

# Proposed new MIP4 Charter

27 June 2009

MIP4 charter proposal, IETF-75



# Item 1

1. MIPv4 has been a Proposed Standard for several years. It has been adopted by other standard development organizations and has been deployed commercially. One of the next steps for the WG is to advance the protocol to draft standard status. As part of advancing base Mobile IP specs to Draft Standard, the MIPv4 NAI RFC (2794) will be revised to reflect implementation experience.

## Item 2

2. The WG will complete the MIB specifications for the Mobile IPv4 base protocol and the UDP tunneling extension.

## Item 3

3. A requirements document for RADIUS MIP4 support was previously completed and published as RFC 5030. Based on these requirements, the WG will complete the specification of MIPv4 RADIUS attributes, solicit feedback from the RADEXT WG, adjust, and submit this for publication. Note that the work may require extensions to the RADIUS attribute space which will be handled outside the MIP4 WG.

## Item 4

4. Like fixed nodes, mobile nodes sometimes need to be dynamically configured with parameters such as DNS server IP addresses. Previous work in the WG proposed to put a generic container for host configuration options into Mobile IPv4 signaling. However, it may be easier for mobile nodes to implement the already existing DHCP specification, and to run DHCP over the tunnel established with an initial registration. The WG will take on a draft describing any modifications to Mobile IPv4

5. The proliferation of devices with multiple interface technologies and the desire to use each interface for the type of traffic most appropriate to it (even simultaneously with other interfaces active at the same time) has led to requirements for supporting multiple simultaneous tunnels between the Home Agent and Mobile Node. The WG will adopt and take to publication as Proposed Standard one draft that describes how to manage such tunnels and how to direct traffic to use the appropriate tunnel when multiple choices are available. This work will be coordinated with similar Mobile IPv6 work ongoing in the next working group. In particular, we will strive to converge on a consistent set of architectural decisions (such as which entities are responsible for signaling flow-to-tunnel bindings) and we will share protocol definitions wherever practical (such as the layout of packet flow filters).



# Item 6

6. The WG has published a basic Network Mobility (NEMO) specification as RFC 5177. The WG has taken up an extension to NEMO that will allow for dynamic home network prefix allocation to a moving network. The WG will finish work on this draft and publish as a Proposed Standard.

# Item 7

7. Route optimization has been the focus of a large amount of effort in the Mobile IPv6 WG. For Mobile IPv4, however, the usage case is less clear due to a variety of factors, including the inability to modify already deployed correspondent nodes. Recently a specific use case has been proposed involving route optimization for a more closed network where modifications are made to site routers and a centralized Home Agent to enable offloading of traffic from the Home Agent. The WG will take on and publish a draft on this topic as a Proposed Standard RFC.



# Item 8

8. The use of GRE tunneling with Mobile IPv4 enables support for multiple overlapping private address spaces within the same mobility agent. However, to distinguish flows from two different mobile nodes that happen to share the same (private) IP address, the GRE Key field needs to be populated with a unique identifier that will enable the mobility agent to demultiplex the flows. The value used for the Key needs to be signaled at the time of tunnel establishment, which means a new Mobile IPv4 extension is needed for this purpose. The WG will take on an publish a draft on this topic as a Proposed Standard.

