

# CAPWAP Alternate Tunnel Information

draft-xue-opsawg-capwap-alt-tunnel-information

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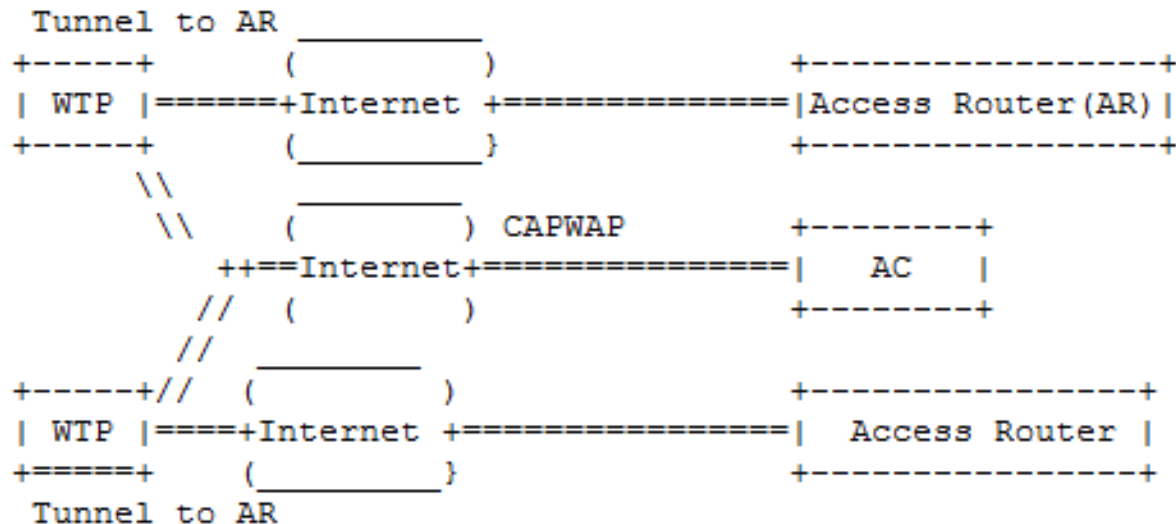
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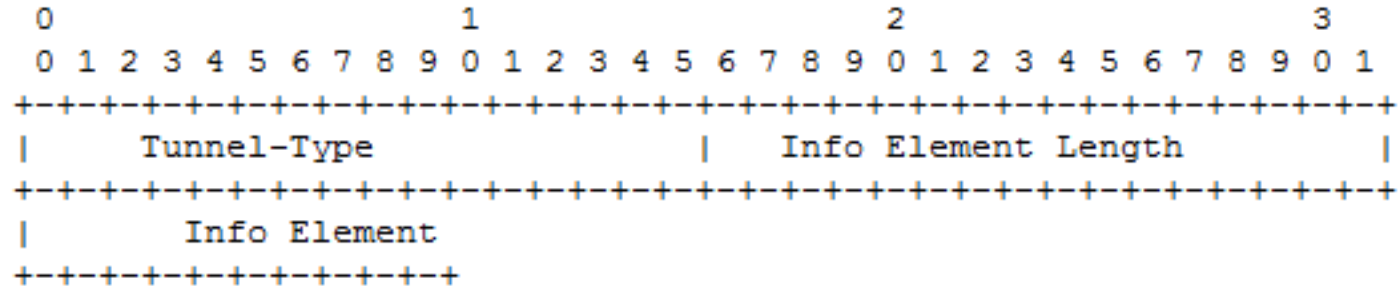
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# Problem Statement

- CAPWAP alternate tunnels may be established between Wireless Transmission Point (WTP) and Access Router (AR), rather than between WTP and Access Controller (AC)
- These alternate tunnels can be GRE, IP-in-IP, CAPWAP, L2TP, etc.
- The binding specific CAPWAP message elements for the possible alternate tunnel protocols have to be defined



# Generic Container



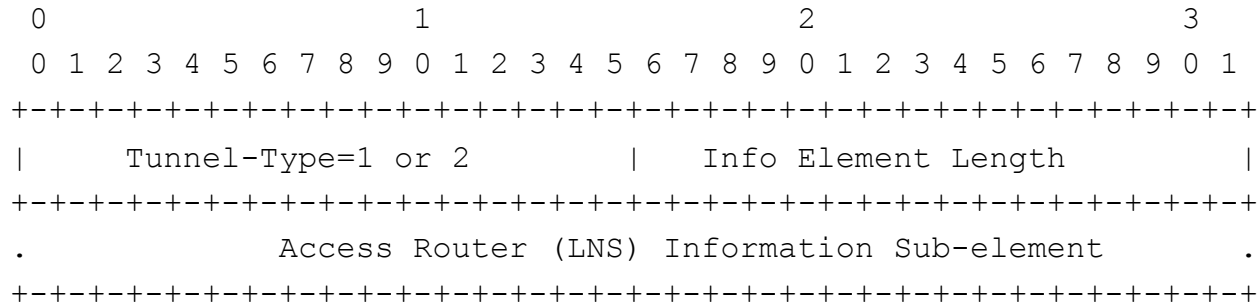
- Tunnel type:
  - 0: CAPWAP
  - 1: L2TP
  - 2: L2TPv3
  - 3: IP-in-IP
  - 4: PMIPv6
  - 5: GREv4
  - 6: GREv6

# CAPWAP

- **Access Router Information:**
  - IPv4 address or IPv6 address or Fully Qualified Domain Name (FQDN)
- **Tunnel DTLS Policy:**
  - The CAPWAP protocol allows optional protection of data packets using DTLS. Use of data packet protection on a WTP is determined by the associated AC policy
- **IEEE 802.11 Tagging Mode Policy:**
  - Specifies how the CAPWAP data channel packets are tagged for QoS purposes
- **CAPWAP Transport Protocol:**
  - The CAPWAP protocol supports both UDP and UDP-Lite
  - When run over IPv4, UDP is used for the CAPWAP data channels
  - When run over IPv6, the CAPWAP data channel may use either UDP or UDP-lite

# L2TP/L2TPv3

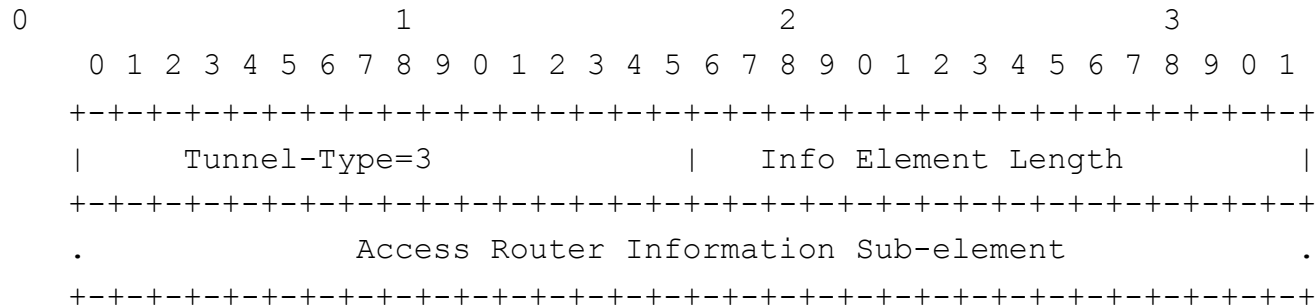
- **Access Router (acts as LNS) Information:**
  - IPv4 address or IPv6 address or Fully Qualified Domain Name (FQDN)



# IP-in-IP

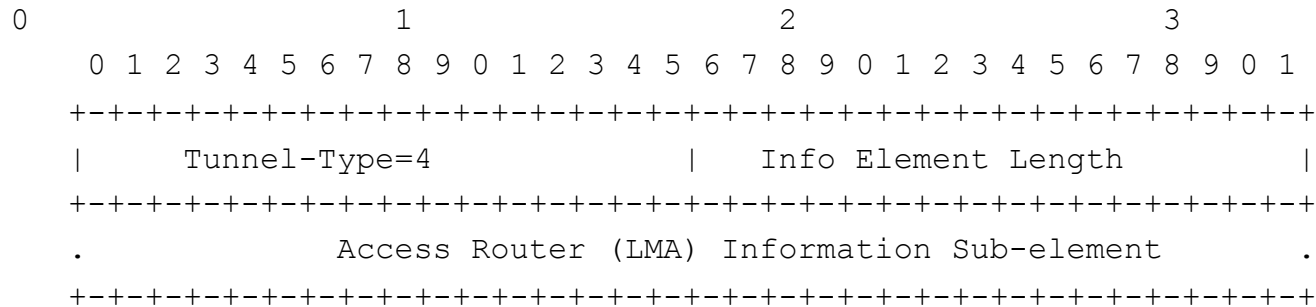
- **Access Router Information:**

- IPv4 address or IPv6 address or Fully Qualified Domain Name (FQDN)



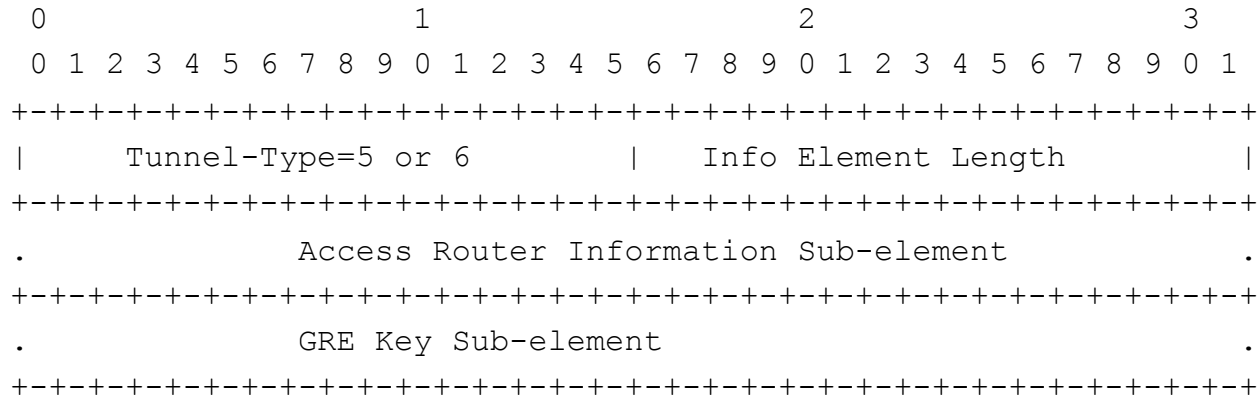
# PMIPv6

- **Access Router (acts as LMA) Information:**
  - IPv6 address or Fully Qualified Domain Name (FQDN)



# GREv4/v6

- **Access Router Information:**
  - IPv4 address (for GREv4) or IPv6 address (for GREv6) or Fully Qualified Domain Name (FQDN) for both GREv4 and GREv6
- **GRE Key:**
  - The Key field contains a four octet number which is inserted by the WTP





Thank You