LISP Delegated Mappings
draft-portoles-lisp-delegated-mappings-00

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Motivation

- In some environments, network controllers and/or orchestration engines are used to organize resources or enforce network policies in a centralized manner.

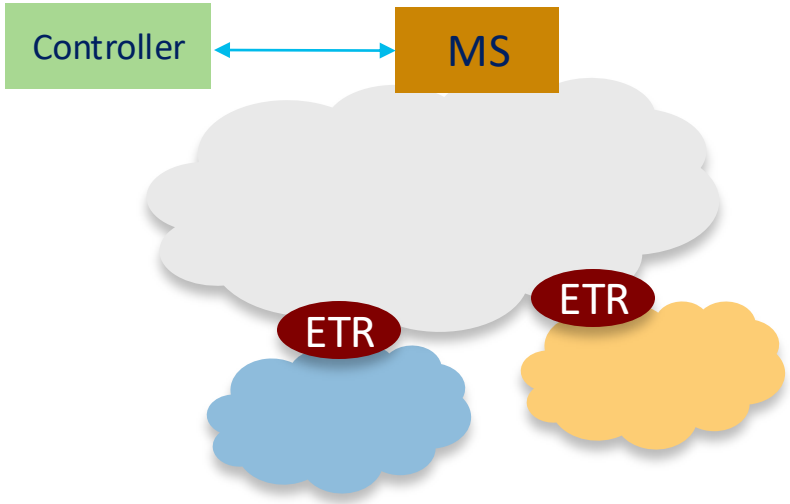
- From a network perspective:
  - There is a ***vantage point*** that manages host onboarding, authentication and movement through the network

- Examples: wireless controllers, cloud management systems, authentication servers

Motivation

- When the Network runs the **LISP protocol**: a centralized controller manages where and how **EIDs** are attached to specific sites.

- This draft: proposes a mechanism for controllers to interface directly with the Mapping System and onboard EIDs



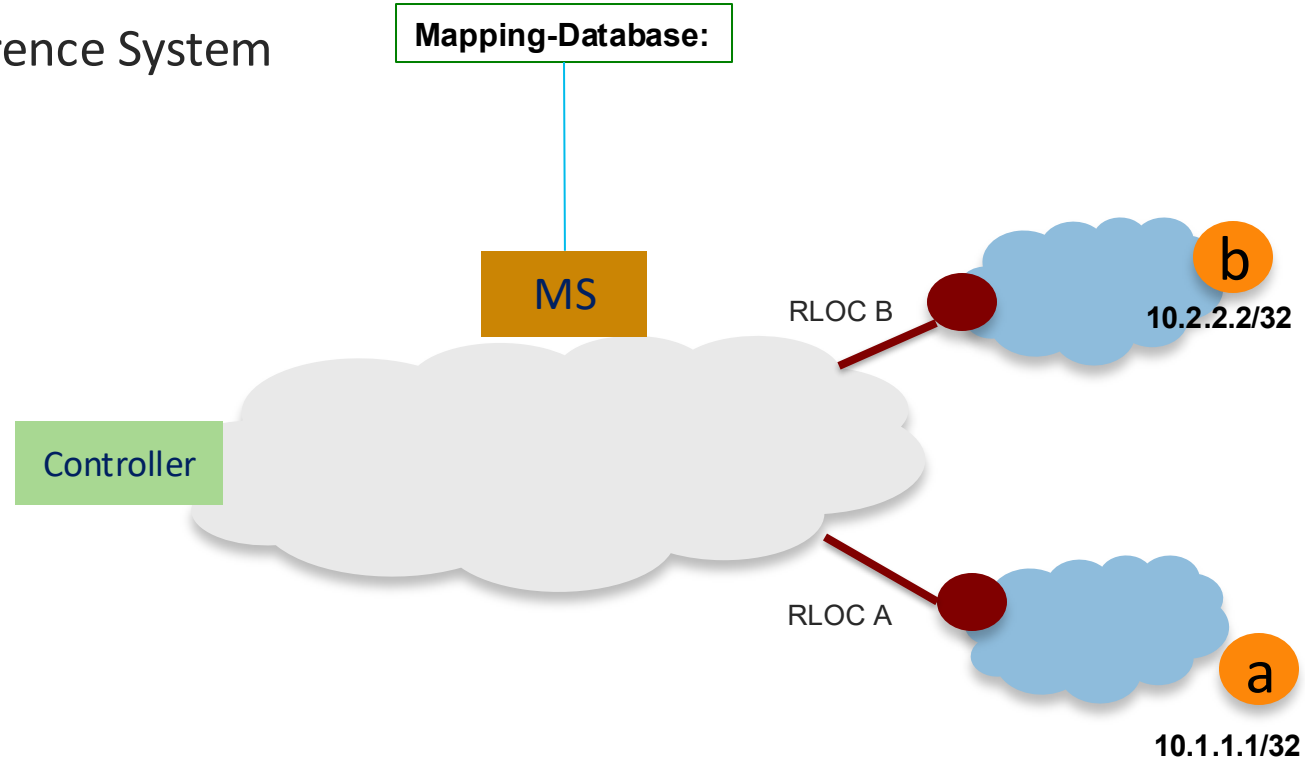
Naming and Assumptions

- Terms
  - **Delegated Mappings**: EID-to-RLOC mappings distributed following this draft to their corresponding hosting site.
  - **xTR-controller**: network entity that uses Delegated Mappings to distribute EID-to-RLOC information to their corresponding sites.

- Assumptions:
  - xTR-controller knows the sites and the corresponding ETR RLOCs where EIDs are connected.
  - xTR-controller implements LISP control-plane procedures (RFC 9301) and can interact with the Mapping System.

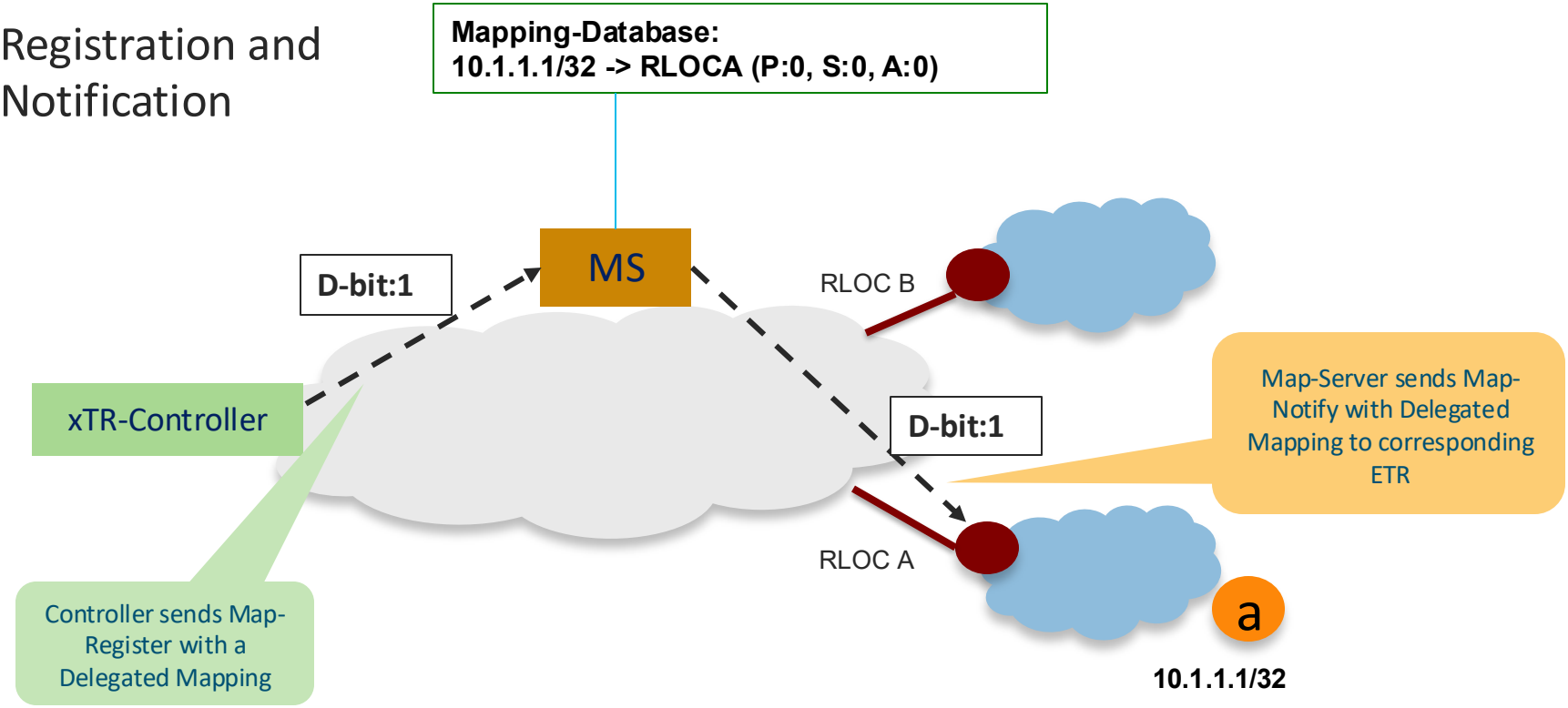
Procedures of Delegated Mappings

- Reference System



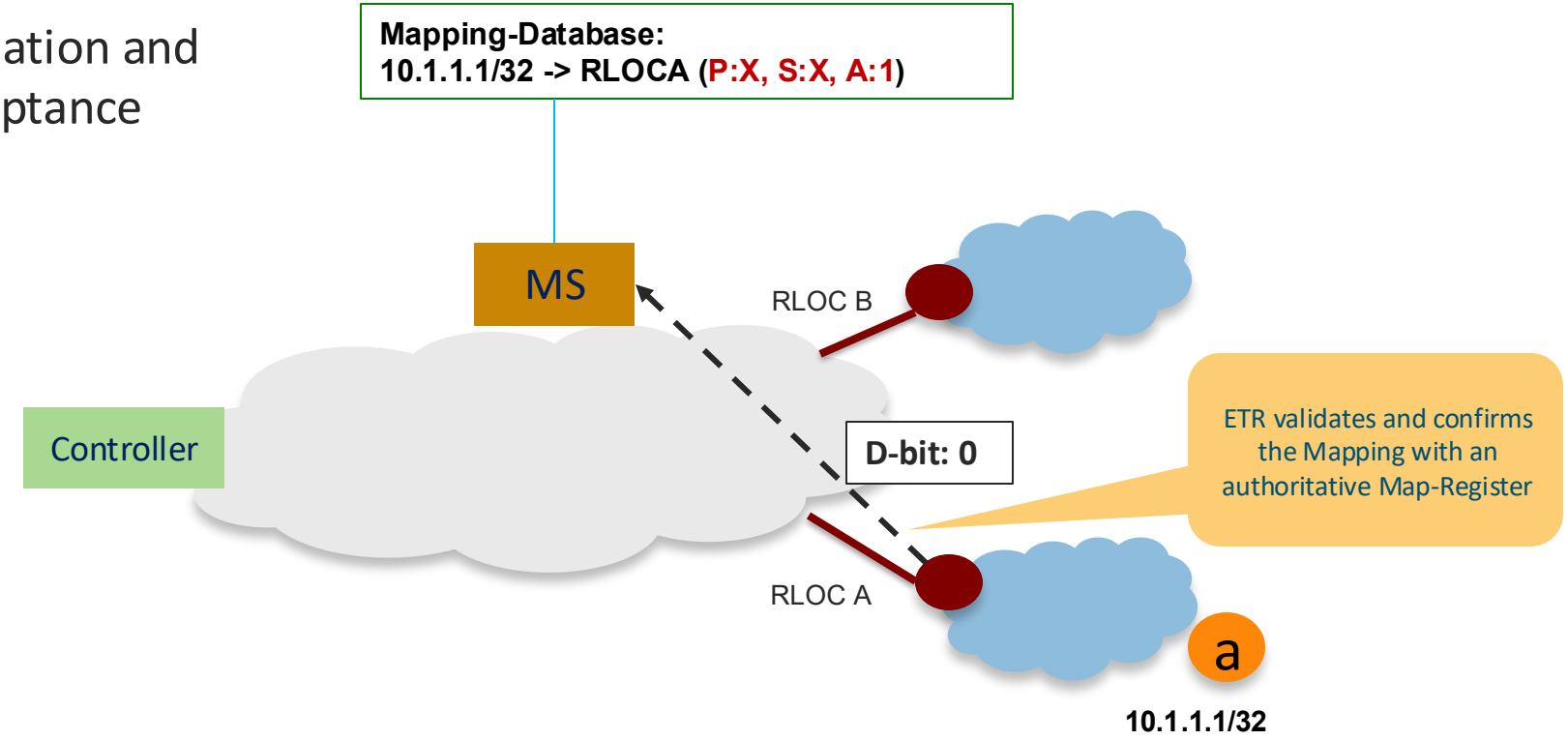
Procedures of Delegated Mappings

- Registration and Notification



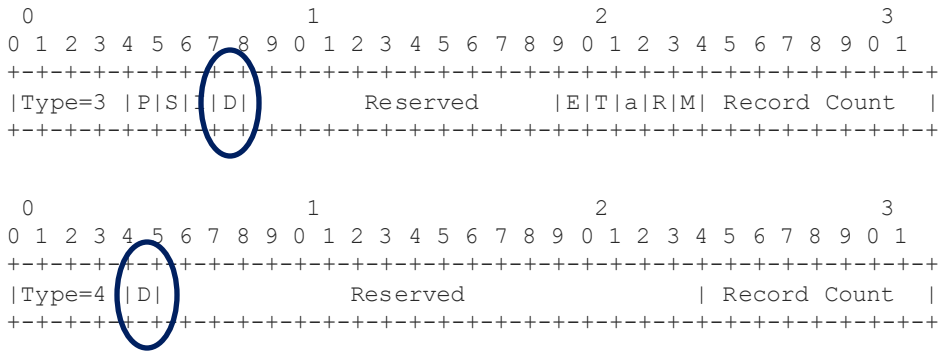
Procedures of Delegated Mappings

- Validation and Acceptance



Signaling Delegated Mapping use

- Propose to extend Map-Register and Map-Notify extended with a new bit (D) to indicate the distribution of a Delegated Mapping



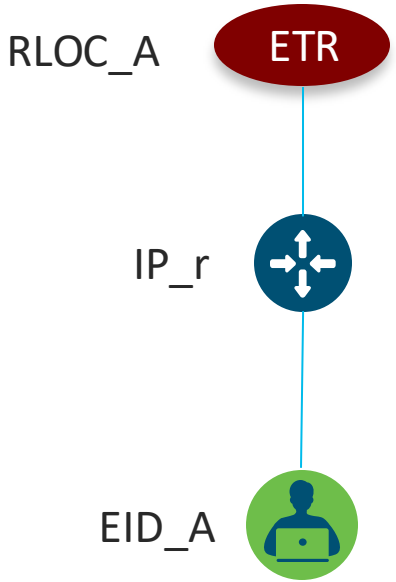
- The D bit indicates that this is a Delegated Mapping being distributed
- P-bit, S-bit, T-bit must be set to 0

EID access information

- The interconnect between the ETR and the EID may not be direct or known at ETR.

- Use of ELPs (LCAF type 10) to encode access information:
  - First address in ELP always ETR RLOC

- Use of multiple data-plane LCAF (type 16) to encode local forwarding info
  - Includes no encap option



Comments, Questions?

- Version 00 just uploaded
- Interest for the WG group?
- Practical implementation of the proposal exists