Locator/ID Separation Protocol (LISP)

What is LISP?

- Tunneling/encapsulation approach to separate location from identity
  - IP in UDP tunnel
- Standards based
  - RFC 6830 - The Locator/ID Separation Protocol (LISP)

Why LISP?

LISP use cases

- Ingress load distribution
- AF over AF (IPv6 over IPv4)
- VPNs
  - Sort of like L3VPN
- VM mobility

LISP Terminology

- EID
  - Endpoint ID
  - E.g. a server's IP address
- RLOC
  - Routing Locator
  - E.g. a router's link IP address
- M-DB
  - Mapping Database
  - Association between EID and RLOC

LISP Terminology (cont.)

- MS
  - Map Server
  - Holds EID to RLOC mappings
  - Analogous to a DNS server
- MR
  - Map Resolver
  - Responds to map-request messages
- MS/MR
  - Combined above roles

LISP Terminology (cont.)

- iTR
  - Ingress tunnel router
  - Asks Map Resolve for EID to RLOC mapping
  - Encapsulates packet in LISP (UDP)
- eTR
  - Egress tunnel router
  - Decapsulates LISP and forwards to destination
  - Registers EID/RLOC mapping to Map Server
- xTR
  - Combined above roles

LISP Terminology (cont.)

- **PiTR**
  - Proxy Ingress Tunnel Router
  - iTR that connects LISP to Non LISP
- **PeTR**
  - Proxy Egress Tunnel Router
  - eTR that connects LISP to Non LISP
- **PxTR**
  - Combined above roles

Q&A