

LISP Map Server Reliable Transport

draft-ietf-lisp-map-server-reliable-transport-05

B. Pitta
M. Portoles
D. Lewis
C. Cassar
I. Kouvelas

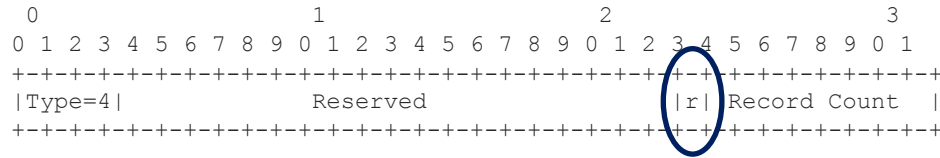
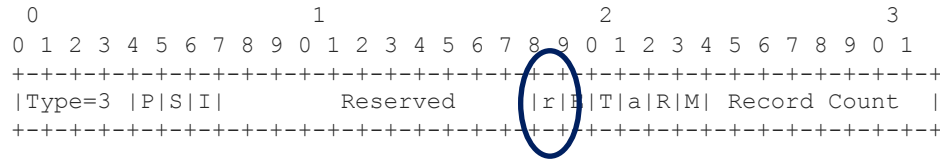
IETF 120 – Vancouver
July, 2024

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

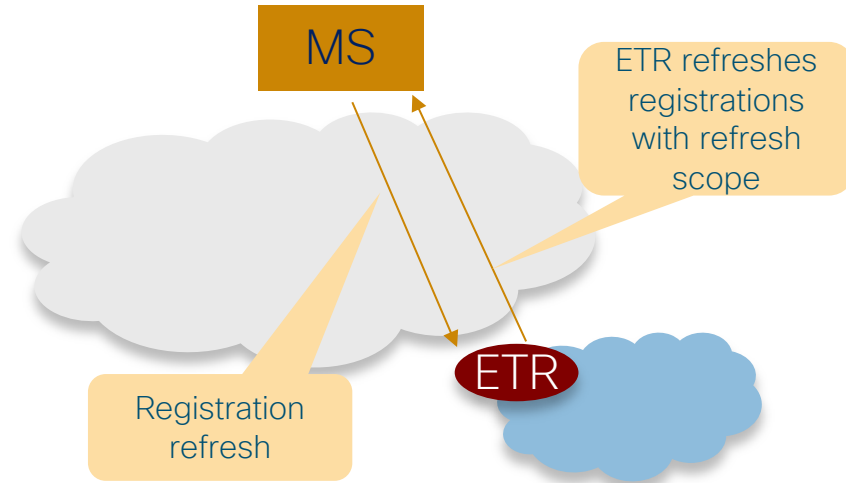
- Discussion on whether the MS can reject or withdraw mappings
 - Reject: A Mapping in a Map-Register is rejected by the MS
 - Withdraw: A Mapping “stored” on the MS is removed
- The objective is not to make the MS authoritative over the Mappings (this role lies on the eTR as per RFC 9301)
- With reliable 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 - Mappings on the MS will be *withdrawn* (this is similar to mappings expiring after 3min without refresh)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?

Type	Name	Reference
0-15	Reserved	This document
16	Error Notification	This document
17	Registration Message	This document
18	Registration Acknowledgement Message	This document
19	Registration Rejected Message	This document
20	Registration Refresh Message	This document
21	Mapping Notification Message	This document
22-64999	Unassigned	
65000-65535	Reserved for Experimental Use	

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