EST over coaps

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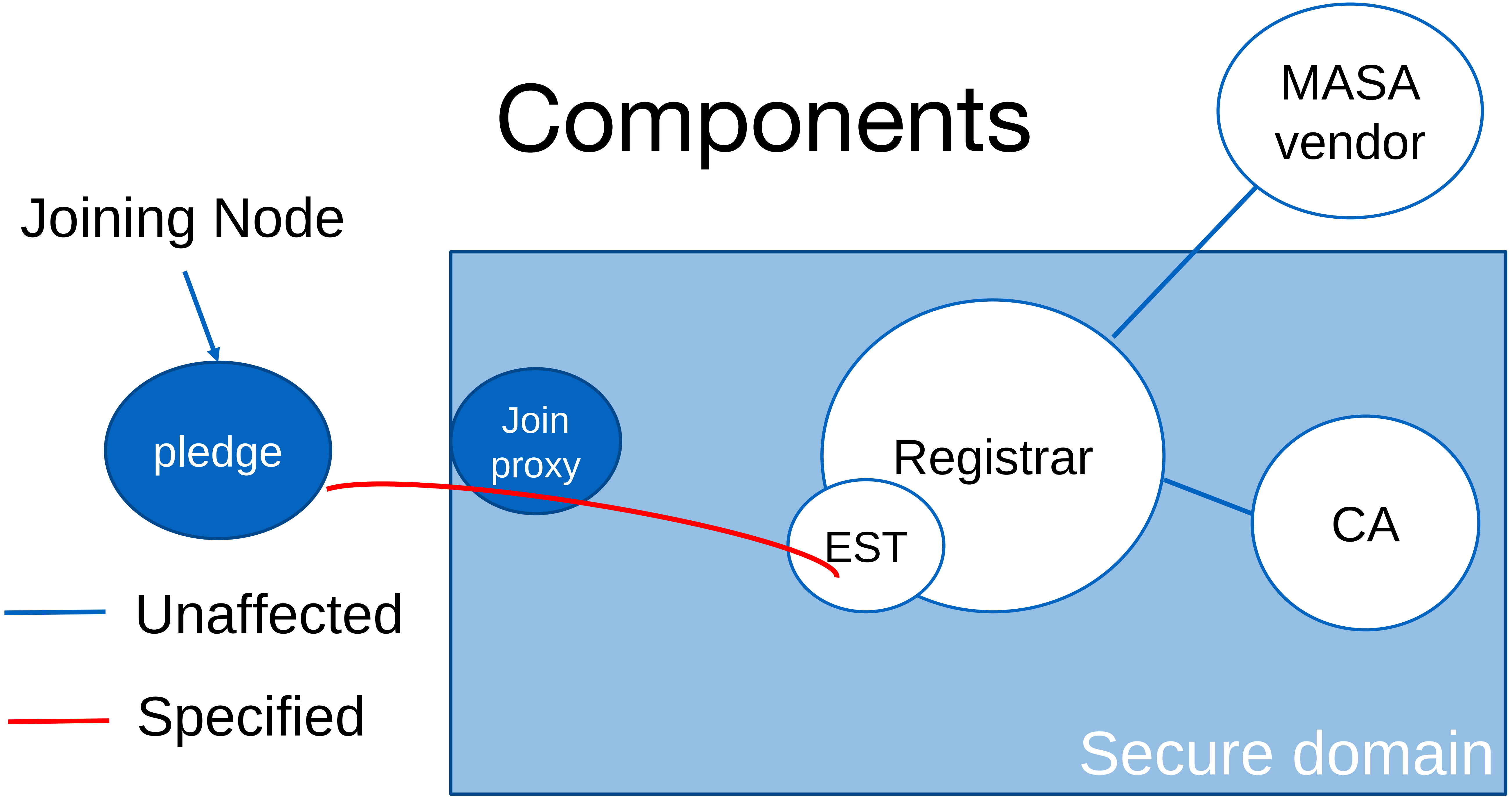
Bootstrapping of Remote Secure Key Infrastructures (BRSKI)
[ietf-anima-bootstrapping-keyinfra]
uses Enrollment over Secure Transport (EST) [RFC7030]

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

to support secure bootstrapping of low resource devices

Components



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

TODO

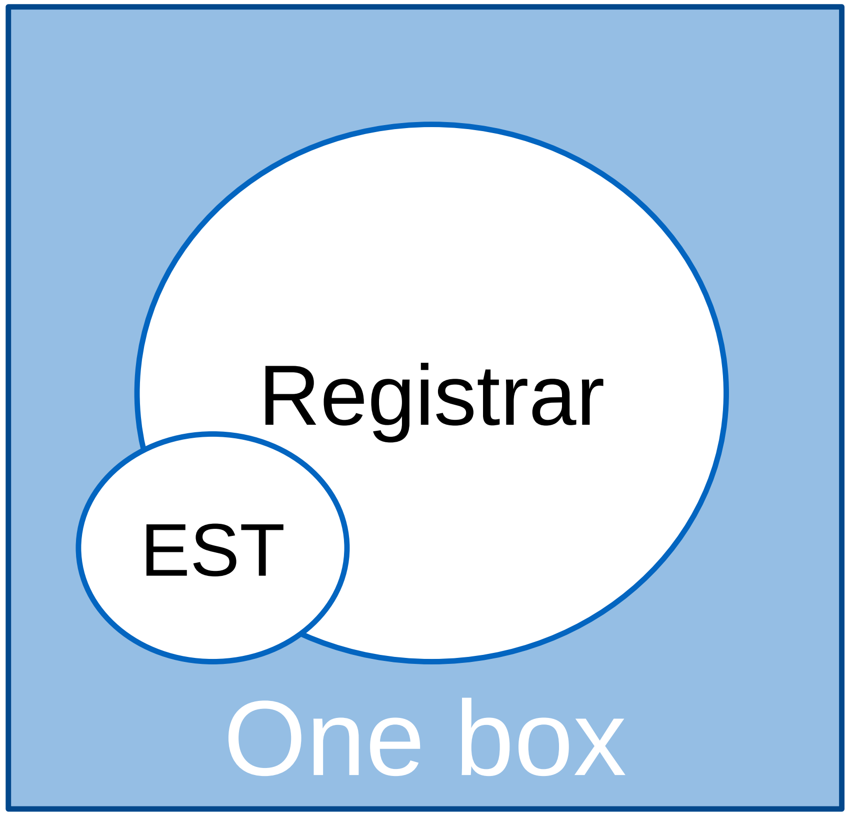
- Operational parameter values
- React to reviews
- And others…..

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

Details

endpoints/resources:		/application/…..		
/cacerts	uses	pkcs7-mime		
/simpleenroll	uses	pkcs7-mime	pkcs10	
/simplereenroll	uses	pkcs7-mime	pkcs10	
/csrattrs	uses	csrattrs		
/serverkeygen	uses	pkcs7-mime	pkcs10	pkcs8
/requestvoucher	uses	voucherrequest		
/voucher_status	uses	json		
/enrollstatus	uses	json		

BRSKI endpoint