Technical Specification Group Services and System Aspects *TSGS#8(00)0477*
Meeting #9, Kapolei, Hawaii, USA, 25-28 September 2000

3GPP TSG SA Work Planning Meeting   **Tdoc AHR00-0028**
Helsinki, 22 -23 August 2000

Source: **SA R00 Planning Ad-hoc**
Title: **Draft Principles of 3GPP Work Planning - Release Mechanisms**
Document for: **Discussion and decision**
Agenda item: **3**

1 Introduction

It is important that the 3GPP release structure provides a sound basis for implementations and equipment interoperation. Key principles are important to ensure this:
* A release shall consist of a well-defined, stable and internally consistent set of functions
* A release shall be documented in a maintained, consistent stream of specifications
* Essential corrections to a stable or frozen release shall be included in the applicable release
* New or changed functionality shall be included in new (rather than retrospectively in old) releases

1.1 Well Defined Functions

If the functions in the release are not well defined or not internally consistent this will lead to specifications that are cannot be used as the basis for implementing a valid system. Therefore this principle needs to be adhered to. To continue the success of GSM it is key to achieve interoperability (e.g. roaming) between the different "instantiations" of the 3GPP system.
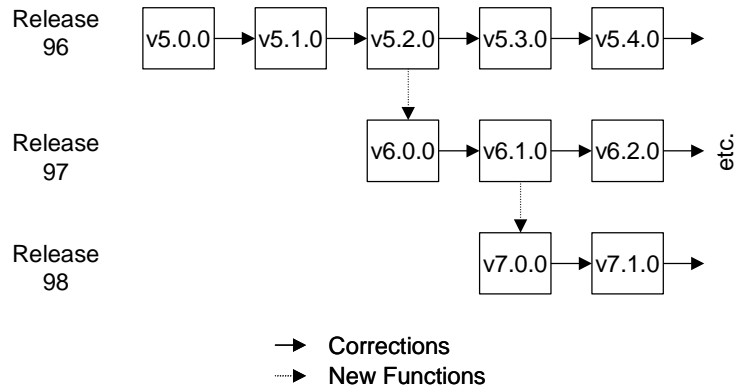
1.2 Corrections Applied to the Release

Each release should be consistent and implementable to ensure interworking (as discussed above). This means that essential corrections should become normative parts of the release as soon as possible. If essential changes are put in a new release then this means that the previous releases contain uncorrected mistakes – making them invalid. Therefore each release should be maintained to allow essential corrections.

1.3 New Functions

Including new functions in old releases destabilises them and creates interoperability problems. Therefore new functions should be included in the release(s) currently under development rather than in old releases.
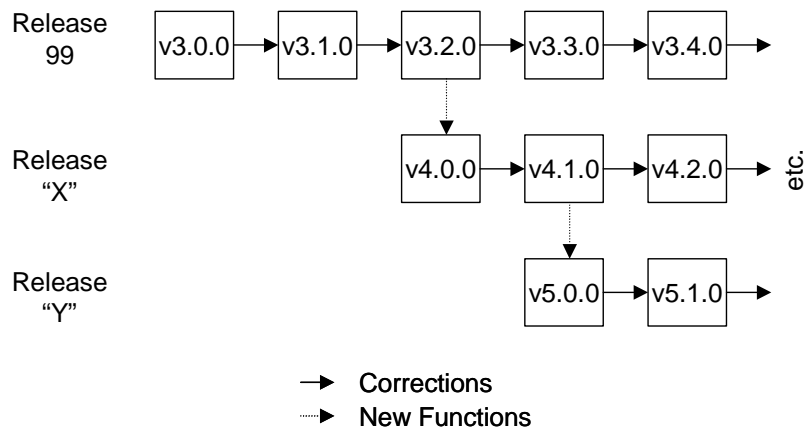
2. Application

The figure below shows the current organisation of GSM releases. This adheres to the principles outlined above. Each annual release leads to a maintained specification stream that allows corrections to be included in the release.

Release 96   v5.0.0 → v5.1.0 → v5.2.0 → v5.3.0 → v5.4.0 →

Release 97   v6.0.0 → v6.1.0 → v6.2.0 → etc.

Release 98   v7.0.0 → v7.1.0 →

→ Corrections
┅► New Functions

GSM Release Organisation

As this proven approach meets the principles outlined it is proposed to adopt it at the basis for 3GPP, but with the possible modification of the annual release concept to allow more flexibility in release timing. This is illustrated below.

Release 99   v3.0.0 → v3.1.0 → v3.2.0 → v3.3.0 → v3.4.0 →

Release "X"   v4.0.0 → v4.1.0 → v4.2.0 → etc.

Release "Y"   v5.0.0 → v5.1.0 →

→ Corrections
┅► New Functions

Proposed 3GPP Release Organisation

2.1 Release Naming

It is proposed that 3GPP de-couple the release naming from the calendar linking to the year/date as it is today. It is proposed to align the release name with the specification version number e.g. The next Release = R4.[1]

3 Release mechanisms

It is further proposed to entirely control the 3GPP work program via a work plan, which is independent of releases and covers future work.

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[1] It is not recommended that the terms "major and minor" for releases be officially introduced. For example not all Operators and Manufactures will have the same view as to what is major or what is minor.

The work plan for a certain work item should always contain reference to the need of addressing charging, Q&M, security and testing issues and, if so, its progress.

Therefore approved work items[2] introduced into the plan are given calendar target dates and not particular Release target dates. These "calendar" Work item target dates will need to monitored and adjusted as work and knowledge about the work item progress. For this purpose reasonable milestones shall be defined.

The work plan calendar should then also indicate planned future release dates with reasonable frequency to allow for stability, e.g. approximately every 12 months, depending on whether there would be enough completed work to justify the issue of a release.

The content of each release could then be easily deduced from the work plan, i.e. those items scheduled for completion by the closing day for the release being included in that particular release, a 3GPP Road Map.

The definition of the content of a release could then be based upon the work plan, with a review of the release content starting approximately 6 - 9 months before the initial predicted closing date of the release. Work Items not completed at the chosen closing time of the release are not included in that particular release[3]. Maintaining the closing date of a release is priority. Only when it is identified that no substantial new features would be available at the target date, shifting the date should be considered an option. Some "red flagging" mechanism for work items not ready in time should be installed.

In addition, independently of the actual release date, upon completion of a particular Work Item, the Work Item is frozen, denying any further functional change on the completed work item, permitting only essential technical corrections. (Note: exceptionally, CRs other than pure technical corrections may have to be permitted by the TSGs to allow for interactions from ongoing Work Items within the same release). This helps stabilise the specifications and the availability of the draft new release versions of the specifications can assist companies wanting to start developing the new features.

This then minimizes any drawback of Features being pushed to the next release. In terms of specifications and documentation, this would correspond to what is today available after each round of TSG meetings, in terms of the latest version of specifications and the Specification Status list. Frozen work items shall be reflected in the status lists, work-plan and will be included in the next specification release.

TSG SA are asked to endorse the following points:

- The principles discussed in section 1
- The principle described in section 2 as "Proposed 3GPP release organisation" for handling documents
- Extend and maintain the work plan to include items beyond what so far has been known as R00.
- Release mechanism principles discussed in section 3

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[2] The term Work Item used here is generic and can mean or Feature, Building block or Work Task, however, in this context it generally relates to Features.
[3] When deciding whether a Feature is considered complete or not, it may be necessary to make allowances that test and O&M specifications for the feature are not fully complete, but that they will be fully included as a part of the release when completed.