A Profile for Trust Anchor Material for the Resource Certificate PKI

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SIDR WG

IETF 74

Background

- This has been the topic of WG discussion
  - who should be putative TA for the RPKI
  - how should TA material be published
- Focus the discussion by creating a document to address Trust Anchors for the RPKI
  - Removed section 6.3 from Res Cert profile draft
  - Created a new draft with this material
  - draft-ietf-sidr-ta-00.txt

Who?

- Draft is silent on prescribing roles for bodies:

  "This document does not nominate any organizations as default trust anchors for the RPKI."

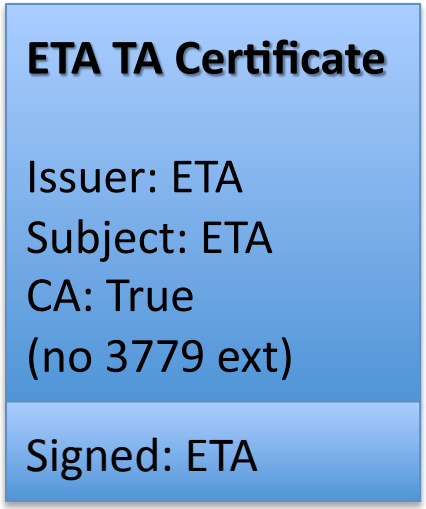
- Reasons for this position:
  - This task falls outside of IETF WG direction relating to conventional protocol parameter registry functions
  - The standard technology specification should encompass use in a broad spectrum of contexts including various forms of private use as well as public

- However, the document does observe that:

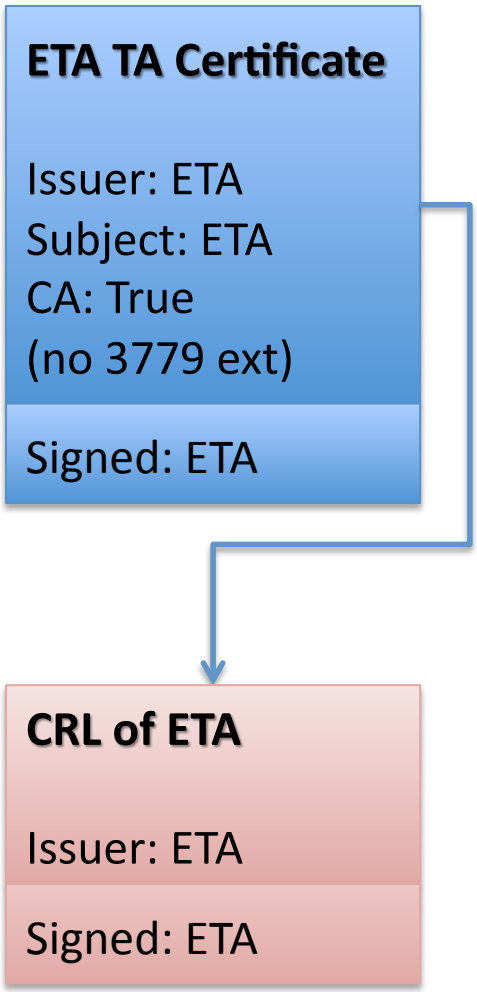
  "for most RPs, the IANA is in a unique role as the default TA for representing public address space and public AS numbers."

How?

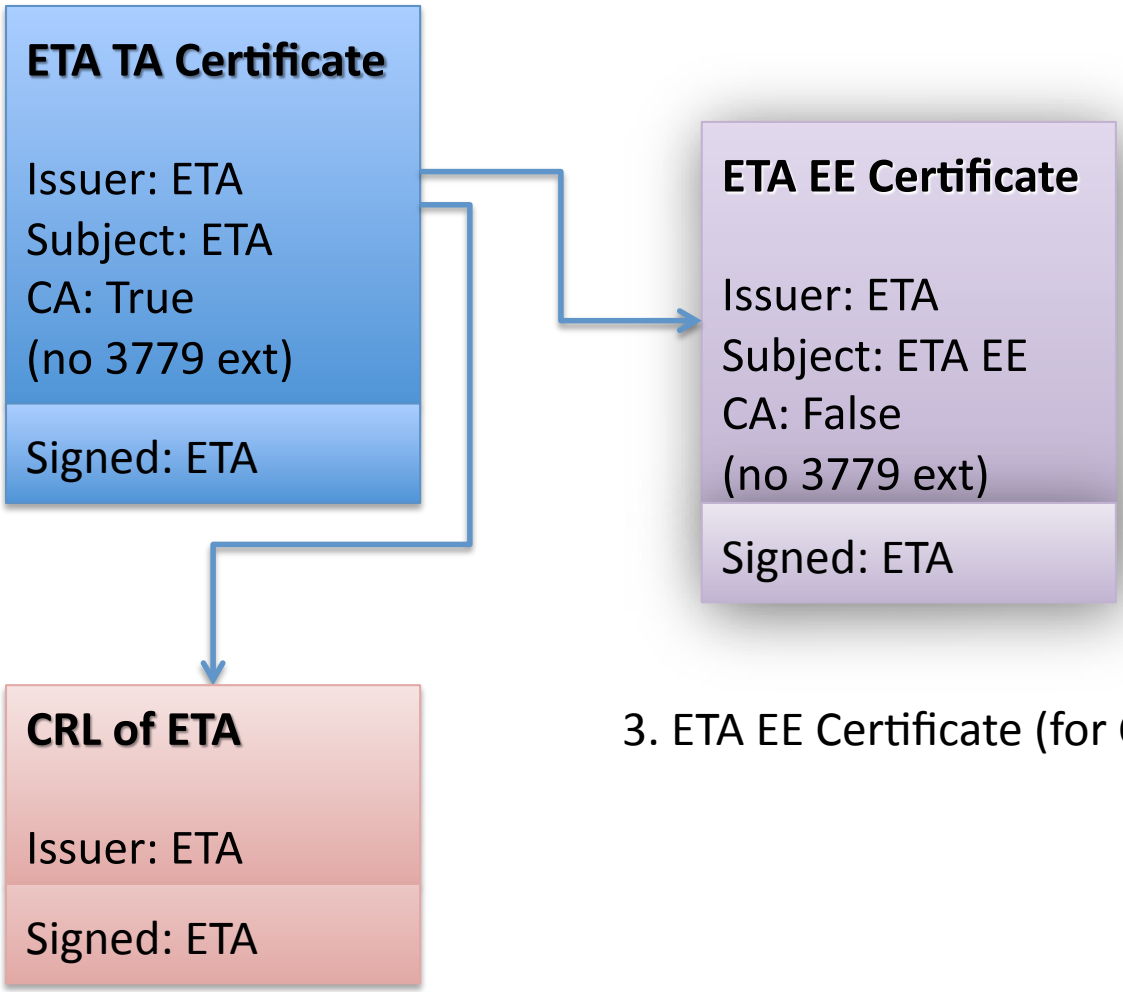
- No change from previous TA specification in draft-ietf-sidr-res-certs
  - (aside from some terminology clarifications)
- Two-Tier Model of Trust Anchor
  - Allows for variation in resources held at the “root” while keeping the trust anchor material constant
  - Can be used in a variety of contexts, both public and private
  - Aligns with the TA work in PKIX WG (draft-ietf-pkix-ta-format-01)



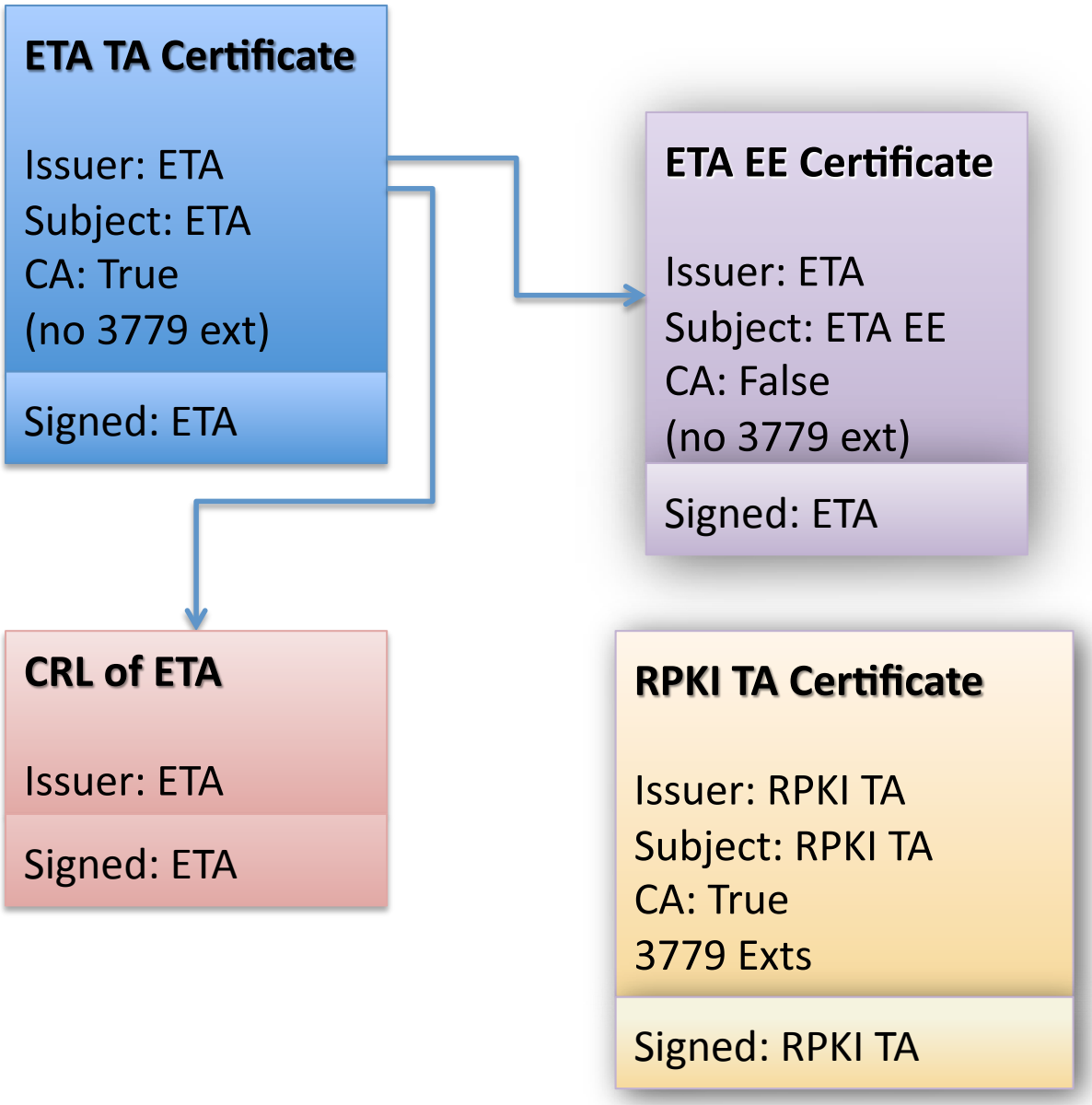
1. External Trust Anchor Certificate - ETA



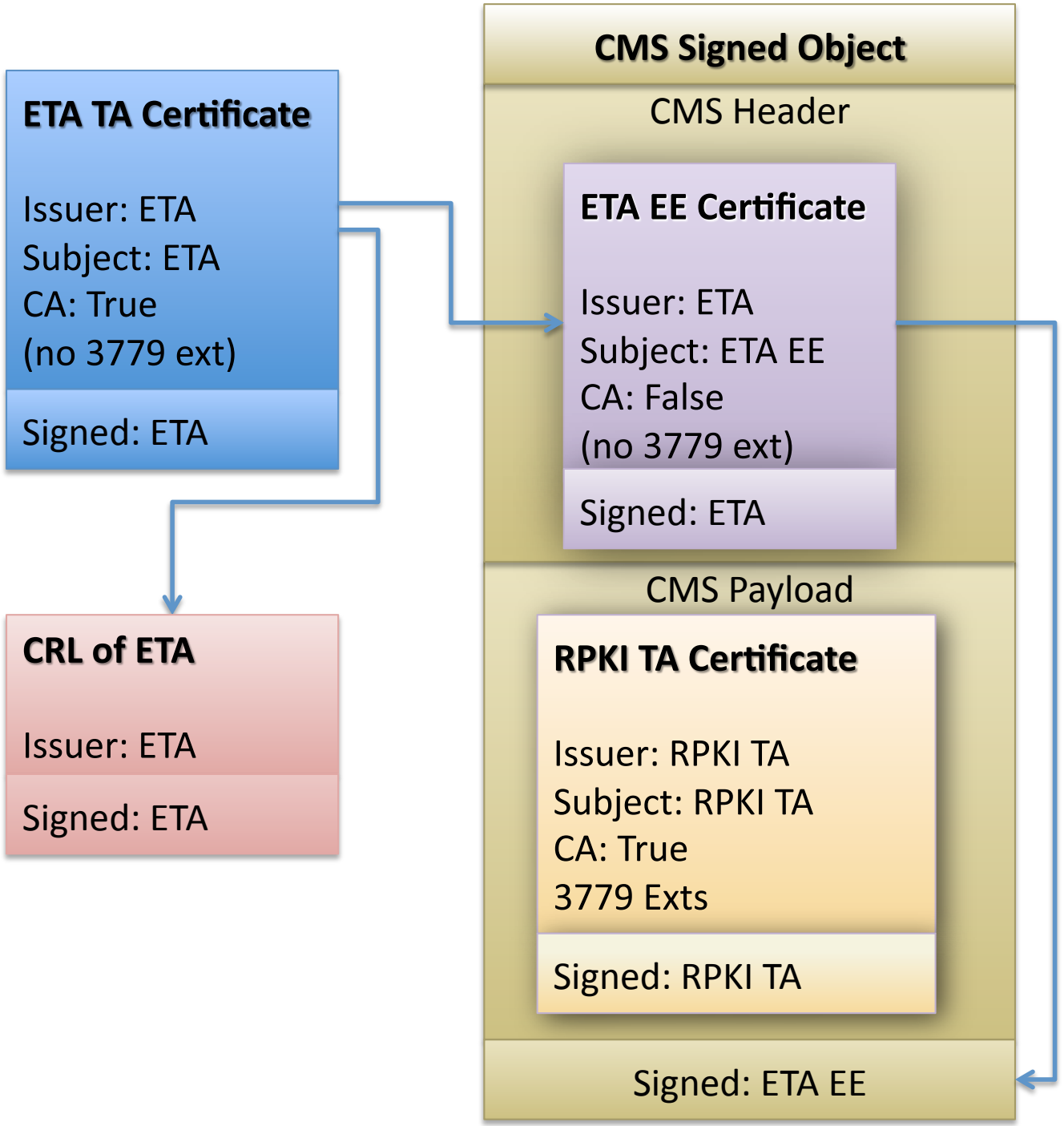
2. Certificate Revocation List for ETA



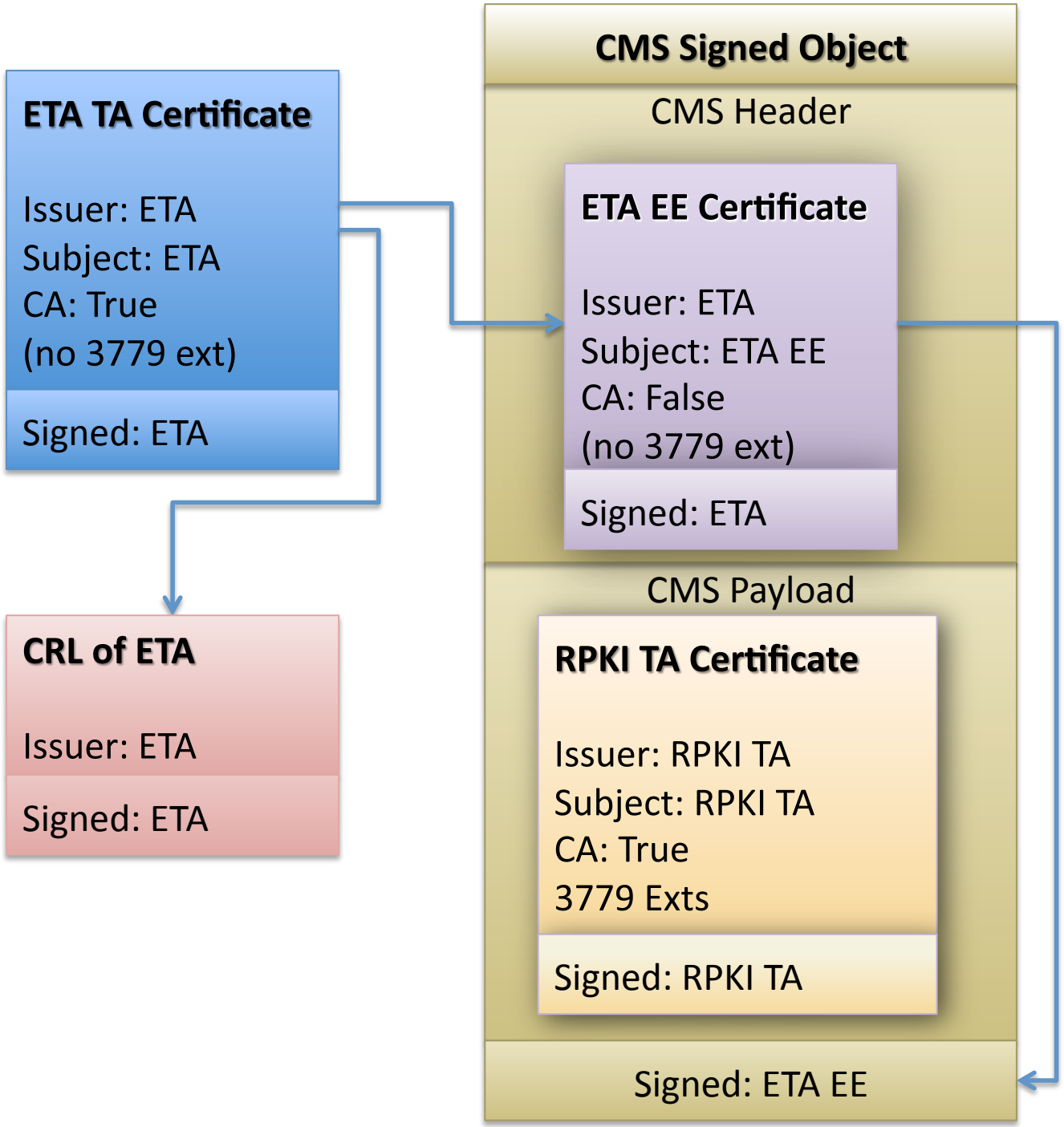
3. ETA EE Certificate (for CMS Object Verification)



4. RPKI TA Certificate



5. CMS packaging of the RPKI TA Certificate


ETA TA Certificate
Issuer: ETA
Subject: ETA
CA: True
(no 3779 ext)
Signed: ETA
CRL of ETA
Issuer: ETA
Signed: ETA
CMS Signed Object
CMS Header
ETA EE Certificate
Issuer: ETA
Subject: ETA EE
CA: False
(no 3779 ext)
Signed: ETA
CMS Payload
RPKI TA Certificate
Issuer: RPKI TA
Subject: RPKI TA
CA: True
3779 Exts
Signed: RPKI TA
Signed: ETA EE