LISP Map Server Reliable Transport
draft-ietf-lisp-map-server-reliable-transport-05

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Updates Version 04, 05

- Thorough review from the LISP WG chairs.
- Identified and cleaned up multiple sections with inaccurate language and descriptions
- Review brought some points to discuss with the WG
- Version 05 will be uploaded during the week
Establishing reliable transport session

- Map-Register and Map-Notify (UDP) extended with a bit (r) to request/accept a reliable session

- The r bit only indicates intent to establish a session but *not the protocol to use*. 
Establishing reliable transport session

• Using the r-bit we introduce serialization delay
  • eTR does not know what protocol to use.
  • eTR attempts to establish the session using locally supported/configured protocols one by one until MS accepts.

• After v03, the document focus is on TCP alone.
  • Only one option for the eTR.

• Should we define a capability exchange when more protocols are supported?
MS Mapping Withdrawal/Rejection

- Discussion on whether the MS can reject or withdraw mappings
  - Reject: A Mapping in a Map-Register is rejected by the MS
  - Withdraw: A Mapping “stored” on the MS is removed

- The objective is not to make the MS authoritative over the Mappings (this role lies on the eTR as per RFC 9301)

- With reliable transport, Mappings do not expire/are not refreshed periodically.
  - Messages like refresh/reject are used to cover diverging state of MS and eTR
MS Mapping Withdrawal/Rejection

- Examples:
  - Map Server is not configured (yet) to accept registrations with IID 1000
    - Map-Registers with EIDs in IID 1000 are rejected
  - The reliable session with a specific xTR is down
    - Mappings on the MS will be withdrawn (this is similar to mappings expiring after 3min without refresh)

- The specification is extended with a more detailed example description of when Mappings can be rejected or withdrawn
Registration Refresh

- Registration refresh is a MS initiated packet to trigger a refresh of registrations following different triggers:
  - Initialization of a reliable session
  - Configuration change on MS (e.g., accept IID, or prefix range)
  - Information loss on the MS

- Updated version clarifies usage.
State Machine Simplification

- State machine description very hard to follow.
- Working on a simplified description/representation

- Split description in two:
  - UDP to reliable transport transitions
  - Mapping States while in reliable transport mode
IANA sub-registries

- The current version specifies a registry request for the message types introduced in the document.
- Registration reject and refresh message include message codes (reason, scope).
  - Should we request sub-registries for these codes?

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<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Reference</th>
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</thead>
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<tr>
<td>0-15</td>
<td>Reserved</td>
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<tr>
<td>16</td>
<td>Error Notification</td>
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</tr>
<tr>
<td>17</td>
<td>Registration Message</td>
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<tr>
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<td>Registration Acknowledgement Message</td>
<td>This document</td>
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<tr>
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<td>Registration Rejected Message</td>
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<tr>
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<td>Mapping Notification Message</td>
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<tr>
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<tr>
<td>65000-65535</td>
<td>Reserved for Experimental Use</td>
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Other considerations for the WG

- Do we need a Capability Exchange message?

- For reliable transport it would be useful to indicate the protocol to use.
Comments, Questions?

• version 05 to be uploaded during IETF 120 week