



|                              |   |   |
|------------------------------|---|---|
| Project                      | <b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >  |   |
| Title                        | <b>Draft minutes of TG2 and Coexistence Study Group at Session #13 of IEEE 802.16</b>   |   |
| Date Submitted               | <b>2001-05-17</b>   |   |
| Source(s)                    | Philip Whitehead<br>Radiant Networks Plc<br>The Mansion, Chesterford Park<br>Little Chesterford, Essex CB10 1XL<br>UK   | Voice: +44 1799 533600<br>Fax: +44 1799 533601<br><a href="mailto:pw@radiantnetworks.co.uk">mailto:pw@radiantnetworks.co.uk</a> |
| Re:                          | Draft minutes of TG2 and Coexistence Study Group  |   |
| Abstract                     | Minutes of TG2 Coexistence Study Group meeting at IEEE 802.16 Session #13   |   |
| Purpose                      | To provide a record of the meeting.   |   |
| Notice                       | This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.  |   |
| Release                      | The contributor grants a free, irrevocable license to the IEEE to incorporate text contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.  |   |
| Patent Policy and Procedures | <p>The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) &lt;<a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a>&gt;, including the statement "IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard."</p> <p>Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair &lt;<a href="mailto:r.b.marks@ieee.org">mailto:r.b.marks@ieee.org</a>&gt; as early as possible, in written or electronic form, of any patents (granted or under application) that may cover technology that is under consideration by or has been approved by IEEE 802.16. The Chair will disclose this notification via the IEEE 802.16 web site &lt;<a href="http://ieee802.org/16/ipr/patents/notices">http://ieee802.org/16/ipr/patents/notices</a>&gt;.</p> |   |

## **Draft minutes of TG2 and Coexistence Study Group at Session #13 of IEEE 802.16**

*Philip Whitehead  
Radiant Networks Plc*

The meeting was called to order at 08.05 on Monday 15<sup>th</sup> May 2001

- (1) The draft minutes of the TG2 and coexistence study group meetings of session #12 were accepted without amendment.
- (2) The timetable for the week was agreed.
- (3) TG2 chair gave a short update of the status of IEEE 802.16.2-2001. There being no actions required, other than a motion in the final plenary to approve submission to Rev Com, the meeting moved on to discuss study group issues.
- (4) A detailed scope statement was prepared for the two new topics proposed for inclusion in the PAR. This statement was subsequently edited to a shorter form for inclusion in the PAR itself. The more detailed scope statement is recorded here as a basis for planning future project work that may be undertaken once the PAR is approved:

### Topic 1

Two types of point to point system will be considered - those used by fixed BWA operators either for access or for self - provided backhaul, and those used as individually assigned links, commonly licensed on a "first-come, first-served" basis. It will address three areas. Firstly, it will recommend limits of in-band and out-of-band emissions from fixed BWA transmitters by proposing parameter values for radiated power, spectral masks and antenna patterns. Secondly, it will recommend receiver tolerance parameters including tolerable noise floor degradation resulting from received interference. Thirdly, it will provide coordination trigger parameters based on distance and power flux density. The study will include interference between systems deployed across geographic boundaries in the same frequency band and systems deployed in the same geographical area using different frequencies. The study will not cover coexistence issues due to intra-system frequency re-use within an operator's licensed band, nor does it consider the impact of interference created by fixed BWA systems on non-BWA terrestrial or satellite systems.

### Topic 2

In the work on coexistence of multipoint systems in the 2-11 GHz frequency range, propagation and interference characteristics are significantly different from those in the 23.5 to 43.5 GHz frequency range that was the focus of the original Recommended Practice. This topic will address three areas. Firstly, it will recommend limits of in-band and out-of-band emissions from fixed BWA transmitters by proposing parameter values for radiated power, spectral masks and antenna patterns. Secondly, it will recommend

receiver tolerance parameters including tolerable noise floor degradation resulting from received interference. Thirdly, it will provide coordination trigger parameters based on distance and power flux density, to enable successful deployment of fixed BWA systems with tolerable interference levels. The study will include interference between systems deployed across geographic boundaries in the same frequency band and between systems deployed in the same geographic area using different frequencies. The impact of regulatory measures on interference between fixed BWA systems and other services will also be considered. The study will not cover coexistence issues due to intra - system frequency re-use within the operator 's licensed band and will not extend to specification of sharing etiquettes that involve modifications to the PHY/MAC of systems.

- (5) A draft timeline was prepared. This is available as an Excel spreadsheet. It indicates that topic 2 is on the critical path and therefore it should be a priority to find resources for this part of the project.
- (6) David Chauncey provided information on coexistence activities of other groups within 802. This was used to prepare part of a presentation for the scheduled joint TG3 and study group session on Thursday.
- (7) A completed draft of the PAR was prepared and used as part of the presentation in the joint session with TG3.
- (8) On Thursday 18<sup>th</sup> May, two joint sessions were held, one with TG3 Mac and one with TG3 PHY. The key points arising were: -
  - No significant issues were raised concerning the draft PAR
  - Resources for the second new coexistence topic on 2-11 GHz systems will be critical
  - A system model must be agreed with TG3 for coexistence purposes as early as possible in the new project
  - A further call for contributors of simulation tools will be necessary as available sources will not cover all the scenarios to be analysed for the 2-11 GHz frequency range.
- (9) The study group completed a new document containing responses to the "five criteria" in case this is required for the PAR submission.
- (10) It was agreed to submit to the closing plenary the following documents:
  - The draft PAR
  - The timeline
  - A closing report (Powerpoint presentation)
  - Motion to approve the PAR for forwarding to 802 Ex Com
- (11) The meeting was adjourned at the end of the Thursday 18<sup>th</sup> May session