

**Course Name:** Solectek SkyWay MAX Installation and Maintenance

**Course Overview:**

This course will provide the background knowledge of WiMAX technology and its fundamentals. It will cover deployment and configuration of the Solectek SkyWay Max equipment and software.

**Course Length:** 2 Days

**Who should attend?**

- Anyone installing the Solectek SkyWay MAX WiMAX system
- Administrators of the Solectek SkyWay MAX Manager Software

**You will learn:**

- The fundamentals of WiMAX
- The components of the Solectek SkyWay MAX system
- How to set up and configure the Solectek SkyWay MAX Base Station
- How to deploy the Solectek SkyWay MAX Subscriber Units
- How to adjust the Base Station WiMAX antenna and beamwidth
- How to configure and use SkyWay MAX Manger software
- How to configure service classes and QoS

**Prerequisites:** none

**Customizable Course:** Yes

**Course Content:**

**Fundamentals of WiMAX**

What is a WiMAX

- The 802.16 standards
- Fixed and mobile WiMAX
- Frequencies – Licensed and Unlicensed
- Distances
- Components of the network
- Applications for WiMAX
- Benefits of WiMAX

**Introduction to the Solectek SkyWay MAX**

Solectek SkyWay MAX Hardware Components

- Base Station Unit
- Power Supply and PoE components
- Uplink Cable
- Indoor Controller
- Subscriber Unit

## Solectek SkyWay MAX Software

- SkyWay MAX Manager
- EMS System

## **Solectek SkyWay MAX Hardware and Software Installation**

### Installing the hardware

- Mounting the Base Station Unit
- Mounting, connecting, and adjusting the antenna
- Connecting the uplink cable
- Powering the Unit
- Installing the Indoor controller
- Installing the remote subscriber units

### Connecting the Hardware to the Network

- Some IP basics
- Understanding IP Addresses
- Locating and configuring the IP addresses for the Skyway MAX components
- Verifying network connectivity

### Installing the Software

- Loading SkyWay MAX Manager Software
- Navigating SkyWay MAX Manager Software
- Connecting to the Base Station Unit
- Basic Configuration of the SkyWay Max Components
- Adding Subscribers
- Getting Traffic Running

## **Solectek SkyWay MAX Software Administration**

### Using SkyWay Max Manager and EMS for Administration

- Understanding SkyWay MAX administration
- Adding Subscribers
- Basic Monitoring
- RF Settings
- Assigning names and locations
- Configuring Security
- Understanding Services
- Service Class configuration
- Viewing notifications and event logs
- Using diagnostic tools

## **Testing and Troubleshooting Installation**

### Testing and Troubleshooting

- Installation Verification
- Hardware installation issues
- Software installation issues
- IP Addressing and Routing issues
- Rebooting the system
- Interference Problems
- Slow throughput and Bandwidth issues
- Network connection problems

### **Hands-on Labs**

This is a hands-on intensive course focusing on installing and maintaining the entire Solectek SkyWay MAX system. Students will configure and install the components throughout the class. Discussions will be reinforced with hands-on exercises.