NEMO Multihoming Issues:
Status Report

Prepared for 61st IETF NEMO WG

By

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`draft-ietf-nemo-multihoming-01.txt`

Change-Log

- Changes to `draft-ietf-nemo-multihoming-issues-01.txt`
  - Mostly to address issues raised by Marcelo
  - Issues List: http://www.mobilenetworks.org/nemo/draft-ietf-nemo-multihoming-issues/

Issues #1 (Accepted)

- [Section 1]: IP version
  - IP version: IPv4 or IPv6 or Both?
- Resolution:
  - Inserted clarifying text

Issues #2 (Rejected)

- [Section 2]: Discussion of MNNs being multihomed
  - Is discussion on whether MNN is multihomed useful in a NEMO WG document?
- Resolution:
  - We felt that such discussion is beneficial

Issues #3 (Accepted)

- [Section 2.3]: Home Agents Advertising Different Prefix
  - Use of reference [9] together with text on home agents being in different domains advertising same prefix
- Resolution:
  - Removed text on description of whether HA belongs to the same administrative domain or not

Issues #4 (Partly Accepted)

- [Sect 2.6]: Description of (n,1,n) network
  - Description of (n,1,n) network: objection to the use of the word: “different” in different multiple global routes and different mobile network prefixes.
- Resolution:
  - The text is modified to

```
The (n,1,n) mobile network has more
than one MR; multiple global routes and
different MNPs are advertised by the
MRs.
```

Issues #5 (Rejected)

- [Section 3]: Descriptions of benefits of multihoming
  - Description of benefits of multihoming: Keep it in reference [6] or put in the draft
- Resolution:
  - If reference [6] is published, no reason to duplicate text

Issues #6 (Partly Accepted)

- [Section 3.1]: Description of benefits in each deployment scenario
  - Some benefits were not mentioned when they should be
- Resolution:
  - Updated the benefits listing

Issues #7 (Accepted)

- [Section 3.2]: Description of pre-requisite
  - Suggest addition of multiple tunnels maintained simultaneously
- Resolution:
  - Updated the description that multiple tunnels must be maintained simultaneously to enjoy certain benefits

Issues #8 (Rejected)

- [Section 4.1]: Inclusion of other cases when discussing problem
  - Only case (1,1,1) is analyzed in Section 4.1
  - Suggest to analyze all or none
- Resolution:
  - To list all, would be too lengthy
  - To list none, there would be no illustration
  - Modified text to clarify that (1,1,1) is just an example

Issues #9 (Accepted)

- [Section 4.3]: Description on ingress filtering
  - Too many implicit assumptions on the specific configuration used to describe the problem
- Resolution:
  - Modify text so that:
    - Include general description of ingress filtering in the beginning of the section
    - The example given in Figure 9 is clearly specified as such: an example only

Issues #10 (Accepted)

- [Section 4.4]: Description on failure detection
  - Did not explore other failure modes
  - Media availability detection may be used to support ubiquity and failure detection
- Resolution:
  - Added text to Section 4.4 to explore failure modes other than the egress link of mobile router
  - Added Section 4.5: Media Detection

Issues #11 (Accepted)

- [Section 4.10/11]: Description of Routing Infrastructure
  - The problem domain of Multi6 WG
  - What is “Internet Router Registry”?
- Resolution:
  - We would add in more text to follow Multi6 WG
  - Remove “Internet Router Registry” and instead describe burden to routing table

Issues #12-13 (Open)

- Issue #12: [Appendix B]
  - Description of tunnel re-establishment mechanism in Appendix B
  - Nested tunneling
  - Did not solve the problem of ingress filtering with multiple prefixes
- Issue #13: [Appendix B]
  - The mechanism in Appendix B requires more work to fully develop it
  - Suggest to move it into a separate draft
- Resolution:
  - Open

Moving Forward

- Issues marked as [Accepted/Rejected]:
  - Would be marked as [Close] without further comments
- How to close issues #12-13
  - Option 1: Ignore it, its just an appendix
  - Option 2: Move it to a separate draft

Which Problems Should be Solved

- Path Survival (Generic IPv6/Multi6)
- Path Selection (Generic IPv6/Multi6)
- Ingress Filtering (Multi6, possibly NEMO, see Appendix B)
- Failure Detection (DNA, MIP6)
- Media Detection (DNA)
- HA Synchronization (NEMO, MIP6)
- MR Synchronization (NEMO)
- Prefix Delegation (NEMO)
- Multiple Bindings Registration (MIP6)
- Source Address Selection (Generic IPv6)
- Impact on Routing Infrastructure (Multi6)
- Nested Mobile Networks (NEMO – Tree Discovery?)
- Split Mobile Networks (NEMO)