

## WiMAX Essentials (1 day)

Based on IEEE 802.16 standard, WiMAX, the Worldwide Interoperability for Microwave Access provides wireless data over long distances in a variety of ways, from point-to-point links to full mobile cellular type access. This course provides a good understanding of WiMAX architecture, interfaces and their functional details. A basic understanding of IP protocol would be beneficial for anyone attending this course.

### Who Should Attend

This is beginner level course and suitable for telecom professionals & students who have little understanding of WiMAX.

### Objective

After completing this course, the audience will be able to:

- Understand WiMAX architecture
- Describe function of WiMAX nodes
- Explain WiMAX Interfaces
- Define Protocol Architecture
- Describe WiMAX Air Interface & Procedures

### Course Contents

#### WiMAX Overview

- What is WiMAX ?
- WiMAX Advantages
- WiMAX specifications
- WiMAX spectrum
- WiMAX deployment

#### WiMAX Architecture

- ASN Reference Model
- Wi-MAX Base Station

- Access Service Network ASN Gateway
- Connectivity Service Network
- Network Access Provider
- Network Service Provider
- WiMAX AAA Framework

#### WiMAX Air Interface

- Air Interface Protocol Architecture
- Physical Layer
- Modulation
- Medium Access Layer

#### WiMAX Protocol Architecture & Procedures

- E2E Protocol Structure
- Network Discovery and Selection
- Authentication in WiMAX
- IP addressing in WiMAX
- Data Path Setup
- Subscriber Traffic Handling
- WiMAX QoS Architecture

#### WiMAX Mobility

- ASN Anchored
- CSN Anchored