Provisioning Message Authentication Key for PCP using PANA (draft-ohba-pcp-pana-00)

Yoshihiro Ohba

Yasuyuki Tanaka

Subir Das

Background

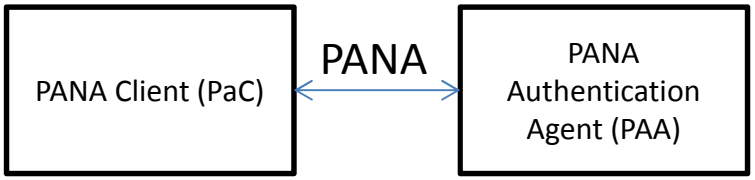
- ietf-pcp-authentication-00
  - Defines a message authentication mechanism for PCP using a PCP SA
  - Two approaches are identified for establishing a PCP SA
    - Separate key management based on PANA
    - Inline key management based on EAP over PCP
  - But it only provides an inline key management solution

Objective

- draft-ohba-pcp-pana
  - This draft provides a solution for separate key management using PANA

What is PANA?

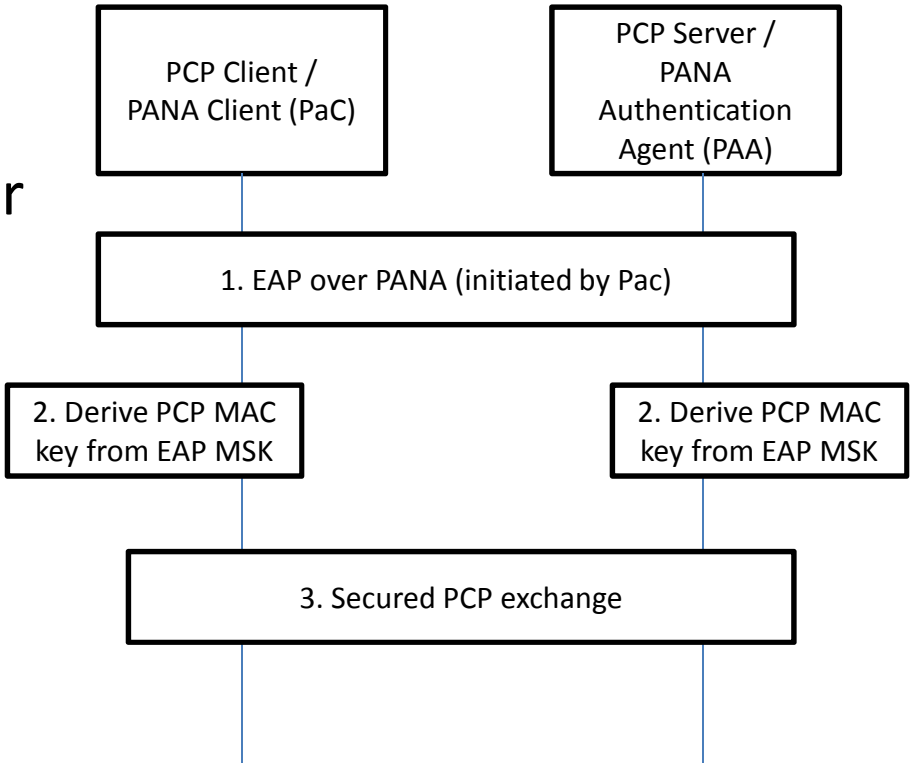
- PANA (Protocol for carrying Authentication for Network Access) [RFC5191] is a Proposed Standard for network access authentication



- PANA transports EAP over UDP
- PANA is a mandatory security protocol in ZigBee IP
- Open Sources are available

Solution (draft-ohba-pcp-pana)

- Architecture
  - PaC on PCP client node
  - PAA on PCP server node
- PANA may be conducted either
  - as part of network access authentication, or
  - dedicated to the PCP usage
- Once PANA SA is terminated, the PCP SA is immediately terminated



PCP_AUTH_KEY (PCP MAC key) = prf+(MSK, "IETF PCP" | SID | KID | PCP_Server_ID)
[SID: PANA Session ID, KID:Key ID]

Questions and feedback?