# Review of draft-adrangi-eap-network-discovery-05 for IEEE 802.1AE/af

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IEEE 802 Plenary
San Antonio, Tx
November 2004

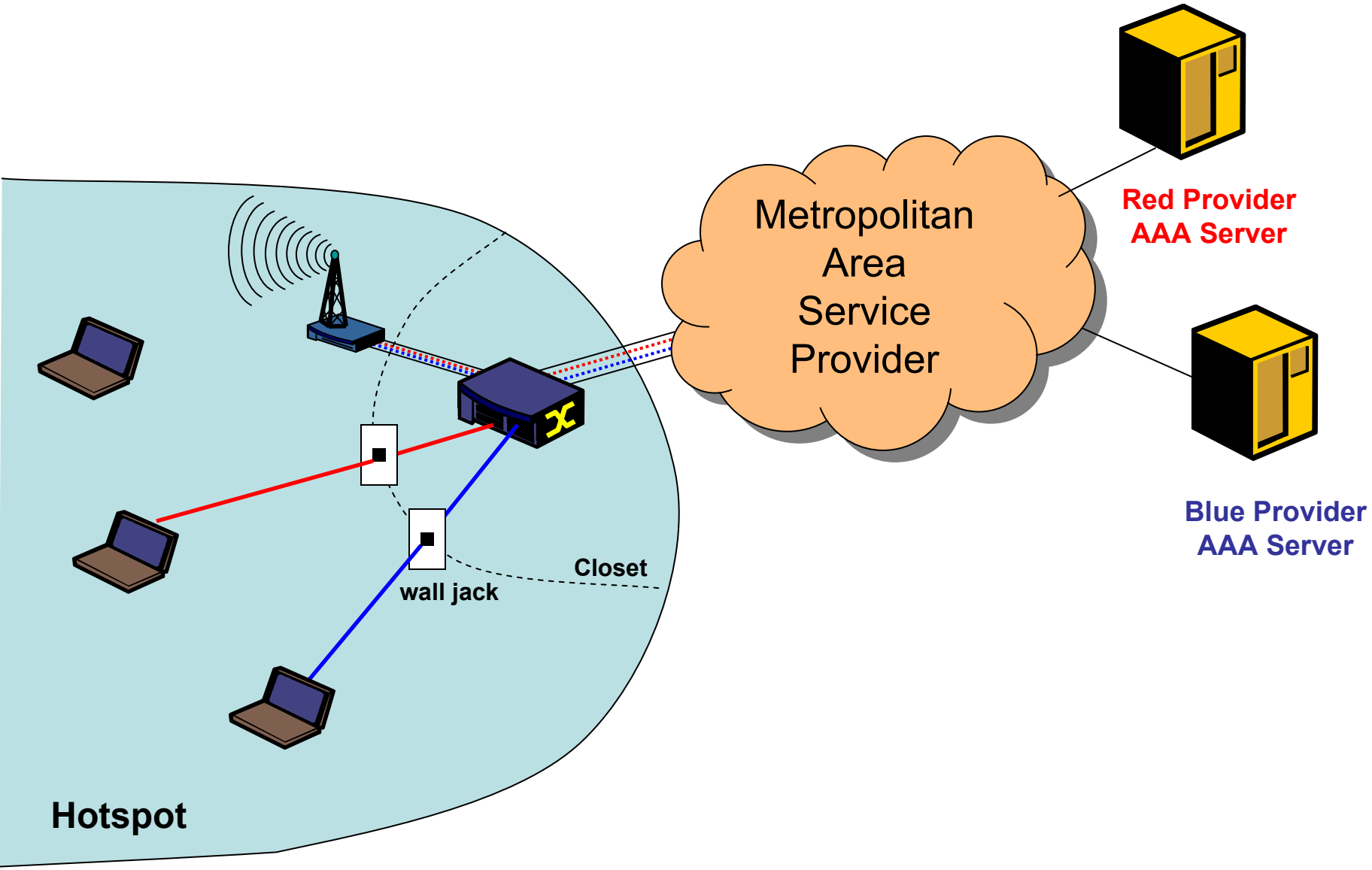
# EAP Network Discovery

- Usage scenarios
- Relevance to 802.1af
- Review of draft-adrangi-eap-network-discovery-05

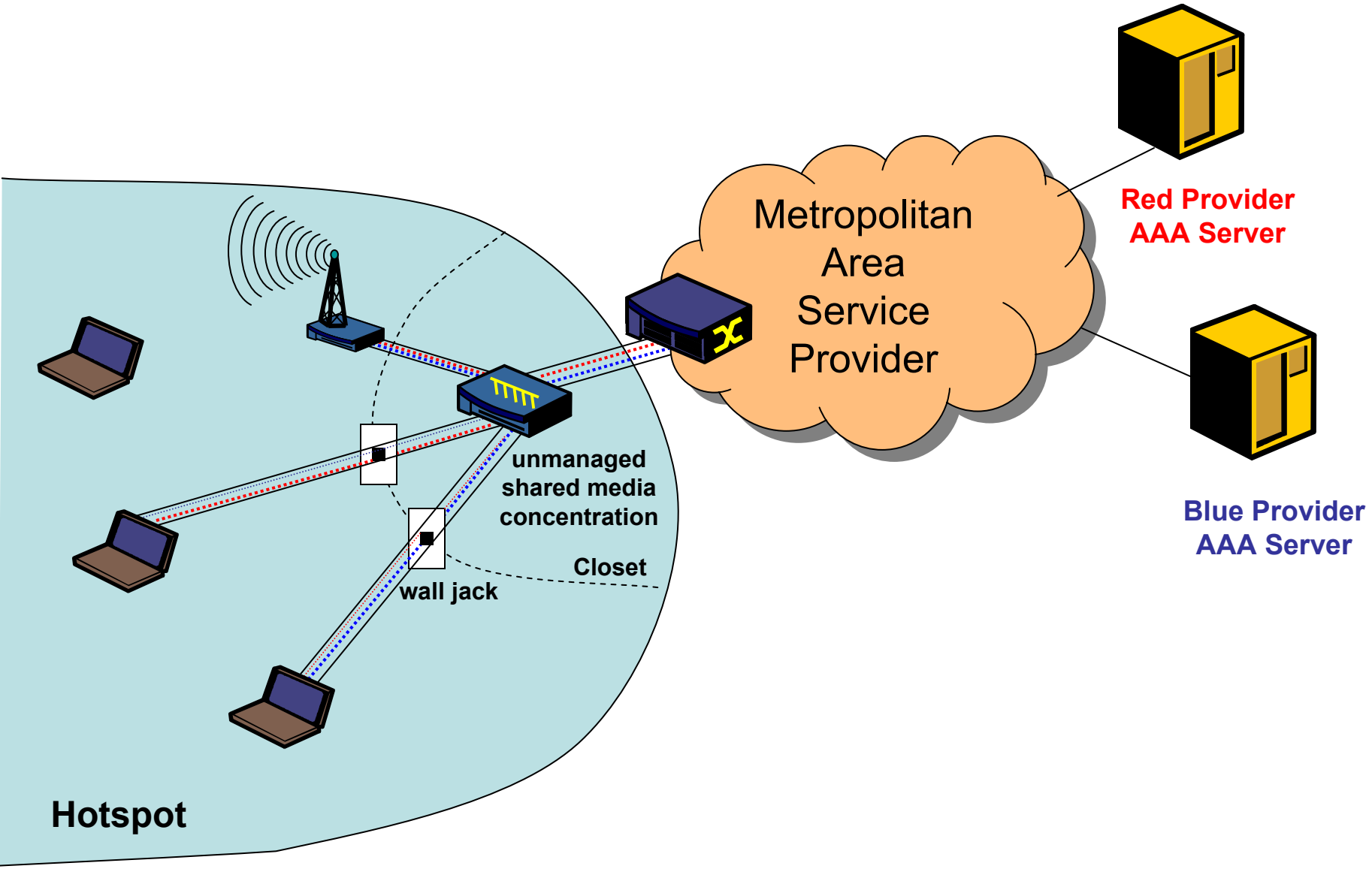
# Usage Scenarios – Wired Hotspots

- Imagine:
  - Wired ports where multiple service providers can deliver service simultaneously
  - Wired customers who have credentials with multiple service providers
  - Public or uncontrolled environments where it is difficult to enforce what is attached to the wire.
  - Wired network services are selected similar to how wireless network SSIDs are chosen today.

# 802.3 Hotspot



# 802.3 Hotspot



# Possible scenario with AE/af

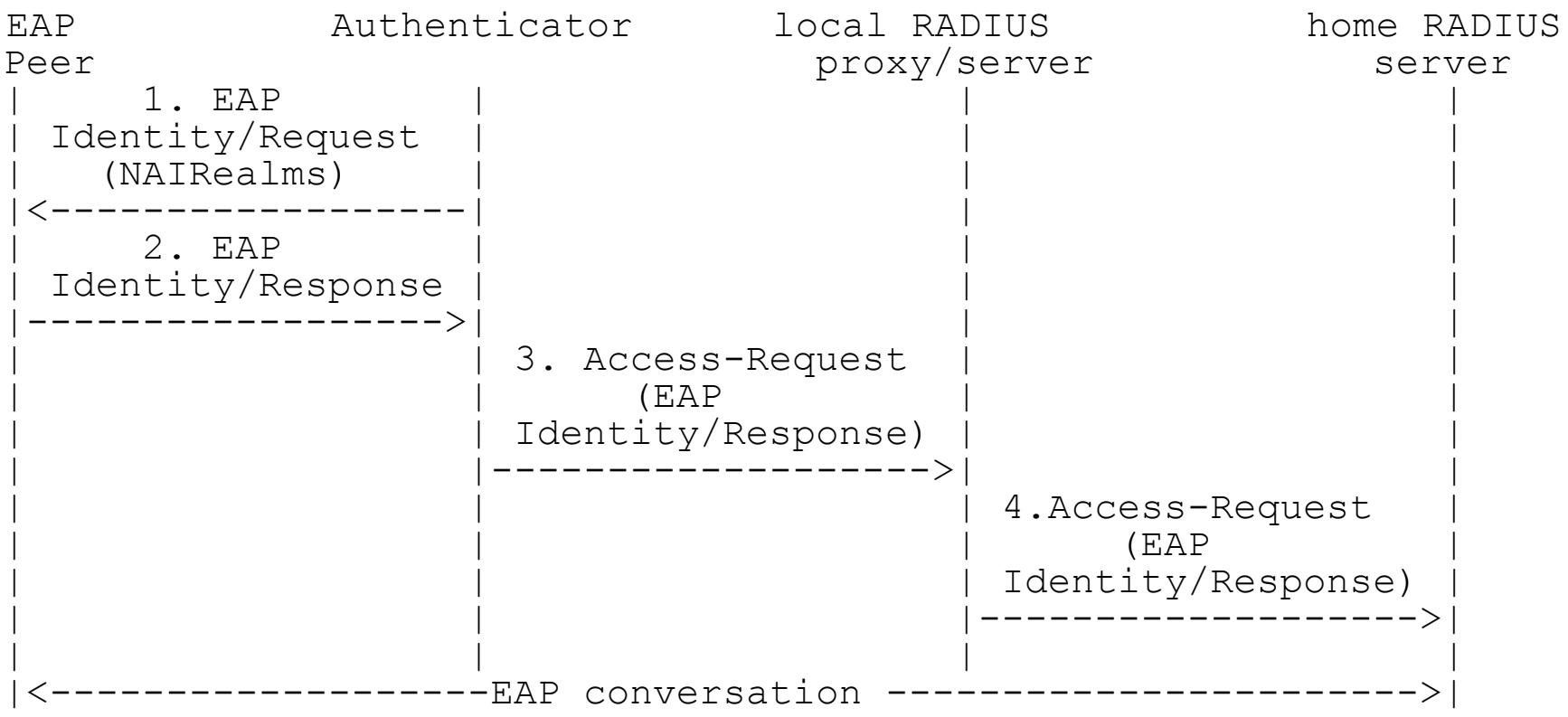
1. Select Network Access Identity (NAI) for network service of choice
2. Authenticate using 802.1X & EAP
3. Provision master key for 802.1AE via EAP
4. Establish CA using KSP
5. Maintain CA using KSP

# draft-adrangi-eap-network-discovery-05

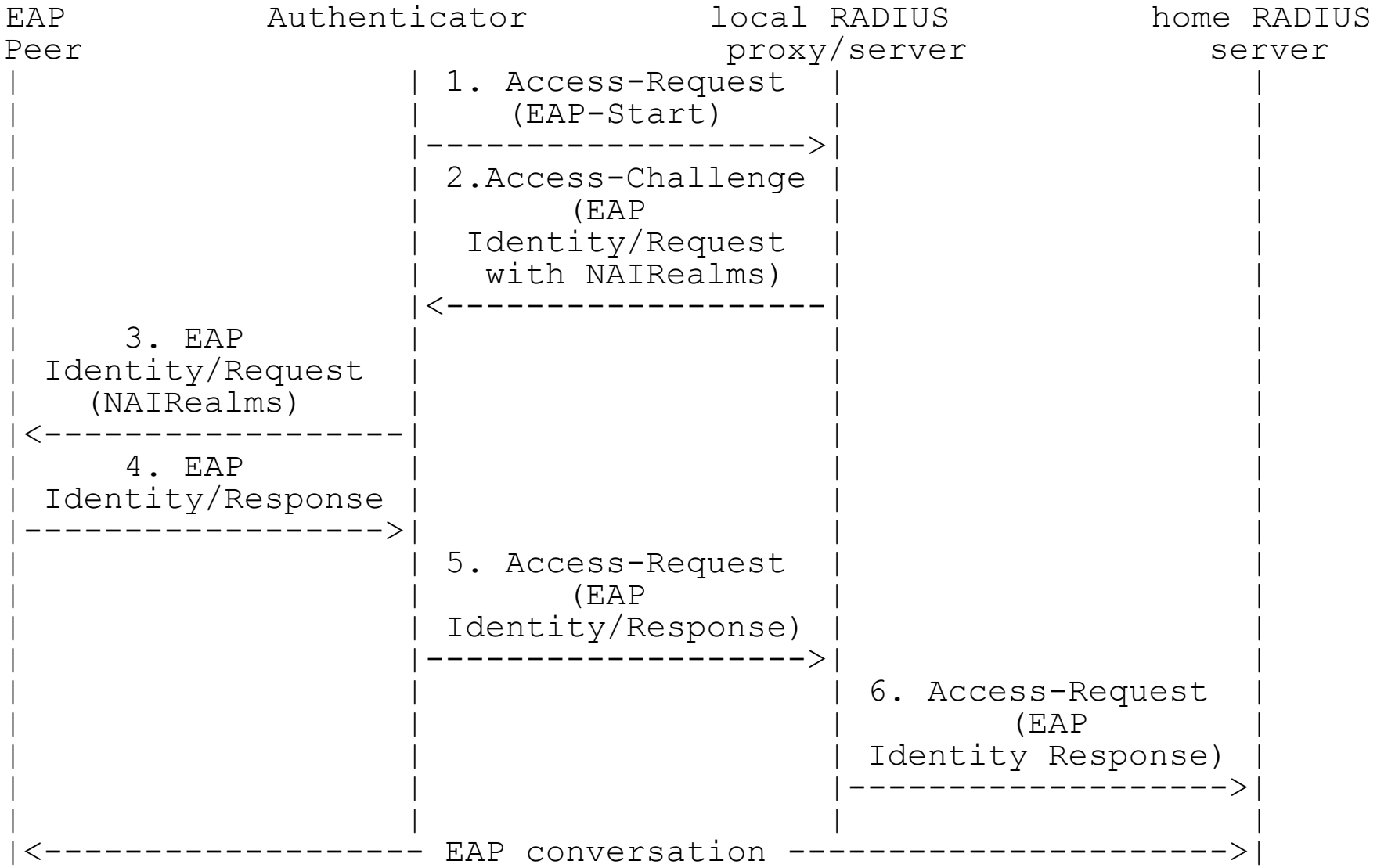
- Provides identity selection hints to an EAP peer (aka client)
- Peer chooses most appropriate NAI for EAP-Identity/Response
- EAP-Identity/Request contains a list of identity hints (NAI Realms)
- List of realms is after a displayable string and NULL character
- Example EAP-Identity/Request:

```
01                                  ; Code: Reques
00                                  ; Identifier: 0
00 43                               ; Length: 67 octets
01                                  ; Type: Identity
48 65 6c 6c 6f 21 00 4e             ; "Hello\0NAIRealms=example.com;mnc014.
41 49 52 65 61 6c 6d 73             ; mcc310.3gppnetwork.org"
3d 69 73 70 2e 65 78 61
6d 70 6c 65 2e 63 6f 6d
3b 6d 6e 63 30 31 34 2e
6d 63 63 33 31 30 2e 33
67 70 70 6e 65 74 77 6f
72 6b 2e 6f 72 67
```

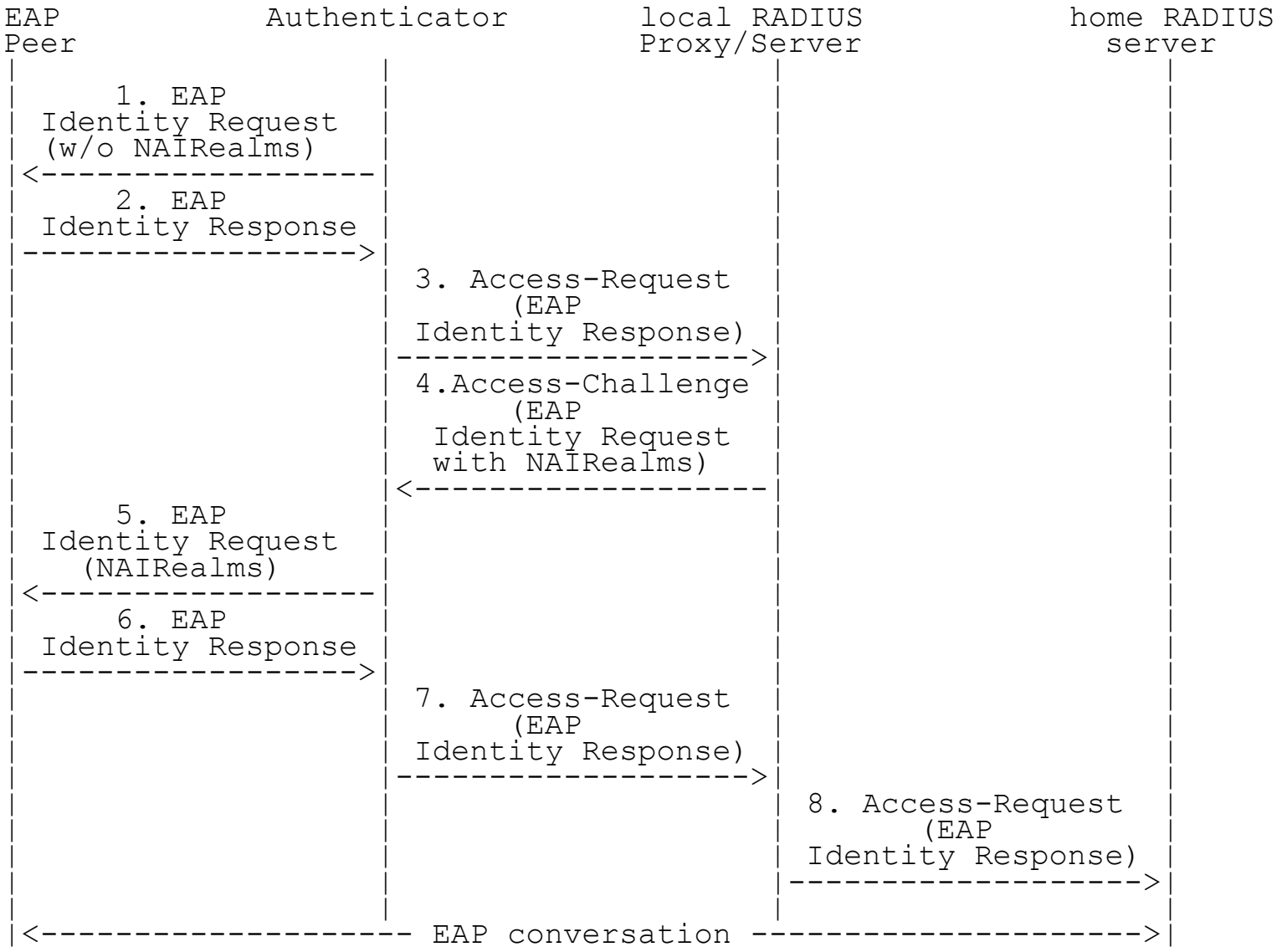
# Authenticator Originated



# Server Originated



# Server Originated (option 2)



# ID status

- Document is currently in WG last call
  - Closes Nov 22nd
  - Still available for 802.1 comments
- Document is a dependency on 3GPP standards
- Reviewed by 802.11 (WIEN) and deemed acceptable, however they will proceed with changes to MAC control frames as well.