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The World of Low Voltage

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An Understanding of Low Voltage Systems

Introduction

- This presentation will Discuss the Low Voltage Industry aka Communications, Telecommunications, Power-Limited Systems
- (NEC) National Electrical Code does not define “Low Voltage”
- Some States That Do Are:
- The State of Georgia: The Official Code of Georgia Annotated, Code Section 43-14-2 “Low Voltage Wiring” means:
 - (A) Wiring Systems of 50 volts or less and control circuits directly associated therewith.
 - The State of Georgia requires low voltage contractors licenses for:
 - Alarm (LVA)
 - General (LVG)
 - Telecommunications (LVT)
 - Unrestricted (LVU)



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The Evolution of Low Voltage/Communication

- Pick up the timeline from 1984 AT&T divestiture and what I believe was the turning point in the telecommunications revolution especially premise cabling.
- The industry is traditionally fragmented and segmented with many communications systems, (Telephone, Life Safety, Security, Video, Building Automation, Infrastructure media).
- New technologies begin to emerge fast such as microprocessors and infrastructure media.



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Training Issues

- Companies traditionally train internally and on proprietary equipment.
- Fire Alarm Company “A” may use equipment exclusively manufactured for them and employee training is limited.
- This might be the same for Access Control Company “B” and Security Company “C”.
- Therefore there is no cross training on systems or diversification of equipment.
- This contributes to limited equipment available in the marketplace and inhibits entry from competitors.



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Technological Advances

- Advances in integrated circuits and microprocessors enable the communications industry to proliferate.
- Transmission infrastructure is upgraded and data protocols (i.e. – Fiber Optics, CAT-5E, IP, POE) are developed.
- The industry moves from relays and switches to circuit boards and IC's.



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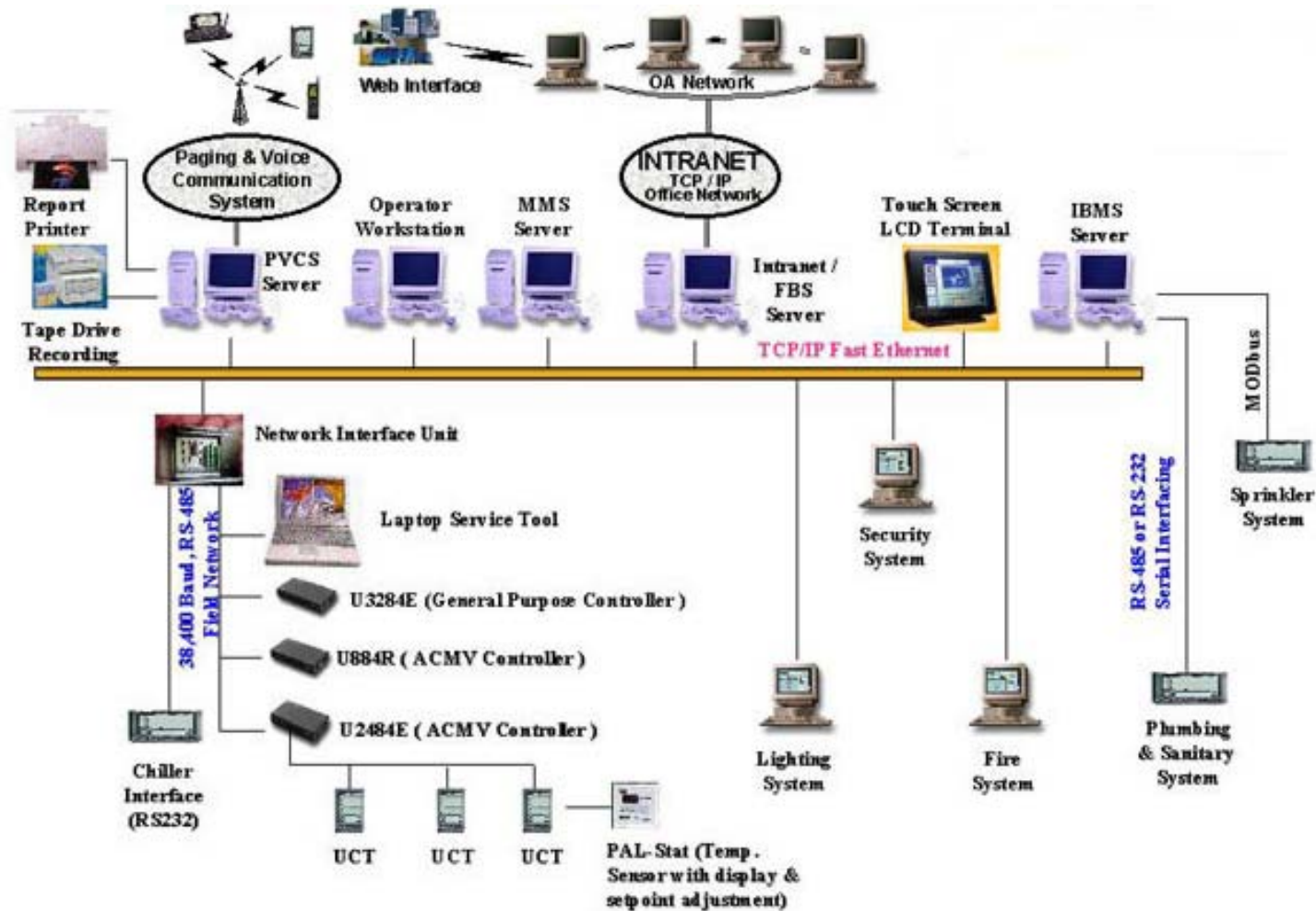
Interoperability or Integration

- Today's concerns are the interoperability or integration of all of these subsystems.
 - One point of control
 - One Infrastructure Media
 - One Protocol
- This creates the need for multi-technical employees.



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Convergence of Systems



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Fast Track

- New technology creates the need for new equipment.
- The average life of communications equipment and technology is 3 to 5 years.
- This initiates a new learning curve and a constant updating of skills.
- Given the opportunity a large number of individuals will seek training for entry level jobs.



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Summary

- There is an opportunity in the market place for equipment and curriculum that gives quality training on diversified systems.
- Some of the markets include: High Schools, Vocational Schools, Post Secondary, Industry, Unions and Associations.
- COYOTE Installation Training Systems has a solution.



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