
WTM 4000 Installation, Operation and Maintenance

TRN-WW-WTM4000-01

Course Specifics

Duration:	2 days
Class capacity:	10 students
Location(s) for open enrollment:	San Antonio, TX, USA Hamilton, Scotland, UK Paris, France Lagos, Nigeria Clark, Philippines Mexico City, Mexico
Materials provided:	Instruction and user Manuals (USB) Student Handbook (e-Book) Datasheets (USB)



Course Description

The WTM 4000 is the industry's first microwave router. It is a fully integrated microwave networking solution, delivering a unique combination of high capacity all-packet transport, Carrier Ethernet, IP/MPLS and PWE services and comprehensive mission critical microwave features. The WTM 4000 is purpose-built for microwave, enabling operators to prepare for the all-IP future.

The WTM 4000 Installation, Operation and Maintenance course teaches students key functions of the WTM 4000 platform. The course includes an overview of all available modules and the chassis, initial setup, install and login, basic configuration with the CLI, system commissioning, configuration, diagnostics, maintenance and troubleshooting. Extensive hands-on labs (nearly 50% of the course duration) and case studies offer students with scenarios they will face in real deployments in their networks.

Courses are conducted by **AVIAT expert trainers** in a mentoring environment backed by their deep technology expertise and experience in implementation of microwave wireless and IP networks.

The WTM 4000 Installation, Operation and Maintenance course is conducted at the Aviat Training locations or can be arranged at customer sites.

Target Audience

This course is intended for installation and service personnel responsible for installation, configuration, test and maintenance procedures for the WTM 4000 product.

Prerequisites

1. Participants must complete WTM 4000 System Overview E-Learning course.
2. Participants should have a basic understanding of Microwave and IP Fundamentals and have basic computer skills.
3. Each student must bring an IBM compatible laptop PC or an equivalent and have administrator rights on the PC.

The PC must have minimum parameters of:

- Pentium 4 or later w/ 1GB of RAM and 250 Mb of free hard drive space
- Microsoft Windows XP, Vista, Windows 7, or Windows 8
- USB Port

EDUCATION SERVICES



- Network card (LAN Port)
- DB9 serial port connection or adapter

Objectives

Upon successfully completing this course, participants will be able to:

- Basic installation and configuration of WTM 4000 equipment
- Provisioning of features such as Management, RF Links, Ethernet VLANs, QoS, and Link Aggregation
- Basic diagnostics, troubleshooting and preventive maintenance for WTM 4000

Course Outline

System Overview

- WTM 4000 product over view
- Product variant
- Implementation option
- System & RF

Product installation

- Unpacking
- Antenna installation
- ODU installation
- DC power to the ODU (external)
- DC power to the ODU (POE)

Unit's management

- Connecting to the WTM4000
- Management option (GUI / CLI)
- Default login/ parameter
- Management Vlan

Basic set-up and management

- Date and Time
- SNMP and Wi-Fi configuration
- Admin management

RF link provisioning

- Provisioning the RF link
- Setting the A2C option

Performance Statistics and Monitoring

- RF Link Performance Statistics and Monitoring using CLI and GUI
- RFC2544 Ethernet tests and interpretation

Switching and routing

- Basic routing function
- Layer 2 Link Aggregation (LACP)
- L2 control protocol tunnel
- Vlan management

QOS

- Classification
- Scheduling

- Policing
- Flow classification

Troubleshooting and Maintenance

- Troubleshooting Overview
- Troubleshooting Techniques and Options
- Troubleshooting Configuration and Link Problems
- Maintenance Overview

Required Equipment for Training Sessions at Customer Sites

RADIO	<p>One equipment rack with 48VDC power supply</p> <p>At least 1 Traffic free hop – 2 radios talking to each other. (Path has been simulated with at least 60dB of attenuation, for troubleshooting training variable attenuators are preferred however not mandatory)</p> <p>Chassis configurations should include as a minimum:</p> <ul style="list-style-type: none"> •ODRs should be a matching pair that is same sub band and TR spacing with one being Tx High and the other Tx Lo.
OTHER EQUIPMENT	<p>Ethernet tester</p> <p>Digital Multimeter.</p>
CLASSROOM SET UP	<p>Sufficient in size to handle all participants, instructor, desks, chairs, classroom equipment. The room must have enough 110 AC (220) AC power and air conditioning to operate equipment, all student's client's PC's and the server or radio as required.</p> <p>Classroom Equipment</p> <p style="padding-left: 40px;">Marker board, SVGA or Overhead projector and screen.</p> <p>Desk and Chairs</p> <p style="padding-left: 40px;">Desks or workstations with enough room for each student to write have open books, client PC and / or, keyboard and monitor.</p> <p>Internet Access</p> <p style="padding-left: 40px;">Internet access through the server or through client PC.</p>

Pricing & Scheduling

Please contact your Aviat local sales team for a quote or email aviatcareeducate@aviatnet.com and request pricing for the following items:

TRN-WW-WTM4000-01E	WTM4000 SYSTEM OVERVIEW ELEARNING
TRN-WW-WTM4000-01A	WTM4000 I M & O PRODUCT TRAINING 2 DAY, AVIAT LOC INSTR LED - OPEN ENROLLMENT -PER PERSON - WW
TRN-WW-WTM4000-01B	WTM4000 I M & O PRODUCT TRAINING 2 DAY, AVIAT LOCATION INSTRUCTOR LED - WW
TRN-WW-WTM4000-01C	WTM4000 I, M & O PRODUCT TRAINING 2 DAY, CUSTOMER LOCATION WW
TRN-WW-WTM4000-01D	WTM4000 I, M & O PRODUCT TRAINING 2 DAY, CUSTOMER LOCATION WITH EQUIPMENT NA REGION ONLY