

**Source:** RIM  
**Title:** Discussion Paper on CT work item testing  
**Agenda item:** 6.2  
**Document for:** Discussion and Decision

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## **Introduction**

CT1 has discussed a proposal for a Work Item proposing interoperability testing of CSI. This could not be agreed in CT1 because several companies had concerns about whether it was within the scope of CT1, whether CT1 had the expertise and bandwidth to develop and review test specifications and whether CSI was an appropriate work item to develop interoperability test specifications. It was also unclear even if test specifications development was within the role of CT and the current CT working groups whether such test specifications should be interoperability tests or conformance tests and what the structure and format templates for such test specifications should be. CT1 sent a liaison (CP-050110) to request TSG CT and TSG RAN to clarify this situation that asks CT and RAN the following questions:

- If interoperability test is needed
- How such testing should be done
- Where such testing should be performed

## **If interoperability test is needed**

When the discussions on Terms of Reference of TSG CT took place there was a verbal proposal to include testing under the Terms of Reference of CT but this was not agreed. It was however stated by the leadership that such testing was not precluded by the agreed Terms of Reference and that such testing would need to be agreed on a work item basis.

Previously TSG CN had not generally taken on the task of Test Specification creation within 3GPP and this work had been carried out in T1 (now RAN 5) which focused on radio and signalling conformance testing.

Our view is that if TSG CT agree that test specification creation is to be done for CT work items then at least initially 3GPP should limit the test specification development to those work items that have a lot of commercial interest driving them and are likely to be shortly deployed by many operators. As such these should be generally work items which have more than the minimum 4 supporting companies and ones in which several major operators as well as several major vendors are named as supporting companies. If there are only a handful of companies actively driving and supporting the work then those companies should be able to sort out the testing and interoperability issues amongst themselves without impacting the wider 3GPP community.

It should not be automatic that every new CT work item has a corresponding testing work item. This work must be targeted to the real commercial needs of the general 3GPP community.

As a general rule approval of test work items should not take place at the same plenary cycle as the related stage 3 work item but should be done around the time that the corresponding specification comes up for information or the work in the form of CRs is otherwise considered 50% complete. No test specification work can start until the specifications themselves are reasonably stable and also we need to see that the work is progressing, is technically feasible in the timeframe and has sufficient broadly based contributors before approving related test specification development work.

Based on the above criteria and the current status of the CSI stage 3 work the CSI work item would not yet meet the criteria for approval of a test specification development work item.

## **How such testing should be done**

We believe that if the effort and expense to develop test specifications is to be done within 3GPP then this should be Conformance testing and not Interoperability testing. Conformance testing verifies that the equipment is conformant with the specifications rather than Interoperability testing where several large vendors may be able to make off line agreements that enable them to pass interoperability test cases while not being completely compliant to the actual specifications to the detriment of smaller manufacturers and the industry as a whole. Currently 3GPP has experience of developing conformance test specifications and conformance testing can be more easily performed by those manufacturers who do not supply all the components of a functional feature.

### **Where such testing should be performed**

If such testing is to be done for CT work items then it should be done by either RAN 5 or by a new CT group set up for this purpose. It should be noted that RAN 5 has already agreed a work item for IMS UE conformance testing.

CT1 and other CT groups do not have the expertise to write such test specifications and CT working groups do not have the bandwidth to take on this additional task. In addition a major value of independent test case derivation is that the delegates writing the test cases are an independent set of eyes trying to understand the specifications and as a result they are likely to find many ambiguities in the specifications that the delegates who wrote them may well miss. Our preference is RAN 5 to take on this work but we must be mindful of not overloading RAN 5 and the view of RAN is important here. If RAN 5 is unable to take up this task then a new CT working group should be set up by TSG CT to do this work.

### **Proposal**

It is proposed that the above points are discussed and agreed as the guidelines going forward for test specification development of TSG CT work items. This decision should be communicated to CT working groups, TSG RAN and TSG SA.