

PROPOSALS for DYNAMIC HOME AGENT DISCOVERY In Mobile IPv6

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1. Introduction

- During course of implementation.
- Shortcomings and ambiguities in the current draft-ietf-mobileip-ipv6-07.txt.
- Discussions have been carried out with many extensions and enhancements proposed for the base specification of Mobile IPv6.

Problems

- 2.1 The unclear advertisement of a Home Agent's global IP addresses.
- 2.2 Undefined setting of the home agent preference field.
- 2.3 Mobile node does not know situation at home link.

2. Issues

2.1 The unclear advertisement of a Home Agent's global IP addresses.

0	8	16	24				
Type	Length	Prefix Length	L	A	R	Reserved	
Valid Lifetime							
Preferred Lifetime							
Reserved							
Prefix containing Global Address							

Proposed Home Agent Information Format:

Type	Length	Reserved
HomeAgent Preference		HomeAgent Lifetime
Global IP Address		

-Easy for processing of information

2.2 Undefined setting of the home agent preference field.

Type	Length	Reserved
HA Preference		HA Lifetime

-Home Agent Preference sets order the mobile node binds to its home link.

-Binding cache in Home Agent gives number of attached MN.

-Preference can be set based on capacity to attach some more MN.

**Home Agent's Preference =
Number of mobile nodes currently attached
to Home Agent or
Sum of the number of different IDs in the
Binding Cache of the Home Agent.**

2.3 Mobile node does not know loading situation at home link.

The proposed modified Home Agent List Sub-Option is shown below:

Sub-Option Type	Sub-Option Length	Home Link Loading
Global IP Address		

Conclusion

- 1st proposal makes HA advertisement neater.
- 2nd proposal tries to define HA preference.
- 3rd proposal tries to use HA preference as a means to provide QoS to the mobile node.

The new fields in the current option format were made to improve the Dynamic Home Discovery Mechanism.