Problem Statement and Goals

- Devices need trusted introduction to a local deployment
- ANIMA BRSKI provides that trusted introduction
  - Certificate-based trust anchor installation
- EST provides the means to enroll a deployment certificate
- BRSKI and EST assume some level of network connectivity
- Not the case with 802.11 (and other) networks
- EAP provides a tunnel mechanism prior to network admission control
- TEAP has many of the TLVs we already need to implement much of this
Bootstrapping with wired (ANIMA BRISKI)

- Pledge=Device
- Registrar=Store of known devices (tied to AAA infrastructure)
- MASA="Manufacturer Authorized Signing Authority"
- EST - enrollment over secure transport
Client gets a certificate via EST (RFC 7030)
Overview

+--------+ +--------+ +--------+
| Client  | | TEAP-Server | | MASA |
+--------+ +--------+ +--------+

ClientHello

ServerHello, etc.(1)

etc., Finished

etc., Finished

BRSKI-RequestAction(2)

BRSKI-RequestVoucher(3)

BRSKI-Voucher(4)

RequestVoucher

Voucher

<------------------------->
## Overview

<table>
<thead>
<tr>
<th>Client</th>
<th>TEAP-Server</th>
<th>MASA</th>
</tr>
</thead>
</table>

```
 Trusted-Server-Root
------------------------>
 Trusted-Server-Root
<------------------------
 CSR-Attributes
<------------------------
 PKCS#10
<------------------------
 PKCS#7
<------------------------
 Crypto-Binding TLV
<------------------------
 Crypto-Binding TLV
<------------------------>
 Result TLV
<------------------------
 Result TLV
<------------------------>
 EAP-Success
```
Changes since -00

- TLVs documented
- IANA considerations section added
- Several “request” messages removed (they can be implied)
- Flows updated
Issues that need to be addressed

• Security Considerations
• Can we further develop the voucher mechanism to address non-MASA cases?
• Can we further develop to use proof other than a certificate (PSK or other)?
Next Steps

• Consider those questions
• Work on the underlying architecture
• Consider EAP-NOOB use case as well
• Not asking for WG adoption at this time
• May need some interim discussions on the broader issues
• More about those broader issues at OPSAWG
• “Side Meeting” Tuesday at 18:00