Using DHCPv6 for Mobile Station Prefix Delegation

draft-sarikaya-16ng-prefix-delegation-02.txt

Behcet Sarikaya
Frank Xia
March 2008
Problem Statement

• Point-to-Point link model is recommended by 16NG WG and is adopted by WiMAX NWG
• In this model, one prefix can only be assigned to one mobile station
• How does a mobile station configure its address using IPv6 stateless auto-configuration mechanism?
Prefix Request Procedure

- AR is as a DHCP Client
- DHCP Relay function is needed in AR when DHCP server is not connected directly
- Prefixes are assigned to AR through Prefix Option defined in RFC 3633
- MS configures it’s address using prefix advertised by AR
Prefix Release Procedure

• An MS detachment signaling, such as switch-off or handover, triggers prefix release procedure

• The released prefixes can be reused by other MSs

• AR can age prefixes through prefixes’ lifetime
Next Steps

• is it feasible that a DHCP Client and a DHCP server collocating at the same AR?
• Is it necessary to standardize this method for other SDOs to use?
Thank You. Questions?