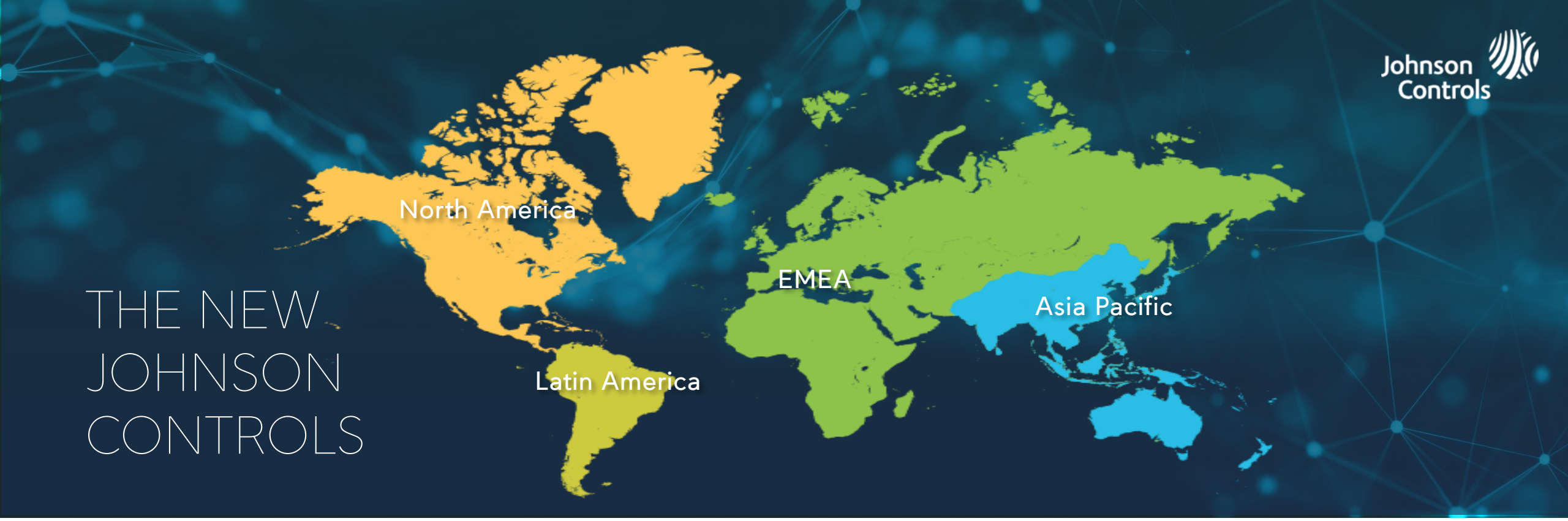
JCI Digital's False Alarm Reduction Service

Discover the Analytical Power of Your Security System

Johnson Controls



THE NEW JOHNSON CONTROLS

- Building Controls
- Security & Fire Technology
- HVAC Solutions & Services
- Retail & Loss Prevention
- Digital Solutions
- Integrated Solutions & Services

Johnson Controls is uniquely positioned to be a world leader in building and energy storage solutions and technologies. Our industry leading brands, innovative technologies, global footprint and operating system allow for significant scale and compelling value creation.

YOU MAY KNOW US AS

YORK · Simplex · METASYS · DSC · Sensormatic · tyco · exacq · Titus · FACILITY EXPLORER · SOFTWARE HOUSE · ANSUL · TrueVUE · VERASYS · HITACHI · RUSKIN · Frick · PENN · PENN BARRY · Grinnell · ShopperTrak · CHEMGUARD

Critical Data

98% of security alarms are false alarms creating a $3.2 billion industry problem

Market stakeholders are unable to distinguish between a true alarm and a false alarm, so they must **react to all alarms**

100% of the time alarms tell you something about your security wellness

We understand your security monitoring challenges
A trusted name in the security industry for over 100 years.

Key Contributors of False Alarms

People Changes
- Employee turnover
- Seasonality

Corporate Policy
- Store risk rating changes
- SOP changes
- Security initiatives
- Delegation of authority

Environment
- Remodels/ Marketing
- Weather
- Cultural & talent influences

System Configuration
- Zone changes
- Adding/removing users
- PIC code changes
- Call tree changes
- PIR sensitivity changes
- Equipment interactions

Product Changes
- Field failures rates, changing tolerances
- Product obsolescence

Panel SW Programming
- Inaccurate product configurations
- Install configurations

Introducing… False Alarm Reduction Service

A **first of its kind** application service enabling you to monitor your sites' security wellness and take actions to eliminate preventable false alarms.

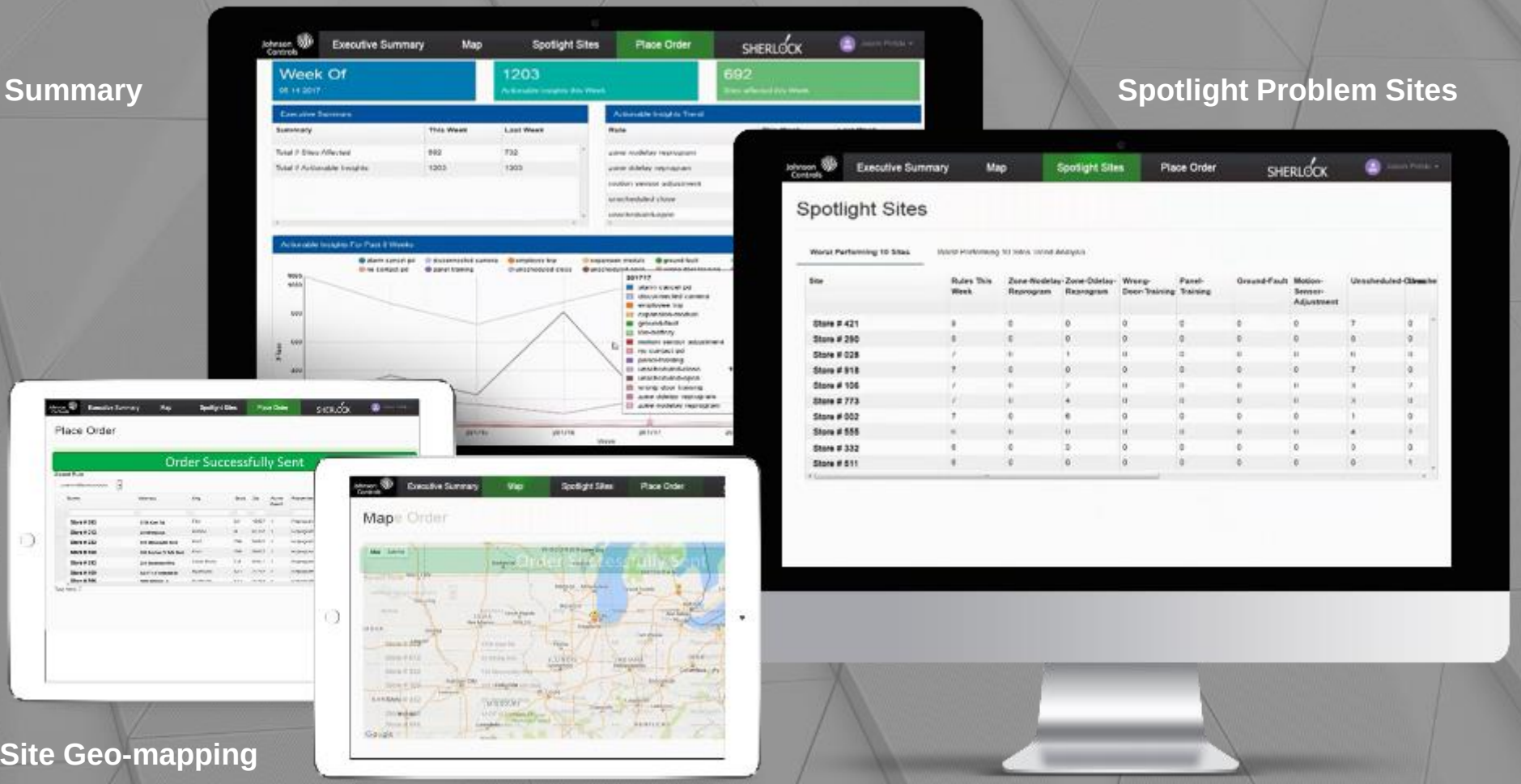
Actionable insights into false alarm activity by region and site put the power in back in your hands.

Data Driven Recommendations

Executive Weekly Summary

Spotlight Problem Sites

Take Action with Easy Order Button



Local/Regional Site Geo-mapping

Data Driven Methodology

Event

Alarm panels send individual events

Signals

Dispersed Signals
(i.e. Door Open vs Door Closed)

HISTORIC SITE/ SYSTEMS EVENTS

PARAMETER SEARCH

GSP

TOP N RULES ACROSS SITE/ SYSTEMS

SECOND ORDER MARKOV CHAIN

Signatures

Signatures are correlated signals based on ML rules.

Patterns

Signatures with time series events applied develop repeatable false alarm patterns

Door Delay

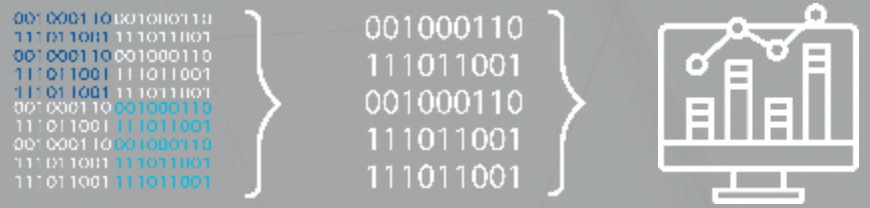
Employee Error

Expansion Model

Ground Fault

Low Battery

Recommendations



Bayesian Inference, Probabilistic Programming

Programming includes exponential, uniform, negative binomial. Historical door delay, prediction from posterior door distribution.

How It Works…

Application with data to indicate action needed

User clicks approve to generate an action

Monitoring Center takes action (e.g. roll a truck, change system configuration, change perform remote resolution)

Customer sees ROI results when implementing training, employee trip, schedule violations and more.

Root cause issue resolved

Customer sees progress and tracks resolution of false alarms

Your Engagement Benefits

No additional site equipment to install

Security panel manufacture agnostic

No additional manpower

(Optimize your team's efficiency)

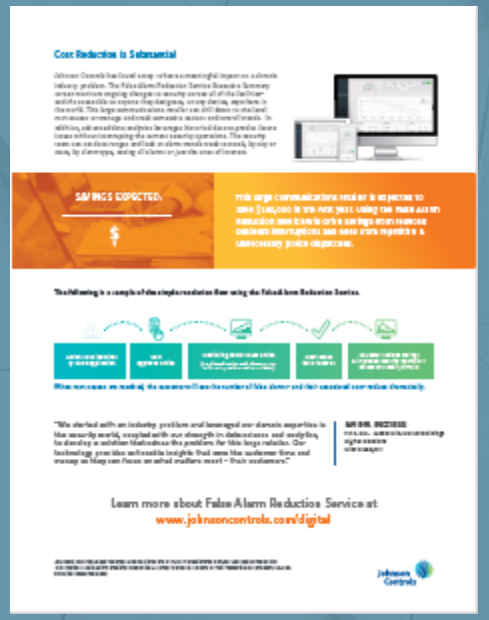
Continuous risk monitoring

Site agnostic

(Works at single site or thousands of sites across any vertical)

Success in Action..
Large Communications Retailer

- ✓ Customer expected to save $160,000 in the first year.
- ✓ 30% yoy. reduction in signal volume
- ✓ 23% decrease in false police dispatch rate in 12 months
- ✓ Continued savings from reduced business interruptions
- ✓ Improved customer experience



Learn more about this case study at
https://www.johnsoncontrols.com/digital