



NetLMM Base Protocol

(draft-giaretta-netlmm-dt-protocol-01.txt)

**IETF Interim Meeting
NetLMM Working Group
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Design Team Update

- Henrik Levkowitz is now the editor of the draft-giaretta-netlmm-dt-protocol draft
- The same members remain as authors of the design team draft

Draft Availability

- The draft, draft-giaretta-netlmm-dt-protocol-01.txt, was published on Sept. 18, 2006
- Change history, diffs, and html formats are available at <http://tools.ietf.org/wg/netlmm/dt-draft/>

Major Changes between Versions 00 and 01

- Henrik made significant content changes to improve readability: structure reorganization, language consistency and clarity, new figures, etc.
- Number of messages reduced while most previous functionality has been maintained

NetLMM Protocol Update (continued)

- Routing Tag support has been removed
- Retransmission mechanism defined
- Message format and new options
- Around 50 other itemized changes and updates, listed on <http://tools.ietf.org/wg/netlmm/dt-draft>

Issues Tracker

- 9 of the 10 issues have been resolved (tracked at <http://www1.tools.ietf.org/wg/netlmm/trac/query?status=new&status=assigned&status=reopened&status=closed&component=draft-ietf-netlmm-protocol>)

Issue 109

Issue: NetLMM message should use IPv6 Mobility Header instead of UDP transport protocol

Resolution: NetLMM control messages should use generic transport protocol

Issue 110

Issue: The initialization phase between MAG and LMA should be removed from base protocol

Resolution: There are benefits for an Association message between MAG and LMA to convey general parameters that applies to all MNs (i.e. not specific to particular MN as in the route setup signaling).

Issue 115

Issue: Too many messages

Resolution: The functions provided by the Route Setup/Remove and MN Address Setup/Remove have been collapsed into the Location Registration message with options.

MAG/LMA association:

- Associate Request
- Disassociate Request
- Heartbeat

Mobility management for MN :

- LMA Allocation (optional)
- Location Registration
- Location Deregistration

Issue 116

Issue: MN ID option is not needed

Resolution: The MN ID option is needed to identify which MN is served by the signaling between MAG and LMA

[Issue 117]

Issue: No need for Routing Tag option

Resolution: Routing Tag has been removed

[Issue 118]

Issue: Protocol should have soft state and use lifetime

Resolution: Registration Lifetime Option may be used for soft state

Issue 119

Issue: Security for signaling should be mandated

Resolution: Implementation with IPSec is required, and usage recommended for securing the NetLMM messages between the MAG and LMA (e.g. SPD on the IP address and port).

Issue 120

Issue: MAG should not be mandated to be DHCP relay agent

Resolution: If MAG is not the DHCP relay agent, then draft needs to specify how the DHCP message is processed by the MAG to reach the DHCP server. For the base protocol, it may be useful to specify that the MAG "SHOULD" be the DHCP relay agent.

Issue 121

Issue: The description of IP multicast seems confusing

Resolution: The IP Multicast section refers to generic IP Multicast protocol for set up for multicast forwarding. PIM is mentioned only as an example and in the exemple figures. Split up the MC source and receiver descriptions .

[Issue 122]

Issue: MAG should not be mandated to be default gateway

Resolution: Open

[Summary]

- Next version, draft-giaretta-netImm-dt-protocol-01.txt published on Sept 18, 2006
- Almost all DT and reviewers' issues resolved

Upcoming Work Items

- Add the capability to do bulk MN de-registrations and possibly registrations.
- LMA Announce multicast message?
- Message format modifications?
- Review of protocol description together with sample descriptions of application of the protocol, such as draft-laganier-netlmm-ar-mn and a WiFi or 3GPP application example?

[Next Steps]

- Get feedback from WG
- Working Group document?