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Title: The need for 3GPP long-term evolution
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Introduction

The Scope and Objectives for 3GPP identify the need for 3GPP to plan for future evolution. – “2.3 3GPP shall consider the long term evolution”. This is to ensure that the 3GPP-specified system continues to be comprehensive and competitive, meeting predicted market needs and leveraging off appropriate, emerging technologies. Accordingly there has always been an agenda item at each SA plenary – “8.9 - Beyond Release 5 and/or Current work plan (Vision, Phasing, New Technology, etc.)” but to date there has been little / no input.

Over the last year a number of bodies have begun to address the longer-term evolution of 3G or “systems beyond 3G” and are now beginning to “go public”. Consequently 3GPP needs to build on the output from the Helsinki (2001) workshop and develop its own view for long-term evolution. This should align future work with that view, ensuring that the 3GPP-specified system continues to be evolvable and competitive.

The need for 3GPP to address a long-term evolution

The GSM system has evolved over the last 10 years such that its current capabilities far surpass those envisaged in the late 1980’s. Even while the initial GSM networks were being deployed in the early 1990’s, plans were being made to enhance GSM to ensure its competitiveness and longevity. Many “3G-like” capabilities have now been added to the original system to ensure that it remains a competitive system for the foreseeable future. Even before the deployment of GSM the ITU was already addressing IMT2000 (or “FPLMTS”, as it was then named) and other 3G groups / organisations were set up in the mid-1990s to research and define 3G. The work of the 3GPP has been progressed as a result of the expertise gained in developing and deploying GSM, coupled with relevant new technologies to meet market needs.

The 3GPP-specified system is now in a similar situation as GSM was in the early 1990s, with R99-based networks now being deployed. The next releases (R5, R6) will enhance the capabilities and performance of the system to ensure its near-term competitiveness (i.e. within the 2005-7 timeframe?). However, already the ITU and other organisations are discussing “systems beyond IMT2000” in terms of potential services, spectrum requirements and emerging technology. The World Radio-communications Conference 2000

(Istanbul) was instrumental in “kicking this off” and now there are an increasing number of standards bodies, forums and R&D projects considering “3G+”, e.g. ITU, Japan-Korea government initiative announced a few weeks ago, European Commission IST projects, WWRF, 3GPP2.

3GPP needs to define a long-term evolution (2005-2010?) in the form of further possible enhancements, which can leverage off emerging technologies and technological trends, to ensure that the system continues to be competitive meeting its customer’s needs. This should also act as a focus to facilitate consolidating the longer-term needs of the Market Representation Partners and the results of relevant R&D projects into the current specifications. However, in defining the long-term evolution, 3GPP should not be deflected from completing the nearer term work programme on schedule.

Proposed way forward

An ad-hoc group (AHG) should be established reporting to SA with the mandate to draft by TSG SA#17 (September) an initial version of a long-term vision (beyond Release 5 and/or Current work plan) (2003-2010?) along with the required standardisation path in 3GPP. The group shall report its progress to TSG-SA#17 under agenda item 8.9.

TSG SA#17 should then determine how this document should be maintained and enhanced in the future.

Membership of the AHG should be those delegates who wish to actively contribute to the work of the AHG. It is important that this activity does not detract from the need to progress the specification of R5 and R6 to agreed schedules.

3GPP TSG SA will report this initiative to 3GPP PCG.