

Course Name: Wireless Data Trends

Course Overview:

The wireless data industry is changing daily. It is becoming incredibly difficult for the wireless professional to stay updated on emerging technologies and trends. Between at home wireless applications, emerging third generation wireless concepts and incredible new products, wireless data is rapidly evolving. This 2-Day course is designed to introduce the student to the major technologies being utilized by wireless carriers to transport data services. The primary focus is on the three major Second Generation competing carrier-based technology systems: CDMA, GSM and iDEN, but basic TDMA is also briefly discussed. While the basic carrier technologies are a baseline, this course will run through all generations of technology growth including 1G, 2G, 3G, 4G, and beyond. A major component of this course is the open forum for questions and discussion on current and future trends in the wireless arena.

Course Length: 2 days

Who should attend?

- Wireless Carriers
- Tower Companies
- Contracting Organizations
- Field Engineers
- Data Engineers
- Installers/Technicians
- Management staff
- Equipment Manufacturers
- Sales Staff

You will learn:

- Wireless Data Overview
- Basic Transport Systems
- The Generations of Wireless Data – 1G, 2G, 3G, 4G
- iDEN Based Technologies
- TDMA Based Technologies
- CDMA Based Technologies – 1xRTT, EVDO, EVDO Rev. A, B, C
- GSM Based Technologies – GPRS, EDGE, UMTS, HSDPA, HSUPA
- Flash OFDMA, WiMAX
- Available Products and Trends
- Applications and Services
- Comparison to other Technologies
- The Future of Wireless Data

Prerequisites: None



Customizable Course: Yes

Course Content:

Wireless Data Overview

- Wireless applications
- Trends/Drivers
- Basic speeds/abilities
- The race for speed
- Industry acceptance
- Current service providers

Transport Systems

- Brief background review
- Analog
- TDMA
- CDMA
- GSM/PCS
- iDEN (Motorola)

TDMA Based Technologies

- Reality of a dying technology
- Next steps for TDMA based carriers

iDEN Based Technologies

- WiDEN
- Potential next steps

CDMA Based Technologies

- CDMA 2000
- 1xRTT/CDMA2000 1x
- EV/DO (Revs)
- EVDV
- Potential next steps
- Upgrading existing systems

GSM Based Technologies

- GPRS
- EDGE
- W-CDMA
- Potential next steps
- Upgrading existing systems

HSDPA, HSUPA and UMTS



- Focus and Goals
- Contrast/Compare

Available Products and Trends

- Handsets
- Data Connectivity Kits
- Air Cards
- PDAs
- Pocket PCs

Advanced Wireless Data Technologies

- Flash OFDMA
- 802.16 – WiMAX and Mobile WiMAX

Lab 1 –Demonstration

Web connection through multiple mobile devices

Applications and Services

- Business
- Personal
- Questions to ask when purchasing service
- Current prices and packages

Comparison to other (LAN) Technologies

- Wi/Fi (802.11x)
- Bluetooth

The Future

- Next steps
- Potential technologies and services

