Wireless LAN Consortiums

IEEE 802 Standards Committee

- Formed the 802.11 wireless local area networks standards Working Group developing international WLAN standards since 1990
  - Several drafts standards have been published for review
  - Took on the task of developing a global standard for radio equipment & networks operating in the 2.4GHz unlicensed frequency band at data rates of 1 - 2 Mbps
  - Scope of the standard is to develop a MAC and PHY spec for wireless connectivity for fixed, portable and moving stations within a local area
    - The body does not to specify technologies
  - Allows for manufacturers of WLAN radio equipment to build interoperable network equipment

IEEE 802 Standards Committee

- Purpose/goal of the standard is two-fold
  - Provide wireless connectivity to fixed, portable and moving stations within a local area
  - Standardize access to one or more frequency bands for purpose of local area communications
- Membership
  - Consists of individuals from numerous companies & universities, who research, manufacture, install & use products in WLAN network applications
  - WG core consists of manufacturers of semiconductors, computers, radio equipment, WLAN solution providers University research labs, end-users make up core group
  - Global representation from US, Canada, Europe, Israel, Pacific Rim

Wireless LAN Alliance (WLANA)

- Consisting of 10 members from the wireless LAN market
  - 3Com, Cisco, Intersil, Intermec, Symbol, Xilinx
- Goals
  - Group of component and equipment vendors striving to create greater awareness of wireless technology
  - Provide to managers, end-users, media & businesses:
    - A means of learning the benefits & uses of wireless devices
    - And how it can serve as a competitive advantage in their various vertical markets
  - Evangelize the benefits of wireless networking in horizontal applications with emphasis in wireless activities in the home
    - File sharing, e-mail, scheduling, messaging services

Wireless LAN Interoperability Forum (WLIF)

- Created in May 1996 to develop an open interoperability specification for wireless LAN devices
- Independent from the IEEE 802.11 committee
- Focuses on wireless LAN interoperability
- Key members
  - Casio, Data General, Fujitsu, HP, IBM, Intermec, Mitsubishi, Motorola, Proxim

Wireless Ethernet Compatibility Alliance (WECA)

- Industry alliance supporting a single wireless networking standard – the IEEE 802.11 High-Rate std.
- Group will certify interoperability of products based on the standard 802.11b specifications
  - Similar to WLIF
- The alliance will initiate a marketing campaign
  - Communicates the benefits of interoperability and reduces confusion in the marketplace
- Founding members
  - 3Com, Aironet Wireless Communications (Cisco), Lucent, Nokia, Intersil (Harris Semiconductor), Symbol Technologies

WECA (contd.)

- Products that are standard compliant will be termed “Fast Wireless,” “802.11 High-Rate,” or “Ethernet Wireless”
- WECA hopes to reduce the confusion in the marketplace regarding wireless standards
  - The group will focus on evangelizing the benefits of wireless networking for horizontal applications
    - Distant itself from arguments between equipment vendors
  - WECA plans to market 802.11 High-Rate as a consumer technology for the home networking market as well
    - Group has approached the HomeRF Group about adopting 802.11 High-Rate as their second-generation standard

HiperLAN Committee

- HiperLAN - High Performance European Radio LAN
  - ETSI HiperLAN
  - Bandwidth: 23.529 Mbps
  - Transmission band: 5.15 - 5.25 GHz spectrum
  - Multi-hop routing, time-bounded services and power saving features are expected
  - Members
    - Apple, HP, Harris, IBM, Nokia, Proxim, Intermec, STMicroelectronics

HiperLAN2 Global Forum (H2GF)

- HiperLAN/2
  - Broadband wireless LAN
  - Bandwidth - 54 Mbps, 5GHz spectrum, OFDM PHY
- Members of H2GF
  - Alcatel, Cambridge Silicon Radio, Canon, Dell, Ericsson, Lucent, Intersil, Panasonic, Mitsubishi, Motorola, National Semiconductor, Nokia, NTT, Philips, Samsung, Siemens, Sony, Silicon Wave, Texas Instruments, Toshiba
  - Xilinx