

LISP Mapping Service Discovery at Large

draft-boucadair-lisp-idr-ms-discovery-01
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Assumptions

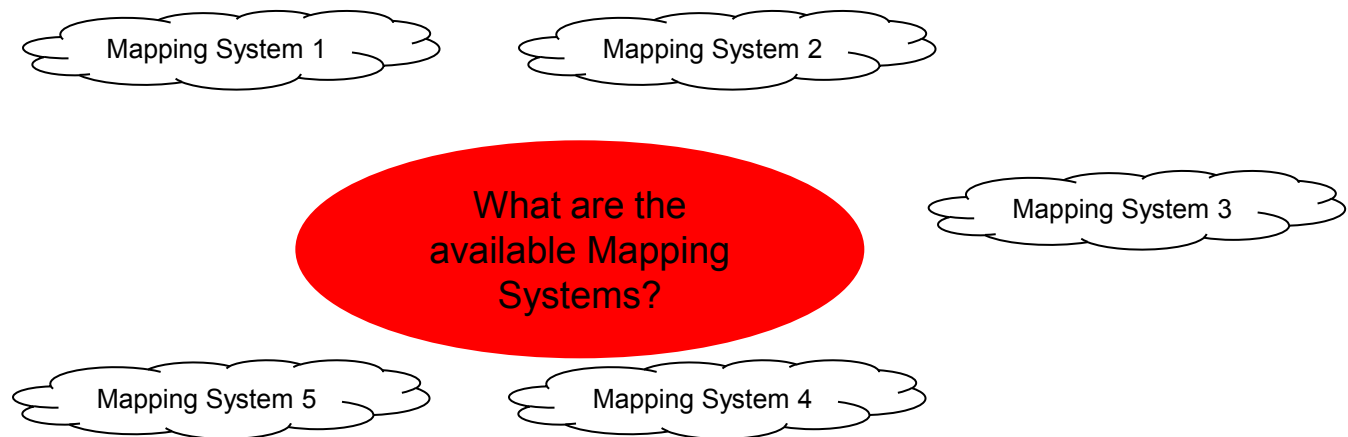
- A Mapping System provides the LISP mapping service defined in RFC6833
- ***Distinct*** LISP mapping systems may arise
 - LISP network operators who solicit or manage the Mapping System may want to avoid some region-centric systems
 - LISP network operators may also want to position themselves as a core provider of the Mapping System
- A ***hierarchy*** in the Mapping System organization for Business, governance, control, and regulatory purposes is assumed
- A Mapping System may maintain a ***global*** mapping table or a ***portion*** thereof

The Risk of Fragmented Mapping Systems

- A scalable inter-domain LISP deployment relies on the availability of a ***mapping system that spans several domains***
- The success of a global LISP deployment depends on how LISP-enabled domains are grafted to existing mapping systems that can ***guarantee a global reachability scope***
- Thereby encouraging the coordination of participating Mapping Systems to ***minimize the risk of a fragmented*** mapping service

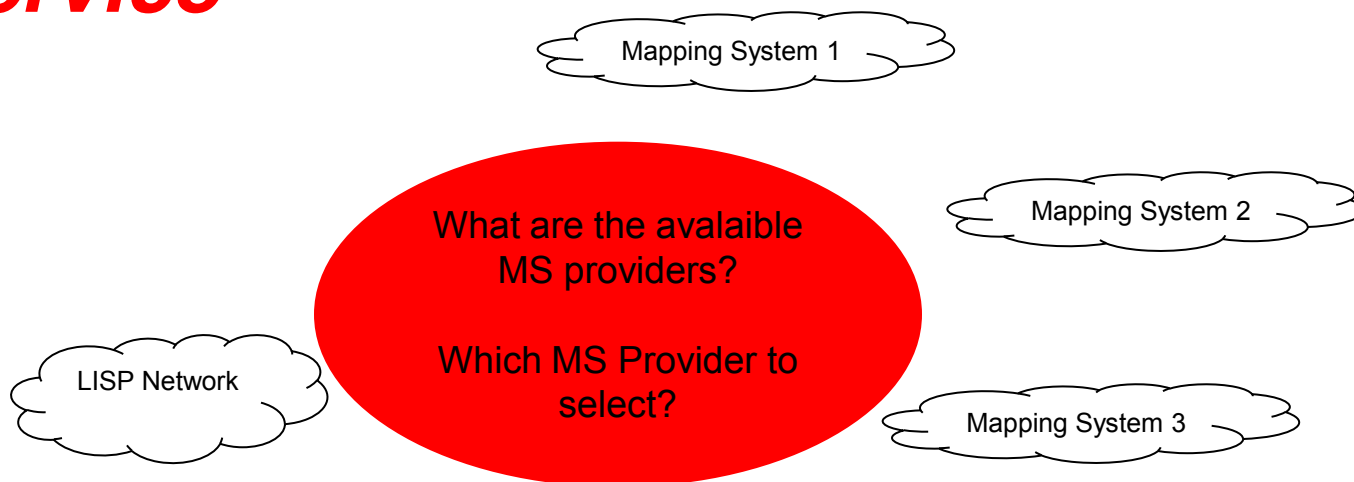
Some Issues

- Various Mapping Systems can be deployed over the Internet. These Mapping Systems need to interconnect to extend the reachability scope and ***avoid pressure on PxTR devices***



Some Issues

- A LISP domain may need to discover available Mapping Systems so that it can rely upon them to ***invoke the LISP service***



Proposed Solution

- Domains that support LISP Mapping Service uses BGP to advertise this service
- An extended BGP community is defined for this purpose:
LISP Mapping System Target BGP Extended Community
 - Identifies one or more contact points that can receive Mapping System interconnect and/or subscription requests
 - Contact points are identified with IPv4 and/or IPv6 addresses
- Remote ASes rely on this attribute to discover remote Mapping Systems
 - A remote Mapping System can use the contact IP addresses to initiate an interconnection request
 - A leaf LISP domain can use the contact IP addresses to initiate a MS subscription request
 - Interconnection/subscription means are out of scope of this draft

What's Next?

- Questions?
- Comments and contributions are welcome