

In the case of the four-hop ring toward 100::/64:

- The link between B and C appears to be unidirectional toward B.
- The link between C and D appears to be unidirectional toward D.

Why are these links blocked in this way by the routing protocol? To follow the prime directive—thou shalt not loop!

- If a packet destined to 100::/64 is forwarded from D to C, the packet will loop back to D.
- If a packet destined to 100::/64 is forwarded from B to C, the packet will loop back to D.

In the case of the five-hop ring toward 100::/64, the link between G and H appears to be completely blocked. But why should this be? Suppose a packet destined to some host in 100::/64 is forwarded from G to H. This packet will be forwarded correctly to F, then to E, and finally to the destination itself.

But what if G is forwarding traffic to H for 100::/64, and H is also forwarding traffic to G for 100::/64? A permanent routing loop results. This means

- If the link between A and D fails, D has no way to forward traffic toward 100::/64 until the routing protocol converges.
- If the link between E and K fails, H has no way to forward traffic toward 100::/64 until the routing protocol converges.