Next Directions for IEEE 802.16 Working Group

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*http://standards.ieee.org/faqs/affiliationFAQ.html

Re:

Unsolicited contribution intended for Project Planning Committee.

Base Contribution:

None

Purpose:

To instigate discussion regarding next steps for the IEEE 802.16 Working Group, and to propose two Study Groups.

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802.16 WG Status

- Six projects in development
- All six are in ballot
  - Four projects nearly complete
    - Could be approved in June
  - Two projects likely wrapping up later this year
- WG attendance is off sharply
- What direction for IEEE 802.16 WG?
  - Prepare for hibernation?
  - Plan for or new work?

IEEE 802 Policies And Procedures: Hibernation

5.1.1 Deactivation of WGs

- If a WG has no active PARs, and is not actively developing a new PAR, then it should be considered to either be placed in hibernation (if it has developed standards or recommended practices in the past that are still current), or disbanded (if it has no current standards or recommended practices)

5.1.1.1 Hibernation of a WG

- A WG can be hibernated at the request of the WG chair and the approval of the Sponsor. The hibernating WG can be returned to active status by the Sponsor in order for the working group to develop a new PAR.

Need for ongoing maintenance

- Standards may need revision and maintenance
- Standards have been adopted by ITU-R
  - IMT-2000 and IMT-Advanced, which are updated annually in an administratively-intensive process.
  - Working Group would need to remain at least somewhat active in order to support IMT maintenance process.
  - It might be possible for a hibernating WG to support maintenance.
  - If underlying standards do not change, the next for input to ITU-R would be minimal, but some communication with ITU-R is recommended.

New Standardization Possibilities

(1) Evolution of existing air interfaces

(2) New generation air interface technology

(3) Something else

New Standardization Possibility #1: Evolution of existing air interfaces

- Existing air interfaces can always be refined:
  - Technical improvements
  - Modifications to address new environments
- The existing air interfaces have stakeholder communities
  - Operators and vendors
  - WiMAX Forum, ARIB, TTA
- Stakeholders will approach WG with proposals for new work
  - WG need not instigate stakeholders to act

New Standardization Possibility #2: New generation air interface technology

- 802.16 has shown itself to be an excellent venue for standardization of pioneering technology.
- Other venues may be more linked to practical near-term deployment issues.
  - Cellular industry may not require a new generation of technology for many years.
- 802.16 could be a home for early next-generation standardization activities.
- It appears that industry is not quite ready yet.

New Standardization Possibility #3: Something else

- "The IEEE 802.16 Working Group on Broadband Wireless Access Standards develops standards and recommended practices to support the development and deployment of broadband Wireless Metropolitan Area Networks."
- What kind of standards would be useful now to support the development and deployment of broadband Wireless Metropolitan Area Networks?
- Below are proposals for two Study Groups, with the suggestion to initiate both during Session #78 in time to meet during Session #79.

New Standardization Suggestion: Characterization Standards

- Many types of broadband wireless networks are deployed or in planning, including many 802.16 air interface variations.
- Theoretical evaluation methodologies are reasonably well established, primarily through IMT-Advanced process.
- It is not certain how well the theoretical evaluation processes govern actual practice.
- Include device and network performance, including conformance measurement.

Proposed WG Study Group 1: BWA Metrology

- Metrology: measurement science
- Consider the development of standards and/or recommended practices on measurement procedures to characterize Broadband Wireless Access operation and device conformance.

Proposal 1: Metrology Study Group

- Proposal:
  - To initiate the IEEE 802.16 WG Study Group on Broadband Wireless Access Metrology.
- Meet at Session #79.

Proposed WG Study Group 2: Heterogeneous Networks

- PPC has shown an interest in Hierarchical Networks
- Hierarchical Networks are generally heterogeneous
- Operation in a Heterogeneous Network has implications for WirelessMAN air interfaces
- Heterogeneous Networks will not be limited to WirelessMAN air interfaces alone.
  - Discussions could be of interest to other WGs
  - Could lead to activity elsewhere in 802.

Proposal 2: HetNet Study Group

- Proposal:
  - To initiate the IEEE 802.16 WG Study Group on the WirelessMAN radio interface in Heterogeneous Networks.
- Meet at Session #79.