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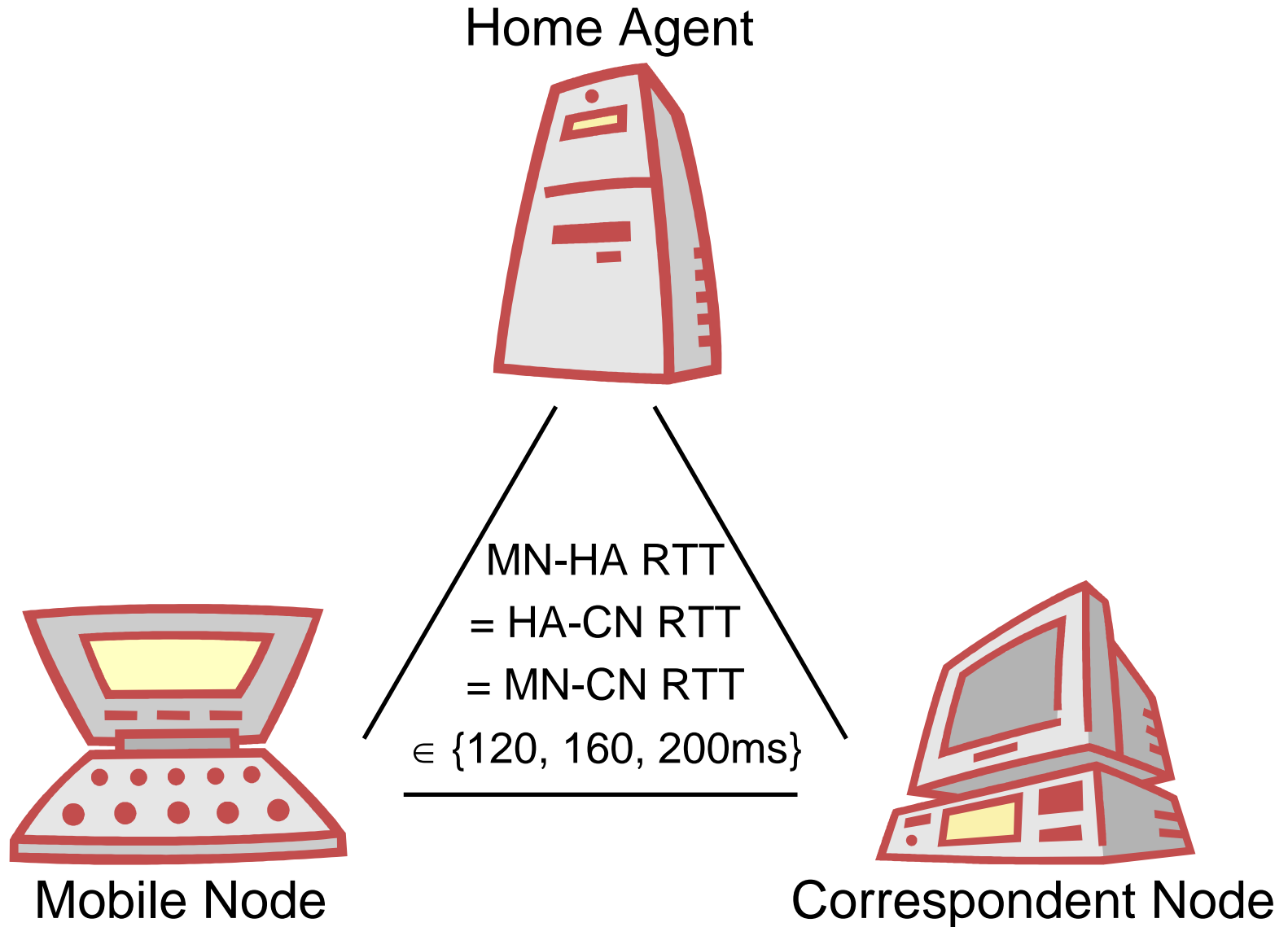
# Experimentation Results for Early Binding Updates and Credit-Based Authorization

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Implementation, TCP and VoIP-like UDP Measurements, Brief Analysis

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MIP6 Working Group Session, August 2, 2005

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## Kame-Shisa MIPv6 plus optimistic Return Routability

- Home registration and RR in parallel
  - Then correspondent registration
- } **3 RTT**

## MIPv6 plus Early Binding Updates and CBA

- RR proactive and concurrent
  - Home and correspondent registration in parallel
- } **1 RTT**

## Network and access

- 128 KB/s bandwidth; no loss (except during handovers)
- Handovers through firewall; no real L2-handover delay

## IPv6 auto-configuration

- Router Advertisements every 30ms to 70 ms (RFC 3775)
- Assuming optimistic DAD (but not implemented)

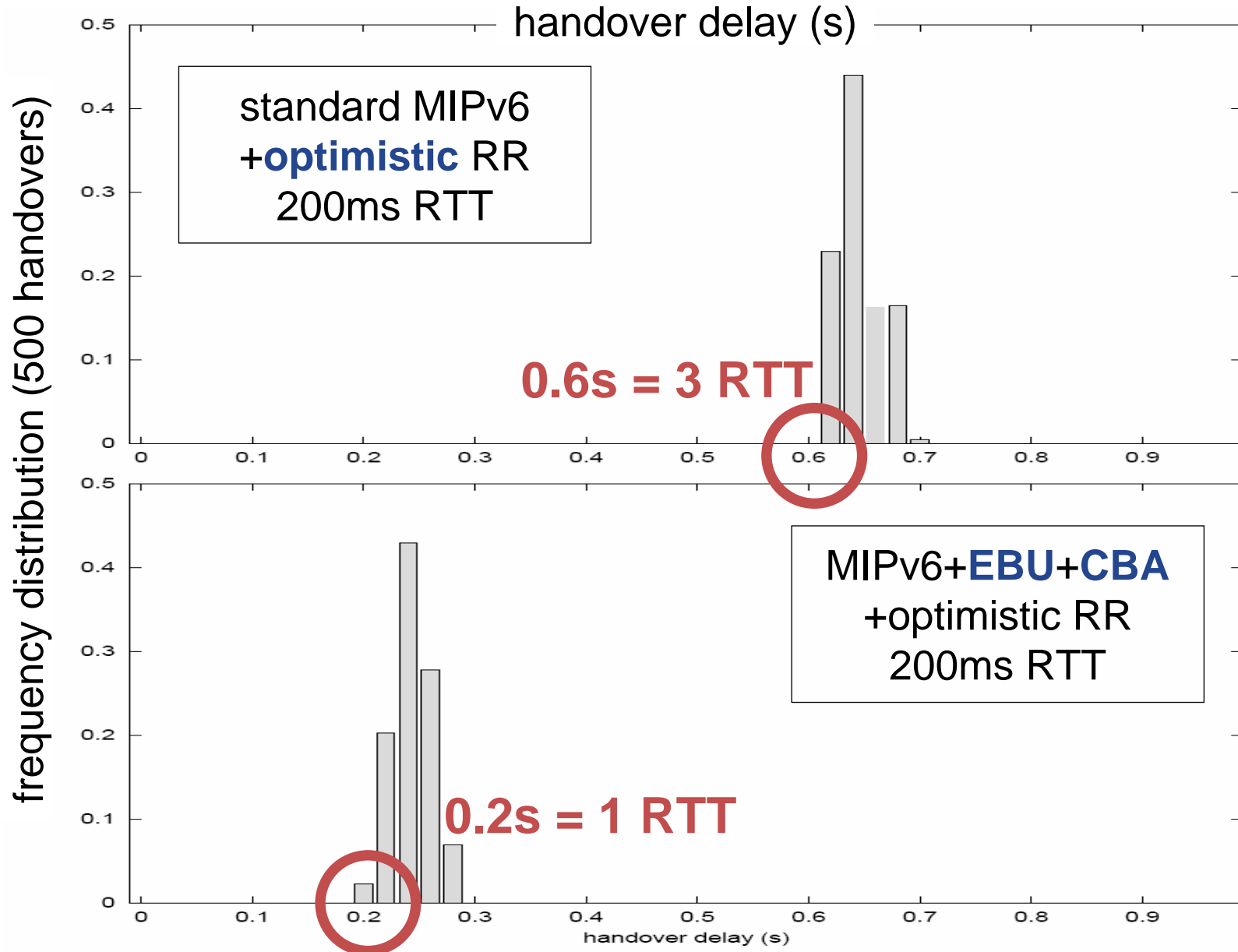
## Mobility

- Handovers separated by 10s; 1st home-to-visited, then visited-to-visited

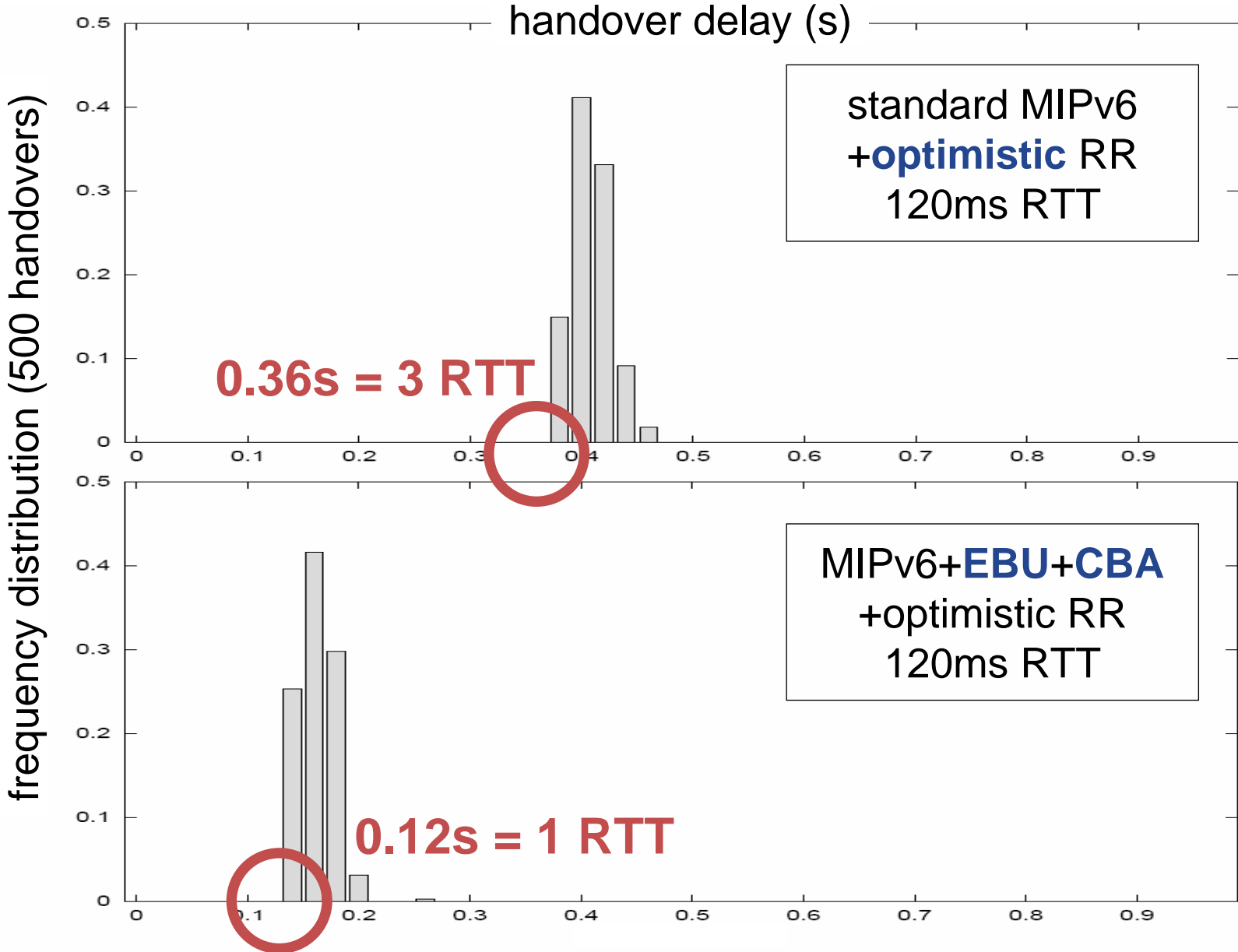
## Application

- VoIP-like UDP traffic; 100 pps; 64kbps VoIP stream; bidirectional; 140 Bytes per packet + IPv6 Routing, Destination Options ext. header
- TCP download from sender-CN to receiver-MN

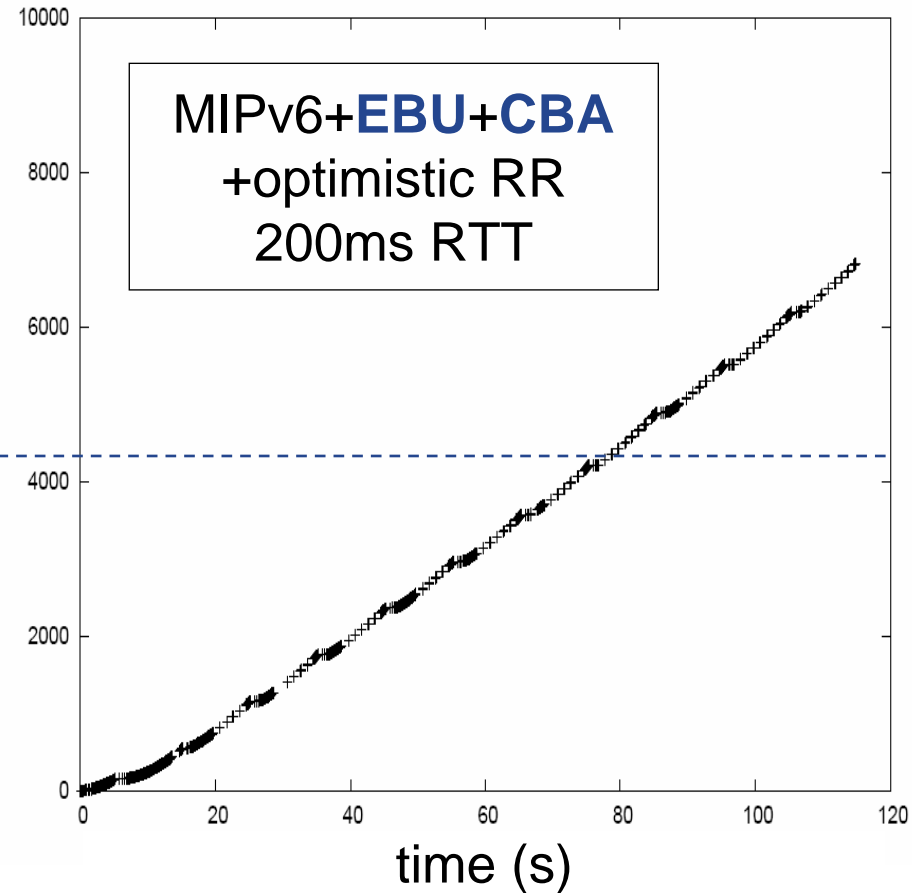
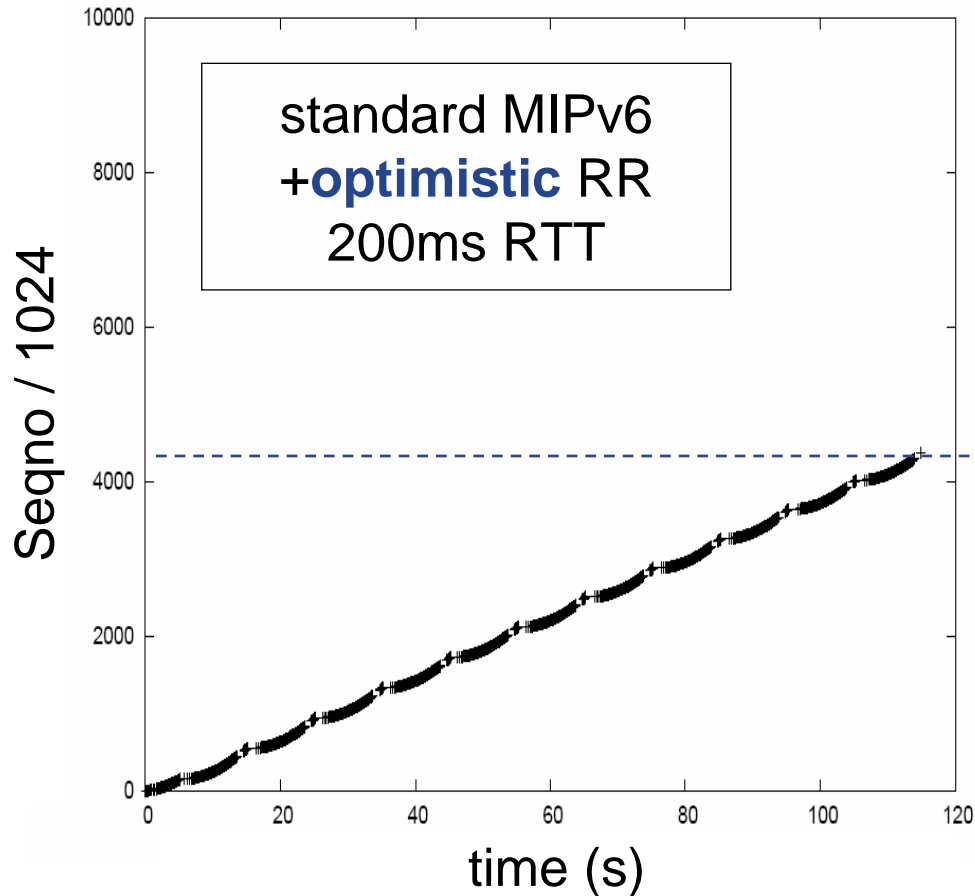
# VoIP-like UDP: Std. Mobile IPv6 vs. EBU+CBA



# Same with 120-ms RTT



# TCP: Std. Mobile IPv6 vs. EBU+CBA



2 RTO vs. 1 RTO per handover.

One RTO is inevitable, since entire Cwnd sent to old CoA.  
But L2-HO and IPv6 auto-conf. delays may still be too high.

(Waiting for DNA and faster interfaces?)