draft-…-6tisch-dtsecurity-secure-join-01.txt

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Status

- Goal: Zero-touch join protocol, inspired from ANIMA BRSKI work.
- News:
  - ANIMA voucher document (“ownership claim token”) is almost in WGLC. (GRASP is in RFC-editor queue)
  - ANIMA BRSKI document was rewritten in April/May, and is much more readable.
  - Area Directors will find a home for EDHOC this week.
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Status – Next Steps

- Rewrite dtsecurity-secure-join to parallel BRSKI document with:
  - TLS → EDHOC,
  - HTTP → CoAP
  - minimal-security Join Request bootstrapped
- There should be a virtual 1:1 between sections in BRSKI and dtsecurity-secure-join.
  - This could result in some empty sections: tell me this makes sense.
  - The title should change to include the words “zero-touch”

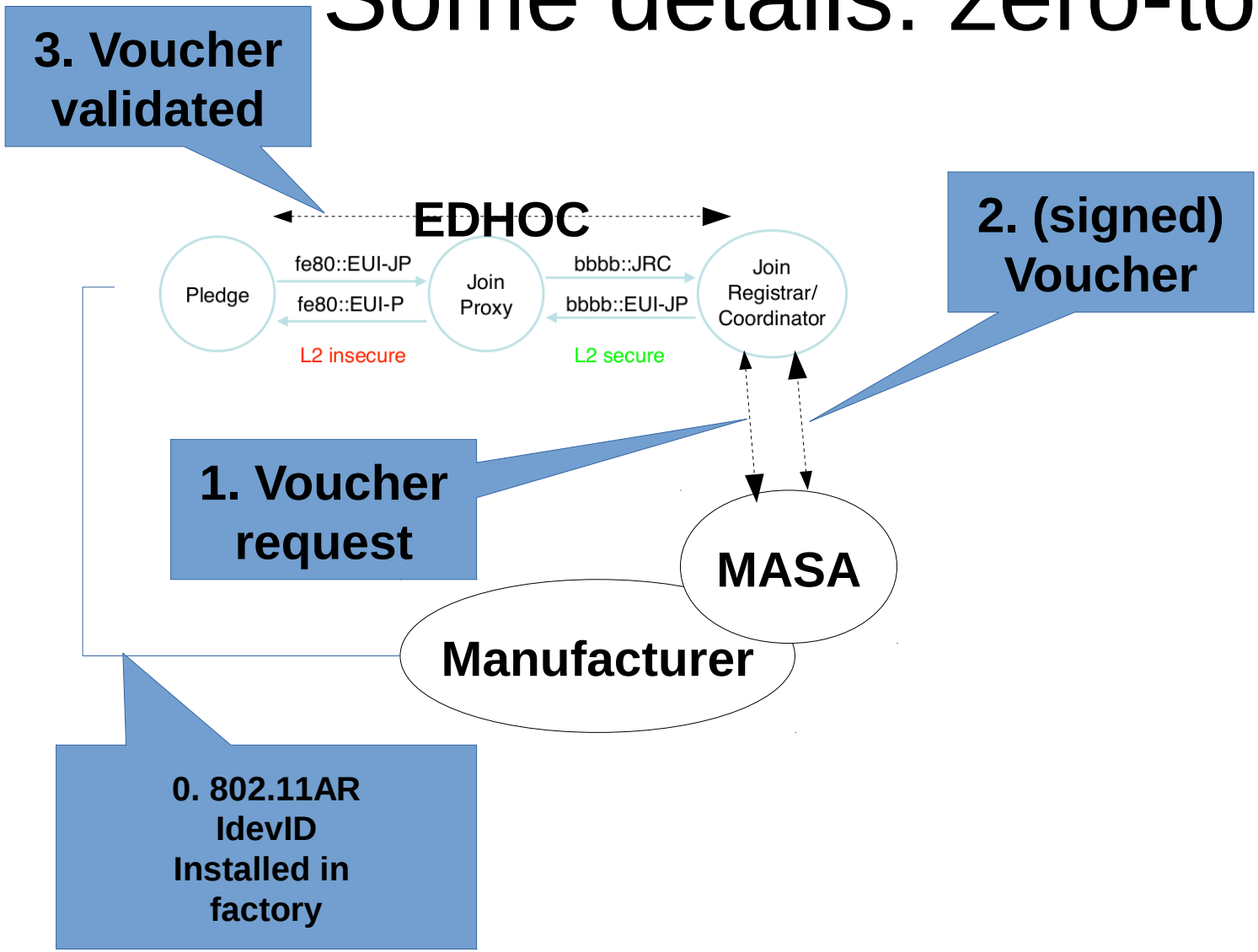
Related documents: Enhanced Beacon

- IEEE802.15.4 Informational Element encapsulation of 6tisch Join Information
- draft-richardson-6tisch-join-enhanced-beacon-01
- Authors: Michael Richardson and Diego Dujovne.
  - Awaiting WG adoption.
  - Enhancements suggested by 6tisch minimal to permit 0xff join preference to indicate “turn off join” (proxy).

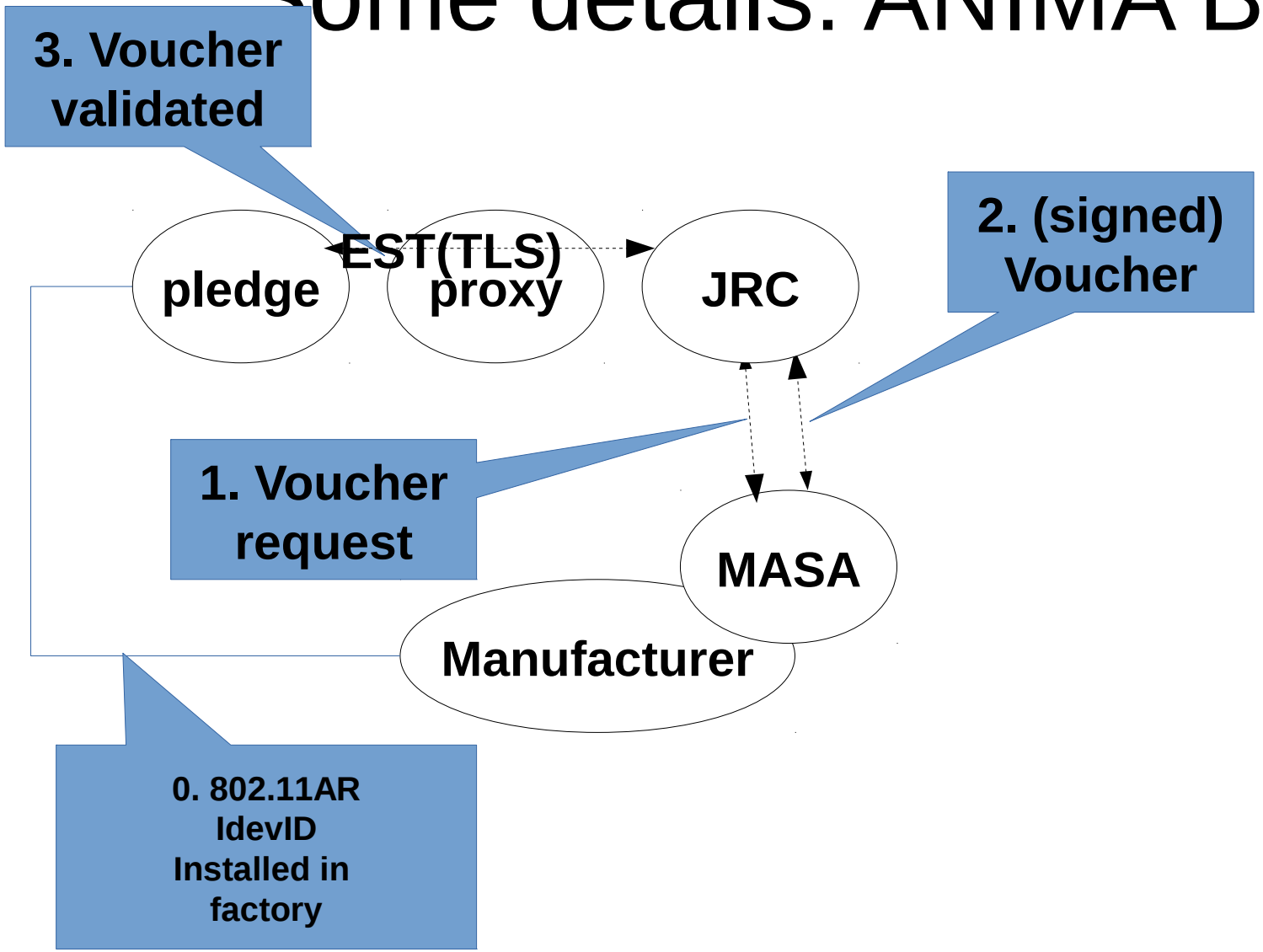
Related documents:

- Minimal Security rekeying mechanism for 6TiSCH
  - draft-richardson-6tisch-minimal-rekey-02
- Authors: Michael Richardson, Peter van der Stok.
  - Needs revision and work.
  - Intended to be COMI based, using keys setup from minimal-security and/or EDHOC. Details of keying are not yet stable.
- Covers case of network that either lives long enough to need a rekey, or any network that might need to remove a malicious/p0wned node from it’s network.

Some details: zero-touch



Some details: ANIMA BRSKI



Some other contrasts

6tisch

- Pledge discovers Proxy vis Enhanced Beacon
- Proxy provisioned with Pledge address via JoinRequest
- CoAP/EDHOC/ OSCOAP

ANIMA/BRSKI

- Pledge discovers Proxy vis GRASP M_FLOOD
- Proxy discovers JRC via GRASP
- TLS/EST
  - Leading to LDevID, and creation of ACP.

BRSKI diagram from TXT