Public Policy in a Changing World
How Will It Impact the ICT Professional?

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Agenda

Low-voltage Licensing

O*NET Industry Classifications and Code Assignments

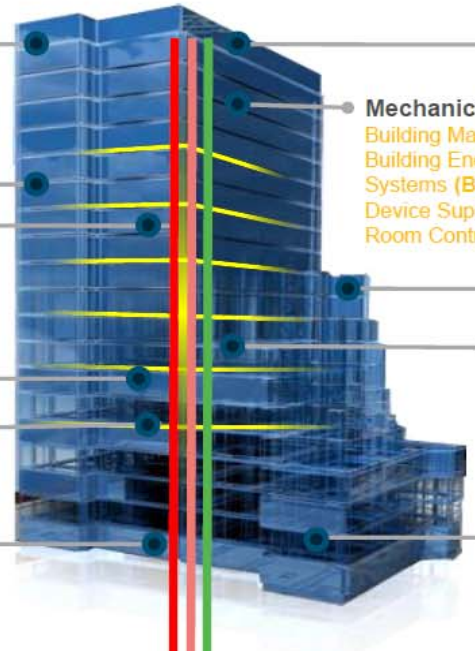
Public Work Development Initiatives

Other Critical ICT Topics

Overview: 2019 saw an alarming uptick in proposed legislation to address the changing ICT industry. 2020 is promising to have even more activity. Technology, safety and the human element are often at odds with each other. Rapidly advancing technology continues to change the ways we work and live. We will discuss the landscape and some of the challenges and opportunities, as well as the importance in implementing new strategies and defending competency-based programs for the design, installation and integration of ICT fields.

Intelligent Building Systems Breakout

IP Systems
Transitioning to IP
Monitoring Only



Physical Security
Close Circuit TV
Access Control
Intruder Detection
Key Management

Sustainability / Wellness
Electrical Monitoring
Water Monitoring
Gas Monitoring
Demand Response
Productivity Monitoring
Air Quality

Communications
Base Building Telephone
Public Address / Intercom
Base Building Wi-Fi

Fire / Life Safety
Emergency Warning and Intercommunication System
BMS Integration
Security System Integration
Very Early Smoke Detection Apparatus (VESDA)
Emergency Signage
Emergency Lighting

Building Services
Bathroom Services
Data Access for Services
Plug Load Monitoring

Building Envelope
Steel
Concrete
Glass (Capacitive)
Insulation

Mechanical
Building Management System **(BMS)**
Building Energy Management Systems **(BEMS)**
Device Supervisory Control
Room Control

Electrical
Low Voltage Control
Load Shedding
Standby Power Systems
High Voltage SCADA
Combined Cooling/Heat/Power (CCHP)
Lighting Control
Micro Grid (DC) Monitoring

Hydraulic
Water Recycling System
Leak Detection
Flow Control / Monitoring
Toilet / Sink Flow

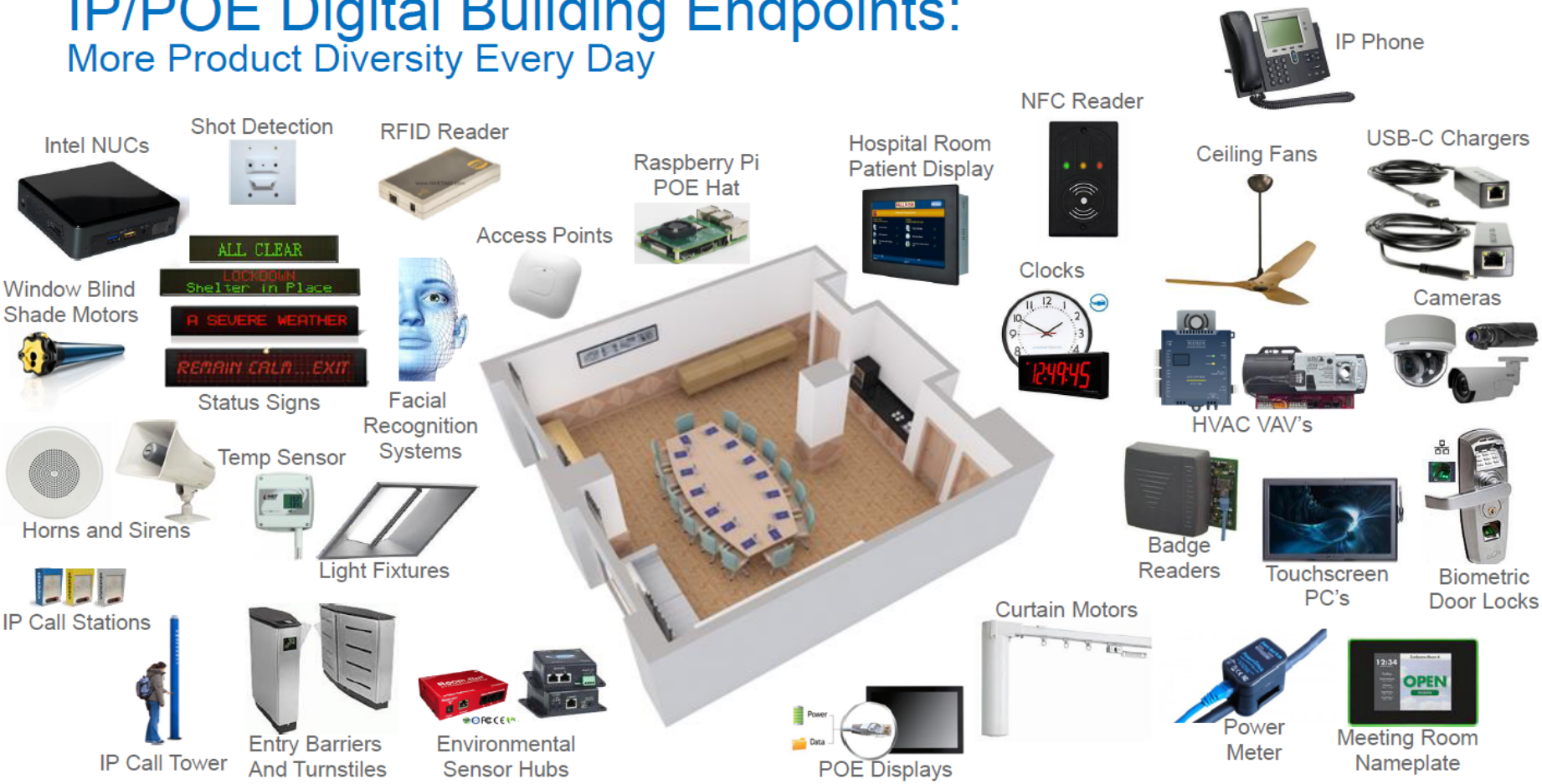
Vertical Transportation
Elevator Management
Elevator Display System
Elevator Security Integration
Elevator Communications
Escalator Management

Car Park Systems
Car Park Management
Park Assist
Car Charging Systems

Tenant Improvements
Window Shades
Digital Signage
Projectors
White Noise Systems
Meeting Room Automation
Audio / Visual System

Power
Enterprise
IOT

IP/POE Digital Building Endpoints:
More Product Diversity Every Day



IoT Trends

IoT is fastest growing technology trend in the connected technologies and smart buildings sector

Internet of Things will connect over 50 billion devices by 2023

$520 billion market by 2021, more than double the figure of 2017

These devices will be connected primarily using PoE

IoT in manufacturing and industrial processes provide huge benefits to efficiency

Regulations and Licensure

What is Right? (optimize)	What is Wrong? (optimize)	What is Confused? (clarify)	What is Missing? (add)	Core Issues
• When we have a chance to provide testimony we generally win the debate based on fact and science • Our skills, training, and expertise are well beyond that of the opposition • We do a great job of monitoring and reporting on harmful legislation or regulatory changes • As a connected technologies industry we generally agree on best practices • The NEC and Class 2 and 3 definitions as stated work well.	• Conflicting codes that govern our scope of work • Multiple standards that often cause more confusion than the value they provide • The changes to electrical codes are now being buried in regulations and local ordinances • We aren't as united on these issues as we could be (working on it) • Upcoming changes to the NEC	• We often struggle to articulate the "Why" on how urgent this situation is with conflicting codes, no industry classification, and with our legislative agendas • Our voice is often silenced as we represent both union and non-union member companies who then have conflicting viewpoints • The difference between the NEC and all the "carve out" language • LED lighting and PoE as a safety issue vs. a trade jurisdiction and scope issue.	• Clear and unified testimony and model legislation on an industry-wide basis • More voices from the industry at the table when electrical licensure is being debated and put into law • The rank and file association members understanding the importance of these issues • A unified position statement on the emerging technologies and the role we all play	**1. Regulatory capture (rather than skills and expertise) drive this debate** **2. Safety and training issues are being portrayed incorrectly** **3. Since we cover so many tech sectors, we often have unintended consequences when changes occur**

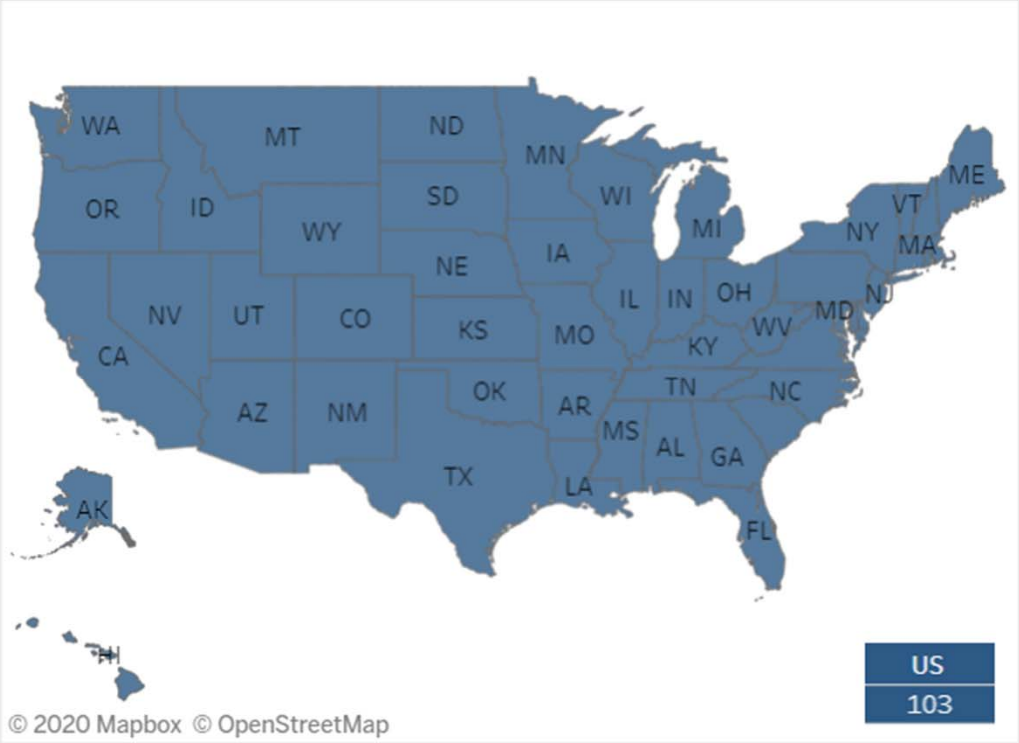
State Level Licensure and Regulatory Challenges

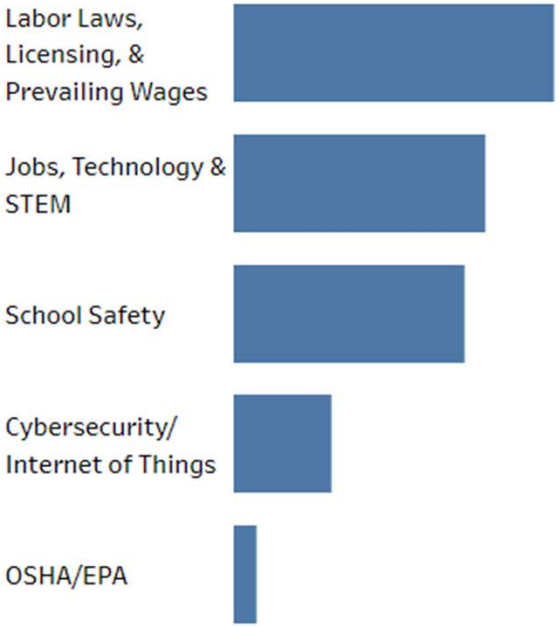
State	Bill Type	Initial Proposal	Final Language	Outcome
Arizona	Exception Expansion	Telecom not exempt	Telecom providers exempt	Signed Into Law, Gain
Colorado	Electrical Board Sunset	Exempt "Building's Electrical System" from exemptions	Overriding Class 2 and Class 3 Exemption	Signed Into Law, Gain
Florida	Narrow Update	77 Volt Limit	77 Volt Limit	Died in Committee, No Effect
Louisiana	Parish-level	Establish multiple ordinances	Override of state exemptions	Causes confusion
Maryland	State Level License Creation	50 Volt Limit	50V +/- 10V, but did not pass	Died in Committee, No Effect
North Dakota	New Power-Limited License	Confusing license definitions	Clear NEC derived definitions and reasonable license requirements	Signed Into Law, Gain

State Level Licensure and Regulatory Challenges

State	Bill Type	Initial Proposal	Final Language	Outcome
New Jersey	No Bill, Petition by CEDIA	Make PoE explicitly exempt	Rejected, study group formed	Pending Study Group Outcome
New York	State Level License Creation	Create State-wide license	No Change Sought	Stalled, No Effect
Oklahoma	Narrow Update	Establish 50V Limit	N/A	Died in Committee, No Effect
Pennsylvania	State Level License Creation	10 V Limit	N/A	Stalled, No Effect
Texas	Narrow Update	50V / 50 VA Limit	N/A	Died in Committee, No Effect
Utah***	Licensure Requirements Update	No Exemption	Class 2/3 and Safety Exemption	Signed Into Law, Gain

Legislative Tracking





CO Rep. Tom Sullivan – (D)

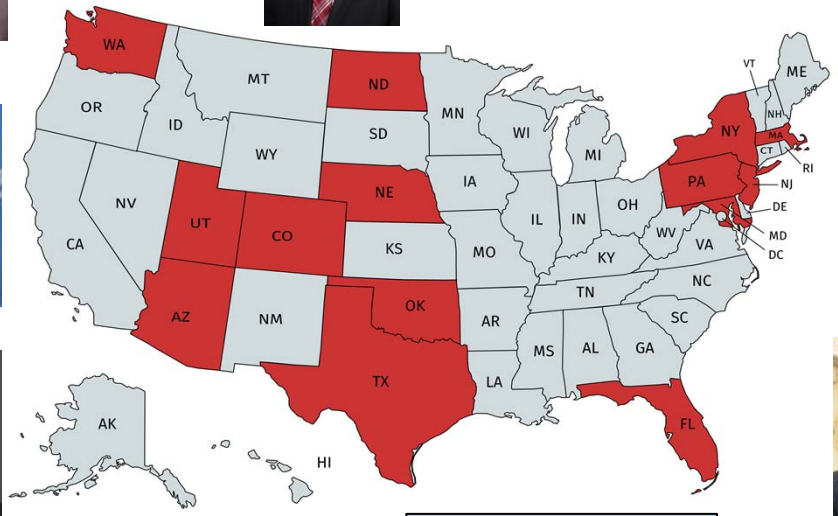
- Formerly of USPS
- Worked on Sunset Bill that must be renewed every few years
- Said it was a constituent issue

OK Sen. Julie Daniels – (R)

- Represents Bartlesville area
- Bill was brought to her by a constituent

UT Rep. Mike Schultz – (R)

- Represents Hooper area
- House GOP Leader (Maj. Whip)
- General Contractor



ND Rep. Ben Koppelman – (R)

- Represents W. Fargo
- Building Contractor

PA Rep. Ed Neilson – (D)

- Represents NE Philly
- Used to work at IBEW Local 98
- Has run the same bill for the past 5 years

MD Rep. Kevin Hornberger – (R)

- Represents a rural part of the state
- Is a mechanical engineer

TX Rep. Tracy King – (D)

- Represents rural W. Texas
- Healthcare Business
- Constituent Issue

What is an Occupational Code Assignment?

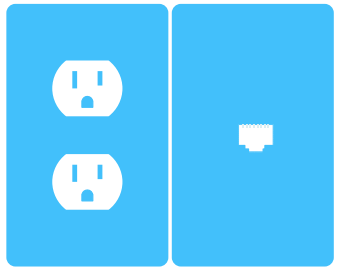
- An Occupational Code Assignment is a process established to help occupational information users relate a job title or occupational specialty to an O*NET-SOC occupation. NOTE: the term “integrator” was submitted on Dec. 19, 2019 for consideration

- Businesses, training and educational institutions, labor and occupational organizations, and professional associations can use the OCA process to determine if a job title or occupational specialty is recognized within the O*NET-SOC system and the U.S. labor market.

Here's the Deal

Billions of NEW Connections… and Who Does the Work?

From Power + Data…



To Data w/ Power…

It's really this simple… right?

Question #1

Why are we here? In your opinion, why is PoE getting all this attention? Is it LED lighting or power to connected devices or both?

Question #2

Would an industry classification specific to the systems integrator help clarify the qualifications more than new licensing requirements?

Question #3

What are the associations like NSCA and BICSI doing to protect our ability to do this type of work?

Question #4

How does the process work to get more involved? More informed? Take action?

Questions from Audience

Time permitting…

For more information

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cwilson@nsca.org

https://www.nsca.org/track-legislation/

Thank you!