WiMAX in Industrial Networks

Industrial Networks Education

Description

At times running any type of wiring to remote locations becomes challenging. The use of Wide Area Private Wireless systems makes interconnecting these locations possible. In addition these networks provide a great deal of flexibility and reliability for complex outdoor applications.

With the training course "WiMAX in Industrial Networks" of the Industrial Networks Education – Certification Program, you will acquire the knowledge required to plan, implement, operate and maintain such networks.

General Information

Course Code: IEN-RCMWIMAX
Length: 3 Days

Audience

This course is for users who are involved with developing or sustaining networks in rugged environments – such as Electric Power, Transportation, Rail, and Defense markets, where RUGGEDCOM equipment is required. This includes, but is not limited to the following:

- Application Engineers
- Automation Engineers
- Communication Engineers
- Control Engineers
- Operations or IT Network Engineers
- Project Engineers
- Substation Engineers
- System Engineers

Prerequisites

- Basic knowledge of the topic "Ethernet".
- Familiar with network topologies, Media Access Control (MAC), Internet Protocol, data transport and associated technical vocabulary.
- Familiar with the principles of switching operations, hubs and the OSI reference model.
- Recommended: Participants are encouraged to attend the Industrial Ethernet Fundamentals training course or complete the ITIN online training.

Profile

This course is one of three certification courses offered under the Siemens Certified Professional for Industrial Networks (CPIN) program, which incorporate RUGGEDCOM products into the curriculum, ensuring students learn and test using products they use on a regular basis. The curriculum covers network solutions and how they connect to real-time systems in theory and in practice.

Throughout the course, students will have ample time for practical exercises, diagnostics, and troubleshooting. The course uses a hands-on model for realistic demonstrations.

At the end of the course, students are equipped with the knowledge to plan, configure, operate and provide support for networks in their specific market.

Objectives

Upon completion of this course, the student will learn:

- Wireless concepts
- WiMAX technology details
- RUGGEDCOM WIN product line configuration
- Modulation schemes, noise, interference, fading, multipath, WiMAX PHY/MAC and system provisioning.

Topics

1. Wireless Overview
2. WiMAX Technology Overview
3. End-to-End WiMAX Solution
4. RUGGEDCOM WIN Network Entry
5. RUGGEDCOM WIN Service Flow & VLANS
6. RUGGEDCOM WIN Security
7. RUGGEDCOM WIN Monitoring & Troubleshooting

Certification (Siemens CPIN-LEVEL)

This training prepares for the certification "Siemens Certified Professional for Industrial Networks – WiMAX". A voluntary certification examination will take place at the end of the training.

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