legislations, specifications, guidelines and standards related to or used for identity proofing. Information has been gathered from stakeholders such as national agencies developing requirements, product and service vendors, research and academic environments, and relevant existing specifications.

TR 119 460 finalised - published

ETSI TS 119 461 Electronic Signatures and Infrastructures (ESI); Policy and security requirements for identity proofing of trust service subjects. (31/07/2021)

This document aims to specify policy and security requirements for a trust service component providing identity proofing of trust service subjects. It can be used for conformity assessment of a trust service provider which includes this service component as part of its service or can be used for conformity assessment of a specialized provider of identity proofing supporting other trust service providers.

The document specifies practices for security supporting different technological approaches, and for 2 IP assurance levels ('**baseline**' outcome level and '**enhanced**' outcome level).

TS 119 461 - Work in progress

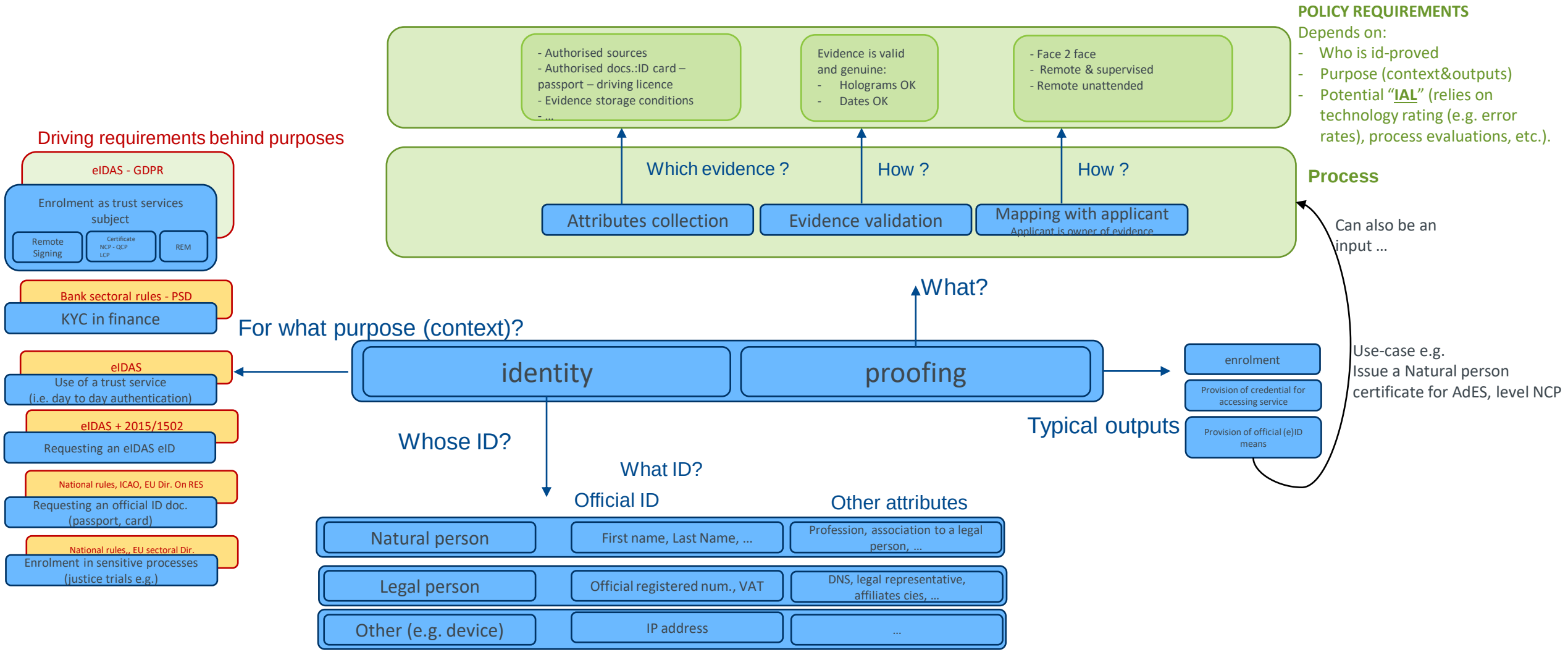
Policy and security requirements for identity proofing of trust service subjects

- Identity proofing is not an eIDAS trust service by itself, but a trust service component. An identity proofing service component may be used by many different trust services
  - ETSI EN 319 403-1 auditable -> one audit that can be reused for different purposes

- Security and policy requirements
  - Based on ETSI EN 319 401 – common requirements for all trust services
  - Specific requirements for identity proofing (relation with EN 319 411-1 / -2 clauses 6.2, specific requirements to support qualified trust services (does not mean the ID Proofing is a QTS))
    - Specify best practice requirements on how to **use selected means** to implement the three tasks of attribute and evidence collection, attribute and evidence validation, and binding to applicant + initiation and result.
    - Specify how identity proofing processes can be constructed **by combining means** to meet the desired outcome of the identity proofing process.

- Security requirements are provided to cover commonly faced risks falling in two main categories
  - **Falsified evidence** : An applicant claims an incorrect identity using forged evidence.
  - **Identity theft** : An applicant uses valid evidence associated with another person.
  - Plus two other risks also to be considered : **attacks of the information systems** and **social engineering**

Identity proofing is part of the broader identity management lifecycle and must be considered ‘in context’



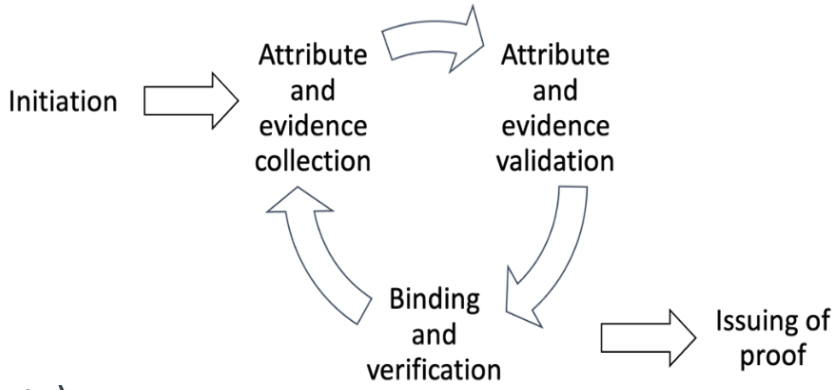
TR 119 460 - information collection

- 53 sources of information analysed in depth (collection of relevant documents by ESI, eMails (to ESI and eSignature News mailing list), found by STF experts while analysing received info.).
- Direct contacts with stakeholders – spontaneous inputs
- Liaison with ENISA Remote ID proofing report group
- Questionnaires: in-depth responses to questionnaires from 5 QTSPs and 9 vendors
- eIDAS up-date consultation

TR 119 460 - methodology for analysis
Reading Sheets based on ID proofing process components

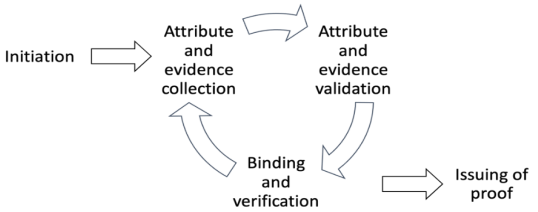
The reading sheets offers **a common window to look at the information,** to compare heterogenous and numerous information and derive trends for each component:

- Short description (purpose, context, type of ID, …)
- Attribute & evidence collection
- Attribute & evidence validation
- Mapping ID attributes with applicant (binding)
- Requirements of the use case/scenario (incl. security requirements)



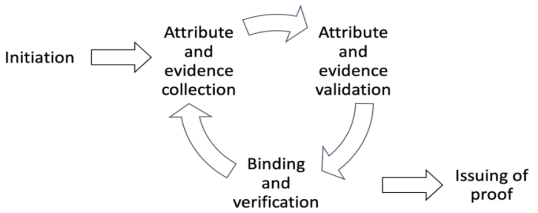
This is completed and “confronted” with the feedback from the questionnaires to vendors and TSPs.

The conclusions identify relevant information for the TS.



TS 119 461 - Technical Specifications Attribute and evidence Collection

- **Data subjects : individuals, legal entities, individuals acting on behalf of legal entities**
- **Evidence that can be presented**
  - Identity documents (e.g. a passport) – eligible for 'authoritative evidence' status
  - eIDs – eligible for 'authoritative evidence' status
  - Digital certificate supporting an electronic signature – eligible for 'authoritative evidence' status
  - Trusted registers, proof of access information, other documents and attestations – eligible for 'supplementary evidence' status
- **Attribute presentation modes**
  - Collected as digital representation of an identity document (e.g. scan or photo of identity card or passport)
    - Captured remotely
    - Captured on site
  - Digitally extracted from an ID document (e.g. through (remote) access to the identity document chip)
  - Transmitted in purely digital form as an eID or a digital certificate;
- **Communication channels**
  - In the event of remote collection, e.g.
    - Protocol and APIs used for the transfer of ID attributes (e.g. SAML or OpenID Connect);
    - Security measures deployed to protect the integrity of the attribute transmission (e.g. end-to-end encryption);
    - ID attributes remotely presented by the applicant or obtained from a third party independent of the applicant (a "trust " service)
  - Constraints to be observed in case of on-site presentation (e.g. on the personnel)

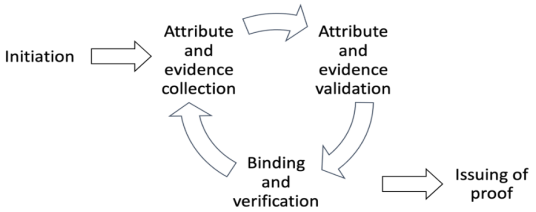


TS 119 461 - Technical Specifications Attribute and evidence Validation

- Determination that the evidence is genuine (issued by recognised independent/authoritative sources)
- Determination that the ID attributes are valid (not expired, not revoked)

The following aspects are specified:

- Description of customary security checks implemented, and security features verified in relation to attributes collected as digital representation of an ID document;
- Description of customary security checks implemented in relation to ‘purely digital’ attributes (digitally extracted from ID documents or obtained via an eID process);
- Description of other checks implemented if any (e.g. matching with other data, verification of expiry date, etc);
- Description of external (governmental) sources queries if any;
- Applicable technical standards if any.

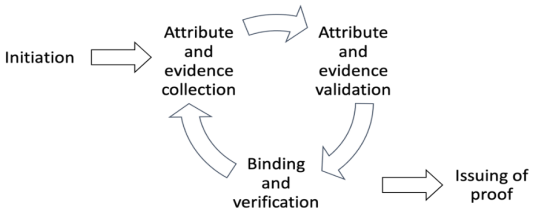


TS 119 461 - Technical Specifications Binding with applicant

- Mapping ID attributes with applicant or the attribute binding process can be defined as the steps taken to confirm, with a given degree of confidence, that the claimed identity credentials (for example those shown in a passport or ID card) which have been obtained and confirmed as valid are indeed those of the applicant and not of someone else
- Main use cases/scenarios
  - Face to face (on premise) physical presence of the applicant
  - Attended video interview (remote)
  - Unattended video interview (remote)
  - Use of eID, eSign/Seal, access to trusted sources

- **On premise 'physical presence'** is generally viewed as a benchmark for binding purposes … but is rarely specified

  This generates uncertainty as to the meaning of 'equivalent assurances in terms of reliability to physical presence'

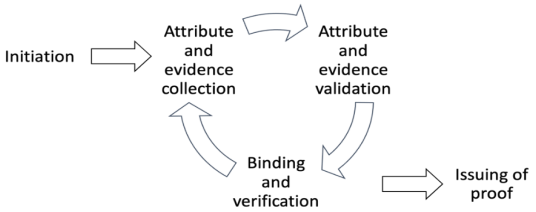


TS 119 461 - Technical Specifications Use cases/Scenarios

- Specify how identity proofing processes can be constructed by combining means to meet the desired LoIP of the identity proofing process.
  - means and technologies' combinations to be considered to reach a comparable confidence in the identity proofing outcome at the two levels 'Baseline' and 'enhanced',

    Baseline LoIP requires fulfilment of general best practice requirements for the identity proofing process and considered suitable for the currently defined trust service policies as defined by ETSI. This level aims to protect against attacks up to level 'moderate'

    Enhanced LoIP requires fulfilment of additional requirements to strengthen reliability and security with the aim of protection against attacks up to level 'difficult' and PAD test completed
- for the processes identified above (with physical on-site presence of the applicant, remote video interview, remote unattended process and automated process)



TS 119 461 - Technical Specifications Annexes

- Application for issuance of NCP certificates
- Application for issuance of QCP certificates
- Application for ETSI EN 319 521 – registered delivery services
- Application for ETSI TS 119 431-1 & CEN EN 419 241-1
- Application for issuance of eID means related to eIDAS article 8
- Attack scenarios and risks of occurrence

Next steps and further information

- ETSI TS 119 461 Electronic Signatures and Infrastructures (ESI); Policy and security requirements for identity proofing of trust service subjects : to be published **31/07/2021**

- Detail on project on web page: https://portal.etsi.org/STF/STFs/STF-HomePages/STF588
- ENISA “Analysis of Methods to carry out identity proofing remotely” (*to be published*)
- … and many other references in the ETSI TR 119 460 on identity proofing: https://www.etsi.org/deliver/etsi_tr/119400_119499/119460/01.01.01_60/tr_119460v010101p.pdf


ETSI
The Standards People