

3GPP TSG SA #75

Dubrovnik, Croatia, March 8-10, 2017

Agenda item: 7.2

SP-170204

Way Forward on light connection for LTE

Source: Huawei, Intel, Samsung, China Unicom, Telus, vivo, HiSilicon

Background

- RAN approved the Rel-14 WI on LTE Light Connection (LTE_LIGHT_CON; RP-160937) to address the need to further reduce signalling overhead between the UE and the network, as well as between RAN and CN, by maintaining a lightweight connection between them.
- It has been identified that this feature may have some impact to other working groups (SA2/3, CT1, etc) and alignment is needed.
- RAN2 already sent the LS to CT1 and later SA2 on the identified issues.
- CT1 has approved a WI (LTE_LIGHT_CON-CT; CP-160703) on it to do the Stage 3 specification.
- SA2 discussed the system-level impact in the SA2#118bis meeting and provided feedback to RAN/SA/CT with a LS out (SP-170009).
- Progress is hindered due to some companies objections for Rel-14 work

Current Status & Issues

- **RAN**
 - RAN2 parts are completed, RAN3 parts in good shape (a way forward to complete the work, supported by 21 companies, was objected by 2 companies).
- **CT**
 - Set of CRs (C1-170222 - 224) has been discussed and was endorsed as “technically correct” by CT1.
 - Exception sheet on LTE_LIGHT_CON-CT
- **SA2#119**
 - Continuation of discussions from previous meeting, there was no agreement on how to further conduct the normative work.
 - Some companies think alignment CR or a new WI is to be created for it to better manage the scope, interaction with other WGs, etc.
 - Some other companies believe a study needs to be conducted first.
- There’s also a discussion on the release timeline management. Rel-14 Stage-2 has been frozen in Sep 2016 which means that exception would be needed for the alignment work in SA/CT WGs.

Way Forward on light connection for LTE

- There is strong interest from the industry to further progress and complete this work.
- **Proposed way forward:**
 - RAN and CT to further progress their WI work with exceptions request, one quarter.
 - Approve an alignment WID (following the RAN conclusions with necessary alignments) for SA2 for Rel-14, finish in June 2017
- Alternatively:
 - Approve a Rel-15 WID with focus on LTE/EPC light connection with early completion target, i.e. June 2017.

Other issues relevant

- Relationship of LC for LTE/EPC with the ongoing work on *RRC_Inactive* state in the 5G system:
 - From RAN perspective:
 - RAN2 is already working on *RRC_Inactive* state for the case where 5G RAN connects to 5G Core via gNB (i.e. Options 2/4) as part of the NR study and work item
 - There is a RAN WID proposal in RAN #75 (RP-170396/97) proposing enhancement to LC for the case where 5G RAN connects to NG Core via eNB (i.e. Options 5/7)
 - It is expected that this part of the work will build on top of the LC work for LTE/EPC
 - From SA perspective:
 - SA2 has already agreed to conduct the work on 5G Core impact with dedicated SA2 meeting time (as part of the 5G Phase 1 work item)
 - It is expected that the impact to 5G Core will include both *RRC_Inactive* and its LC counterpart (for the case where 5G RAN connects to 5G Core via eNB)
- Regarding Option 3 (EPC EN-DC), it is expected that LC support will reuse the work on LC for LTE/EPC