draft-friel-acme-integrations

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TL;DR

 Describes how ACME RFC 8555 can be integrated with multiple existing client / device certificate enrolment mechanisms without requiring any changes required to ACME

Multiple Client / Device Integration Use Cases

1. EST

• RFC 7030: Enrollment over Secure Transport

2. BRSKI

• draft-ietf-anima-bootstrapping-keyinfra: Bootstrapping Remote Key Infrastructures

3. BRSKI Cloud Registrar

draft-friel-anima-brski-cloud: Specifies BRSKI behaviour with default cloud registrar

4. TEAP

RFC 7170: Tunnel Extensible Authentication Protocol

5. TEAP Update and Extensions for Bootstrapping

draft-lear-eap-teap-brski: PKCS#10 / PKCS#7 Updates and BRSKI Extensions

What has changed since IETF 105

- ACME subdomain use case split out into separate document
 - draft-friel-acme-subdomains

- BRSKI Cloud Registrar use case added
 - draft-friel-anima-brski-cloud

Client / device certificate integrations

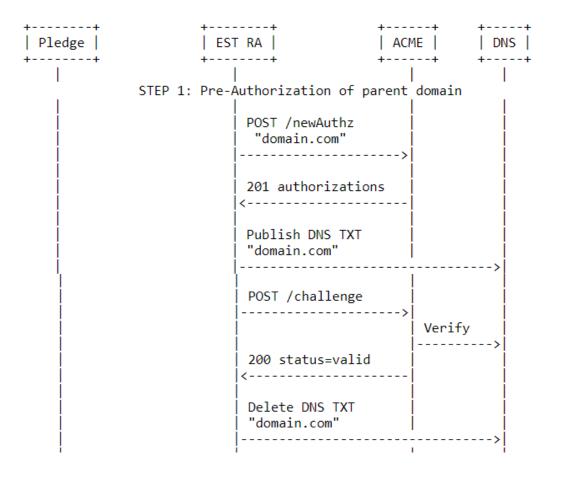
EST

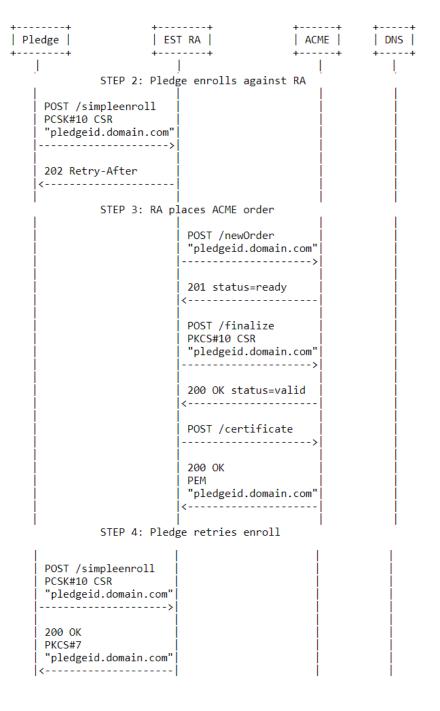
- Defines the protocol that clients use to enrol with an EST Registration Authority (RA) using PKCS#10 / PKCS#7 payloads
- EST does not define the mechanism that the RA uses to talk to the CA
- BRSKI certificate enrolment leverages EST
 - EST<->ACME Integrations are equally applicable to BRSKI

TEAP

- Defines the protocol that clients use to enrol with a TEAP server using PKCS#10 / PKCS#7 payloads
- TEAP does not define the mechanism that the TEAP server uses to talk to the CA

EST -> ACME





Discussion

• To do: Security considerations

- Integrations span across ACME, ANIMA, EMU WGs
- Where does this belong?
- Is there interest in continuing this work?

Next Steps?