



# Consulting and Course Development

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## *Commercial Exploitation of WLAN*

**Duration:** 1 - 2 days

**Prerequisites:** There are no prerequisites for this workshop other than an interest in the commercial potential of Wireless LANs.

### **Objectives:**

At the conclusion of this workshop the student will be able to:

- Understand the basics of WLAN, Bluetooth, Infrared and 2.5G/3G Wireless Technologies
- Articulate public deployment issues and regulations
- Explain rating, billing, settlement, payment and clearing issues
- Judge business plans, business cases and opportunities for WLANs
- Explain Quality of Service (QoS) Issues with WLANs
- Sort out regulatory, standards and spectrum issues
- Identify WLAN opportunities for carriers, service providers, software developers and equipment manufacturers
- Understand the role of LMDS and MMDS in future WLAN deployment

### **Course Outline:**

#### **1. Introduction to unlicensed spectrum**

- 1.1. WLAN
  - 1.1.1. What is it and its use
  - 1.1.2. Standards
- 1.2. Bluetooth
  - 1.2.1. What is it and its use
  - 1.2.2. Standards
- 1.3. Infrared
  - 1.3.1. What is it and its use
  - 1.3.2. Standards
- 1.4. WLAN/Bluetooth common issues
  - 1.4.1. Same spectrum – interference issues

#### **2. Technology and application comparison: 2.5G/3G to WLAN**

- 2.1. 2.5G
  - 2.1.1. Technology overview
  - 2.1.2. Applications
- 2.2. 3G
  - 2.2.1. Technology overview
  - 2.2.2. Applications
- 2.3. WLAN

- 2.3.1. Technology overview
- 2.3.2. Applications
- 2.4. WLAN/2.5G/3G comparison matrix
- 3. Public access WLAN**
  - 3.1. Existing deployments
    - 3.1.1. Public access WLAN vs. enterprise WLAN
    - 3.1.2. Public access WLAN today
    - 3.1.3. Vendor profiles
  - 3.2. Public access WLAN deployment requirements
    - 3.2.1. Access point equipment
    - 3.2.2. Hot spot provider
    - 3.2.3. Client software
    - 3.2.4. WLAN service provider
    - 3.2.5. Network and application mediation service provider
  - 3.3. Public access WLAN Deployment issues
    - 3.3.1. Security and privacy
    - 3.3.2. Rating, billing and payment, clearing and settlement
    - 3.3.3. Quality of service
    - 3.3.4. Regulatory and political issues
    - 3.3.5. Standards wars
  - 3.4. Evaluation of the public access WLAN value-chain
    - 3.4.1. Structure of value chain
    - 3.4.2. Business models of current players
    - 3.4.3. Business case assessment
  - 3.5. Evolution of public access WLAN
    - 3.5.1. Hot spot access
    - 3.5.2. Seamless service: phase I
      - 3.5.2.1. Hot spot roaming
      - 3.5.2.2. Integrated billing
    - 3.5.3. Seamless service: phase II
      - 3.5.3.1. WLAN-to-2.5G/3G roaming
      - 3.5.3.2. Seamless handoff between networks
    - 3.5.4. Network and service provider consolidation
    - 3.5.5. Expected growth of public access WLAN market
      - 3.5.5.1. Anticipated growth
        - 3.5.5.1.1. Enterprise use
        - 3.5.5.1.2. Small business use
        - 3.5.5.1.3. General purpose users
      - 3.5.5.2. Opportunities for service providers
      - 3.5.5.3. Opportunities for equipment providers
      - 3.5.5.4. Opportunities for software providers
- 4. WLAN's role in the evolution of wideband wireless and mobile networks**
  - 4.1. Evolution of WLAN technology
    - 4.1.1. Greater bandwidth
    - 4.1.2. Improved security
    - 4.1.3. Standards evolution
  - 4.2. MMDS and LMDS
  - 4.3. 4G
    - 4.3.1. Technology approach
    - 4.3.2. Service evolution relative to 3G and WLAN
  - 4.4. Hybrid network/service approach

- 4.4.1. WLAN is a piece of the overall puzzle
- 4.4.2. Network topology
- 4.4.3. A day in the life of an end-user
- 4.5. Evolution of mobile terminal capabilities
- 4.6. Presence and location
  - 4.6.1. Deriving presence and location
  - 4.6.2. Using presence and location
  - 4.6.3. Added value to service offerings
- 5. Summary**
  - 5.1. WLAN solves near-term problems while offering near-term revenue
  - 5.2. WLAN is both complementary and competitive to other technologies
  - 5.3. WLAN represents a service opportunity that must not be overlooked