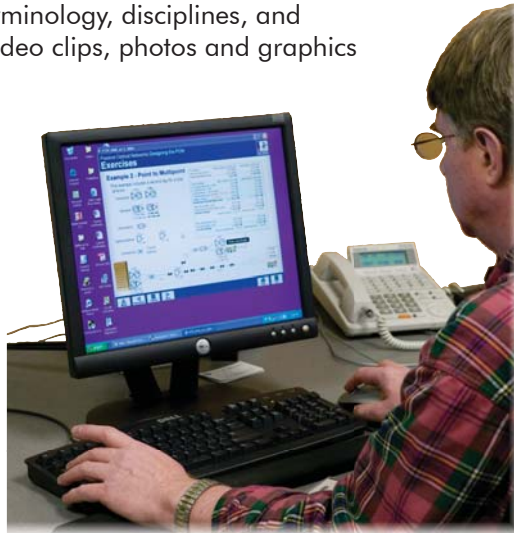


# FTTx Computer-based Training

Since the release of the ITU-T G.983 Passive Optical Network (PON) standard by the ITU, Fiber to the Premises installations have exploded, with North American installations closing on three million homes. This interactive computer-based training (CBT) on CD-ROM addresses the standards and variations of FTTx/PON networks.

From components to systems, the CBT allows the user to navigate while learning and researching the variations, topologies, terminology, disciplines, and business issues. The embedded animations, video clips, photos and graphics allow for a quick visual learning experience. The system design chapter allows the user to build their own system based on common ITU specifications and values.

Computer-based training is an excellent tool for learning because it uses a variety of media methods to clearly explain a point or demonstrate a concept. The FTTx/PON CBT skillfully incorporates text, animation, video clips and interactive exercises to allow the student to be in control, cover the material at their own pace and review at their convenience.



Passive Optical Networks The Light Brigade  
**PON 3.0** 3 of 3

**Main Menu - Please Make a Selection**

- 1 What is PON?
- 2 PON Specifications and Standards
- 3 Communications Methodology
- 4 PON Variations
- 5 Elements and Components
- 6 Topologies
- 7 WDM
- 8 Testing
- 9 Designing the PON
- 10 Business Issues
- 11 Appendix

PON 3.0 Chapter 11: Exercise  
**Point-to-Multipoint**

Click to add or remove PON elements

Transmitter: Class A, Class B, Class C  
 Receiver: Class A, Class B, Class C  
 Attenuators: 0 dB, 1 dB, 2 dB, 3 dB, 4 dB, 5 dB, 6 dB, 7 dB, 8 dB, 9 dB, 10 dB, 11 dB, 12 dB, 13 dB, 14 dB, 15 dB, 16 dB, 17 dB, 18 dB, 19 dB, 20 dB  
 Connectors: FC, SC, ST, LC, MPO  
 Fusion Splices: Fusion Splice  
 Optical Splitter: 1x4, 1x8

0 Attenuators @ 0 dB (CLASSIC)	0.0 dB	0.0 dB	0.0 dB
Safety Margin (CLASSIC)	5.0 dB	5.0 dB	5.0 dB
Predicted Overall Span Loss	-9.0 dB	-9.0 dB	-12.0 dB
Max Allowable Loss	0.0 dB	0.0 dB	0.0 dB
Predicted Overall Span Loss	-9.0 dB	-9.0 dB	-12.0 dB
System Margin	No signal	No signal	No signal

Max Allowable Loss: 0.0 dB, 0.0 dB, 0.0 dB  
 Current Span Loss: -4.0 dB, -4.8 dB, -7.0 dB  
 Current Margin: No signal, No signal, No signal

Show Loss Budget

Part Number  
 W-6B-PON3  
**\$125**



PON 3.0 Chapter 05: Elements and Components  
**9: Fiber Optic Closures** 1 of 4

**Splice Closures**

Fiber optic closures (called joints in Europe) provide a protected environment for splices, splitters and other passive devices. Many have the ability to store spare fiber. Closures are also used for emergency restorations where damaged cables need repair or a new segment needs to be inserted between two non-retrievable stack locations.

What to look for in a splice closure:

- Physical size
- Environmental sealing
- Grounding Multiple cable ports (inbound and outbound)
- Standard tooling
- Splice trays to accommodate the products/techniques used.

RESTART | PLAY | PAUSE | FWD | BWD

If movie doesn't start automatically, click "Play". Click on "Restart" to restart movie from the beginning. Click "Pause" to pause. Click "FWD" to advance through the movie.

**Live Action Video Clips**

PON 3.0 Chapter 05: Elements and Components  
**3: OLT** 1 of 4

**What the OLT is and What it Does**

Regardless of which way the industry leans with regards to the different protocols, hardware commonality will further the development of PON systems overall. According to recommendations and standards, equipment similarities must be provided in order to provide easy upgrades or transitions due to changes or improvements in technology.

Example of an OLT in an office setting

To see individual slides, click on the blue boxes.

**Vibrant Graphics and Animations**

PON 3.0 Chapter 10: Business Issues  
**6: Subscriber Expectations** 3 of 6

**Subscribers Expect Customer Care**

The subscriber's expectation is that the person who sold them the service will handle any problems immediately.

Owners of the network sell access to interim providers, who may in turn sell access, until it reaches the final end user.

At each level, the provider needs to have customer care procedures and a call center (run by the OSS) in place and be prepared to answer to all down-line quality control issues that might arise.

The challenge at each level will be to provide network reliability and the quality of service that customers expect.

**Detailed Explanations**

**(800) 451-7128**  
 Fax (206) 575-0405  
 www.lightbrigade.com

**Interested in giving the PON CBT a trial run?**

Try out the BEST OF PON demo!  
<http://www.lightbrigade.com/bestofpon/>