Operational Issues of RA M/O flags

Samsung Electronics Joseph HyunWook Cha

Guidance of rfc2462

• On receipt of a valid Router Advertisement (as defined in [DISC OVERY]), a host copies the value of the advertisement's M bit int o ManagedFlag. If the value of ManagedFlag changes from FALS E to TRUE, and the host is not already running the stateful addre ss autoconfiguration protocol, the host should invoke the stateful address autoconfiguration protocol, requesting both address info rmation and other information. If the value of the ManagedFlag changes from TRUE to FALSE, the host should continue running the stateful address autoconfiguration, i.e., the change in the va lue of the ManagedFlag has **no effect**. If the value of the flag st ays unchanged, no special action takes place. In particular, a h ost MUST NOT reinvoke stateful address configuration if it is alre ady participating in the stateful protocol as a result of an earlier a dvertisement.

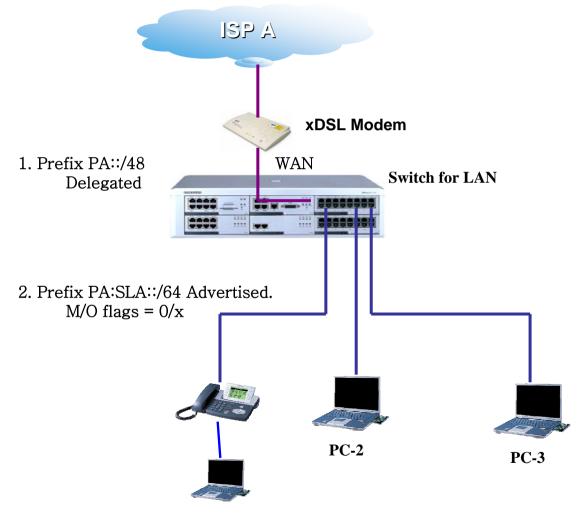
Questions on the Guidance of rfc2462

- Q1. Why the M flag's change from TRUE to FALSE should not stop DHCPv6 clients?
 - If DHCP is really no longer to be used (and no longer works), the addresses obtained via DHCP will expire after their lifetime expires.
 - [RFC3315 18.1.4] After bindings expire, clients will keep searching another server infinitely instead of being disabled. This is the same case where clients initially begin to locate servers ignoring the M flag indicating that no servers are available.
 - Infinite bindings ?

Alternative Choice

- Q2. What if the M flag's change from TRUE to FALSE can stop DHCPv6 clients?
 - Refer to the MS Vista.
 - Simple behaviors without consideration previous flag values.
 - Stateful DHCPv6 client is triggered by an RA with M flag set to 1.
 - Stateless DHCPv6 client is triggered by an RA with M flag set to 0 and 0 flag set to 1.
 - DHCPv6 client is stopped by an RA with M flag set to 0 and O flag set to 0.

Scenario 1. Sing Router on the link



PC-1 3. Global Addresses autoconfigured.

