EST over coaps

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Bootstrapping of Remote Secure Key Infrastructures (BRSKI) [ietf-anima-bootstrapping-keyinfra] uses Enrollment over Secure Transport (EST) [RFC7030]

Where EST is currently based on HTTP and TLS
This draft proposes CoAP and DTLS

to support secure bootstrapping of low resource devices
DTLS at transport is applied between pledge and EST server. Pledge and EST server exchange Certificates and Vouchers [ietf-anima-voucher].
Changes since IETF98

1. Security considerations section added
   Proxy considerations
   EST server considerations
2. Proxying section added
3. Discovery extended
4. Text changed to BRSKI evolution
• Operational parameter values
• React to reviews
• And others.....
Next Steps

Ready for WG Draft?
Reminder
Motivation

When *anima* takes off, Boxes with EST server and Registrar will be available.

Adding the CoAP/UDP interface to box:
- enables secure bootstrapping in low resource networks,
- removes need for http/coap proxy,
- equalizes treatment of low-resource and regular devices.
Contents

- Specify use of DTLS and CoAP Block with examples
- Conformance with ACE profiles

Differences with EST:
- No human (password) intervention
- No full PKI messages
- Extensions needed for BRSKI
- Discovery of path base: e.g. /est
- Payload formats “pkcsxx” use binary
endpoints/resources: /application/..

/cacerts uses pkcs7-mime
/simpleenroll uses pkcs7-mime pkcs10
/simplereenroll uses pkcs7-mime pkcs10
/csrratrtrs uses csratrtrs
/serverkeygen uses pkcs7-mime pkcs10 pkcs8
/requestvoucher uses voucherrequest
/voucher_status uses json
/enrollstatus uses json

BRSKI endpoint