

# LISP Single-Hop DHT Mapping Overlay

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[draft-cheng-lisp-shdht-03](#)

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# What's LISP SHDHT?

- LISP SHDHT is a LISP Control Plane proposal based on DHT strategy
  - i.e., a mapping database provides mapping information lookup service for sites running LISP
- Properties of DHTs
  - Self-Configuration
  - Self-maintenance
  - Scalability
  - Robustness

# What's LISP SHDHT?

- Main Characters of LISP SHDHT

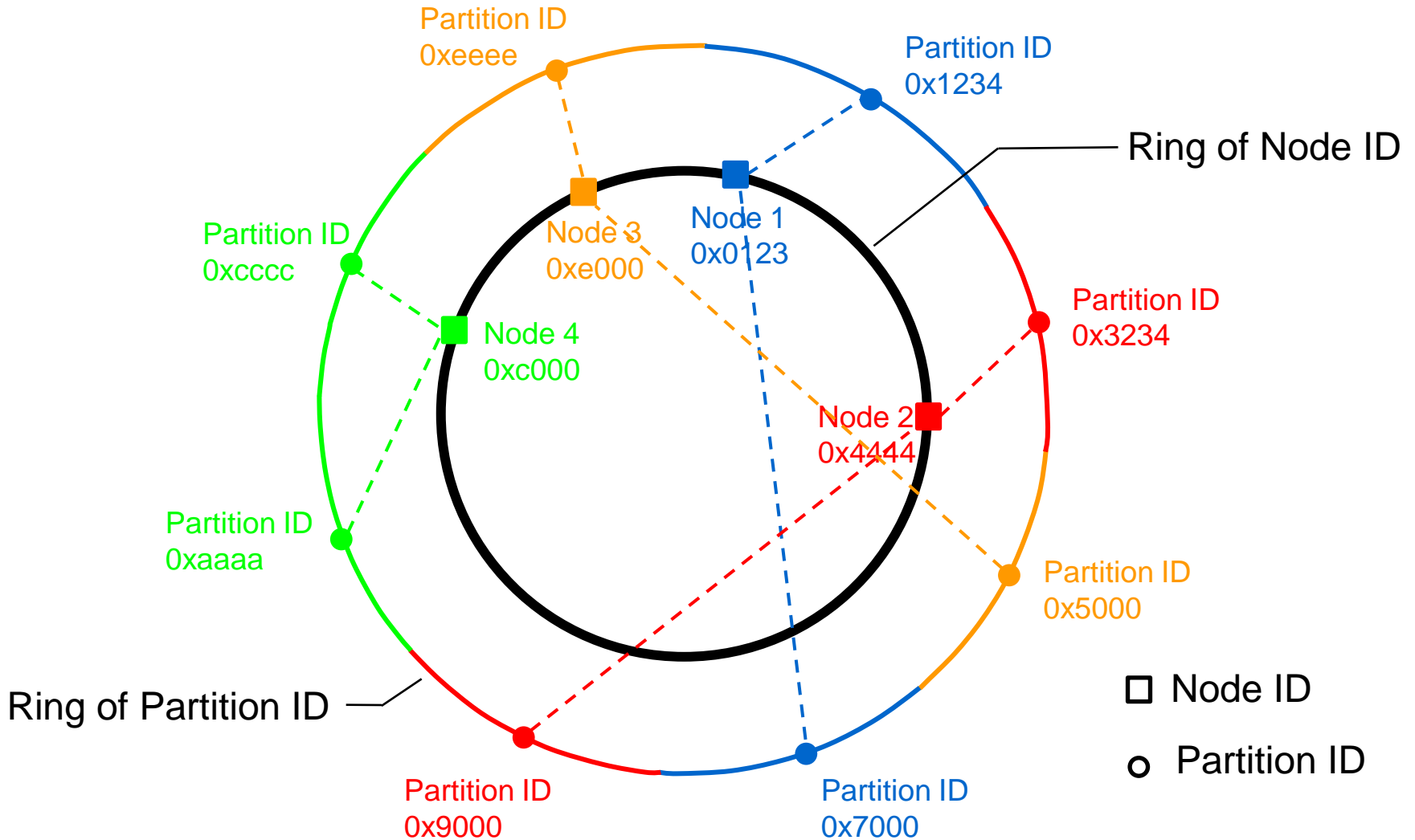
- ◆ **Single Hop — Lookup Efficiently**

- Each SHDHT Node maintains routing information for all other SHDHT Nodes.

- ◆ **Load Balance — Avoid Node Overload**

- **Node ID:** Each SHDHT node has a unique Node ID which identifies the physical node.
    - **Partition ID:** Each SHDHT node could maintain multiple Partition IDs which represent the assignment of hash space.

# SHDHT Overview



# Version -01 to -03

- Comments received on IETF 84<sup>th</sup>

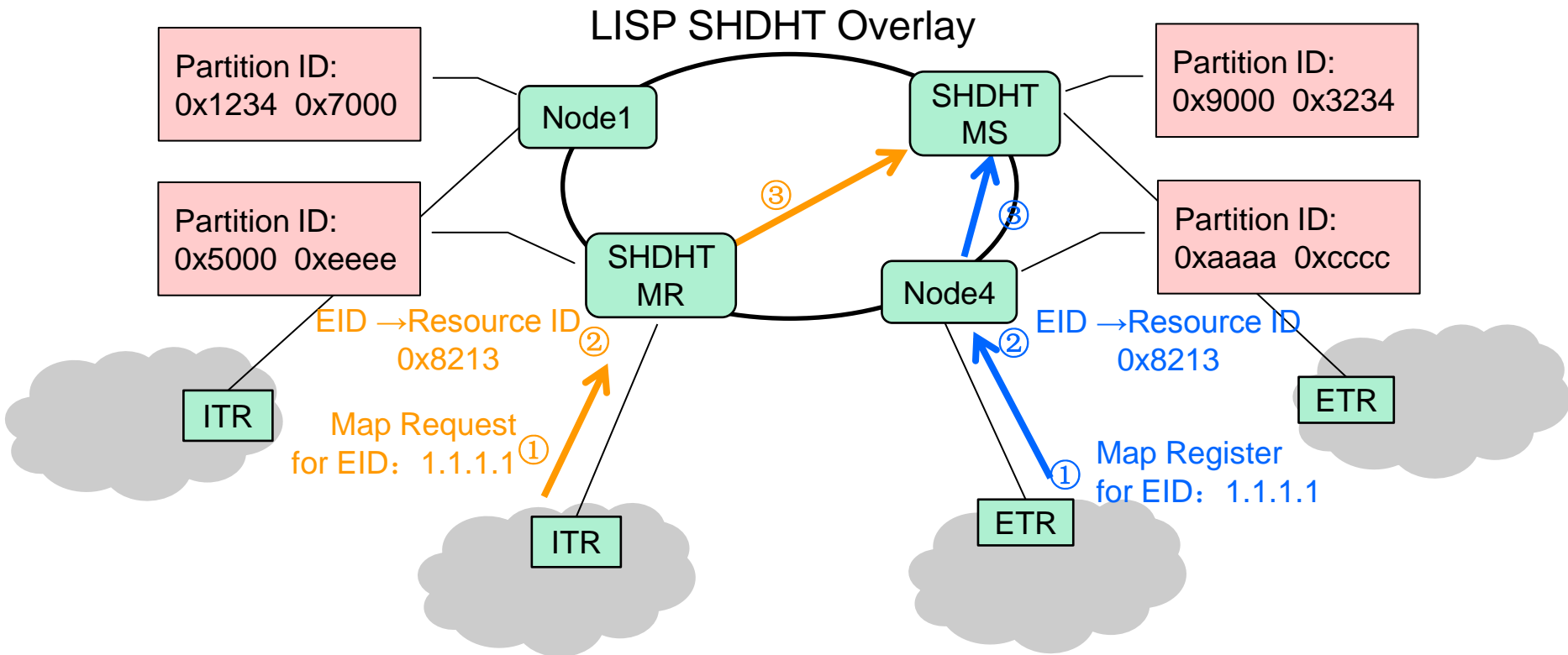
## ◆ Consistency with LISP-MS

- The whole SHDHT Overlay is composed of multiple SHDHT-Nodes. The structure of the database is not consistent with requirements specified in [LISP-MS].

## ◆ Scalability

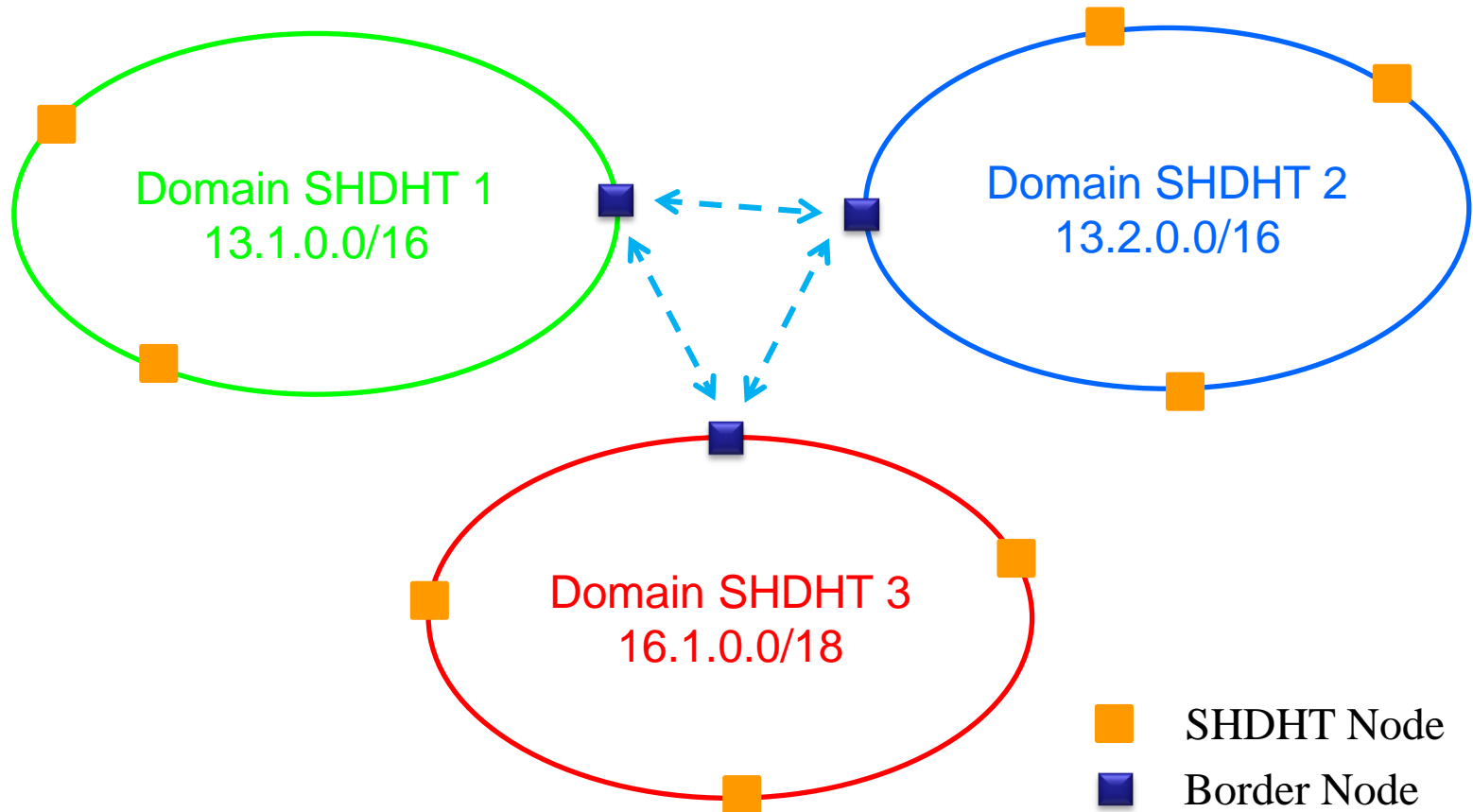
- The whole SHDHT Overlay is a ring sharp overlay. Mapping overlay may be implemented by multiple mapping service providers. Scalability of the mapping overlay need to be considered.

# LISP SHDHT Operations

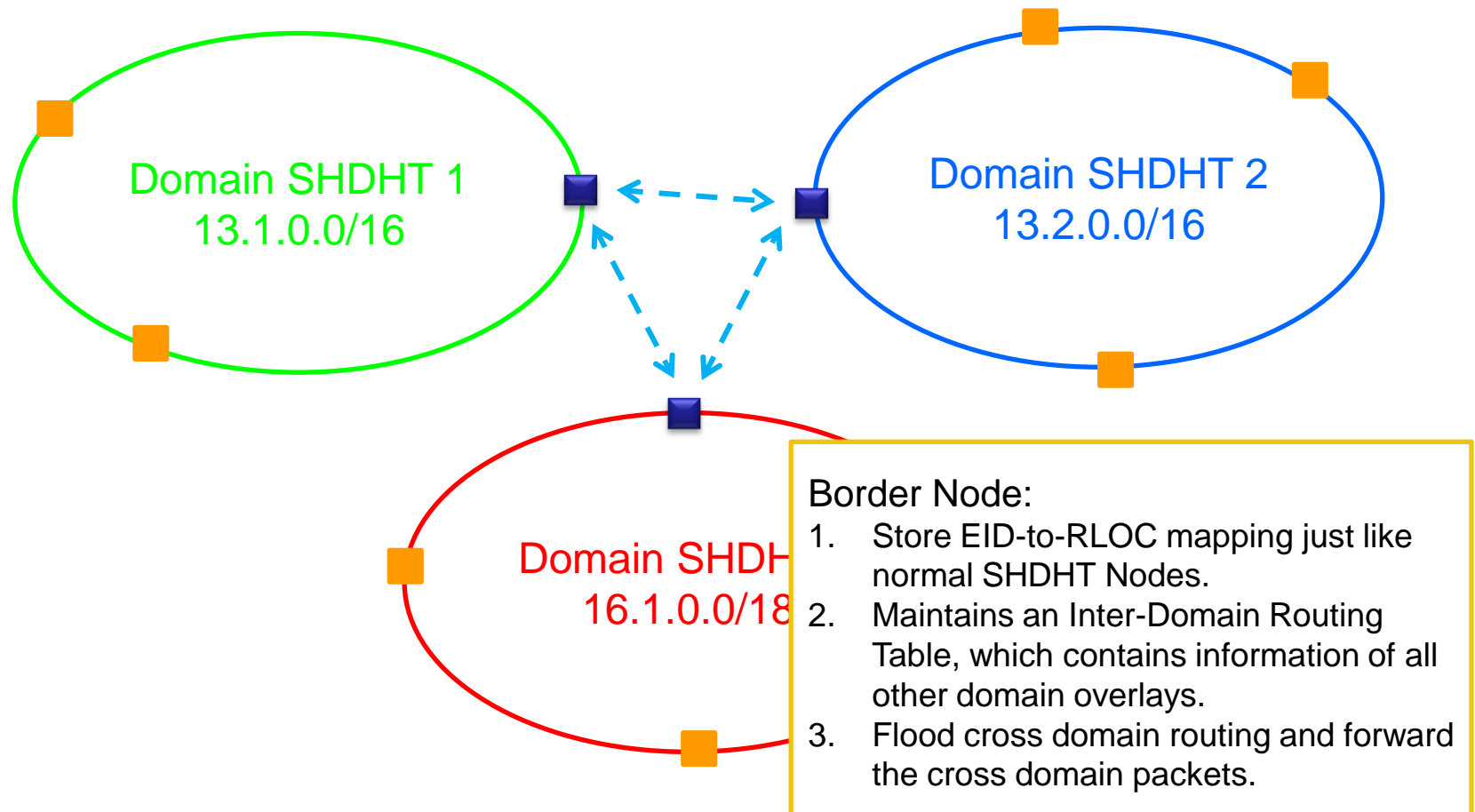


SHDHT-MS and SHDHT-MR represent function entities, and could be collocated on the same SHDHT Node.

# Domain LISP SHDHT Deployment

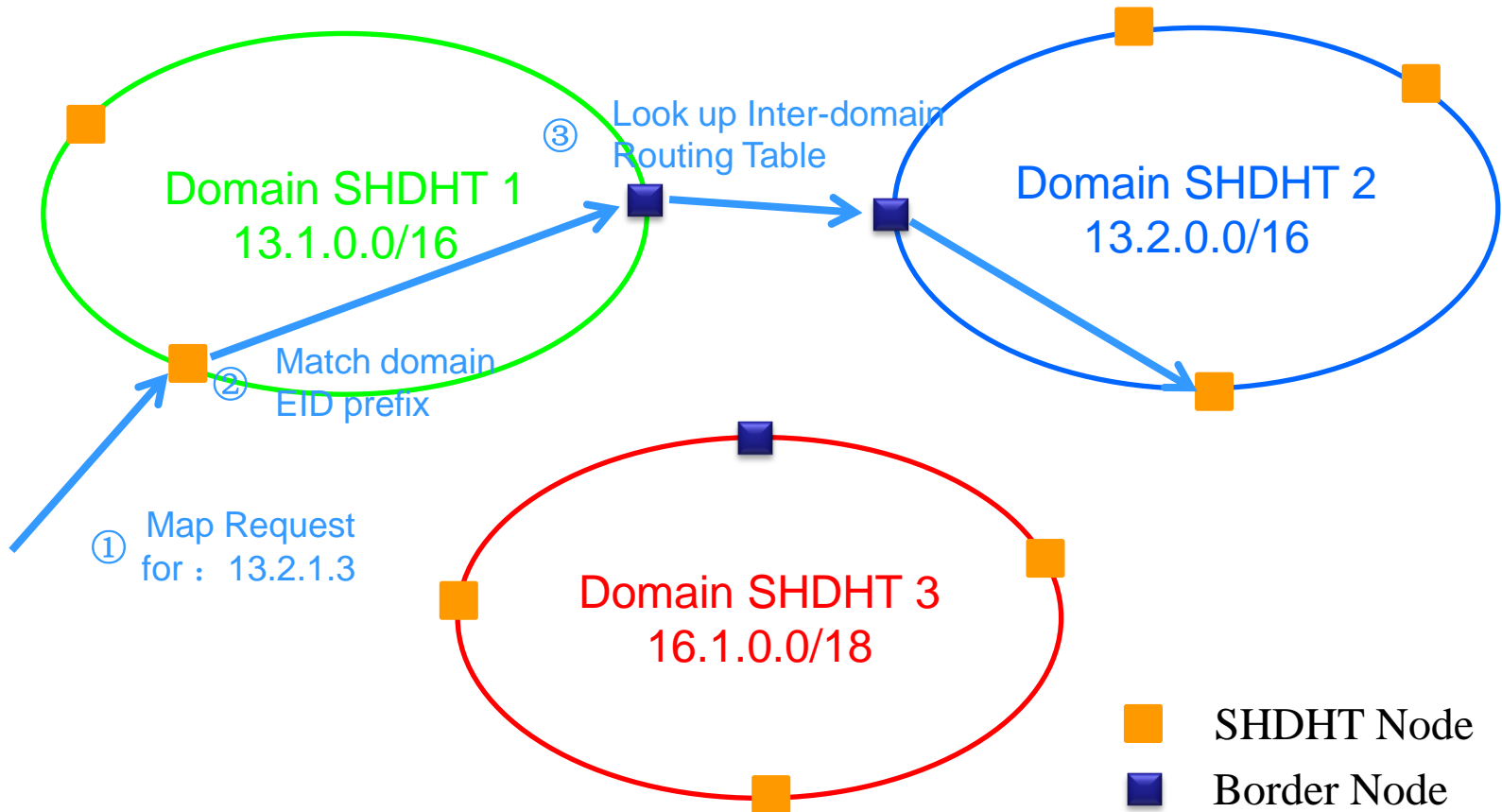


# Domain LISP SHDHT Deployment





# Domain LISP SHDHT Deployment



- Comments/Feedback?