IEEE 802.16 TG3: Possible Strategies for the development of the PHY layer

This document presents several possible strategies for the development of the PHY layer for TG3.

This document is to be used as a starting point for a discussion.

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.

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.

The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures (Version 1.0) <http://ieee802.org/16/ipr/patents/policy.html>, 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.

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 <mailto:r.b.marks@ieee.org> 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 <http://ieee802.org/16/ipr/patents/notices>.

Dr. Zion Hadad
RunCom Technologies LTD.
Voice: 972-3-9528440
Fax: 972-3-9528805
mailto:zionh@runcom.co.il

Re: IEEE 802.16.3-01/08 ("Call for Improvements and Mergers, TG3 PHY")
TG3 PHY development: where to go and how do we continue

Due to the possible power balance between the SC and the OFDM groups in TG3 and the recognition that, for the best interests of all parties, we have to finish the job, we present some possible strategies which can help us (IEEE 802.16 TG3 participants) decide what is the best way to proceed in the development process of the TG3 PHY.

As we see it today, the following strategies exist:

1. One of the groups (SC or OFDM) wins and develops the (SC or OFDM) PHY layer.

2. Merge the SC and OFDM and start converging to a common Base-Band processing (long time of convergence).

3. The two groups (SC and OFDM) suggest the combination of the two possible solutions for TG3, with some coordination to reach the market faster.

4. A version of Strategy 3 in which SC PHY layer is an amendment to the existing TG1 PHY in order to fit the TG3 channel and requirements.

We would like all parties to consider those strategies in order to finish the system definition in time and reach our defined goals.