

IKEv2  
Configuration Payload Extension  
for Private-IPv4 support  
for FMC Interworking  
draft-so-ipsecme-ikev2-cpext-01

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**Tricci So**

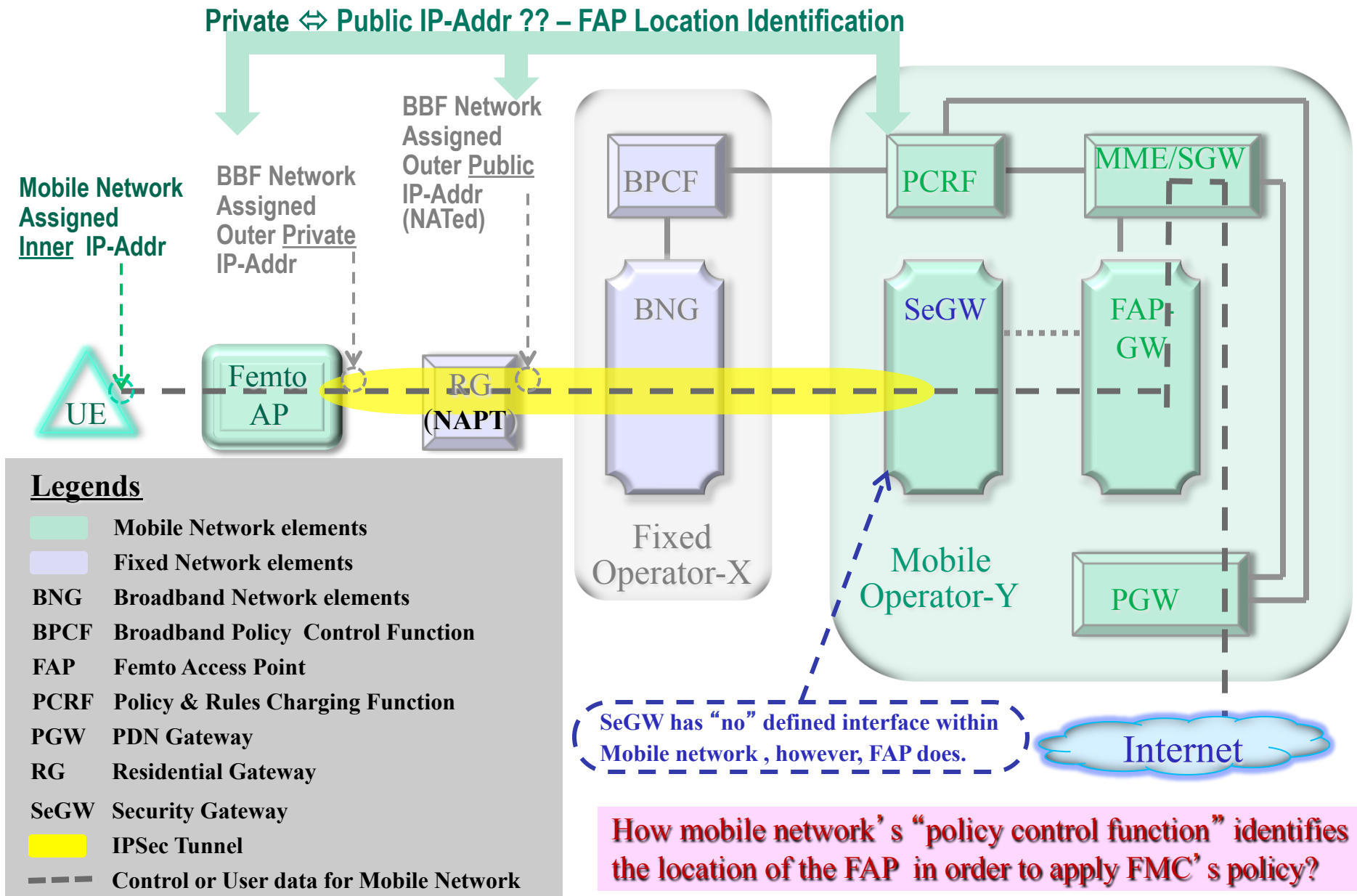
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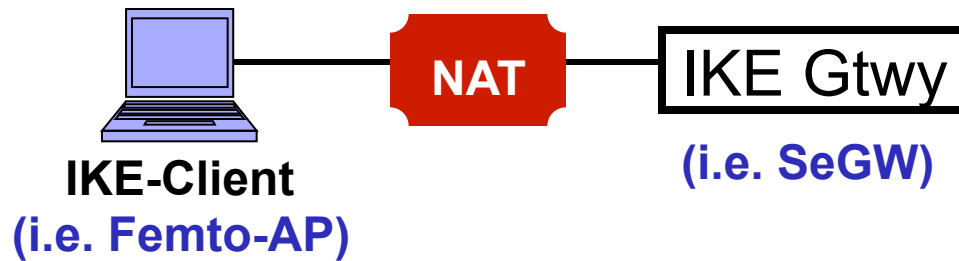
# Problem Statement (FMC Interworking using Private IPv4)



## – FAP Location Identification over NA(P)T for FMC Policy Control



# IKE-CP Extension Solution Overview for FMC with Femto



During FAP initial attachment to Fixed Network to connect to its Mobile Network, FAP includes "new" CFG Payload in already supported IKEv2 msg which includes CFG\_REQUEST & CFG\_REPLY

**IKEv2 Message 1**  
HDR, SAi1, KEi, Ni



**IKEv2 Message 2**  
HDR, SAR1, KEr, Nr, [CERTREQ]



**IKEv2 Message 3**  
HDR, SK {IDi, [CERT,]  
[CERTREQ,] [IDr,] CP(CFG\_REQUEST),  
SAi2, TSi, TSr}



**CFG\_REQUEST:** (If NAT is detected)  
External\_IKE\_Initiator\_NATed\_Encap\_IPv4

(If mutually authenticated)

**CFG\_REPLY:**  
External\_IKE\_Initiator\_NATed\_Encap\_IPv4

**NOTE:** NATed Encap IPv4 info includes both NATed source IPv4 address and port#

FAP retrieves the NATed (i.e. "Public") IPv4 from IKEv2's Configuration Payload



**IKEv2 Message 4**  
HDR, SK {IDr, [CERT,]  
AUTH, CP(CFG\_REPLY),  
SAr2, TSi, TSr }

FAP sends NATed IPv4 Info to Mobile Core Network **within** IPSEC's Payload (i.e. **inband** femto signaling)