

Noovis prides itself on leading the industry in providing innovative network solutions for clients that have become restless with the status quo. Our clients have always been those seeking a "better way" and we at Noovis are passionate about doing just that. With Passive Optical Networking (PON) always remaining the core upon which we have built game

Duration: 1 Day

Duration: 2 Davs

changing solutions, we have formed what we believe is the most experienced team of professionals in the industry, bar none.

Often called upon by clients, partners and manufacturers alike to consult on all aspects of PON technology, it became clear that the industry would benefit from a formal and comprehensive Noovis led training program. As a result, Noovis has formed its very own Noovis University with classes designed to take network professionals beyond the fundamentals of optical networking. Using Passive Optical LANs (POLs) as the building blocks, successful students will not only become educated on the latest technology but will hone their POL design and implementation skills from the keen insights only experienced professionals can provide.

Passive Optical LAN Class Descriptions

POL 101 - Optical LAN Overview

The Optical LAN Overview class is designed to provide the industry professional with a solid understanding of the benefits Passive Optical LANs offer over traditional switched Ethernet networks. Lessons cover the history of Enterprise GPON technology and demonstrate the inherent advantages that are achieved when a proper optical LAN design is implemented.

Prerequisites: None

Prerequisites: POL 101*

Classroom discussions will cover the basics of the most common active electronic vendors such as Cisco, Tellabs and Zhone. Passive components will include an overview of today's industry leaders including Corning, CommScope and 3M. Both active and passive component discussions will include hands-on sessions and provide the foundation for learning design fundamentals.

Students will focus on Key Criteria such as fundamentals of P2P vs P2MP architectures, POL advantages and Infrastructure options.

POL 102 - Fundamentals of Design I

Fundamentals of Design I leads students through a two day class on the basics of developing a POL strategy. Design considerations will focus on single building projects delivering voice and data services for up to 1,000

Students will focus on Key Criteria such as requirements gathering, detailing designs, infrastructure options, design considerations, testing requirements creating Bills of Material and completing a Cable Run List.

POL 103 - Fundamentals of Design II

Prerequisites: POL 102* **Duration: 2 Days** Building on the core competencies developed in POL 102, this 2 day class will allow students to expand their knowledge base to include developing POL strategies for multiple buildings across small campuses. Discussions will include inside plant and outside plant requirements gathering, retrofit vs new construction considerations, creating Bills of Material and delivering projects on time and within budget.

Students will focus on Key Criteria such as requirements gathering, campus solutions and integrating POL with other technologies such as Distributed Antenna Systems (DAS), building automation, access controls, video surveillance, etc.

NV 111 - Noovis Certified Installer

Prerequisites: POL 101, 102 Duration: 1 Day

The Noovis Certified Installer credential is required* for subcontractors to perform work on Noovis projects. Classes will cover in detail the expectations of a technician working on Noovis' behalf in terms of ethics, technical competency, infrastructure documentation and network testing/troubleshooting.

Successful students will earn approval to place the Noovis Certified Installer™ logo on their business cards and marketing material.

*Authorized subcontracted companies must maintain 2 Noovis certified employees on staff.

POL 201 - Protected Distribution Systems Prerequisites: POL 103* **Duration: 1 Day**

Students will learn the basics of what is required to physically protect networks from outsider threats. Lessons will focus on leveraging the benefits of POLs and creating efficient alarm points to identify malicious activity. Classes will include discussion on requirements gathering, architecture options and both active and passive

Students will focus on Key Criteria such as requirements gathering, traditional Protected Distribution Systems (PDS), alarmed PDS, design fundamentals, and equipment restrictions.

Professional Profiles

Eric Welty PMP, MBA - President

- 20+ years of experience includes roles as a Verizon cable splicer, engineer, manager and leader with budget, schedule and material management responsibility for a \$200M fiber optic roll out
- Responsible for making 15,000 homes "ready for sales" on a monthly basis (Verizon Maryland FiOS)
- Led the PON Integration team (design, engineering and installation SME) for Verizon Federal Network Systems (FNS) leveraging his FiOS experience and expertise as Verizon introduced the first enterprise PON for the Federal Government – DoD/Intel

Mike Watts - V.P. of Operations

- 20+ years of experience includes being one of the first technicians to install fiber optics for Verizon's Fiber to the Premise (FTTP) initiative who then led splicing efforts in the initial Maryland Fiber to the Premise roll-out
- Developed best practices, methods and procedures and was often sought after by industry leaders for fiber optic design and installation procedures (ISP and OSP designs and installations)
- Implemented the first enterprise PON for a Federal DoD/Intel customer
- APOLAN Technology Board member
- Contributing Author to the BICSI 13th edition of the TDMM providing guidance on Best Practices for Enterprise PON in the industry

Steve Heuber CCNA - CCNA, Director, Network Engineering

- 30+ years of Telecom engineering experience
- Extensive Verizon FTTH experience
- Member of Verizon B/GPON lab team testing various PON equipment manufacturers for Voice, Video and Data solutions
- Prior to Verizon, Steve worked at TELLABS a leading PON electronics manufacturer
- Worked for a Federal contractor supporting JTDI (Joint Technical Data Integration)

Mike Kapusta – Director, Wireless Solutions

- 19+ years of RF and Network engineering for Carriers, Enterprise, and Federal clients
- Key player in the design and deployment of VOIP networks used by AT&T, Verizon, Tata Telecom etc. to terminate voice calls worldwide
- RF (Wi-Fi) projects include wireless design and implementation for Montgomery County Police wireless video upload, Federal Reserve, National Air Traffic Controllers Association (NATCA)
- DAS Projects include Reliant Stadium, New Orleans Convention Center, Verizon Center, and Hart Senate Building

Mike Stedman – Director of Operations

- 16+ years with Verizon raising in the ranks from cable splicer (ISP and OSP) to key managerial positions
- Top field operations leader when it comes to Fiber Optic Network deployments
- Responsibilities at Verizon included supervising fiber crews, lead effort to establish a network for the first Obama inaugural parade, and critical leadership role for maintenance in Maryland and DC
- Field leader for Noovis' flagship client Erickson Living leading the effort for Erickson Living's "Maryland build": (3 campuses, 127+ miles of fiber, 4000 ONT's, 2500 WAPS, Corning MobileAccess DAS)

Clay Scott - Operations Manager

- 16+ years of hands on experience in various aspects of fiber network installation and maintenance
- Responsible for scheduling and managing fiber cable installation crews, and Verizon's No Light (troubleshooting) crews
- Assisted with the development of methods and procedures for Verizon's Fiber to the Premise build

Dave Holt - Operations and Maintenance Manager

- 11+ years of experience working with FTTP technologies
- Key player on Verizon MD's FTTP "NO LIGHT" team, responsible for all major trouble shooting
- Part of the Product Selection team for Verizon's FTTP platform