

Combined Fixes for TCP over Dynamic Paths

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Combination of LMDR and Retransmit-Now

- LMDR behavior
 - Solves **short-term** connectivity disruptions
 - Previously presented and discussed with TSVWG & TCPM
- Retransmit-Now behavior
 - Solves **long-term** connectivity disruptions
 - Previously presented and discussed with TCPM

Basic Idea

- Have TCP respond to **generic** connectivity-change indications from lower-layers
 - Mobile IP (v4 or v6), HIP, SHIM6, etc
- Avoid long RTO idle time
- Re-probe path state
- Notify peer to do the same
 - Requires new TCP option

Why should TCPM support this?

- Designed to do “the right thing” in emerging network scenarios, and allows applications to use TCP that might otherwise roll-their-own (poorly)
 - Inter-technology handovers
 - Friendlier to network
 - Performance optimization, when possible
 - Long-Disruptions
 - Enhanced performance & usability

Next Steps

- Read drafts and post comments to TCPM
- Simulations over various path conditions
 - Will post results to TCPM
- Should be a candidate for Experimental