BRISKI overview and issues

- Very short BRISKI overview.
- Recap of incoming/outgoing discussion
- Audit token, nonce-full/nonce-less versions
- Online view, offline view
- Ownership voucher details: Kent
The cast

Manufacturer
Manufacturer Authorized Signing Authority (MASA)
Registrar
Join Assistant/Proxy
New Node (pledge)
(ownership) voucher

LL
fe80::123->fe80::proxy

ULA
fd12:345::1-> registrar
(circuit proxy, IPIP, NAT66)
Incoming (callhome) / Outgoing Debate

Call Home

- outgoing TCP, followed by swap of client/server

6tisch Will use incoming, With COMI+
System-keystore proxy

ANIMA Decided to stick With outgoing via proxy
Audit tokens and ownership
Mix of contradictory requirements!

<table>
<thead>
<tr>
<th>Audit Token</th>
<th>Ownership Voucher</th>
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<tr>
<td>• Weak to no link to owner</td>
<td>• Strong link to owner</td>
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<tr>
<td>• May be bearer token!</td>
<td>• MASA either produces the voucher (possibly “online”), or provides access to</td>
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<td>• Likely contains link to owner’s public key.</td>
<td>already created voucher.</td>
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<td>• May link to some DN/CN of owner</td>
<td>• MASA stores history of previous vouchers.</td>
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<td>• Uses MASA to serve as registration, providing audit trail to</td>
<td>• (controversial), may include Voucher Revocation List!</td>
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<td>subsequent “owners”</td>
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Token Requirements

• Online validation
  – May include NEA-type assessment of current firmware of device (remote attestation) back to vendor.
  – Strong connection to supply chain to provide proof of ownership.

• Offline validation
  – Need to collect all Tokens/Vouchers onto stable storage for use offline.
    • National security concerns, disaster recovery, protection against vendor going out of business
  – Uncooperative/immature supply chain
    • Need to include voucher in bearer token form inside packaging as QR code
    • Supporting re-sale of devices, transitive trust of ownership vouchers