3G **3RD GENERATION PARTNERSHIP PROJECT 2 "3GPP2"**

TSG CORRESPONDENCE

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Mr. Adrian Neal

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RE: 3GPP LS Titled "Mobility interworking between 3GPP and 3GPP2 systems"

Dear Mr. Neal,

3GPP2 TSG-S thanks 3GPP TSG SA for their correspondence regarding mobility interworking between 3GPP and 3GPP2 systems. 3GPP2 welcomes the opportunity to provide interworking requirements to 3GPP.

3GPP2 is in the process of finalizing the specification of the Systems Requirements Document (SRD) for Network Evolution for 3GPP2 Networks. A pre-publication copy of the SRD (S.P0121) is attached for your information. 3GPP2 has similar performance enhancements, interworking and mobiliy requirements as that defined for 3GPP long term evolution. The evolved 3GPP2 network is intended to focus on reducing network complexity, simplifying the associated architecture, and improving interoperability across different access technologies (including non-3GPP2 systems).

In order to provide an expeditious response to your questions, 3GPP2 has identified the following requirements on interworking scenarios and mobility between 3GPP2 and 3GPP systems:

1) If known, with which of the 3GPP radio access systems (e.g. LTE, WCDMA, TDS-CDMA, GSM/GPRS/EDGE) is mobility interworking required?

2) If known, with which of the 3GPP2 radio access systems is mobility interworking with 3GPP radio access systems required?

[Question 1 and 2 are answered together]

The current 3GPP2 mobility interworking priorities as identified by some operators are:

- Interworking between cdma2000 1xRTT Revision A and LTE

- Interworking between cdma2000 HRPD (1xEV-DO) Revision A and LTE for best effort and real-time applications

- Interworking between cdma2000 HRPD (1xEV-DO) Revision 0 and LTE for best effort applications

The interworking options for Ultra Mobile Broadband (UMB) with non-3GPP2 wireless systems are being evaluated.

3) Is there a preference for handover direction or is the requirement for equal performance in both directions (i.e. bidirectional handover)?

3GPP2 preference for 3GPP handover requirements are:

- Bidirectional handover (PS/CS) between LTE and cdma2000 1xRTT Revision A, although handover from LTE to cdma2000 1xRTT Revision A should have the higher initial priority

- Bidirectional handover between LTE and cdma2000 1xEV-DO (HRPD) Revision A for real-time and best effort applications

- Bidirectional handover between LTE and cdma2000 1xEV-DO (HRPD) Revision 0 for best effort applications

4) If available, are you able to provide an expected timeline for completion of this activity from a 3GPP2 perspective?

- The 3GPP2 desire is for 3GPP to include support for the listed 3GPP2 priorities in 3GPP Release 8.

5) Is tight coupling with 3GPP systems required (e.g. mobility based on approaches transparent to the UE such as GTP or PMIP, because the multimode 3GPP/ 3GPP2 technology terminal to be used in the intersystem operation is expected to be single radio) or is a loosely coupled approach to intersystem mobility sufficient?

- 3GPP2 is presently working with the assumption that a multiple access device (e.g., a device capable of accessing both LTE and cdma2000) will be a single radio device. As such, tight interworking is required in order to allow for seamless mobility for both real-time and best effort applications.

6) What is the expected interruption time for handover between the technologies?
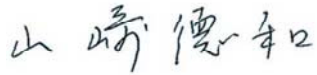
- Presently, we understand that 3GPP target handoff interruption goal for real-time services is <300 ms and for non-real-time services <500ms (which are listed in 3GPP TR 25.913). Some 3GPP2 operators consider these as reasonable targets.

We look forward to future close collaboration with 3GPP for interworking requirements and development. For your information, dates of future 3GPP2 meetings are:

- 14-18 May 2007, San Diego, CA, USA

- 18-22 June 2007, Kunming, China

- 23-27 July 2007, Calgary, AB, Canada

- 27-31 August 2007, Montreal, PQ, Canada

- 8-11 October 2007, Long Beach, CA, USA

Please forward this correspondence to the following 3GPP groups: SA1, TSG RAN, and TSG GERAN

Regards,

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Attachment
    S.P0121 Systems Requirements Document (SRD) for Network Evolution for 3GPP2 Networks