

## E7 DSL Troubleshooting

**Duration: 4 hours**

Learn how to troubleshoot and resolve common service-impacting issues in an E3/E5/E7 triple-play deployment scenario.

### Who should attend?

- Network Operations and Central Office Technicians who manage, maintain, troubleshoot, and configure E3/E5/E7 triple-play DSL services.

### Prerequisite Training and Skills

- Knowledge of telecommunications and engineering standards
- Understanding of Ethernet networks including Layer 2 switching and VLANs
- Completion of Introduction to E7, Configuring E7 Ethernet Transport and Configuring E7 Services, eLearning courses, or equivalent knowledge and experience
- Completion of the E7 VDSL Overview and Data Services course
- Completion of the E7 VDSL Voice, Video and Bonded Services course

### Software Releases:

This course is based on the following software releases:

- E7 – Release 2.6
- CMS – Release 15.0

### Objectives:

After completing this course, you will be able to:

- Find and resolve network and transport related problems.
- Find and resolve DSL physical layer and subscriber equipment problems.
- Find and resolve common provisioning errors.

### Delivery Mode:

This instructor-led course consists of learning content delivered by an experienced Calix instructor in a virtual classroom or at a physical location. Learners are provided with access to a live lab environment for hands-on lab exercises that reinforce the course content.

## Course Details

Lesson Name	Topics
<b>E3/E5/E7 Equipment Overview</b>	Equipment Overview Training Lab Setup Node-Level Tools
<b>Troubleshooting Network Transport</b>	Uplink and Ring Deployment Types Interpreting Uplink and Ring Alarms Using Embedded CMS Tools
<b>Troubleshooting the DSL Physical Layer and Subscriber Equipment</b>	VDSL Single-Line Modems VDSL Bonded Modems ADSL Bonded Modems Single-Tagged DHCP Data Double-Tagged DHCP Data Single-Tagged PPPoE Data IPTV Video Services SIP Voice TDM Gateway Voice
<b>Troubleshooting Common Provisioning Errors</b>	Missing VLAN Associations Minimum Rate Too High Maximum Rate Too Low Incorrect Match List Profile Port Disabled Ethernet Bandwidth Profile Too Low Multicast Profile Too Restrictive MVR Profile Too Restrictive
<b>Live Troubleshooting Labs</b>	Launching CLI Cut-Through Useful CLI Commands Using the Uplink and VLAN MAC Tables Putting it all Together: Finding and Resolving Problems

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