TRIGTRAN Futures?

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Caveats

- These are my personal opinions, not the opinions of IAB.
- They are irrelevant if TRIGTRAN doesn’t become a Working Group.
- Thanx to John Wroclawski for helping organize my extremely chaotic thinking.
  - But the conclusions are mine so throw rotten fruit in my direction please!

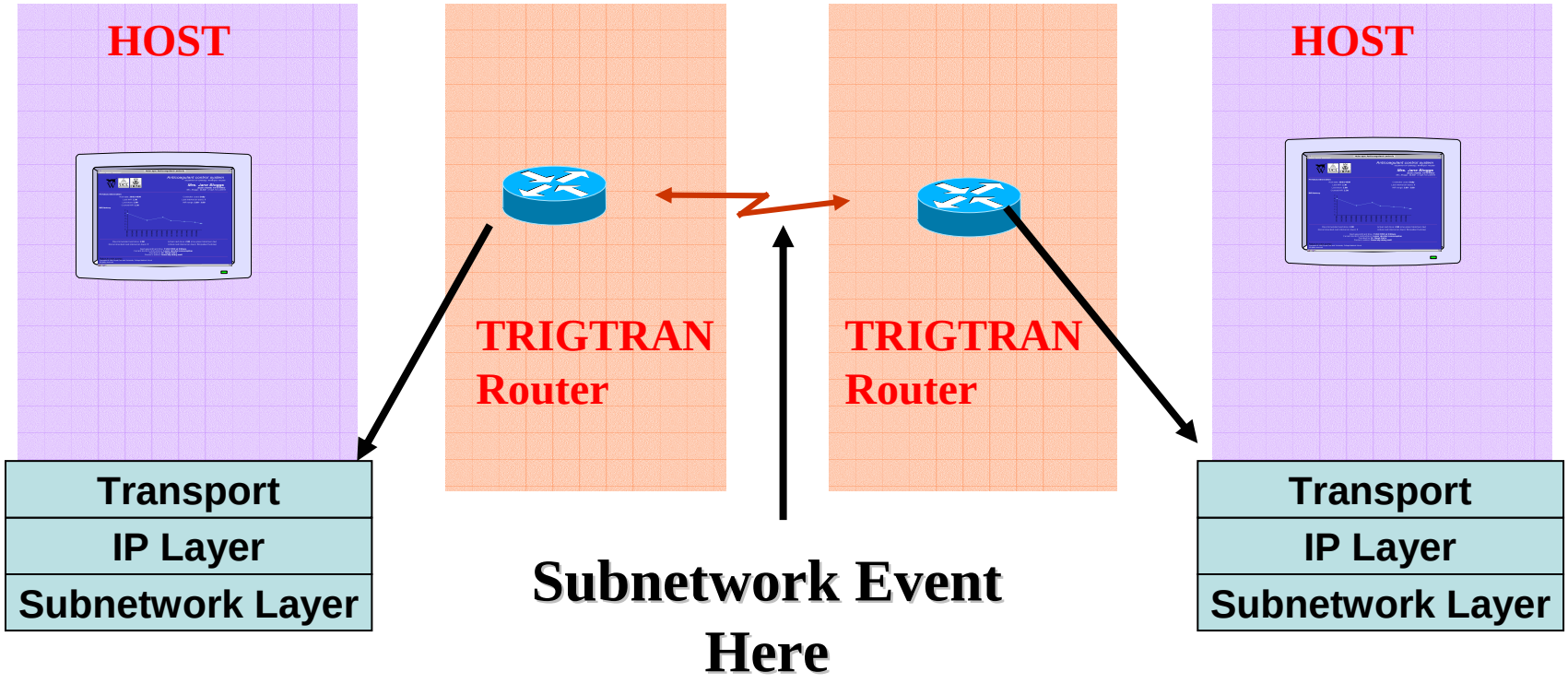
L2 Triggers: Idea

- Millisecond event notifications from the link layer about changes during wireless handover.
- Allows tight, L2 independent coupling between L2 and L3 during handover.
- Supports very fast IP handover, at L2 speed.
  - We have implemented and measured this and it works well.
- See draft-ietf-mobileip-lowlatency-handoffs-mipv4-04.txt for use
- See draft-manyfolks-l2-mobilereq-04.txt for comprehensive definition.

L2 Triggers: IETF Direction

- IETF should not pursue this work further.
- Protocol implications are questionable.
  - Maybe an API, but then no protocol.
  - If protocol, requires wireless access point to send protocol to router.
  - Wireless access points don't exist in the IP architecture, only routers and hosts do.
- Submit L2 triggers draft as individual contribution for informational RFC.
- Take the work to PHY and MAC research fora, standards bodies.
  - PHY Guys always talking about providing upper layers more information on wireless link.
  - Proper abstractions needed.
- Revisit if IETF ever decides to admit that wireless access points are IP devices.

TRIGTRAN in the Middle?



- How do the TRIGTRAN routers know where to send the notification?

Transport and Sources of Packet Loss

- TCP, SCTP, and (soon) DCCP assume that packet loss is due to congestion.
- For wireless links this is not always the case.
  - This has spawned endless research papers on how to fix TCP on wireless links.
- Larger issue: what happens if most packet loss is noncongestion related?

Multihop Networks