



draft-ietf-6tisch-6top-protocol

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Status

- Status: IESG LC ongoing
- Published v10 after addressing reviews from:
 - Brian Carpenter
 - Alexander Pelov
 - Lotte Steenbrink
 - Nicola Accettura

Brian remark

- Mention in Section 3.1.1 (2-step transaction) that upon a race condition causing an inconsistency this will be detected and addressed as detailed in section 3.4.6.2.
- Idem for section 3.1.2 (3-step transaction).

“In section 3.1.1 "2-step 6P Transaction" there seems to be a rare race condition if A's timeout expires while B's Response is in flight. This will be detected later as an inconsistency (section 3.4.6.2). The authors don't think it's necessary to mention this in 3.1.1. IMHO it would be useful to mention. (Similarly for section 3.1.2, 3-step transaction.)”

Alex remarks

- Add MSF to the list of SFs in 6P
- Proposes to add a section/subsection detailing the bootstrap interaction between minimal and 6P.
- Add clarification in figure 7 and 8 about the meaning of RX and TX
- Clarification about how to determine the cellist length -> IE Header.Length

Note: assuming node A issues the 6P command to node B.

CellOptions Value	the cells B selects from its schedule when receiving a 6P COUNT or LIST Request from A, from all the cells B has scheduled with A
TX=0,RX=0,S=0	all cells
TX=1,RX=0,S=0	all cells marked as RX
TX=0,RX=1,S=0	all cells marked as TX
TX=1,RX=1,S=0	all cells marked as TX and RX
TX=0,RX=0,S=1	all cells marked as SHARED
TX=1,RX=0,S=1	all cells marked as RX and SHARED
TX=0,RX=1,S=1	all cells marked as TX and SHARED
TX=1,RX=1,S=1	all cells marked as TX and RX and SHARED

Figure 7: Meaning of the 6P CellOptions bitmap for the 6P COUNT and LIST requests.

Alex Remarks (2)

- Clarification 6P Response for ADD Request:
 - when the list of candidate cells is larger than the packet?
- Clarification of return code for ADD
 - NumCells -> Success
 - 0 .. NumCells -> Partial Success
- Clarify that when a node A issues a LIST to Node B, the returned cells are those between A and B only.
- SeqNum per SF? No, each SF has its own SeqNum.

Lotte's Remarks

- Remark on when the scheduled/relocated cells can be used.
 - This is only when the transaction has succeed (L2 Ack received).
- Add Clarification in Section 3.3.1 so CellOptions are checked according to Figure 8.
 - Proposed text: "Upon receiving the request, node B checks whether the cellOptions are set to a legal value as noted by Figure 8. If this is not the case, a Response with code RC_ERR is returned. Otherwise, node B's SF verifies which of the cells [...]"
- Clarify that SeqNum accounts for the transactions between to particular nodes and hence there is a SeqNum per neighbor.
- Clarify if CLEAR is sent after reboot.
- In a Relocation, clarify that NumCandidate MUST be equal to or greater than NumCells.

Nicola's Remarks

- Changing ADD mechanism to start using the cells being allocated without waiting the confirmation from both sides:
 - PROs:
 - Improves mechanism behavior when few cells are scheduled
 - Is more relevant at bootstrap of the network as the minimal cell can be congested.
 - CONS:
 - Only applicable to ADD operation.
 - DELETE may not work properly if we delete the cells while the transaction occurs.
 - This requires to cope ADD and other functions in different manners complicating the mechanism.



Next Steps

- Publish v11