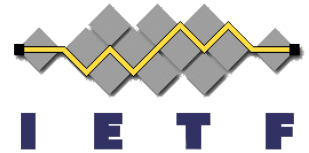


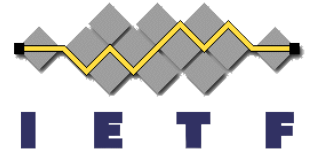
# DHCPv6 Prefix Delegation as IPv6 Migration Tool in Mobile Networks

## IETF 81



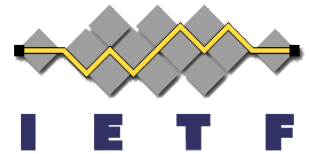
**Behcet Sarikaya**  
**Frank Xia**  
**Ted Lemon**  
**July 2011**

# Changes from -02

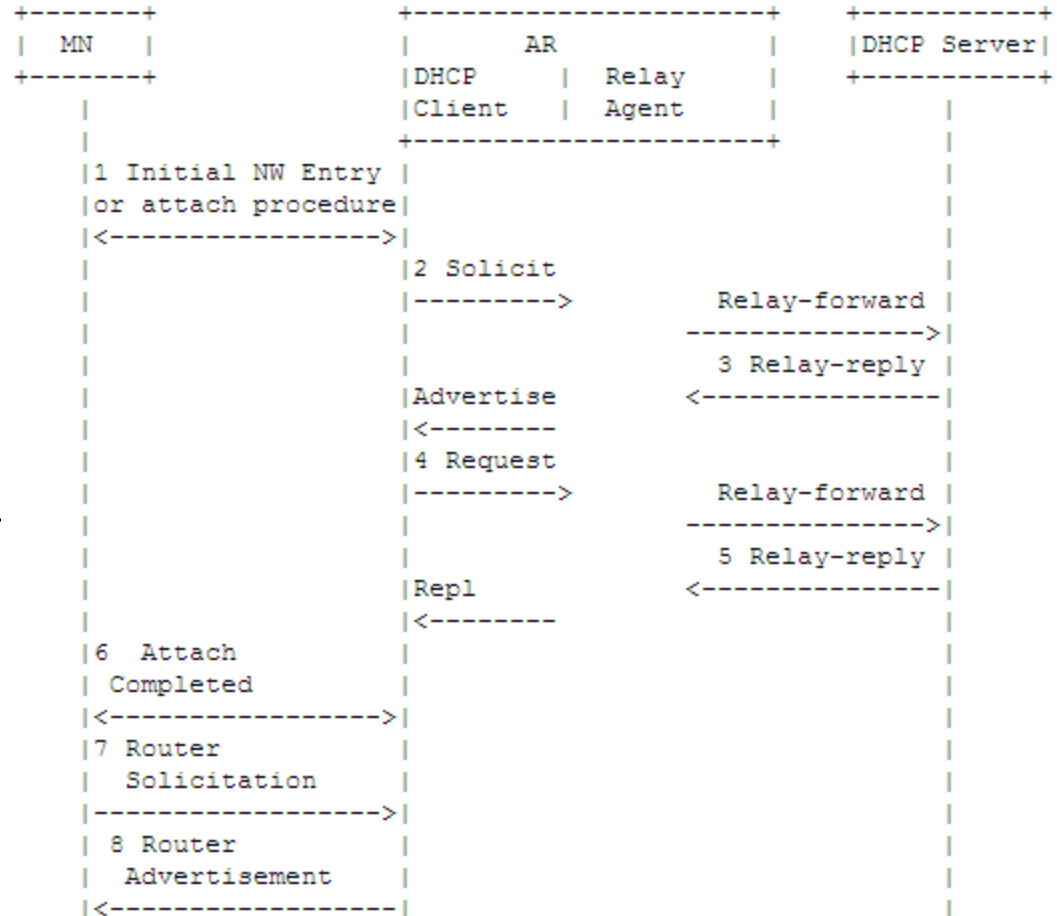


- Many changes based on comments received
- From -06 to -07 in order to remove idnits (Fred asked)
- Problem Statement: IPv6 migration is leading to more IPv6 MNs in cellular network and DHCPv6 PD is needed to assign /64s automatically
- Draft comes up with three architectures

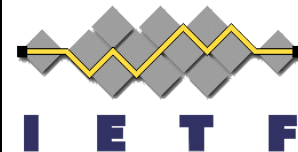
# DHCPv6 PD for SLAAC



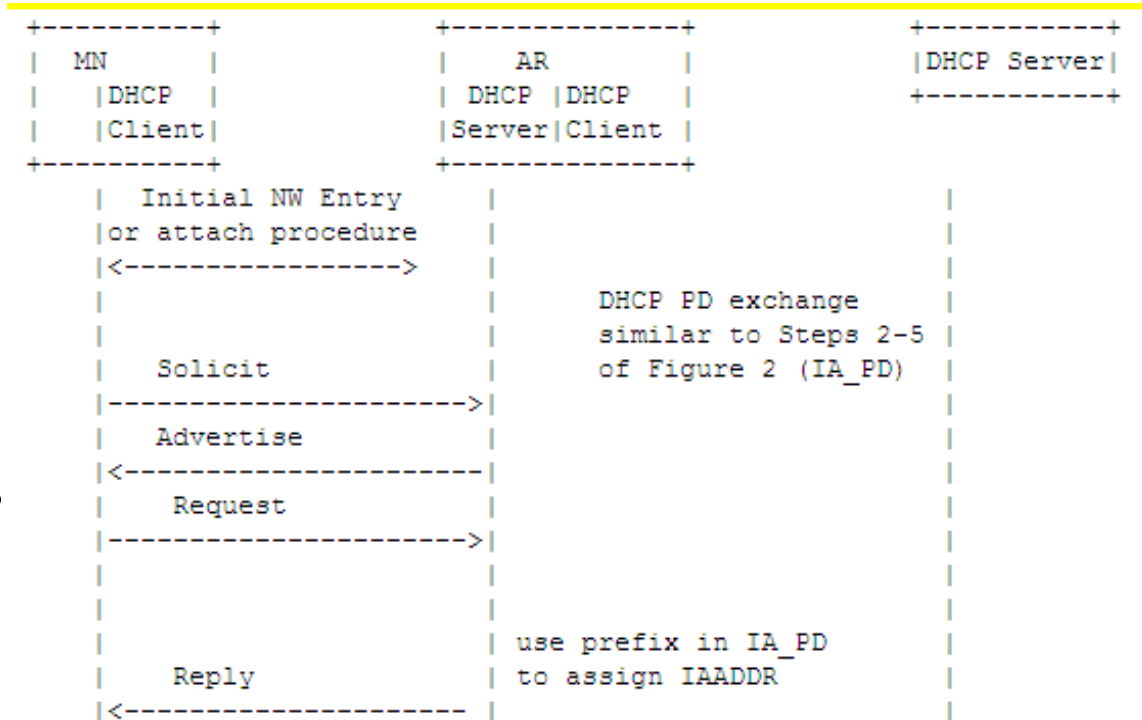
- AR is a DHCP Client
- DHCP Relay function is needed in AR when DHCP server is not connected directly
- Prefixes are delegated to AR through IA\_PD Option defined in **RFC 3633**
- AR sends RA containing the prefix(es)
- MN configures it's address using SLAAC



# DHCPv6 PD for Stateful Address Configuration



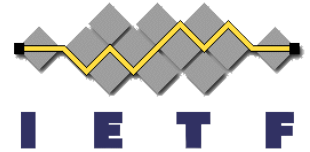
- Stateful address configuration requires a different architecture
- AR is DHCP server
- MN attach triggers DHCPv6 PD (prefixes received in IA\_PD)
- MN starts DHCP address request
- Server assigns address MN configures it's address received in IAADDR



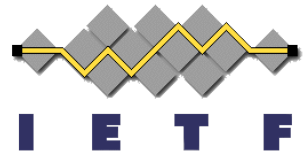
# MN as RR

- MN may request /64s for additional connections
- MN is the requesting router (RR) and sends Solicit with IA\_PD
- AR is the delegating router (DR) delegates /64s in Reply with IA\_PD excluding the default connection

# Next Steps



- Ready for WG adoption
- Intended status is Informational



Thank you