

Your Partner in PUBLIC SAFETY

#### **International Municipal Signal Association**

#### **ITS Community College Workshop**

September 20 – 21, 2017 Jeffrey G. Knight Education & Certification Manager



- IMSA is the oldest known association of its kind in the world and dates back to October 1896 when a group of municipal signal men from several east coast cities met in Brooklyn, New York and formed the International Association of Fire and Police Telegraph Superintendents
- The basic purpose of the organization was to keep its members, and others in the profession, up-to-date on proper procedures of construction and maintenance of signal systems and informed on new products and equipment developments



# History

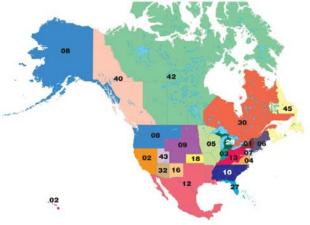
- Records show that Thomas A. Edison and the Edison Electric Company were associate members in 1901
- Association members developed standards and specifications for wire, cable, fire alarm boxes, and even the size of manhole covers
- Association members were instrumental in the founding of the Underwriters Laboratory and the National Electrical Manufacturers Association





- Membership areas are divided into geographic sections covering North America and other locations.
- There are twenty two (22) geographical Sections currently operating within IMSA.
- There is also a "Sustaining Section" that is comprised of individuals, firms, organizations and corporations with special knowledge, experience or interest in the objectives of the Association





### **IMSA Certification Specialties**

IMSA has issued over 120,000 certifications

• Fiber Optics

Sign and Pavement Marking

- Interior Fire Alarm
- Public Reporting Systems
- Public Safety
  Telecommunication

- Transportation Center System
  Specialist
- Traffic Signal
- Traffic Signal Inspector

Roadway Lighting

 Work Zone Temporary Traffic Control



# **FCC Frequency Coordination**

- IMSA is Certified by the FCC to provide Frequency Coordination Services
  - Fire Service
  - Emergency Medical Services
  - Local Government
  - 700/800 Systems
  - Law Enforcement
  - Transportation Agencies



# **Certification Demographics**

# The IMSA certification community consist of a wide range of individuals

- Engineers
- Electronic Technicians
- Electrical Contractors & Electricians
- Public Works Employees
- Communication Technicians
- Public Safety & Emergency Management Personnel



### Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- Electrical Theory
- National Electrical Code & National Electrical Safety Code
- NFPA 70E Electrical Safety In The Workplace
- Outside Plant & Premise Installations
- Telecommunications
  - Network Communication Topology
    - MAN WAN LAN
    - Wired Fiber Optic & Copper
    - Wireless RF & Visual
- Grounding & Bonding
- Surge & Lightning Protection



### Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- MUTCD
- ADA
- Traffic Signal Theory & Operation
- Vehicle Detection & Preemption
- Video CCTV
- Communication Dispatch Center Technology & Operation
- Standby Power Systems
  - Generators
  - UPS
  - Standby Batteries



### Knowledge - Skills – Abilities (KSA's) Nuts & Bolts

- State & Local Laws Regulations
  - Many States require professional credentials such as licensing
    - Journeyman Electrician
    - Telecommunications Technician
- Transportation Systems Terminology
  - Acronyms



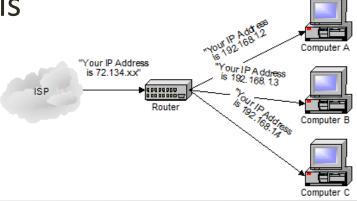
## The ITS Technician - Workforce In The IMSA World

- Current Practitioners
  - Technical-Vocational Education
  - Professional Trade Apprenticeship
  - On The Job Training
- Public Sector
  - Report to a division of a Public Works or Utilities Department
    - Responsibilities can include:
      - Traffic Signals
      - Utility Monitoring
      - Signs & Pavement Markings
- Private Sector
  - Contractors specialized in specific technologies



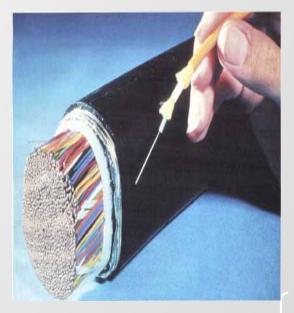
#### The Missing Links Of Skill Sets

Network Topology & Protocols



Communication Technology & Physical Pathways







Challenges **Current & Future** 

- Majority of the current workforce changes within the next 5 to 10 years
- Define the role(s) of the ITS Technician
- Workforce Recruitment & Marketing



#### Jeff Knight Education & Certification Manager

jknight@imsasafety.org

#### 800 723-IMSA (4672)

