Route Information Options in Redirect Messages

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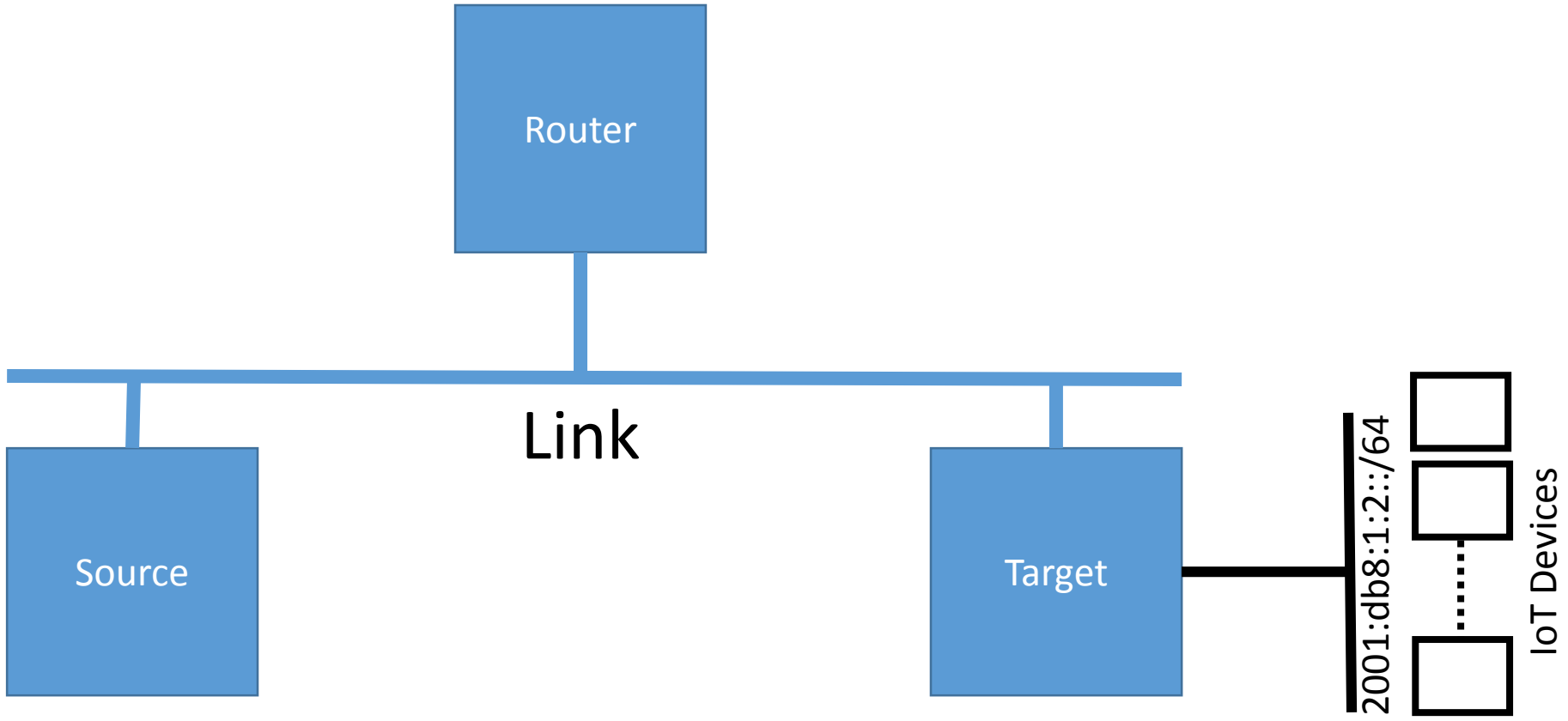
Draft History

- First posted on 6man list 1/9/2017
- Comments on the list resulted in draft update
- Draft update posted 1/31/2017
- More comments received – pending second update
- https://datatracker.ietf.org/doc/html/draft-templin-6man-rio-redirect

Common Redirection Scenario (RFC4861)

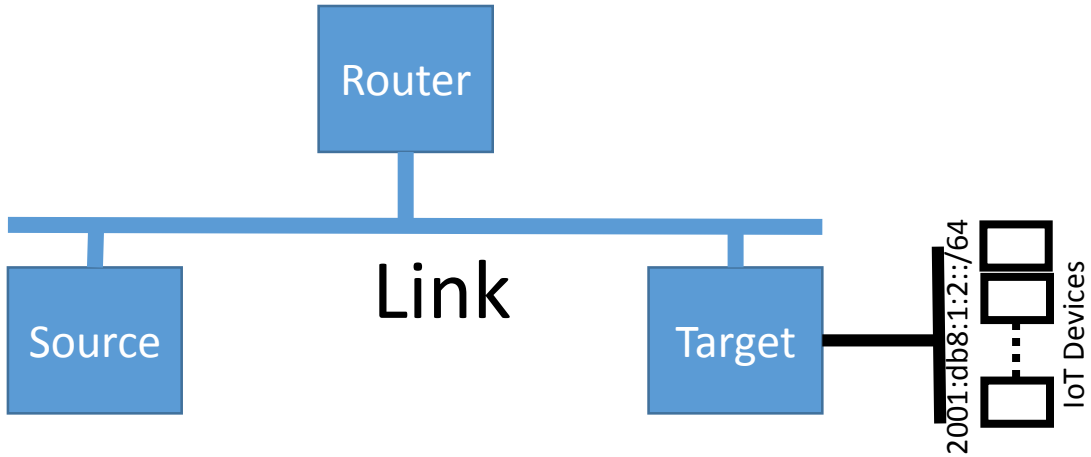


Route Information Options (RFC4191)

- Included in Router Advertisement (RA) messages
- Informs recipient of routes that are reachable via the router that sent the RA message
- RFC4191 identifies 3 types of hosts (Type A, B, C):
  - Type A and B both ignore RIOs
  - Type C processes RIOs in RA messages
- This document introduces a new **Type “D”** host
  - same behavior as Type "C", **but also process RIOs in Redirect messages.**

RIO Redirection Scenario

- Source sends packet toward destination via Router
- Router forwards packet to Target, and also sends Redirect to Source
- Redirect contains:
  - Target Address set to target addr
  - **Destination Address set to “::”**
  - TLLAO with target link-layer
  - **RIO w/prefix 2001:db8:1:2::/64**



Use Cases and Next Steps

- Enterprise mobile devices (e.g., cell phones, tablets, etc.)
- Aeronautical communications (e.g., airplanes, air traffic control, etc.)
- Unmanned Air System (UAS) networks (vehicle to vehicle)
- Home networks with multiple subnets [HOMENET]
- Next steps:
  - Prepare draft update based on list comments since 1/31/2017
  - 6man WG item?