Technical Specification Group Core Network *TSGN#10(00)0629*
Technical Specification Group Radio Access Network *TSGR#10(00)0531*
Technical Specification Group Terminals *TSGT#10(00)0227*
Meeting #10, Bangkok, Thailand, 6 – 8 December 2000
Technical Specification Group Services and System Aspects *TSGS#10(00)0510*
Meeting #10, Bangkok, Thailand, 13 – 14 December 2000

Source: **MCC**
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Title: **Change Requests raising a spec to a later Release**

Document for: **approval**

Agenda Item: **CN: 12**
RAN: 9
T: 6.3
SA: 8.7

This contribution seeks to correct an omission in the documented procedures concerning the raising of a specification from version i.y.x Release N to version I+1.y.z Release N+1. The problem has persistently dogged the development of GSM specifications, and it is timely to rectify the situation before the 3rd generation specifications are similarly afflicted.

Consider a hypothetical specification 3GPP TS 34.567. It starts life in Release 1999 and undergoes a number of revisions as functionality is added and corrections made. (See figure 1.)

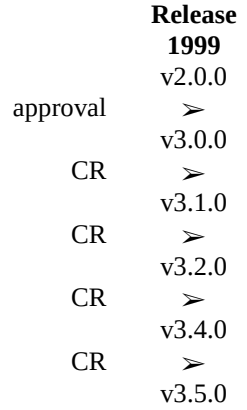

Figure 1: Release 1999 progression

At some point in time, additional functionality is identified for inclusion to meet the requirements of some feature to be included in Release 4. Thus the latest Release 1999 specification, version 3.5.0, is modified via a CR to create the first Release 4 version, 4.0.0. (See figure 2.)

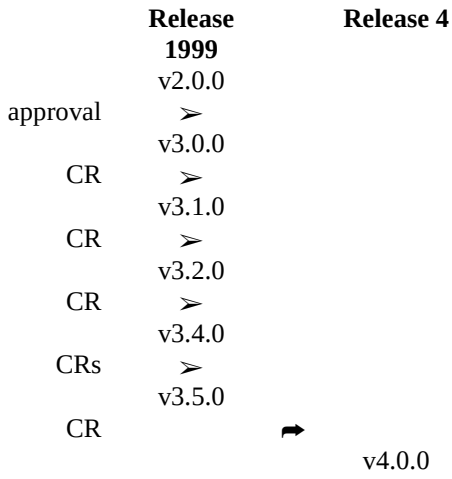

Figure 2: Creation of Release 4

Development of Release 4 continues by way of CRs to that Release's spec, and when necessary, further development of Release 1999 functionality is made by parallel CRs to both Releases' specs. Once Release 1999 is frozen, only essential corrections may be made to the Release 1999 spec, and these will generally be reflected in the Release 4 spec too. (See figure 3.)

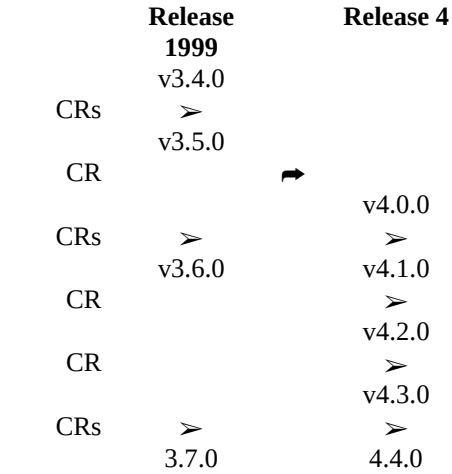

Figure 3: Parallel development of Releases 1999 and 4

It is pertinent to examine in closer detail the events depicted in figure 2, the creation of the first Release 4 version. There are two possible scenarios:

1. Approval is sought at a TSG meeting of one or more CRs to the Release 1999 version in order to create the Release 4 version. No CRs seek to change the Release 1999 version, which therefore remains unchanged. (See figure 4.) In the example shown, a CR to version 3.4.0 creates version 4.0.0. Release 1999 remains at version 3.4.0. This scenario is unambiguous and presents no problems of interpretation.

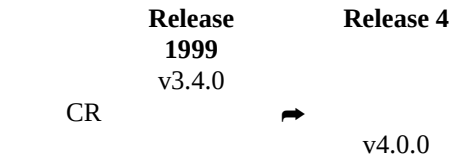

Figure 4: Creation of Release 4 with no change to Release 1999

2. Approval is sought at a TSG meeting of one or more CRs to the Release 1999 version in order to create the Release 4 version. At the same time, one or more CRs to Release 1999 are presented. If the CR to create Release 4 is drafted independently of the CR to modify Release 1999, two different interpretations are possible.

   Case 1:
   Both CRs are written to v3.4.0. The Release 1999 CR is implemented on v3.4.0 and generates v3.5.0. The Release 4 CR is implemented on v3.4.0 and generates v4.0.0. (See figure 5.) In this case, the changes of the Release 1999 CR *are not* carried over to Release 4.

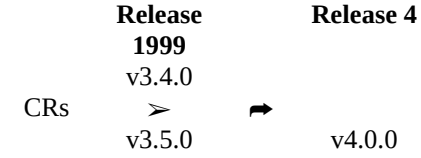

Figure 5: Creation of Release 4 with changes to Release 1999 – case 1

Case 2:
Both CRs are written to v3.4.0. The Release 1999 CR is implemented on v3.4.0 and generates v3.5.0. The Release 4 CR is implemented on v3.5.0 and generates v4.0.0. (See figure 6.) In this case, the changes of the Release 1999 CR *are* carried over to Release 4.

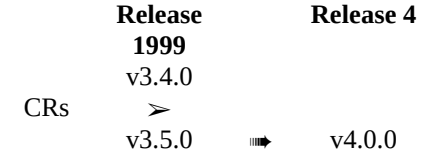

Figure 6: Creation of Release 4 with changes to Release 1999 – case 2

Obviously, the two different interpretations of the second scenario can lead to quite different Release 4 implementations. In the past, this has occasionally led to confusion, since the writers of the CRs had intended case 2 but the TSG had assumed case 1; and ultimately the Support Team member who actually implemented the CRs had to make an intelligent choice to produce the better interpretation.

In order to avoid this ambiguity, the following guidelines are proposed:

When creating CRs to the current Release and also to upgrade to the next Release, the CR cover sheet shall show the version of the specification to which the CR is to be implemented.

1. **If it is intended to carry over the CRs to the current Release into the new Release:**
   - **CRs to the current Release shall be to the latest current version in that Release.**
   - **CRs creating the new Release shall show the *next* version of the current Release: that is, the version resulting from the implementation of the CRs to the current Release.**
2. **If it is intended not to carry over the CRs to the current Release into the new Release:**
   - **CRs to the current Release shall be to the latest current version in that Release.**
   - **CRs creating the new Release shall show the *current* version of the current Release: that is, the version prior to the implementation of the CRs to the current Release.**

Since each specification has a single Working Group which is primarily responsible, it is the responsibility of that WG and its Support Team member to ensure that CRs are drafted accordingly.

In the rare circumstances that the TSG approves the CRs creating the new Release version, but rejects the CRs to the current version, it will be necessary to implement the approved CRs to the current Release current version. If time permits, revised documents shall be presented to the TSG; in any case, the meeting report shall note the situation, and the details entered into the CR database shall reflect the implementation actually performed rather than that originally intended by the responsible WG.

The TSGs are requested to agree to the above proposal, and to instruct their working groups to draft CRs accordingly. This method of working would operate from TSGs#11 onwards.

A similar proposal will be made to TSG GERAN.

The TSGs are remiinded that they must take explicit decisions to upgrade all relevant specifications from Release 1999 to Release 4, even if no functional changes are required. This decision must be taken at the time Release 4 is frozen; the present target is March 2001, thus the decisions are required at TSGs#11.