

Wireless Access



WiMAX Technology

The WiMAX standard defines a system for wireless broadband that will compete with Wi-Fi hotspots and cellular broadband systems like UMTS. The standard gives a capacity of 70Mbps in a 40km radius. With high capacity and low cost for base station installations the WiMAX technology is very interesting.

WiMAX Technology

OBJECTIVES

- Understanding WiMAX..
- technology
 - radio and access methods
 - business perspective
 - implementation considerations
 - interworking
 - certification

INTENDED FOR

Those in sales, marketing, strategy and executives that need to learn the basic terms together with an understanding based on a system description.

PRECONDITION

The course introduce WiMAX Technology from a system and business perspective.

Platform - 1 day

Content day1

✕ WiMAX & other Wireless Systems

- WLAN
- WiMAX
- GSM/GPRS
- 3G solutions; HSPDA/HSPUA, LTE
- Standards
- Roadmaps

✕ WiMAX System Components

- Base Station
- Subscriber Station
- Antennas; MIMO, AAS
- Modulation OFDM/OFDMA
- Frequencies
- Access Types; Point-to-Point. Point-to-Multipoint
- Security
- QoS
- Service Backhaul

✕ WiMAX from Business perspective

- Cost, Coverage, Capacity
- Residential access
- T1/E1 Replacement
- Wi-Fi Hot Spot Backhaul
- Cable TV

✕ Implementation Considerations

- Environment
- Frequencies and Radio Wave Propagation
- LOS/NLOS
- Throughput, Range & Bit Error Rate
- Link Budget

✕ Mobile WiMAX System Components

- Base Station; Paging, HandOver
- Subscriber Station
- Access Service Network
- Authentication Authorisation Accounting
- Network Service Provider

✕ Mobile WiMAX Interworking

- All - networks
- IP Multimedia Subsystem (IMS)
- 3GPP Interworking
- 3GPP2 Interworking

✕ Mobile WiMAX Business perspective

- Cost, Coverage, Capacity
- Speech vs Data transmission
 - Notebooks, PDAs, Ultra Mobile PC's
 - Game consoles, MP3 players
 - Cellular phones, smartphones
 - Streaming applications; Radio, Mobile-TV

✕ Certification and Interoperability

- Test Architecture
- Test Procedures

✕ Development examples

- USA
- France
- Korea

We reserve our rights to adjust course content without prior notice.

Related Courses

✕ Mobile WiMAX (2 days)

- Technical view on Mobile WiMAX
- Node functionalities and procedures
- MAC Layer
- Security
- etc

✕ Mobile WiMAX Signalling (2 days)

- In dept description of interfaces and protocols
- Interworking with other networks

WiMAX Products

WM-1: WiMAX Technology (1d)

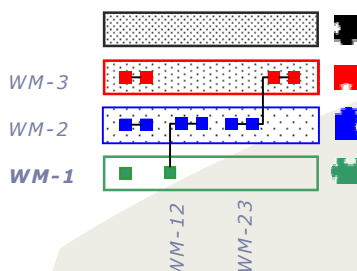
WM-2: Mobile WiMAX (2d)

WM-3: Mobile WiMAX Signalling (2d)

Product Combinations

WM-12: WM-1+2 (3 days)

WM-23: WM-2+3 (4 days)



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