



CMT-07-080

FTTP OPERATIONS & MAINTENANCE TRAINING COURSE

2 DAYS DURATION - DESIGNED FOR ALL SKILL LEVELS.

WWW.CELEMETRIX.COM.AU
CALL 1800 256 838



FTTP OPERATIONS & MAINTENANCE TRAINING COURSE

COURSE OUTLINE

CMT-07-080-A

Introduction to Fibre Optics

1. Understanding Telecommunications network architecture
2. Basics of Fibre Optics – Units of measurement
3. Single Mode and Multimode cable principles and naming & colour codes
4. Light Propagation principles
5. Laser Transmission System Theory
6. Optical Connectors and pigtails (FTTP Specific)
7. Laser Safety and OH&S
8. Fibre optic connector and ONT cleaning principles
9. Operating optical microscopes
10. Operating Traffic Identifiers
11. Operating Visual Fault locators
12. Practical exercises to reinforce theory elements.

CMT-07-080-B

Basics of FTTP Architecture

1. What is FTTx
2. Benefits of FTTP networks
3. FTTP network architecture overview
4. What is PON
5. Overview of GPON
6. Understanding FTTx transport wavelengths
7. Single Fibre working systems
8. Basics of FTTP service delivery capability.

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FTTP Architecture in Detail

1. Detailed overview of FTTP architecture
2. Detailed overview of POLT (low & high density)
3. Detailed overview of VOLT
4. Detailed overview of WDM
5. Detailed overview of FDH (internal & external)
6. Detailed overview of Optical Splitter
7. Detailed overview of Multiport hardware
8. Detailed overview of Lead-in cable technology
9. Detailed overview of MDU installations
10. Detailed overview of external ONT-O
11. Detailed overview of internal ONT-I

12. Detailed overview of PSUs for internal & external ONTs
13. HONT alarm overview
14. ONT Cabling requirements overview (internal & external)
15. Telecommunications demarcation boundaries
16. Basics of Ethernet/VoIP
17. FTTP Service Delivery for POTS, VoIP, Data (BigPond), Video (Free and PayTV)
18. Network naming and numbering conventions within the FTTP network and associated systems
19. Practical Exercise to reinforce above elements.

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Evaluating the Overall FTTP Optical Link Quality

1. Basics of evaluating optical link quality
2. Calculating optical loss budgets
3. Reasons for excessive optical loss
4. Measuring Insertion Loss
5. Practical – Calculate and measure the optical loss between FDH and ONT
6. Basics of OTDR technology
7. OTDR trace basics
8. Identifying optical cable faults that will effect service delivery.

CMT-07-080-E

FTTP Fault Methodology - Detailed

1. Active FTTP network testing overview
2. Basics of FTTP fault methodology
3. Optical loss threshold overview for FTTP
4. Measuring Optical Power on a live FTTP network
5. Practical – Measure optical power at the FDH, ONT & DLM using a PON Power Meter.

CMT-07-080-F

National Fault Code Set for FTTP

1. Telstra national fault code overview
2. National alarm notification overview
3. FTTP national fault codes.

CMT-07-080-G

Course Assessment

1. Theoretical Assessment
2. Practical Assessment.

FTTP OPERATIONS & MAINTENANCE TRAINING COURSE

COURSE INFORMATION

Course Locations:

Melbourne, Adelaide, Sydney, Hobart, Canberra, Cairns, Brisbane, Darwin & Perth.

Course Times: 8.30am to 4.30pm.

Duration: Two days.

Training is available Australia-wide.

Please contact Celemetrix for details.

Included: Active FTTP training network, all FTTP external and internal network hardware, instructor, data projector, all required test equipment and hardcopy course manual for each attendee.

INDUSTRY PROBLEM

- The telecommunication industry has seen a decline of the transfer of skills from experienced technical personnel to new personnel.
- Knowledge transfer to complete projects to the required quality/time standards has become increasingly scarce.

CELEMETRIX SOLUTION

- Training programs are designed to protect against poor quality network builds, which result in costly rework and service interruptions.
- Emphasis on the importance of maintaining standardised installation and commissioning practices.
- Skill in the transference of knowledge is what we believe to be the "art of training."
- Unlike other training organisations which focus primarily on technology - Celemetrix Training Services are structured toward Field Operations staff. Technology theory is combined with practical elements to reinforce the learning process.
- Specifically designed training manuals, enhanced practical exercises and technical phone support ensure your investment delivers increased levels of productivity and confidence.
- All our training courses can be customised to meet your individual requirements.

All our trainers are qualified with Cert IV Assessment and Workplace Training from Corporate Training Australia.

COURSE OVERVIEW

Celemetrix provides all the information required to confidently understand, maintain and assess the quality of triple play services over an FTTP network.

Attendees will be introduced to all components of an FTTP architecture as well as build relevant components and test the performance of Voice, Video and data services as well as optical signal strength.

Attendees will have the opportunity to work on a live FTTP network to explore all operational and maintenance disciplines needed to effectively and efficiently assess the quality of customer services.

10 - 15 people per course.

Training is available throughout Australia.

FURTHER INFORMATION

Call or email Celemetrix today, our courses result in the highest knowledge transfer and are Telstra Certified.

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