

# Ten Secrets to Success in Building Automation System

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39th Annual FPC Seminar + Expo

# Agenda

- Introduction
- Institutional Perspectives
  - Why Develop BAS Standards
  - What is included in BAS Standards
  - Results
  - Lessons Learned
- Summary: Top Ten Takeaways

# Introduction

- BayCare Health System
- UF Health Gainesville
- UF Health Jacksonville

# Question

Why Develop BAS Standards?

# Question

What are the challenges to developing standards?

# Question

What is included in you BAS standards?

# Question

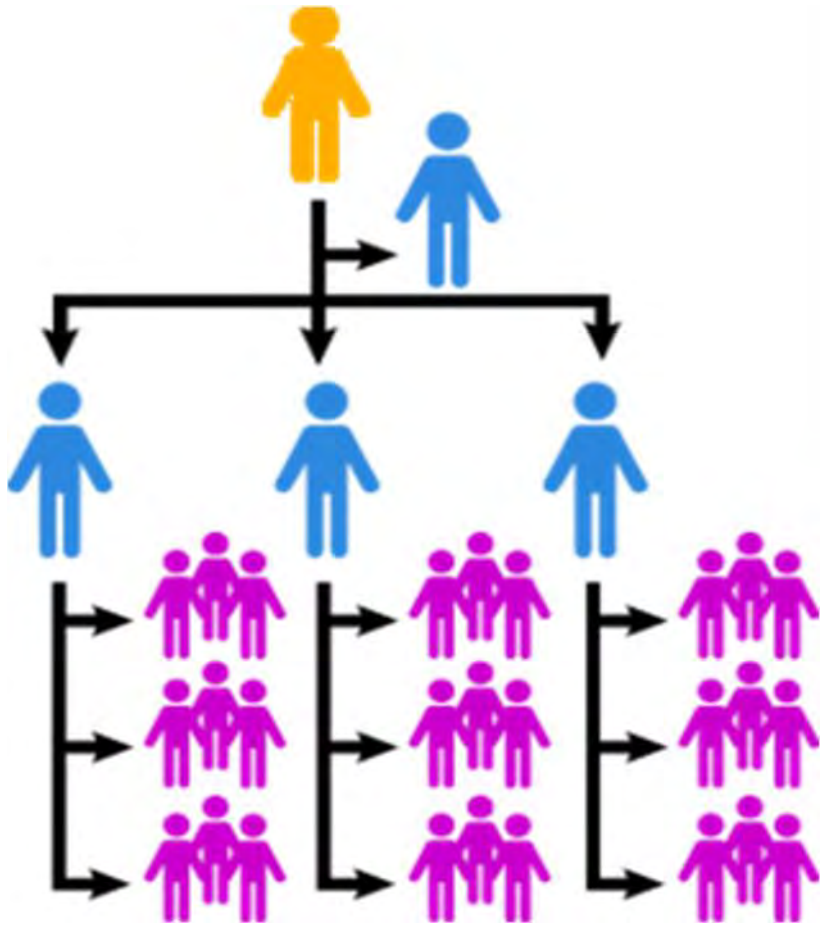
What are your lessons learned in developing these standards?

# Ten Secrets:

1. People
2. Point Names
3. Data Strategy
4. Key Performance Indicators
5. Alarm Optimization
6. Open architecture / Network management
7. Training
8. Systems Integration
9. Fault Detection
10. Automated Testing



# People



**Reinventing FM Roles**

# Point Naming

3, add zeros in front of the number to achieve a 4-digit number. Reference the tables under “Predefined Words and Indices” to compile each complete BAS control name. The name shall be: **Facility.Building\_Number.Equipment/System/Location.Control\_Point**.



Control point, a dot (.) will act as the separation between each level. An underscore ( ) will be used for locations or systems and as a space filler for multiple words. For example, if multiple fan coil

Level 3 - Equipment and System Types	
Name	Description
AHU	Air Handling Unit
B	Boiler
CAV	Constant Air Volume Terminal Unit
CH	Chiller
CHW	Chilled Water Circuit
CHWP	Chilled Water Pump
CRAC	Computer Room Air Conditioning Unit
CT	Cooling Tower

Level 4 - Point Legend	
Name	Description
A	Alarm
BP_DMPPR	Bypass Damper
CC	Cooling Coil
CHW	Chilled Water
CHWR	Chilled Water Return
CHWS	Chilled Water Supply
CLG	Cooling Mode
DA	Discharge Air
DMPPR	Damper
DP	Differential Pressure

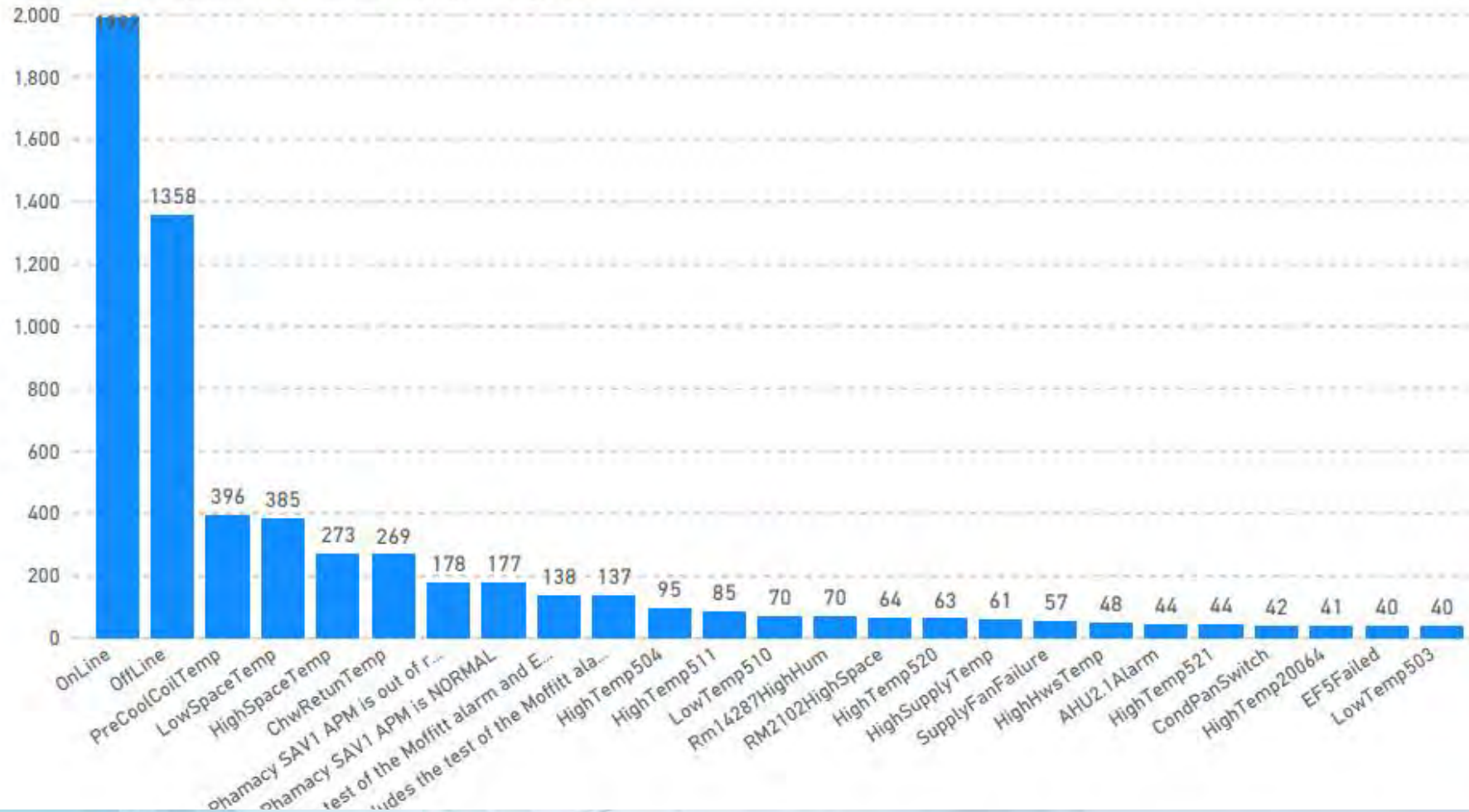
# Data Strategy

- Long Term Data Storage
- Naming – Include Location, Hierarchy, Discipline
- Tagging – Brick vs Haystack

# Alarm Optimization

## 2.2 GROUPING ALARMS: ISSUES

Top 25 Most Frequent Issues (Select multiple using ctrl)



Number of Alarms

7321

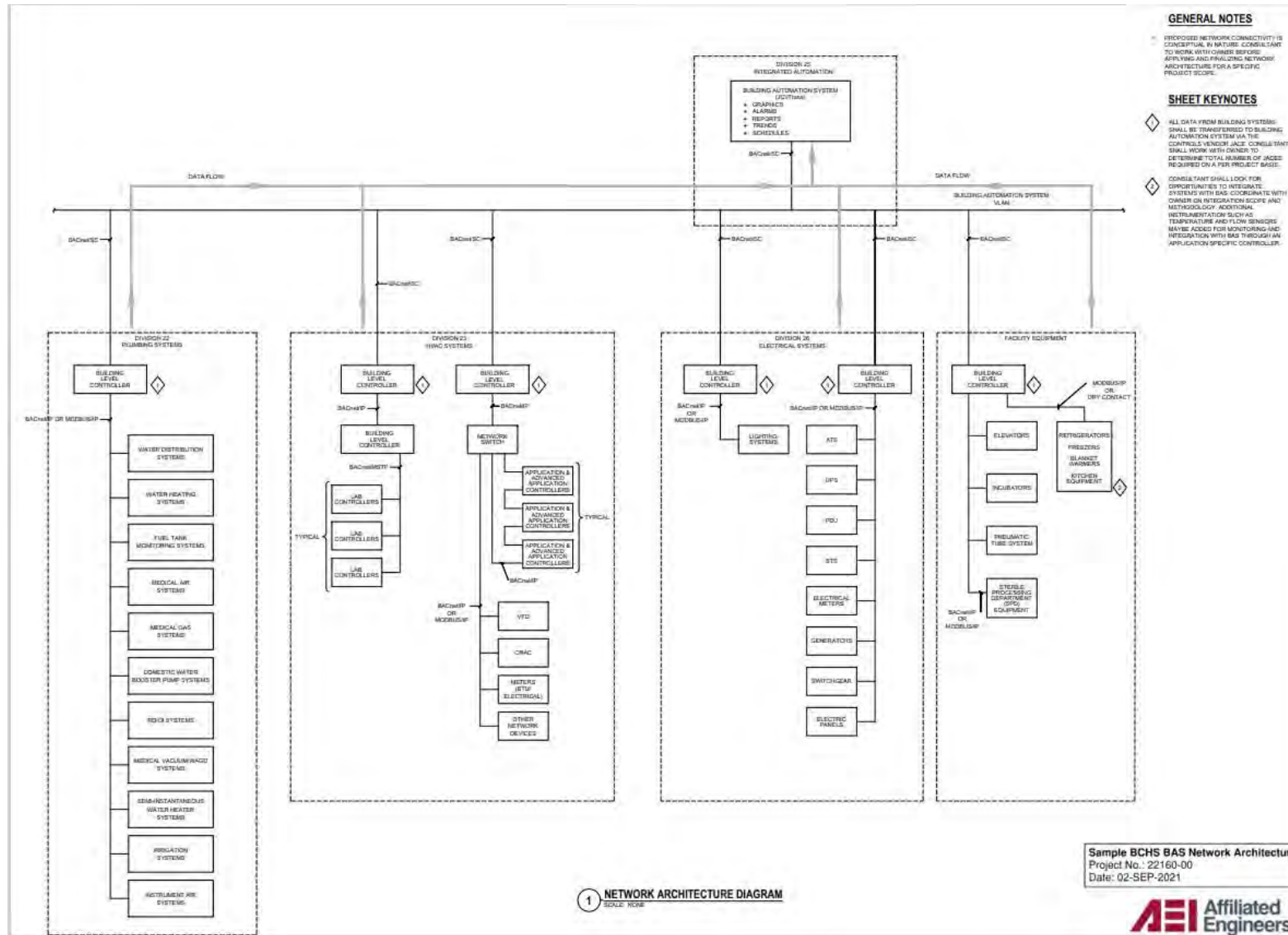
Number of Unique Issues

183

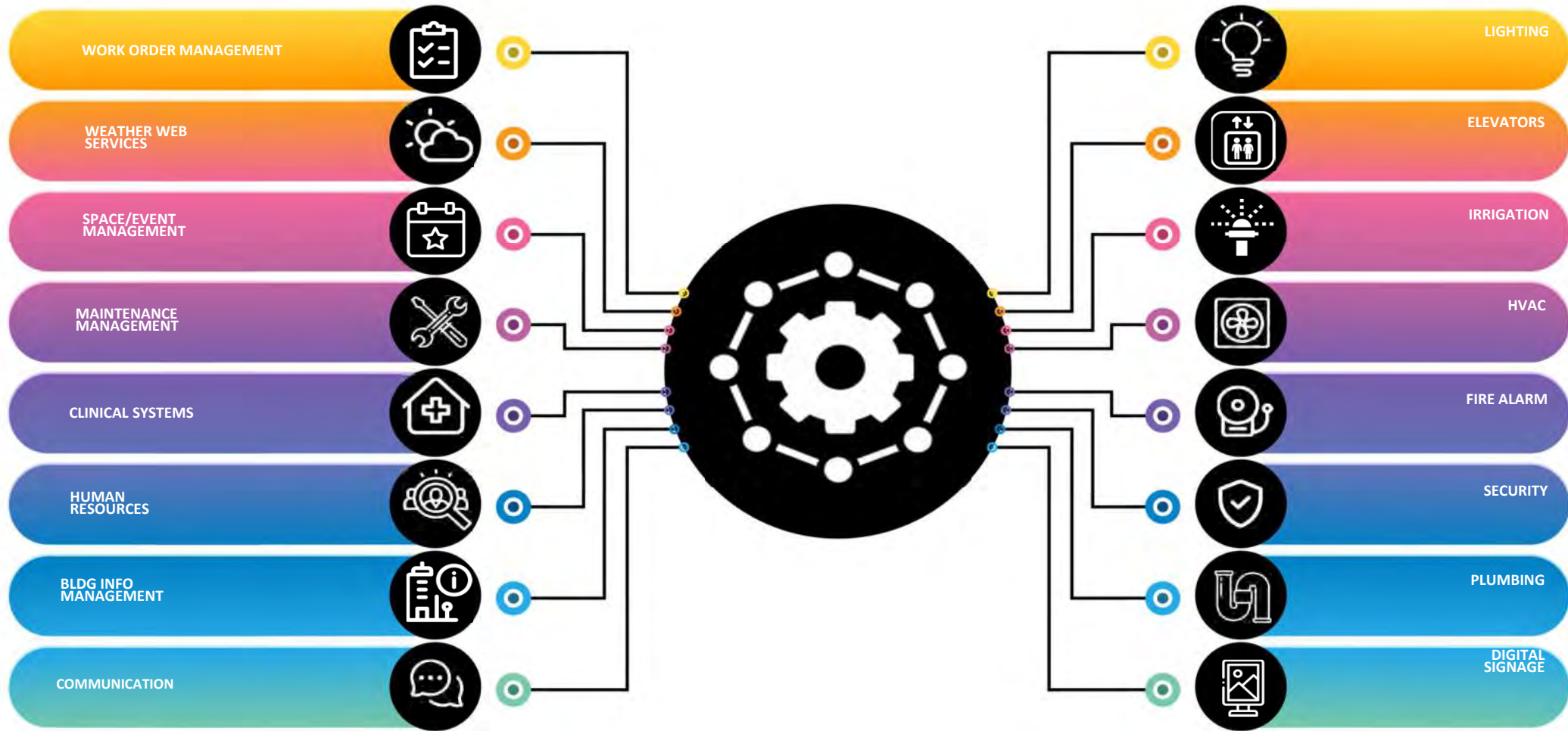
Corresponding Portion of Total Alarms

100.00%

# Open Architecture



# Systems Integration



# Fault Detection Diagnostics

