

Fast Handover with SCTP on Single-home nodes

draft-micchie-tsvwg-fastmsctp-00.txt

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Propositions (1)

- When “ADD IP ADDRESS” is sent ?
 - Current: Implementation dependent
 - BSD implementation: After the current RTO expiration
 - It occurs long delay when the RTO value increased while the disconnection
 - **Proposition: Immediate after the notification of a new IP address**
- When does MN recover data transfer after the reception of ASCONF-ACK ?
 - Current: After the remaining RTO expiration
 - Handover event is not considered as change of communication path
 - The RTO might be increased quite long during the lower layer disconnection
 - **Proposition: Considering handover event as change of communication path**
 - MN restarts data transfer immediately after the handover event
 - These transmissions **SHOULD** be performed with slow-start

Propositions (2)

- How does MN make CN retransmit DATA chunks to new address immediately ?
 - CN does not know MN's disconnection
 - CN continues to retransmit DATA to MN's old address
 - RTO value is increased
 - CN does not retransmit DATA to MN's new address until the RTO expiration
 - **Proposition: New ASCONF parameter: "RECOMMEND RETRANSMISSION"**
 - Make peer retransmit unacknowledged DATA chunks to specified address
 - This retransmission is performed with SCTP congestion control mechanism

Conclusion

- Indicating handover issues in the current SCTP specification or implementation
 - especially, MN is single-homed
 - Single-homed MN disconnected during the handover process
- Propose elements to achieve smooth transport layer handover
 - Immediate transmission of ASCONF
 - MN restarts data transfer immediately after the reception of ASCONF-ACK
 - Considering handover event as change of communication path
 - Restart of data transfer is performed with slow-start algorithm
 - Recommend Retransmission ASCONF parameter
 - make CN retransmit unacknowledged DATA to the specified address