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Applied Professional Training, Inc.



Newsletter



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APT – Who We Are

Applied Professional Training

We are a CWA represented training vendor; Local 9509 (San Diego, CA) that works with management and non-management personnel.



Corporate Philosophy

Our intention is to design training classes enriched with up-to-date information so that students will achieve success in their corporate and personal goals. Our motto is "If our students achieve success, then APT has achieved success."

Educational Philosophy

Applied Professional Training is dedicated to effective, high quality technical education that is state-of-the-art, practical and helpful.

Our Instructor Staff

APT selects highly qualified industry professionals who understand APT's valued corporate philosophies. Our instructors bring to our students a combination of on the job experience and formal education.

Continued on page 2

Telco FTTx Service Offerings

FTTx – What Is IT?

FTTx is an architecture in which optical fiber deployment is carried near, or all the way to, the customer's premises; where FTTH = Fiber-to-the-Home, FTTN = Fiber-to-the-Neighborhood or Node, FTTC = Fiber-to-the-Curb, and FTTB = Fiber-to-the-Building or Fiber-to-the-Business.

RBOC Offerings

SBC has announced that it will provide FTTH service, but only to new developments. For existing housing developments, SBC will take fiber to a Service Area Interface (SAI) in the neighborhood. Each SAI serves about 300 to 500 homes.



SBC has declared that this approach will require half the time to install, will cost much less, and will eliminate the need to dig up peoples yards to remove copper and install new fiber cables. They also determine that to fully implement FTTH to existing homes will take 10 years of installation as compared to 5 years going only to the SAI. This, they say, will allow cable companies a head start in building up their market share and offering competing services. This variation is known as FTTX (Fiber to the Cross-Connect).

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For more information please call (800) 431-8488

APT – Who We Are (cont. from p1)

APT Recognition

APT is recognized and/or certified by the following organizations:

- American Council on Education (ACE)
- California Bureau for Private Postsecondary and Vocational Education (BPPVE)
- Association of Communications and Electronics Schools International (ACES Int'l)
- Fiber Optics Association (FOA)
- Federal Communications Commission (FCC)
- Distance Education and Training Council (DETC) Accreditation – January 2003
- Defense Activity for Non-Traditional Education Support (DANTES) ➤

Voice over IP (VoIP)

VoIP – What Is IT?

The simple definition of VoIP, or Voice over Internet Protocol, is the transmission of *real time* audio telephone conversations over a digital Packet network. VoIP has expanded beyond this original concept to include many additional features including audio and video conference calling, white boarding, file sharing, messaging and other features.

VoIP, sometimes referred to as IP Telephony, is the dominant member of a growing group of alternative methods of providing voice services in place of the traditional Public Switched Telephone Network (PSTN).

Regulatory Decision

The FCC is considering what rules, if any, will govern VoIP services that partially travel over the traditional phone network. The FCC has already ruled that Internet-to-Internet phone calls and instant-messaging communications that do not touch the phone network are immune from the hefty stack of government rules, taxes and requirements that apply to the PSTN.

However, the temporary federal ban on all Internet access taxes expired in November 2003. Since then, many state and local elected leaders have begun eyeing new charges on Internet access and commerce of all types including VoIP.

In response, on November 22 of this year, the Federal Communications Commission ruled 3-2 that states are now barred from imposing telecommunications regulations on Net phone providers, which treat calls no differently than any other application on the Internet. That class of operators includes Vonage Holdings, which asked the FCC for just such a designation in May, plus Verizon Communications, AT&T and dozens of other commercial Internet providers, according to those familiar with the FCC's thinking.

"This landmark order recognizes a revolution has occurred," FCC Chairman Michael Powell said at the meeting in Washington, D.C.

Congress is also getting into the act. At last count, at least six broadband bills have been introduced in Congress and seven state public regulatory bodies have opened VoIP proceedings, as has the European Union Commission, whose decisions will impact U.S.-based providers, vendors and callers.

Much of this will center on Homeland Security and wire-tapping laws.

These and other regulatory issues, plus a detailed technical review of VoIP and hands-on activities, are covered in APT's Voice over IP course. ➤

Telecommunications Industry Trends

In research to recognize recent trends in the telecommunications Industry, APT has identified the following business trends in the telecommunications industry:

- **Industry** – trend towards more competitive vendors, carriers, alliances, and network services, accelerated by deregulation and the growth of Internet and IP technologies.
- **Technology** – trends toward more extensive use of Internet, digital fiber optic and wireless technologies to create high speed local and global inter-networks for voice, data and video communications.
- **Applications** – trend towards extensive use of the Internet, Business Intranets and Extranets to support the increase of electronic business and commerce, enterprise collaboration, and strategic advantage in local and global markets.

What does this mean to you?

At APT, we continuously monitor these trends to ensure that they are clearly addressed in our training material and that our instructors are aware of them and understand them, so that we effectively transfer this knowledge to our students.

So, when you enroll into our classes, you are ensured of getting the best training in the business. We work hard to provide you with the knowledge, skills and abilities that prepare and qualify you for technical job titles, including taking and passing entry exams.

Most of our courses are recommended for college credits by the American Council on Education, and we are in the process of obtaining this same recommendation for all of our remaining courses.

Our FCC GROLO course provides the instruction and the test materials for obtaining the General Radio Operators License, and Our Fiber Optics Communications course prepares you to pass either or both the ACES International *Professional Fiber Optics Installer* certification exam and the Fiber Optics Association certification exam. We also offer ACES Certification as a Data Cabling Professional.

In addition, by completing three of our core courses and two electives, students earn APT's Certificate in Telecommunications Technology.

Most importantly, you will gain the confidence, and the ability, to pursue new or advance current technical careers in the telecommunications and Data Communications industries.

Call (800) 431-8488 for more information about our Certificate and Certification programs. ➤



Telco FTTx Service Offerings (cont. from p3)

Verizon Communications announced it plans to launch commercial FTTH service to 100,000 potential customers in the Dallas, Texas area by end of the third quarter of 2004. In addition to the Dallas rollout, Verizon plans FTTH service to selected areas in California and Florida. By end of 2004, Verizon expects to have enough FTTH infrastructure in place to serve one million homes nationwide.

Verizon's approach is to not only lay fiber in the ground in new housing developments; they will also replace copper lines to existing homes. Verizon's implementation will consist of Passive Optical Networks (PONs) to reduce maintenance and to eliminate the need for copper to power active networks (see picture below).

By end of 2004, Verizon expects to have enough FTTH infrastructure in place to serve 1 million homes nationwide.

As of this writing, Bell South has not made final decisions on overbuild of their copper infrastructure; i.e., whether to implement FTTH in existing communities. In many existing areas today, Bell South has run fiber to facilities about 5000 feet from homes; i.e. a form of Fiber to the Neighborhood (FTTN). With this approach, Bell South will offer an advanced form of ADSL called ADSL2+ to deliver 10Mbps or more over copper.

In new developments, Bell South has decided on the approach of Fiber to the Curb (FTTC). This approach provides fiber to an Optical Network Unit (ONU) that serves from 8 to 12 homes. The remaining distance is served by copper, or in some areas, by COAX cable for Bell South's cable TV service. With this they can offer ADSL2+ and VDSL.

FTTx is reviewed in detail in APT's Fiber Optics Communications course. ➤



Passive Optical Splitter