

Source: TSG CN and TSG RAN Chairmen

Title: Harmonisation process within TSG CN and TSG RAN

Agenda item: 3.1

Document for:

Decision	
Discussion	
Information	X

The harmonisation process from a Radio Access perspective correspond to a requirement from ITU R WP8/F. This group of ITU-R required that all proponents providing submission to the IMT 2000 process were requested to look at harmonisation during the review and completion of the study on the proposed candidate for IMT 2000.

In the meantime a group of operators together with the main manufacturers pushed for harmonisation of the proposed candidate and resulted in some parameters harmonisation such as the bandwidth and the chip rate. This was endorsed and beginning of 1999 the new parameters were introduced inn the relevant proposal to ITU-R. The result was not exactly the use of the same values for the parameters but more values that allows manufacturers to be bale to use the same physical components. This was determine between the proposal for CDMA 2000 3X on one side and W-CDMA and TDD.

In August 1999 a first workshop for the harmonisation was organised by 3GPP in ETSI premises to study Hooks and Extensions required by the possibility to connect a 3GPP Radio Access Network to a CDMA 2000 Core network. During this meeting several modifications were identified to allow this possibility. The hooks were immediately introduced in 3GPP specification and was mainly concerning the indication of the type of Core network the Radio Access network was connected to. Few extensions were also identified.

This workshop was followed a week later by another one organised by 3GPP2 to perform the same exercise when looking at connection of a 3GPP2 Radio Access network to a GSM core.

During year 2000 ITU-R WP8/F sent a new request to further harmonise the two systems and in November 2001 an ad hoc 3GPP/3GPP2 was organised in New Brunswick to consider what could be done. This resulted in a proposal that was presented to the 3GPP TSG meeting for endorsement prior to approval by correspondence by the PCG. A similar activity took place within 3GPP2 at the steering committee level. As a reminder this decision is attached as annex 1 to this documents.

From the core network harmonisation perspective the process was a bit different. But this also result from the first harmonisation workshops hold in 1999 (end of August beginning of September).

Following several requests from the OHG group to further harmonise the core network aspects, OHG together with MWIF organised a workshop in Toronto in April to look at potential harmonisation for the All IP option under study within 3GPP. During this workshop it was highlighted that the work within 3GPP2 was a bit behind of the work done within 3GPP. It was identified by the companies attending this

workshop that the best way forward would be to re-use as much as possible the work done in 3GPP as a basis for the work in 3GPP2.

The involved companies wrote a letter to PPs proposing to endorse the way forward and additionally proposing the creation of a specific group in charge of the study for a long term activity.

Following some discussion at the PCG level this way forward was endorsed but it was felt more appropriate to handle the modification to be brought to the 3GPP specification within 3GPP with the support of 3GPP2 experts.

Annex

3GPP/3GPP2 HARMONIZATION MEETING**13-14 NOVEMBER 2001****EAST BRUNSWICK HILTON HOTEL IN EAST BRUNSWICK, NJ****OUTPUT STATEMENT**

During the period of 13-14 November 2001, representatives of 3GPP and 3GPP2 met at the East Brunswick Hilton hotel to consider issues and options associated with harmonization of HSDPA and 1xEV-DV. The entire first day of this meeting was spent exchanging information on status and technical design of the two (2) technologies. During the second day, the following concepts were developed, by consensus of the group, to propose to each organization as a feasible and recommended strategy for approaching the issue of harmonization:

- Areas of harmonization that could be pursued include the following:
 - Common user and system services
 - Common spectrum allocation (being addressed by WRC)
 - Common core network (All IP - also addressed in other fora)
 - Common hardware design requirements for new features for the Access Terminal/User Equipment.
- The group agreed that the expertise of 3GPP and 3GPP2 could be best utilized by focusing on harmonization of hardware design requirements for new features for the Access Terminal/User Equipment. The benefits expected to be achieved by this activity are summarized as follows:
 - Terminals would have more commonality in their hardware platform for both technologies.
 - Economies of scale could be maximized by the use of common components wherever possible.
- The group stressed that these are long-term goals and must not impact any current activities (e.g., the release of current standards to meet ITU-R WP 8F timelines). In addition, there was a suggestion that, based on the fact that the two (2) groups have different processes and procedures in place, working together is an effort that should start with small, achievable objectives that will build over time as the working relationship gets stronger.

RECOMMENDATIONS FROM THE MEETING:

- Following the above considerations, it is therefore proposed that the first issues to be considered shall be the following:
 - Common definition for channel models (e.g., spatial propagation)
 - Common definition for traffic models
 - Common physical requirements for terminal design particularly for future development (e.g., MIMO (multiple input multiple output) antenna technology).
- In order to smoothly introduce the common work, the following process is proposed:
 - An exploder shall be established for the 3GPP TSG RAN and 3GPP2 TSG-C Leaders to provide a means to exchange information on work programs between the two TSGs. As far as possible, reporting from both sides on the progress of the work shall be established. The long-term goal of this activity is to appoint rapporteurs in both directions.
 - A first meeting between the relevant working groups will be scheduled at the beginning of 2002 to develop the common models.
 - In addition, a follow up meeting of 3GPP TSG RAN and 3GPP2 TSG-C representatives is scheduled to review the progress of the work. A tentative date for this meeting has been set for 28 June 2002 in Italy. The meeting will be hosted by 3GPP.