

Glenn Garbelman
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ATIS/ PEG Conference



Welcome

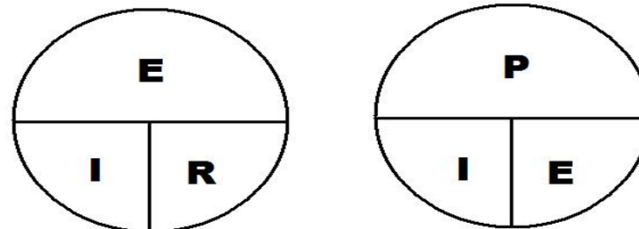
Glenn Garbelman
VP Video Operations & Systems Support

- **Video Operations Super Head-ends, Video Serving Offices**

- ✓ Media Room Support
- ✓ Physical Environment
- ✓ Maintenance Planning and Deployment
- ✓ Ad Insertion
- ✓ EAS Emergency Alert System
- ✓ Outage Resolution
- ✓ Surveillance and Data Analytics of Alarms/Systems

- **Network Systems Management**

- ✓ Network Systems Planning
- ✓ Tools Development and Automations
- ✓ Lifecycle Maintenance for the Business and Consumer Support Systems
- ✓ IT Partnership
- ✓ Tools Management
- ✓ EMS Support



Reliability

- **Some of the most impacting customer outages have been power related further illustrates the need for conferences like this one**
 - ✓ Media Room Support
 - ✓ Physical Environment
 - ✓ Maintenance Planning and Deployment
- **Stable power, correct grounding standards**
 - ✓ Protection is the foundation of equipment reliability
 - ✓ Services like PRISM are an example
- **Line-power challenges in a FL market revealed the importance of grounded cabinets etc**

Line Power

- **Upgrades to the line power systems for remote ADSL/VDSL deployment**
- **Note:**
 - ✓ Make sure the line power gear is properly sized for the length can cable gauge to the remote

Currently we are in the process of approving this type of product for central office and remote DSL cabinets/network equipment. The product we will be using will be +/- 190volt over one pair of 26,24,22 gage wire from the central office to the Network equipment. This equipment will be limited to 100mA per circuit and have ground fault protection with limited capacitor carry through. A major concern is testing the copper pairs during the planning stage if possible to verify the integrity of the copper pairs leaving the office or remote cabinet that they can support the +/- 190 volt.

Technology Center of Excellence

■ Lobby / Building

- ✓ Construction on the 300,000 sq. ft. building began in Feb. 2013 and was completed in March 2015
- ✓ Building is supported by 1,700 pilings that were drilled 45 feet deep
- ✓ 315 miles of electrical wiring in the building
- ✓ 6,500 light fixtures
- ✓ 67,000 sq. ft. of electro-chromatic glass system that automatically adjusts based on outside lighting
- ✓ 350 craftsmen were on the site during peak construction – all without a lost time accident
- ✓ 70% of the construction spend was with Louisiana companies
- ✓ Parking garage holds 1,050 vehicles

■ Network Reliability Operations Center

- ✓ 7x24 Operations
- ✓ First time able to monitor all of our products and services out of one location
- ✓ Accommodates up to 140 employees

■ Courtyard

- ✓ Courtyard is 2.2 acres – with full Wi-Fi and power capabilities
- ✓ Seating for 100 outdoors – both sheltered and open air
- ✓ 83 pecan trees were cut down during construction. They yielded 18,000 linear board feet that was used in building. An equivalent number of trees removed were replanted

■ Cafeteria

- ✓ Seating for 325 indoors
- ✓ Expanded food services - the deli, grille, and entree areas, added a stone hearth oven station, a rotisserie area and an expanded island with a large salad bar

Technology Center of Excellence

■ Employee Workspace

- ✓ Building houses between 800 – 850 employees
- ✓ “Work Anywhere” concept
- ✓ We Space – 15 collaborative working areas, in addition to standard conference rooms
- ✓ I Space – individual workspace – 70% of workstations are non-traditional cubicles
- ✓ Touchdown rooms for private conversations that are not scheduled

■ Technology Lab

- ✓ 30,000 sq. ft. of equipment space on 24 inch raised floor
- ✓ 175 watts per sq. ft. – with ability to expand
- ✓ UPS (uninterruptable power supply) and generator backup – space could service CenturyLink customers in the future
- ✓ Campus used CenturyLink’s VOIP (voice over internet protocol) technology and is supported by 10 gigabit connections
- ✓ CenturyLink’s GPON technology

■ Sustainability Practices

- ✓ Applied to be Gold LEED certified
- ✓ Green roof is a mixture of 28 varieties of slow growing vegetation that bloom throughout the year
- ✓ Tank-less point-of-source hot water heating in restroom
- ✓ “Smart Building” – controls for mechanical & electrical systems, lighting, view glass, window shading, audio visual, security, UPS & generator backup systems
- ✓ Carpet and systems furniture is 100% recyclable

How Important is Power and Ground

