Broadband Voice over IP

LENGTH: 20 hours delivered over day, evening or weekend hours

DESCRIPTION:
This course is designed for anyone interested in pursuing or advancing a career in data or convergence technologies, including career Telecom employees and managers interested in learning cutting edge technology job skills required in the ever changing, fast paced industry. Students will learn the basic level concepts of voice over internet protocol (VoIP) in a vendorneutral setting with lots of hands on training experience.

PREREQUISITES:
There are no prerequisites for this course.

ELIGIBLE CERTIFICATIONS:
Upon successful completion of this course, the students are eligible to sit for the following exams:
ETA Certified Broadband VoIP Technician exam In addition, this course will help prepare students for the Telecommunications Industry Association (TIA) Certified Convergence Networking Technologies (CCNT) and Convergence Technology Professional (CTP) exams.

OUTLINE:
Through hands-on training, students will learn the vendor-neutral skills necessary for pursuing or advancing a career in Convergence Technologies.

- Theory of networking and TCP/IP
- VoIP Applications and services
- Gateway functions
- Basic public switched telephone networks (PSTN)
- Gatekeeper functions
- Delay budgets
- Analyze bandwidth requirements
- Quality of Service (QOS) issues
- Recognize the advantages and disadvantages of different codes
- Identify Network information transfer protocols IP, Ethernet, ATM, Frame Relay,
- MPLS
- Understanding Pulse Coded Modulation and Multiplexing for analog to digital
- conversion
- FAX demodulation/remodulation
- Packet and circuit switching communication
- Review Audio and Video standards
- TCP, UDP protocols
- Hands-on exercises:
- Setting up network and proxy server
- Configuring Soft phones
- Configuring IP phones
- Configuring Analog Telephone adapters
- Configuring Video Cameras
- Interfacing and configuring gateways with LAN's and PSTNs
- Registering with gatekeeper