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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**<http://ieee802.org/16>**>** |
| Title | **Directions for IEEE 802.16’s Metrology Study Group** |
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| Source(s) | Authors Names: Michael Janezic, Nada Golmie, Dereck OrrAffiliation: National Institute of Standards and Technology (NIST) | Authors’s e-mails: michael.janezic@nist.gov, nada.golmie@nist.gov, dereck.orr@nist.gov |
| Re: | Solicitation of input contributions by IEEE 802.16’s Metrology Study Group <<http://ieee802.org/16/sg/met>> for IEEE 802.16’s Session #79 of 14-17 May 2012. |
| Abstract | This contribution expresses interest in the Metrology Study Group, requests its extension, and requests clarification of its expectations toward its follow-up meetings in July. |
| Purpose | This contribution requests that the Metrology Study Group develop plans for the remainder of 2012 and publish details regarding documentation to be submitted toward it follow-up meetings in July. |
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Directions for IEEE 802.16 Metrology Study Group

Michael Janezic, Nada Golmie, Dereck Orr

National Institute of Standards and Technology (NIST)

The National Institute of Standards and Technology (NIST), a non-regulatory federal agency within the U.S. Department of Commerce, is focused on promoting U.S. innovation and industrial competiveness by advancing measurement science, standards and technology. The NIST Laboratories, which conduct world-class research, work closely with industry and other government agencies to advance the technology in areas, such as mobile broadband wireless, that are critical to the nation’s infrastructure. Specific NIST Laboratories and Programs that are active in this particular area include:

Information Technology Laboratory (ITL) – This laboratory has research programs that work with the networking industry to improve the quality, reliability, resilience, robustness, manageability, security, and interoperability of networked systems. As part of the nation's Metrology Laboratory, ITL conducts performance analyses and develops metrics, models, tools, and reference data for emerging and mobile network technologies, and promotes these technologies through reference implementations, test beds, guidelines, and standards. The development of standard metrology is a key enabler to expediting the development and deployment of mobile broadband systems, it is also an integral part of ITL’s mission.

Physical Measurement Laboratory (PML) – The laboratory has specific projects that are developing the metrology that would enable industry to characterize the complex, high-speed data signals employed in advanced communications networks as well as develop techniques for accurately measure the electrical behavior of devices used in communication systems.

Public Safety Communications Research Program (PSCR) – This program provides the public safety community with the performance metrics and analysis tools needed to better understand and use emerging and mobile network technologies. PSCR aims at defining common performance metrics and modeling approaches to facilitate comparisons of network scenarios and deployments, in addition to providing insights on the performance trends and trade-offs and identifying key factors that affect performance.

A major consideration for prioritizing future research for these programs is the potential impact on industry. Therefore, we are interested in the developments within the Mobile Broadband Metrology Study Group, as it may provide some insight on the current and future technical needs of the mobile broadband industry. However, given the large scope of the proposed Study Group, we realize that it may take longer to define specific projects, so we hope that the Study Group will be extended past its original July termination period and remain open to contributions on new topics at least through December. In addition, it would be useful if the Study Group could communicate its expectations for contributions to the July session.