Broadband Wireless Mobile Air Interface

Results of

Call for Interest Session

March 12, 2002

Proposal for 802.16 WG Study Group

on

Broadband Mobile Wireless Access Networks

Project Title

- Air Interface for Mobile Broadband Access Network
  - Scope: Wireless Access Network Operating in the 450 Mhz to 3 Ghz Licensed Frequency Bands and Supporting Vehicular Mobility (Speeds to 200 mph) at data rates of up to 3 Mbps
  - Purpose: To enable rapid worldwide deployment and evolution of ubiquitous, cost-effective, interoperable, multi-vendor and multi-operator broadband mobile wireless IP data access networks.

5 Criteria for PARs

- Broad market potential
- Compatibility
  - Coexistence (not in 5 criteria yet, but coming)
- Distinct Identity
- Technical Feasibility
- Economic Feasibility

Broad Market Potential

- **Broadband wireless access, based on IP mobility, unlocks all Internet content to the general public, potential market is all Internet users.**
- **Business has become increasingly mobile and access to corporate Intranets is required from any place at any time. 802/ IP based networks provide access to all applications designed to be networked via TCP/IP**
- **Additional Applications:**
  - **Gaming**
  - **Entertainment**
  - **Telematics**

Distinct Identity

- **IEEE 802 presently has no project that supports vehicular mobility (Speeds greater than 5 mph and less than 200 mph).**
- **The specification produced by this project will support mobile wireless MAN access at vehicular speed.**

Technical Feasibility

- **Potential solutions on IP and OFDM technologies. These technologies are mature and have been used in both LAN and Fixed Wireless applications with success.**
- **Silicon (ASIC) technologies available.**
- **Complexity within scope of current technologies**

Economic Feasibility

- Well known cost factors
- Reduced system cost by leveraging existing IP Core Network.

Proposed Next Step

- Proposal to form a WGSG under 802.16 to:
  - Develop PAR
  - Complete “Five Criteria”

  for the development of a Broadband Mobile Wireless Access Network standard.