

11) Now CN update itself regarding the new location of MN.

12) If CN will not update itself then the home network sends a warning to CN for updation.

13) If updation completion at each node and networks, then a dedicated link will establish in between CN-FA new - MN.

10) Agent Discovery

* A mobile node has to find a foreign agent, when it moves away from its home network.

* It describes two methods

i) Agent advertisement

ii) Agent solicitation

Agent Advertisement

* For this method, foreign agent and home agents advertise their presence periodically using special agent advertisement messages which are broadcast into the subnet.

* Mobile IP does not use a new type for agent advertisement; it uses the router advertisement packet of ICMP and appends an agent advertisement message.



Representation

0	7	8	15	16	23	24	31				
type		code		checksum							
# addresses		address size		lifetime							
Router address 1											
Preference level 1											
Router address 2											
Preference level 2											
⋮											
type		length		Sequence Number							
Registration		lifetime		R	B	H	F	M	G	V	RESERVE
COA 1											
COA 2											

ICMP

Mobility

Extension

Agent Solicitation

It is used when MN does not receive any COA.

Some of the fields are ICMP

Type → Type in the packet is set to 8.

Code

Set to 0 \rightarrow IT router from non-mobile node (i.e) fixed fixed N/w to mobile device

Set to 16 \rightarrow Communication between mobile device (IT can send packets from mobile device to mobile device).

Checksum

The bit (16) one's complement of the one's complement which is sum of the ICMP message.

addresses

The no. of advertisement (i.e) all agents send the advertisement message the address is stored in this.

Address size

Each router address have 32-bit words (size should be denoted)

lifetime

Maximum no. of seconds the advertisement has to be considered. (Valid time).

Router address

Sending router's IP address on the interface from which this message is sent.

Mobility Extension

Type \rightarrow Set to 16 Mobility

Length \rightarrow $6 + 4 * (\text{no. of address})$

Both agents show their presence by its length of the address.

Sequence number \rightarrow The count of agent advertisement messages sent since the agent was initialized (Total no. of advertisement). How many advertisement are sent by FA.

Registration lifetime \rightarrow Maximum lifetime in lifetime in seconds a node can request.

How many time a node will request during registration.

R \rightarrow R bit shows if a registration with a agent is required even when using co-located CoA \rightarrow (with in the home network) at the mobile node.

B \rightarrow When if the agent is currently too busy to accept new registration, then it can be set to B.

H & F → Used to denote if the agent offering the services as a HA (H bit is set) (or) FA (F bit is set).

M & G → It represents which encapsulation method is used.

Three types of encapsulation.

- (i) IP & IP
- (ii) Minimal routing
- (iii) Generic

V → For header compression.

→ Finally MN can choose the best FA to stay.

Preference level → The preferability of each router address (Each & every address can choose the router with the preference).