

Webinar Training

Monitoring Fire Alarm Panels using IP

Presented by:

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Course Description

This Webinar will explore:

- Changes in codes that affect fire alarm signaling
- Differences in new and old alarm signaling communications technologies
- Best practices for transitioning from old to new alarm signaling communications technologies
- Evaluating your specific campus requirements
- Improving overall campus situational awareness
- Using what you have to connect multiple brands and models of fire alarm control panels into a single view
- What the future may hold for fire alarm management

Learning Objectives

You will learn:

- Differences between legacy and modern alarm signaling communications technologies
- How to evaluate your existing alarm signaling technologies as they compare to newer ones
- How to identify your specific site requirements
- What are best practices for transitioning from older signaling communications technologies to modern ones
- How to maintain and improve campus-wide situational awareness

CCFS ... Promoting & Supporting CFS Efforts Nationwide

- National, non profit, member based organization.
- Board of Directors from across the country.
- Training programs for campus fire & safety officials and emergency responders.
- Premier events such as our Annual Campus Fire Forum and Campus Fire Safety Month activities.
- Member benefits include free webinars & CEU's, discounts for training, access to online Job Board and ListServ for networking, Library of online resources & free e-magazine ... and more.
- Visit us at: www.myccfs.org

Welcome our Presenter – Denise Pappas

- Executive Director at Keltron Corporation
- Technical Standards at Valcom
- She has extensive experience in the telecommunications and fire alarm industries
- Prior to Valcom, she was National Sales Manager for Commercial Products Group/Harrington Signal
- Participates in variety of code committees including:
 - NFPA 72 Chapter 24 - Emergency Communication Systems
 - NFPA 101/5000 - Life Safety Code, and NFPA 99 Healthcare Code
 - Intelligent Building Systems - BICSI
 - Communications and systems chair for NEMA 3SB
 - She also works on several ICC committees





Webinar Training –

Leveraging Modern Communications Technologies to Monitor Fire Alarm Control Panels

Denise L. Pappas, Executive Director
Keltron Corporation
June 11, 2020



Agenda

- A Little History Lesson and Emerging Technologies
- Fire and Life Safety Communication Challenges
- The Fire Alarm Management Process
- Codes and Standards: NFPA 72
- Comparison of New and Old Technologies
- Benefits of Newer Signaling Technologies
- Changing Trends in Fire Alarm Management
- An Ideal Alarm Management System
- Where Do I Begin?
- Best Practices for Transitioning
- What Does the Future Hold?

Emerging Technologies

Emerging technologies are perceived as capable of changing the status quo or being disrupters.



Fire and Life Safety Signaling Communications Challenges

The Challenge is to Leverage the Benefits of New Technologies and Maintain Cost Control



Goal:

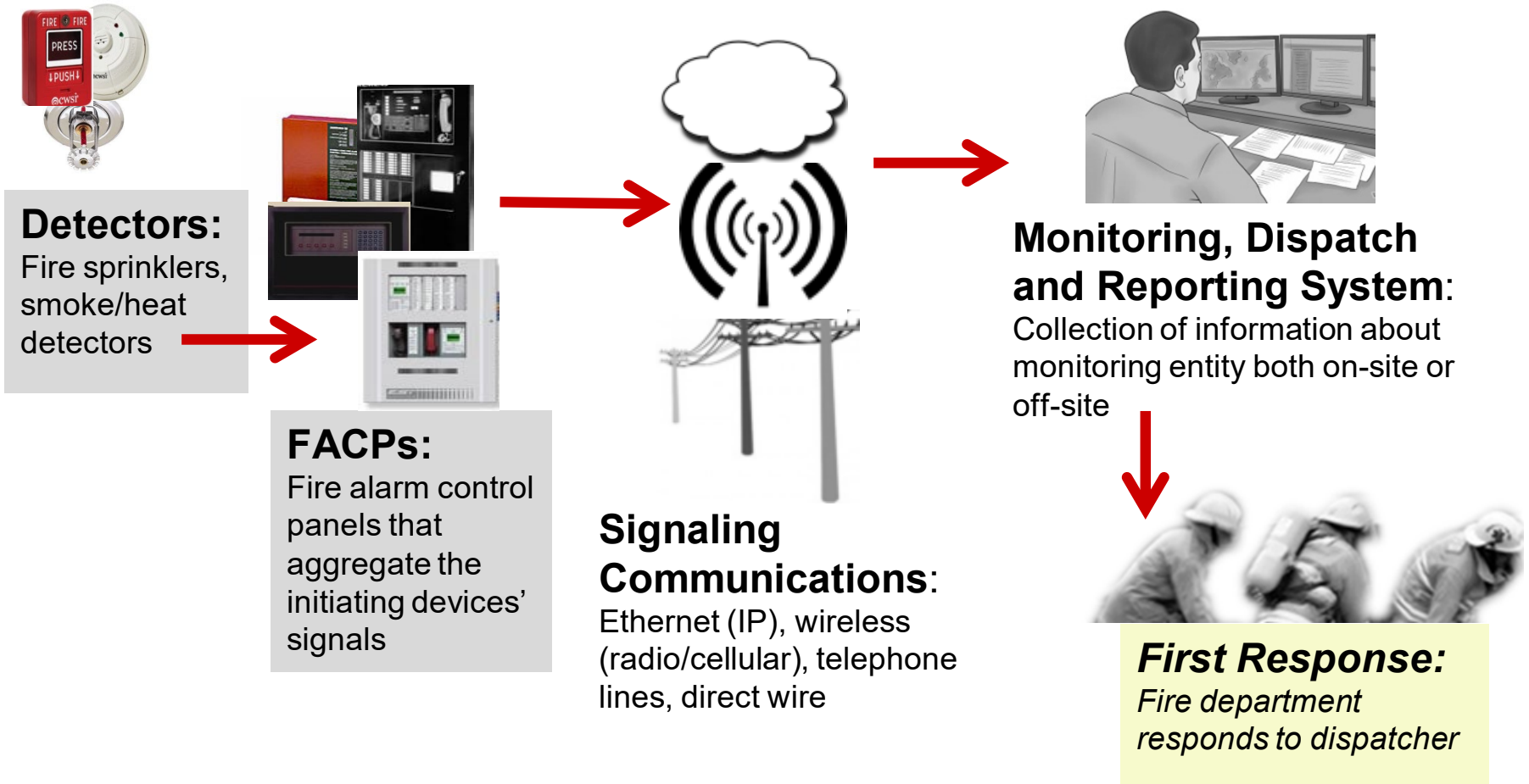
Faster and more reliable signaling transmission

Considerations:

- Wiring or wireless
- Required construction
- Ceding responsibility to IT
- Other reasons to upgrade



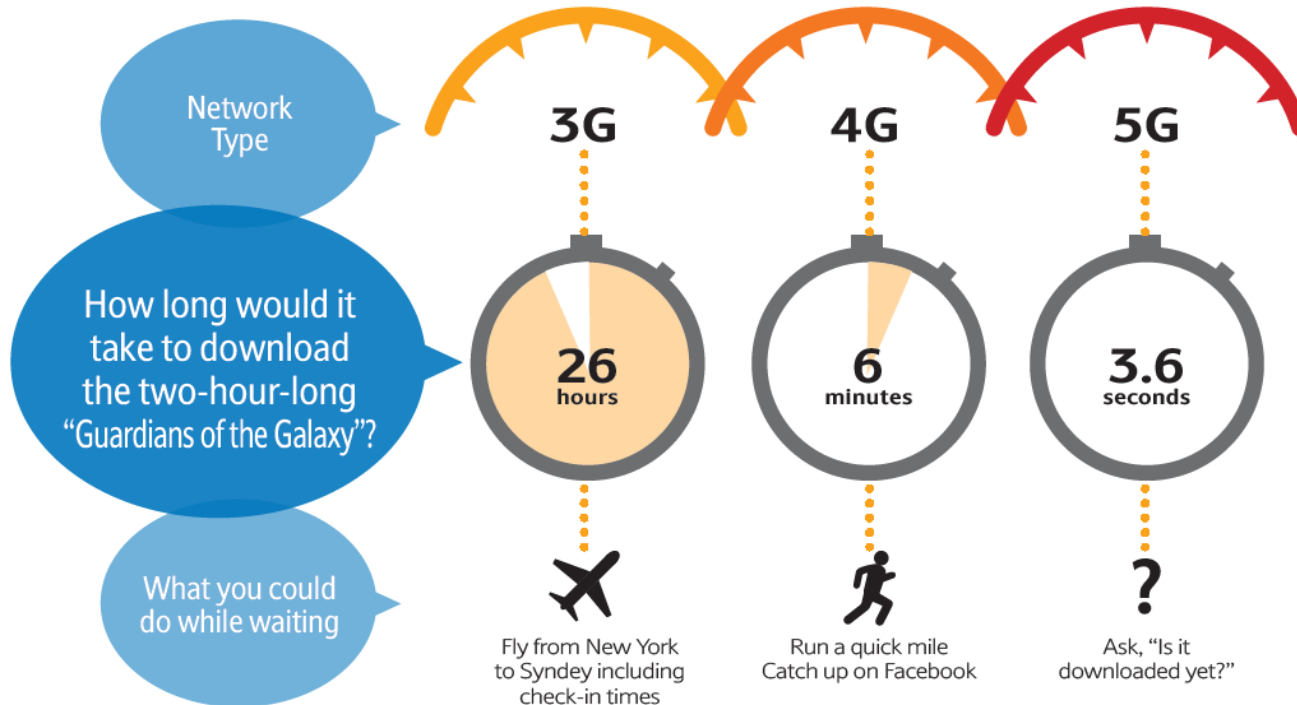
The Fire Alarm Management Process





And Speaking of Speed....

5G: How fast is it?



Codes and Standards

Challenges with Codes:

- Technology always continues to advance
- Codes have a set cycle
- Adoption by local and state agencies



What is NFPA 72?

NFPA 72®: National Fire Alarm and Signaling Code®

NFPA 72 provides the latest safety provisions to meet society's changing fire detection, signaling, and emergency communications demands. In addition to the core focus on fire alarm systems, the Code includes requirements for mass notification systems used for weather emergencies; terrorist events; biological, chemical, and nuclear emergencies; and other threats.

What Does NFPA 72 Say?

Equivalency

1.5 Equivalency

1.5.1 Nothing in this Code shall prevent the use of systems, methods, devices, or appliances of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this code.

Comparing Legacy and Modern Fire Alarm Management Technologies

Components	Legacy Technologies	Modern Technologies
Fire Alarm Control Panels (FACPs)	Conventional FACPs: <ul style="list-style-type: none"> • Send alarm code • Limited detail 	Addressable FACPs: <ul style="list-style-type: none"> • Send complete location and device info
Communications Infrastructures	<ul style="list-style-type: none"> • Direct wires • Coded signals • Telephone lines <p><u>Not</u> code-compliant as a primary signaling system</p>	<ul style="list-style-type: none"> • Ethernet (IP) • Multi-path radio • Cellular as backup <p>Code-compliant as a primary signaling system</p>
Receiving, Monitoring, and Dispatch Software Systems	<ul style="list-style-type: none"> • Display events as coded information • Proprietary • Limited and reactive 	<ul style="list-style-type: none"> • Customizable software • Interoperable • Proactive • Scalable



Benefits of Modern Communications Technologies

More Reliable and Scalable, Lower Cost

Benefit	Cellular	Ethernet (IP)	Mesh Radio
Reliability	Subject to outages	Frequent check-ins	Multi-path routing
Scalability	Continuously upgraded	Up to 4000 IP transceivers	Up to 1000 radios per frequency
Ease-of-Use	Includes diagnostic tools	Requires standard IT diagnostic tools	Requires extensive training/special tools
Cost Effectiveness	Lowest upfront cost, ongoing monthly fees	Reasonable upfront cost; uses existing IP infrastructure	High upfront costs; eliminates monthly costs
Code Compliance	UL listed for Primary Signaling	UL listed for Primary Signaling	UL listed for Primary Signaling

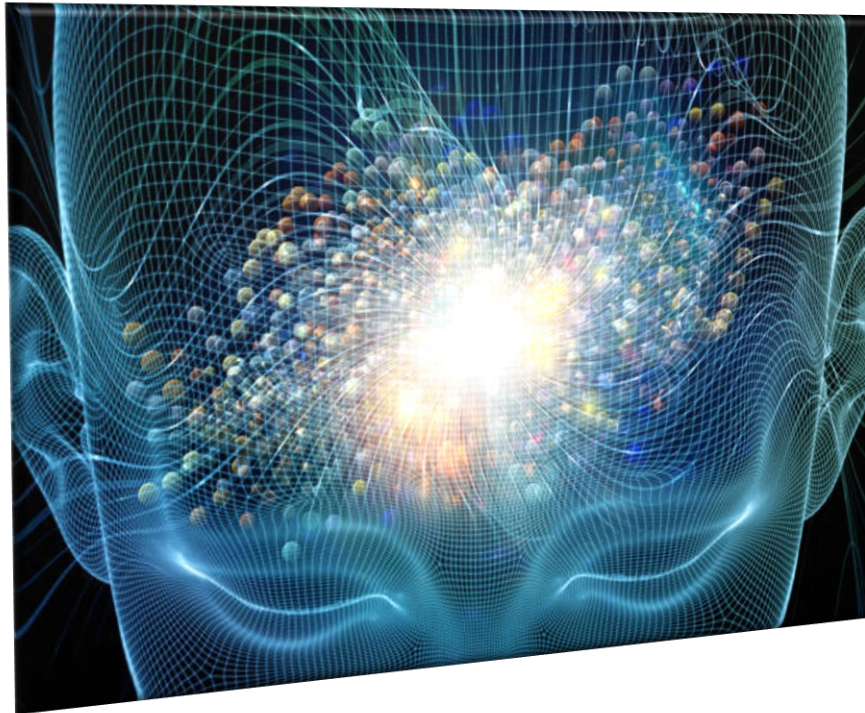
Changing Trends in Fire Alarm Management

Increase Control and Improve Response



- **The Past:** legacy technologies are focused on detection, suppression and evacuation
- **The Future:** digital technology is changing fire alarm monitoring functionality from reactive to prepared and proactive

Benefits of Modern Alarm Management Software



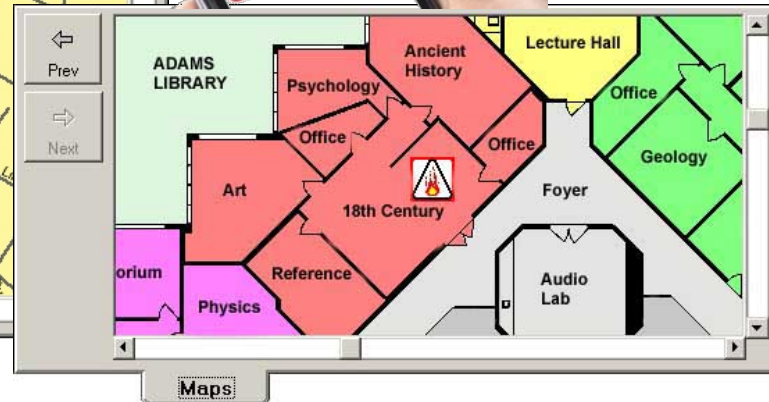
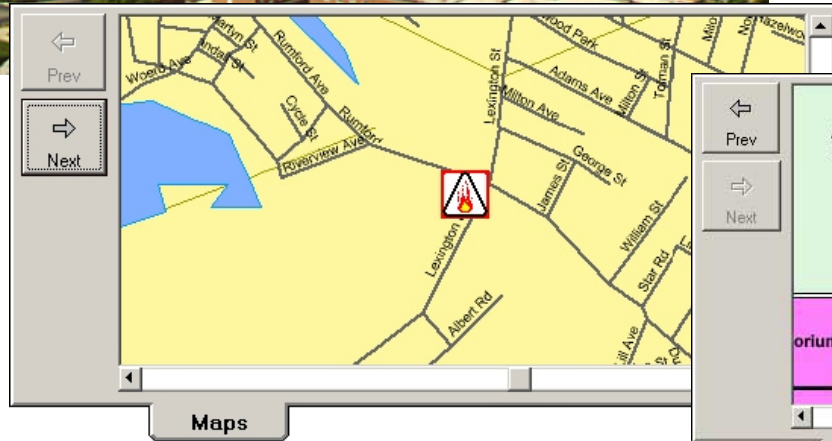
- *Flexibility*
- *Compatibility*
- *Ease-of-use*
- *Code-compliance*





Situational Awareness

Being aware of the big picture with ability to drill down to details of the unfolding event.
Where did it start?
What type of alarm is it?
Where is it going?



An Ideal Multi-Building Facility Fire Protection System

Delivers Substantial Value and High ROI



A single system for all existing and future facility fire system activity:

- **FACPs**
- **Communications**
- **Dispatch software**
- **Code-compliance**
- **Single, central view**
- **Cost-effective**

Where Do I Begin?

Evaluating Your Campus Systems

- Consider how you now manage your campus' fire alarm systems
- The information you now get - what works and what doesn't?
- Brands and models of your fire alarm systems
- What communications technology(s) are used to transmit signals?
- Available communications infrastructure
- Do you have enough personnel to support your system?
- Do you need to improve overall situational awareness?



Best Practices for Transitioning

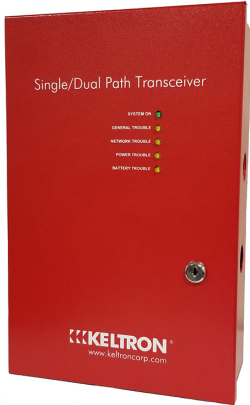
- Perform campus evaluation and inventory: what is and is not working well
- Determine budget availability, personnel needs and time frame for transition
- Include stakeholders: e.g. Fire and Life Safety Managers, IT, EHS, the AHJ, Security
- Select a dedicated person to oversee the project
- Determine order of migration across buildings (dorms, labs, classrooms, stadiums, cultural centers etc.)

BEST PRACTICE

What Does the Future Hold?



New Solutions



- **Keltron LS NET9000 IP Transceiver** – provides faster, more reliable, dual-path signaling

- **Keltron LS 50 Mobile Notifications** – increases facility-wide situational awareness



- **Keltron FXM Fire Extinguisher Monitoring** – eliminates monthly extinguisher inspections and improves consistency

ID#	Location	Desc	Barcode	Type	Size	Year	Status	Notes
1	Steam 120	High capacity fire extinguisher	120-120-120-120	ABC	120	2013	Pass	
2	Mechanical room 100	High capacity fire extinguisher	100-100-100-100	ABC	100	2013	Pass	
3	Multi purpose room	High capacity fire extinguisher	100-100-100-100	ABC	2.5P	2008	Pass	
4	Exit room	High capacity fire extinguisher	100-100-100-100	ABC	10	2015	Pass	



Got Questions?

We've Got Answers

Stay Connected



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This concludes The American
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