

**Agenda Item:** X.Y  
**Source:** Ericsson  
**Title:** **Definition of the 'deep freezing' concept**  
**Document for:** Decision

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## **1 Introduction**

TSG RAN WG3 have proposed to introduce a 'deep freezing' concept for the TSG RAN specifications. This document tries to clarify the concept and its use.

## **2 Discussion**

Currently, corrections are included in the TSG RAN specifications in the most straightforward way, i.e. to just correct what was erroneous. This means that a new version of a signalling specification may not be backward compatible with the previous version, e.g. changes in the ASN.1 coding of an IE may change the encoding of the complete message. Hence, a correction of a function might require updates for a product not using that particular function, e.g. a correction of a TDD function might require updates to FDD only products.

Hence, at some point new CRs must consider the backward compatibility to the previous version of the specification. If backwards compatibility is important, the extension mechanisms built into the protocol could be used instead of redefining an existing IE. This solution has the drawback that it consumes more bits and hence should not be used too early, but existing products not using the function need not to be updated.

TSG RAN WG3 has proposed that specifications that have reached the stage that backwards compatibility is important could be considered as "deep frozen".

In order for TSG RAN to be able to assess the backwards compatibility problem of CRs, TSG RAN WG3 chairman has proposed that each CR to a specification that is "deep frozen" should have an analysis of the backwards compatibility aspects. If this principle is adopted, TSG RAN will have a much more clear view on the consequences of accepting a CR. Furthermore, for a deep frozen specification it is even more important that each CR to that specification is stand alone and not dependent on another CR.

## **3 Proposal**

It is proposed that the concept of "deep freezing" is adopted by TSG RAN with the meaning that every CR to a deep frozen specification should have a backwards compatibility analysis on its cover page. It is further proposed that each WG propose when a specification should be "deep frozen" to TSG RAN.