IEEE 802.16 Working Group on Broadband Wireless Access
http://WirelessMAN.org

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To: Dan Pitt, Executive Director, Open Networking Foundation

Subject: Views of IEEE 802.16 Working Group regarding Wireless OpenFlow

Dear Dr. Pitt,

The IEEE 802.16 Working Group (WG) would like to update the Open Networking Foundation as a follow up to its prior statement of 16 May 2013 (IEEE 802.16-13-0116-01-WGLS). The WG continues to be interested applying OpenFlow to the control of 802.16r, which we are developing to address backhaul of small cells providing services such as cellular and Wi-Fi. We also envision an OpenFlow controller selecting from among multiple 802.16 connections, even selecting from among a set of various available transport technologies, below Layer 2 and therefore without requiring updates to port switching tables. We currently believe that OpenFlow 1.3.2 could be applied to the situation, through the use of fields such as those specifying output queues and logical ports. However, we believe that further investigation is warranted to determine whether adding an additional OpenFlow field, specifying a connection identifier, could improve the operation.

We have provided a set of slides to summarize the architectural issues (see IEEE 802.16-13-0156-00-Gdoc).

We would like to encourage cooperation between our organizations to further the development of wireless standards to complement OpenFlow. We hope to learn more about your possible interest in pursuing a liaison relationship and your thoughts on the technical issues. Our next face-to-face meeting will occur at our Session #88 (11-14 Nov 2013 in Dallas, TX, USA), but we plan a set of teleconference meetings in the interim. Also, note that we anticipate a tutorial session on Wireless SDN for the evening of 12 November and wonder whether one of your participants might be available to present a segment of the program. For additional details, see IEEE 802.16-13-0157-00-Gdoc.

Further information about the P802.16r activities is available at <http://wirelessman.org/scb>.

Sincerely,

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

cc: Paul Nikolich, Chair, IEEE 802 Executive Committee
        Christos Kolias, Chair, Wireless-Mobile Discussion Group, ONF