# LISP-OAM (Operations Administration Management): Use cases and Requirements

## draft-rodrigueznatal-lisp-oam-00

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# Motivation

- LISP offers some control over the underlay
  - Reachability/Liveness of locators
  - Load-balance traffic (P/W)
  - [I-D.farinacci-lisp-te]/[I-D.brockners-lisp-sr] control how the traffic flows through the underlay
- Some underlay details are hidden to the LISP overlay
  - Properties of the paths (loss, latency, length…)
  - Topological location of xTRs, RTRs, PxTRs

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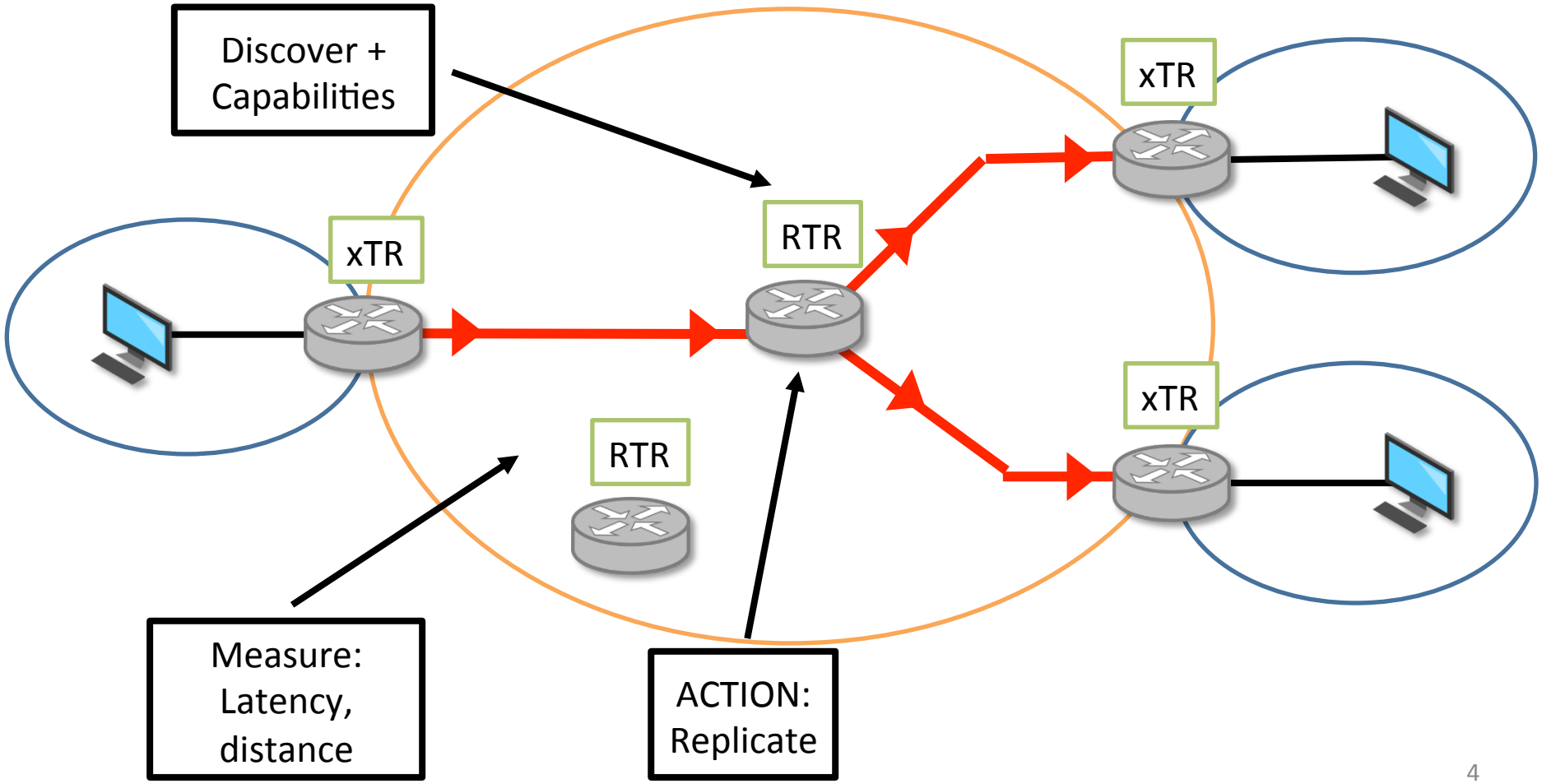
- Some LISP use-cases may require better control/information of the underlay

OBJECTIVE

**Analyze** relevant use-cases and understand the **requirements** that they create to the LISP architecture

# Use-case: Multicast

draft-farinacci-lisp-signal-free-multicast-01
draft-coras-lisp-re-05

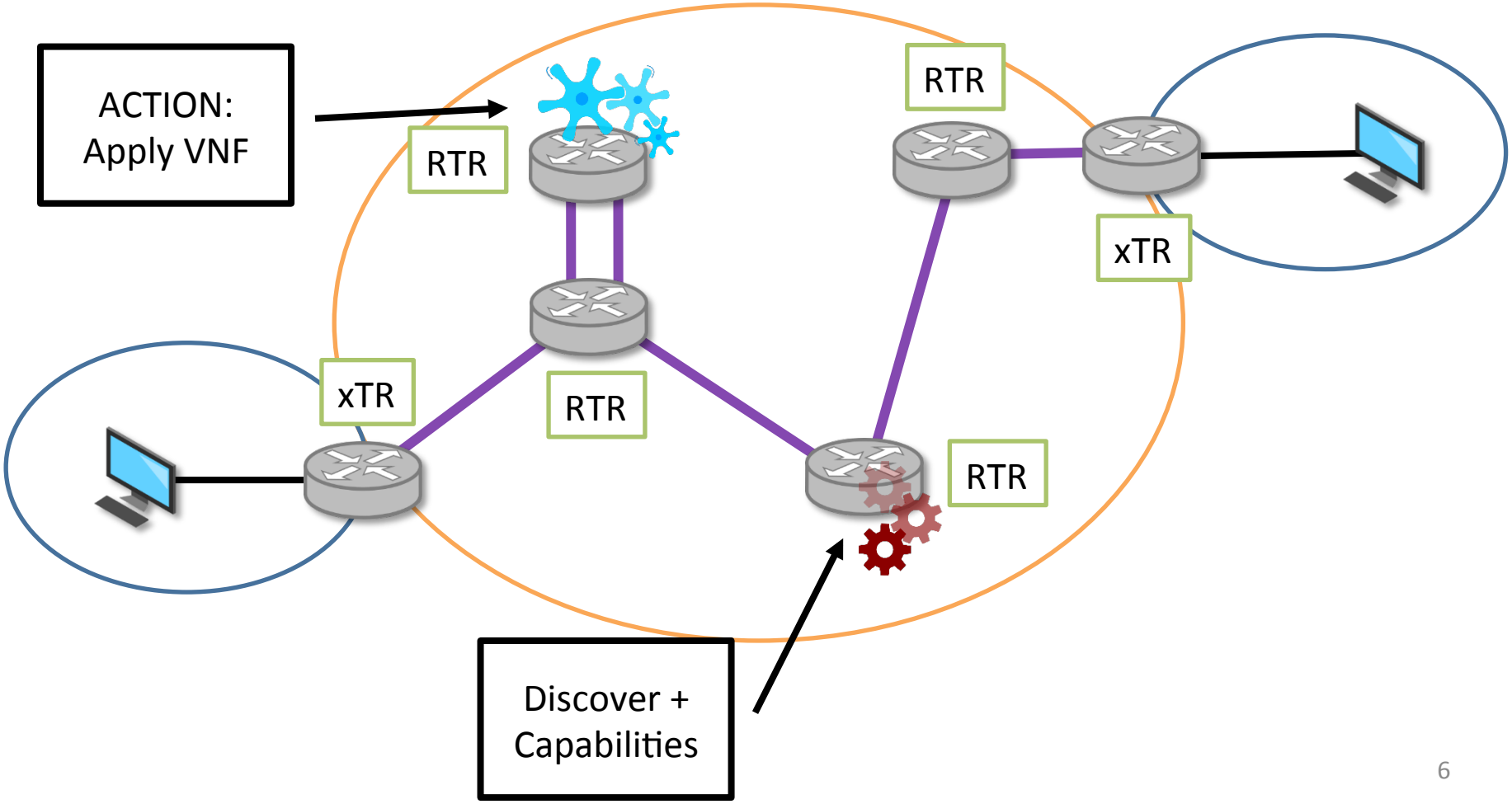


# Requirements: Multicast

- Discovery of xTRs (source/destination) and RTRs
- Capabilities
  - Replication capacity
- Actions
  - Replicate
- Metrics
  - Path: Latency, distance, etc.
  - Load

# Use-case: NFV/SC

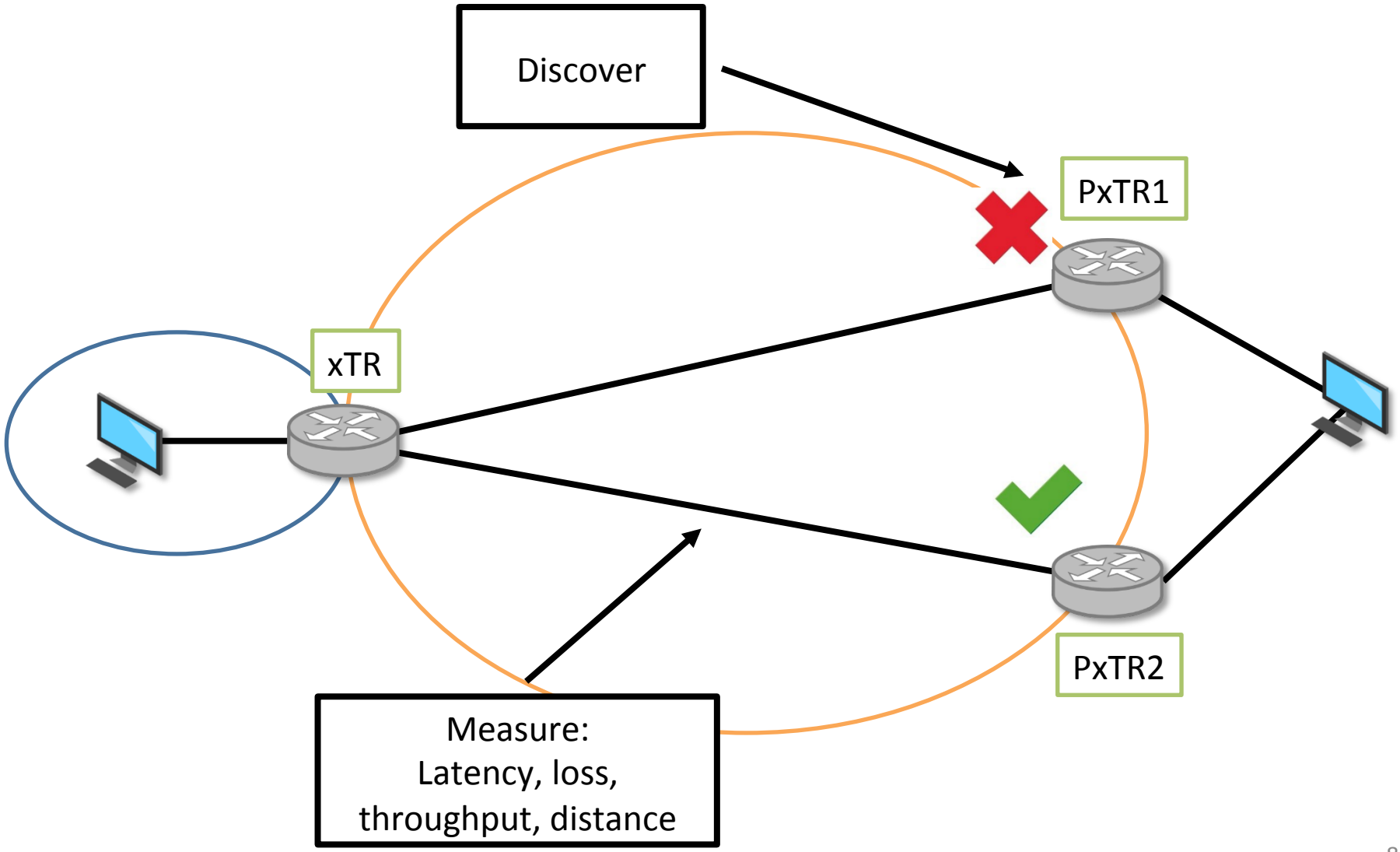
draft-barkai-lisp-nfv



# Requirements: NFV/SC

- Discovery of RTRs
- Capabilities
  - Available VNFs, etc.
- Actions
  - Apply VNF

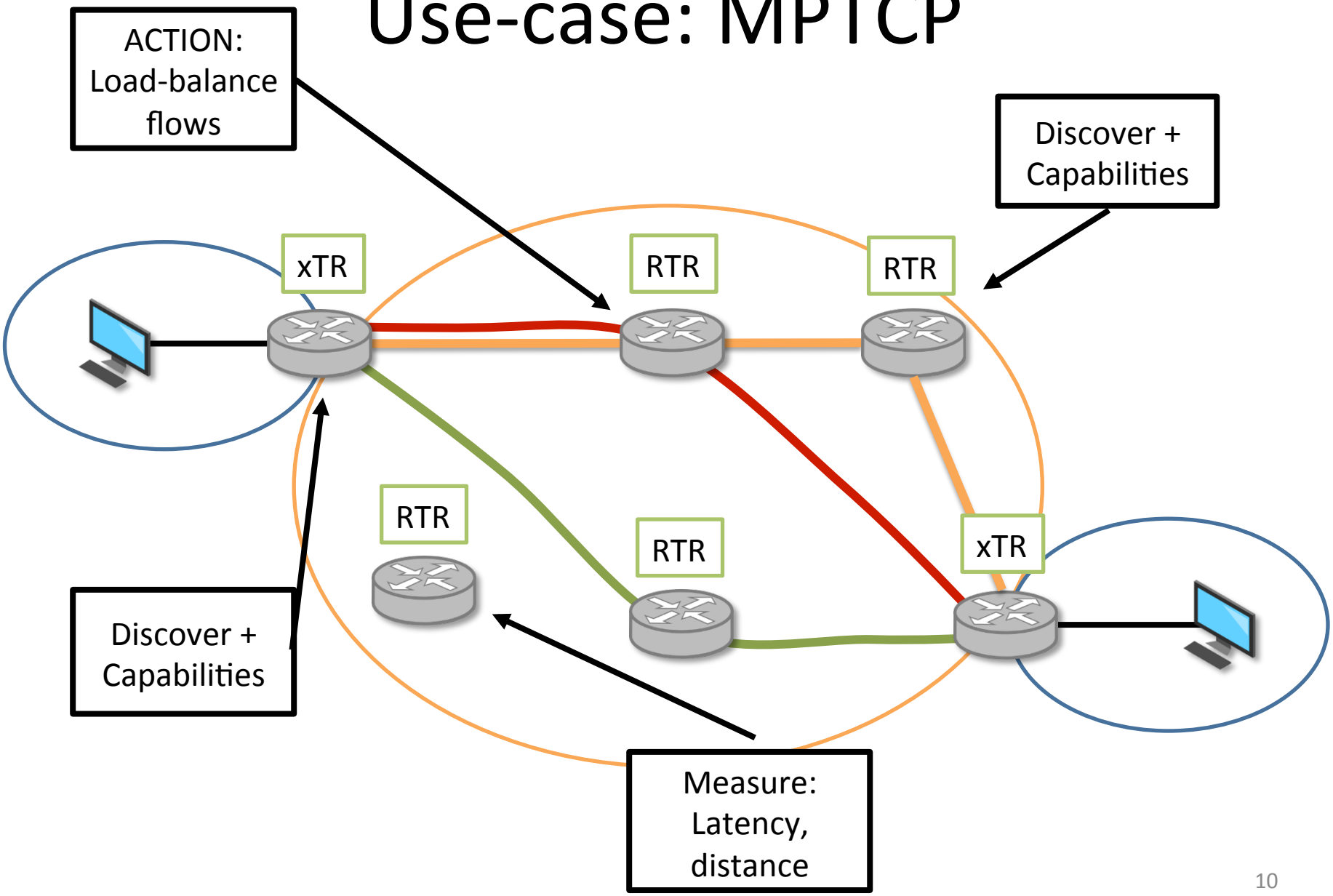
# Use-case: PxTR selection/Troubleshooting



# Requirements: PETR selection/Troubleshooting

- Discovery of PxTRs
- Metrics
  - Latency
  - Packet loss
  - Path length (IP/AS hops)
  - MTU
  - LISP state (map-cache, locator status, etc.)

# Use-case: MPTCP

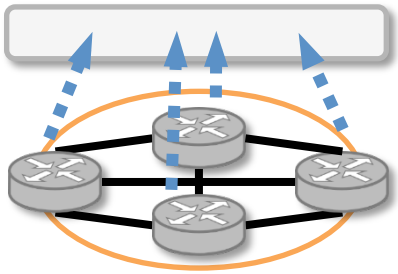


# Requirements: MPTCP

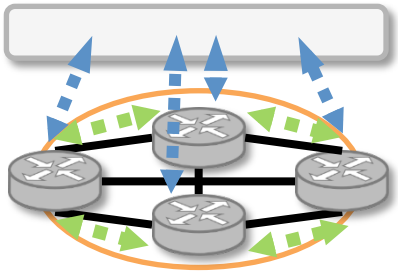
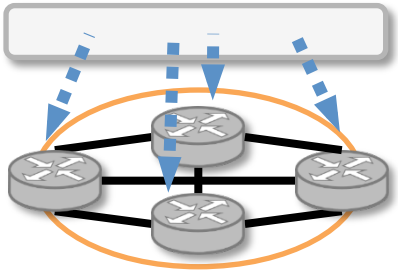
- Discovery of xTRs and RTRs
- Capabilities
  - Proxy MPTCP
- Actions
  - Load-balance flows
- Metrics
  - Path: Latency, distance, etc.
  - Load

# Summary of Requirements

- Device Discovery + Capability Discovery
  - Supported ACTIONS (Replicate, VNF, etc.)
  - Replication Capacity
  - Proxy MPTCP



- Underlay information:
  - Path: Latency, MTU, Loss, Length, etc.
  - Load
  - LISP State: Map-Cache, LS, etc.



- ACTIONS:
  - Replicate
  - Load-balance flows
  - Apply VNF