Agent discovery

Introduction:

To find a foreign agent mobile IP describes two methods: agent advertisement and agent solicitation. This solves the problem of finding a foreign agent after moving MN.

Agent advertisement:

- Foreign agents and home agents advertise their presence periodically using special agent advertisement messages.
- For these advertisements Internet control message protocol (ICMP) messages are used with some mobility extensions.
- Routers also advertise their routing service periodically to the attached links.
- The agent advertisement packet is shown in Figure6.2 The upper part represents the ICMP packet while the lower part is the extension needed for mobility.
- The TTL field of the IP packet is set to 1 for all advertisements to avoid forwarding them.
- The IP destination address according to standard router advertisements can be either set to 224.0.0.1, which is the multicast address for all systems on a link ,or to the broadcast address 255.255.255.255.

Fields of ICMP:

- The *type* is set to 9, the code can be 0, if the agent also routes traffic from *non-mobile nodes*, or 16, if it does not route anything other *than mobile traffic.*
- The number of addresses advertised with this packet is in *#addresses*
- *Lifetime* denotes the length of time this advertisement is valid.
- Lifetime denotes the length of time this advertisement is valid. Preference levels for each address help a node to choose the router that is the most eager one to get a new node.

Fields for the Extension:

- *Type* is set to 16, length depends on the number of COAs provided with the message and equals 6 4*(number of addresses).
- An agent shows the total number of advertisements sent since initialization in the sequence number
- *Registration lifetime* specify the maximum lifetime in seconds a node can request during registration.
- *R bit: shows, if a registration with this agent is required even when using a collocated COA at the MN.*

- *H bit and F bit:* indicates if the agent offers services as a home agent
- *M and Gbit: specify minimal encapsulation and G generic routing encapsulation.*
- *V bit: indicates that reverse tunneling*
- *T bit: indicates that reverse tunneling*
- *The following fields contain the COAs*

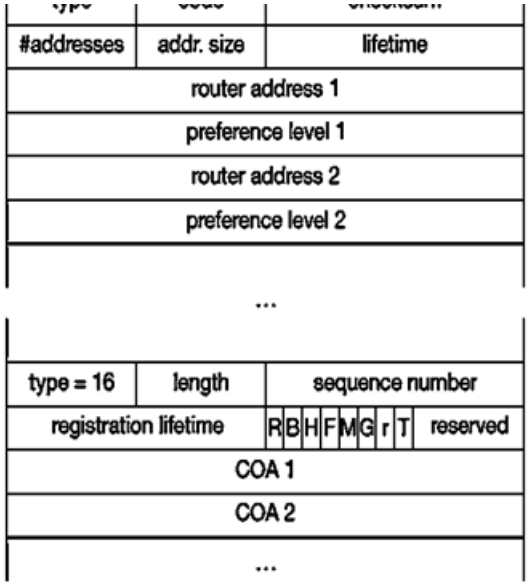

Figure 6.3 Agent advertisement packet

Previous Next

Questions of this topic

Ask your question

Your Name: Enter your name

Question

Submit Question