IEEE 802.16 Working Group on Broadband Wireless Access

http://WirelessMAN.org

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Gregory Schumacher, 3GPP TSG SA Liaison Contact

Dear Mr. Schumacher:

Thank you for your recent liaison statement SP-070249 (which we have numbered IEEE L802.16-07/022) on "Mobility interworking between 3GPP and WiMAX systems." The IEEE 802.16 Working Group appreciates this information and the interest of 3GPP TSG SA in the views of IEEE 802.16 regarding interworking scenarios with 3GPP systems.

In general, the 802.16 Working Group believes that interworking of IEEE 802.16 and 3GPP systems is of significant interest. The 802.16 WG supports the activities of the IEEE 802.21 Working Group in its development of a media-independent handover standard and believes that a media-independent approach is the best route to successful interworking. Therefore, we are forwarding your statement to the 802.21 Working Group with the suggestion that it may wish to provide further information to you.

With regard to your specific questions:

1. *Q: If known, with which of the 3GPP radio access systems (e.g. LTE, WCDMA, TDSCDMA, GSM/GPRS/EDGE) is mobility interworking required?*
   A: We believe that interworking with all 3GPP radio access systems is important, consistent with IEEE 802.16 support of the IEEE 802.21 media-independent approach to handover.

2. *Q: If known, with which of the WiMAX radio access systems is mobility interworking with 3GPP radio access systems required?*
   A: We believe that interworking is important for the current 802.16 standard (including the amendment IEEE 802.16e-2005) as well as for future generations of the standard (including that to be specified in the ongoing 802.16m project).

3. *Q: Is there a preference for handover direction or is the requirement for equal performance in both directions (i.e. bidirectional handover)?*
   A: Handover in both directions with equal performance is important.

4. *Q: If available, are you able to provide an expected timeline for completion of this activity from a WiMAX Forum and IEEE 802.16 perspective?*
   A: We have not established a particular time requirement for interworking specifications but look to the P802.21 for direction.

5. *Q: 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/ WiMAX 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?*
   A: Regarding the optimal nature of the coupling, we refer you to the 802.21 Working Group.

6. *Q: What is the expected interruption time for handover between the technologies?*
   A: In 802.16, we intend to minimize handover time to address real-time applications. We have not set specific targets. For intertechnology handover targets, we would again refer you to the 802.21 Working Group.

In regard to your request that IEEE 802.16 consider the required interworking scenarios between WiMAX and 3GPP systems and provide this input to 3GPP TSG SA WG1 together with the expected timeline, we refer you to 802.21 for response on this matter.

Please inform us, and the 802.21 Working Group, of your deliberations and progress on this issue.

Sincerely,

Roger B. Marks
Chair, IEEE 802.16 Working Group on Broadband Wireless Access

cc: Vivek Gupta, Chair, IEEE 802.21 Working Group
Ron Resnick, President, WiMAX Forum
Paul Nikolich, Chair, IEEE 802 Executive Committee