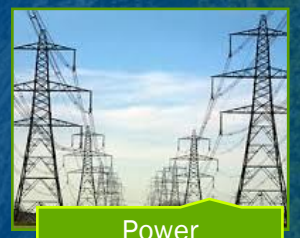
RBtec
Perimeter Security Systems

Seismo Underground Sensor

Invisible Perimeter Intrusion Detection System

Borders


Airports and Seaports

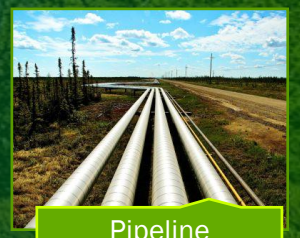

Power infrastructure


Petrochemical plants

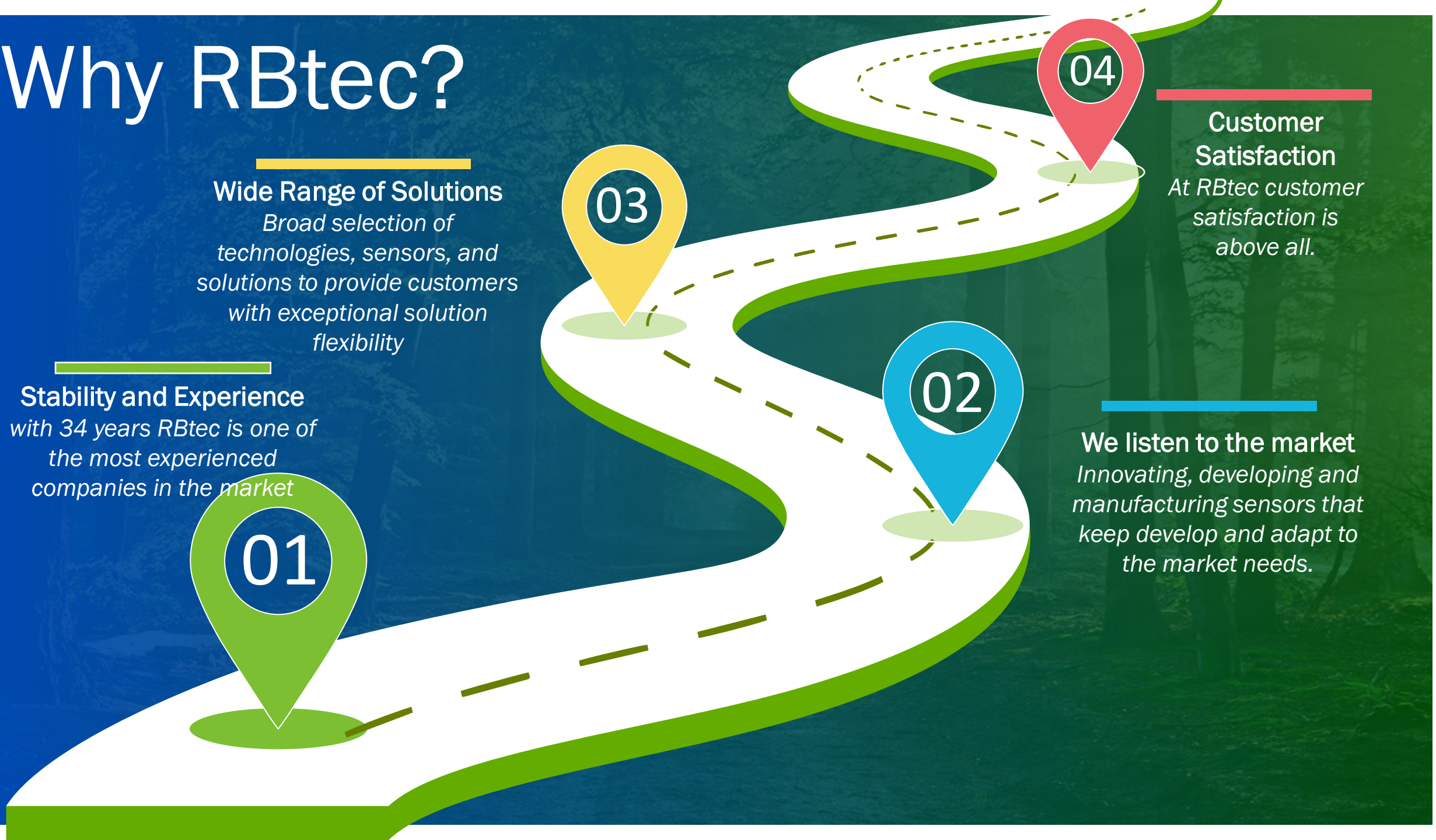

Government and Military Sites


Residential / Corporate Complexes


Industrial Parks


Pipeline protection

Why RBtec?



Wide Range of Solutions

Broad selection of technologies, sensors, and solutions to provide customers with exceptional solution flexibility

Stability and Experience

with 34 years RBtec is one of the most experienced companies in the market

Customer Satisfaction

At RBtec customer satisfaction is above all.

We listen to the market

Innovating, developing and manufacturing sensors that keep develop and adapt to the market needs.

A Growing World Presence

RBtec has provided systems for more than 2,500 security projects in more than 35 countries around the world.

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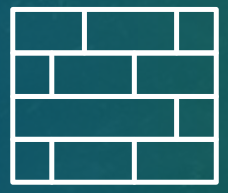
Proven Experience

RBtec has provided systems for more than 2,500 security projects in different facilities such as:

Airports

Explosives Plants
&
Pharmaceutical



Correctional Facilities
&
Jails

Nuclear Stations

Self Storage Facilities
RV & Boat Storage

Remote
Communication Sites

Military and Borders

Petrochemical
Plants & Refineries

Commercial and
Industrial Areas

Luxury Residences
and Facilities

SEISMO

Underground Intrusion Detection Sensor

- ✓ Detection Pattern: Circular (360°) Up To 10m/33ft Per Sensor
- ✓ 4 or 8 Sensors + Analyzer Per System – 4/8 x 10m/33ft Per System
- ✓ Completely Invisible
- ✓ Sensitivity Adjustment Per Sensor by software
- ✓ Plug & Play Installation
- ✓ AI Based Detection Algorithm
- ✓ Connects with Dry Contact Relay to any CCTV or Alarm system
- ✓ Easy to Deploy and Operate, installation in minutes.
- ✓ No Training or Special Tools Needed
- ✓ Event Classification – Steps, Vehicle
- ✓ Standalone or IP Network Versions Play

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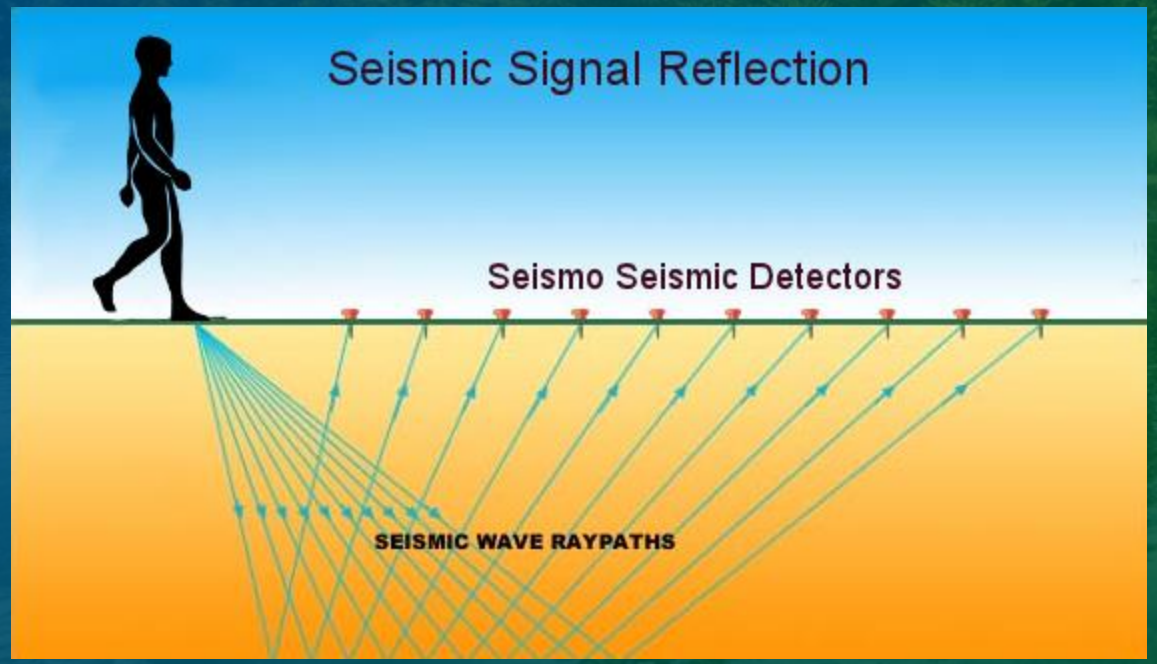
SEISMO Principle of Operation

The basic principle of seismic security sensing is the monitoring of waves by a seismic source reflected of the subsurface.

The Seismo sensor, a geophone is sensitive to up-down motions of the Earth, is like a weight hanging from a spring, both suspended from a frame that moves along with any motion detected. The relative motion between the weight (called the mass) and the frame provides a measurement of the vertical ground motion.

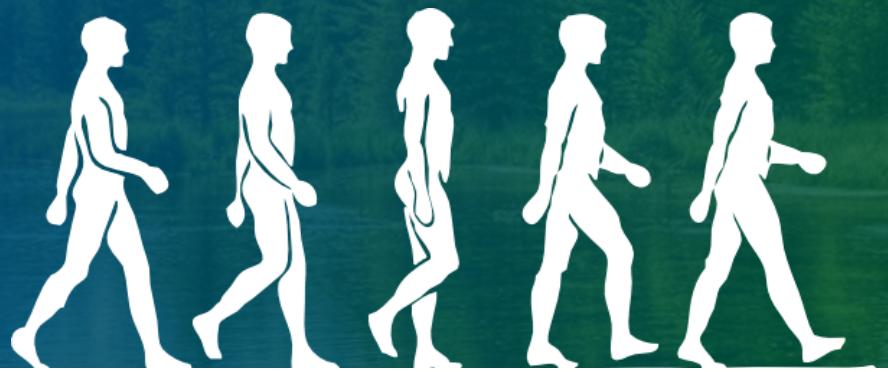
The Seismo sensor does NOT sense earthquakes

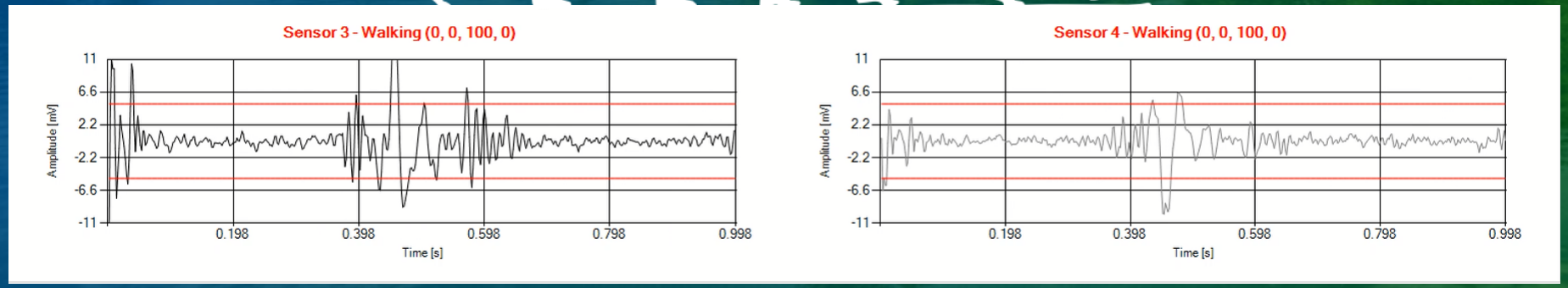


SEISMO Principle of Detection

When an activity is registered in the protected area, the seismic sensor produces a signal which is processed in real time through an advanced algorithm. The algorithm is based on “machine learning – AI” that can identify and classify the type of activity that has been registered. Not every seismic vibration generates an alarm.

Walking/Running/Crawling of any intruder in the area of the sensor’s proximity triggers an alarm. The alarm is based on the sensitivity level, the database recorded into the unit, ground type and surrounding environment.





Low voltage system – Less than 0.5 amps consumption

24/7 monitoring of secured area

Resistant to extreme environmental conditions.

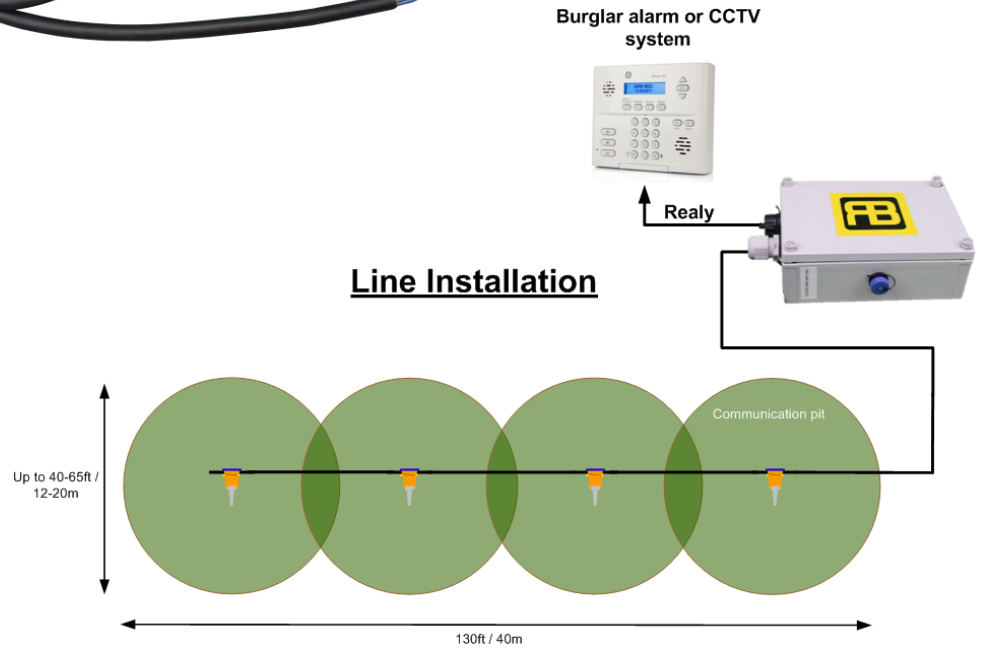
Can be integrated with any existing security or alarm system.

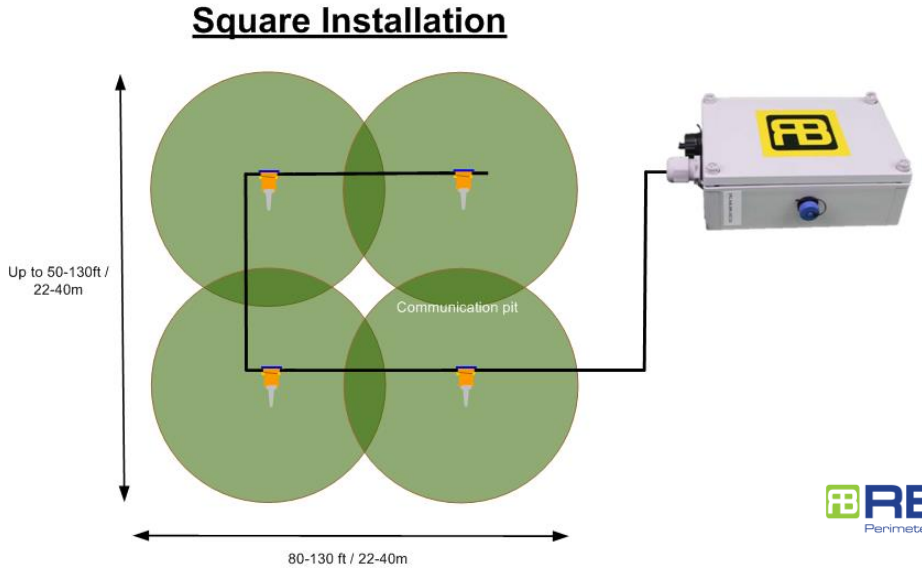
Standalone sensor or IP Network configuration

Detection pattern: Circular (360°) up to 10m/33ft diameter per sensor. 40/80m 130/260ft liner protection per kit

System Specifications and Layout

- Detection pattern: Circular (360°) up to 10m/33ft per sensor
- Power supply: 12 to 48VDC
- Outputs: Dry contact Relay, TCP/IP, Optional wireless.
- Operating temperature: -22f/-30°c – +158f/+70°c
- IP rating: IP67
- Seismic Detector Every 20-32’/6-10m Pre-installed on the cable
- Pre-installed connectors for sensor cable





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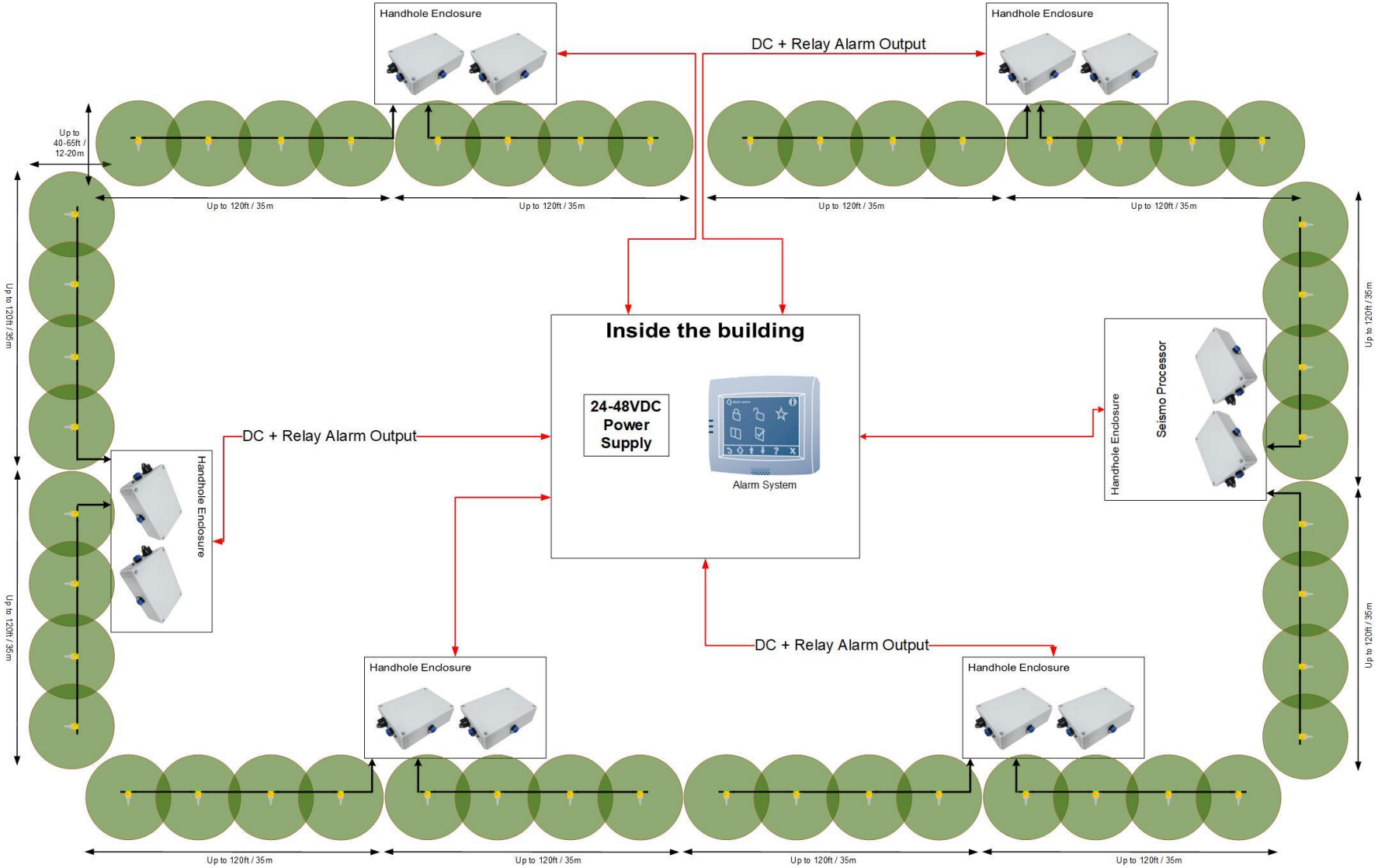
Multiple Independent & Standalone Seismo Units

Each System is wired with DC power and relay to the alarm system



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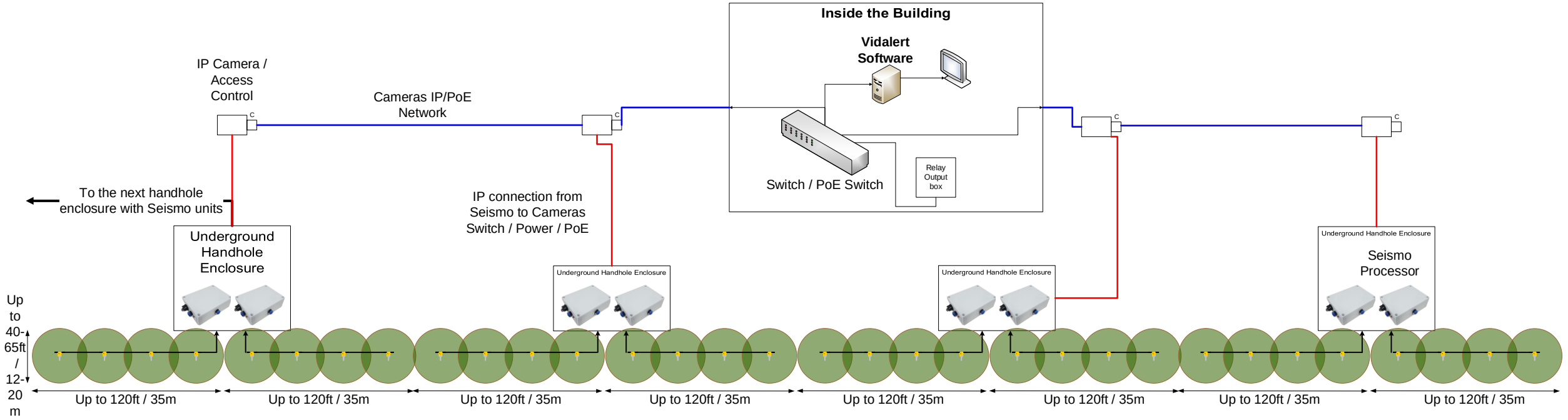
Seismo Units Connected to an Existing Network

The Seismo processors are IP based units. The units can connect to an existing network installed on site to communicate alarms back to the control center.

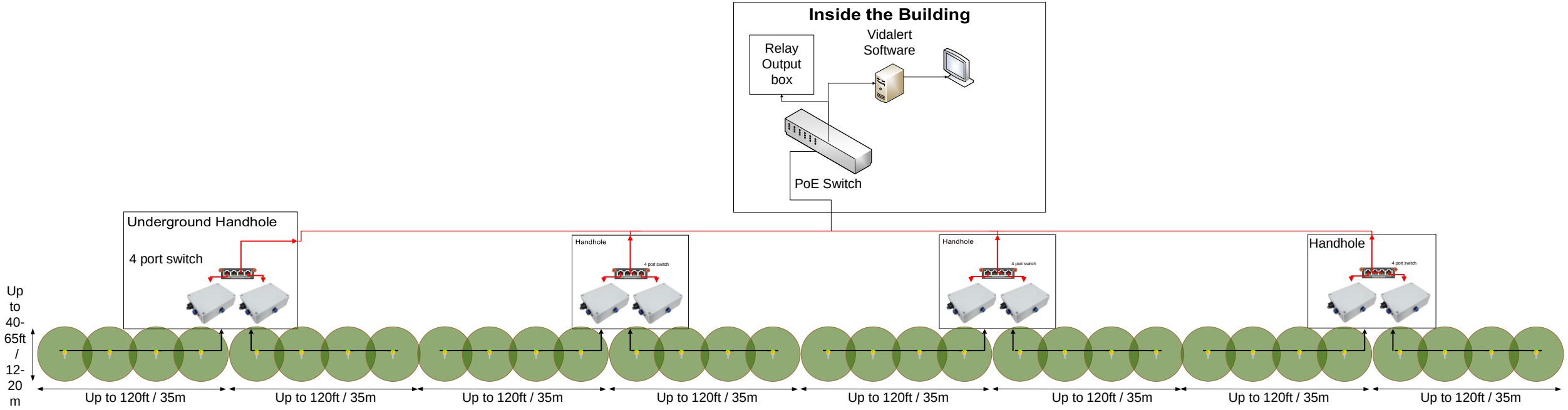
In this layout the Seismo will communicate and be powered from the existing infrastructure. That infrastructure can be cameras, access control or any other network laid around the site.



Seismo Units Connected by PoE Network

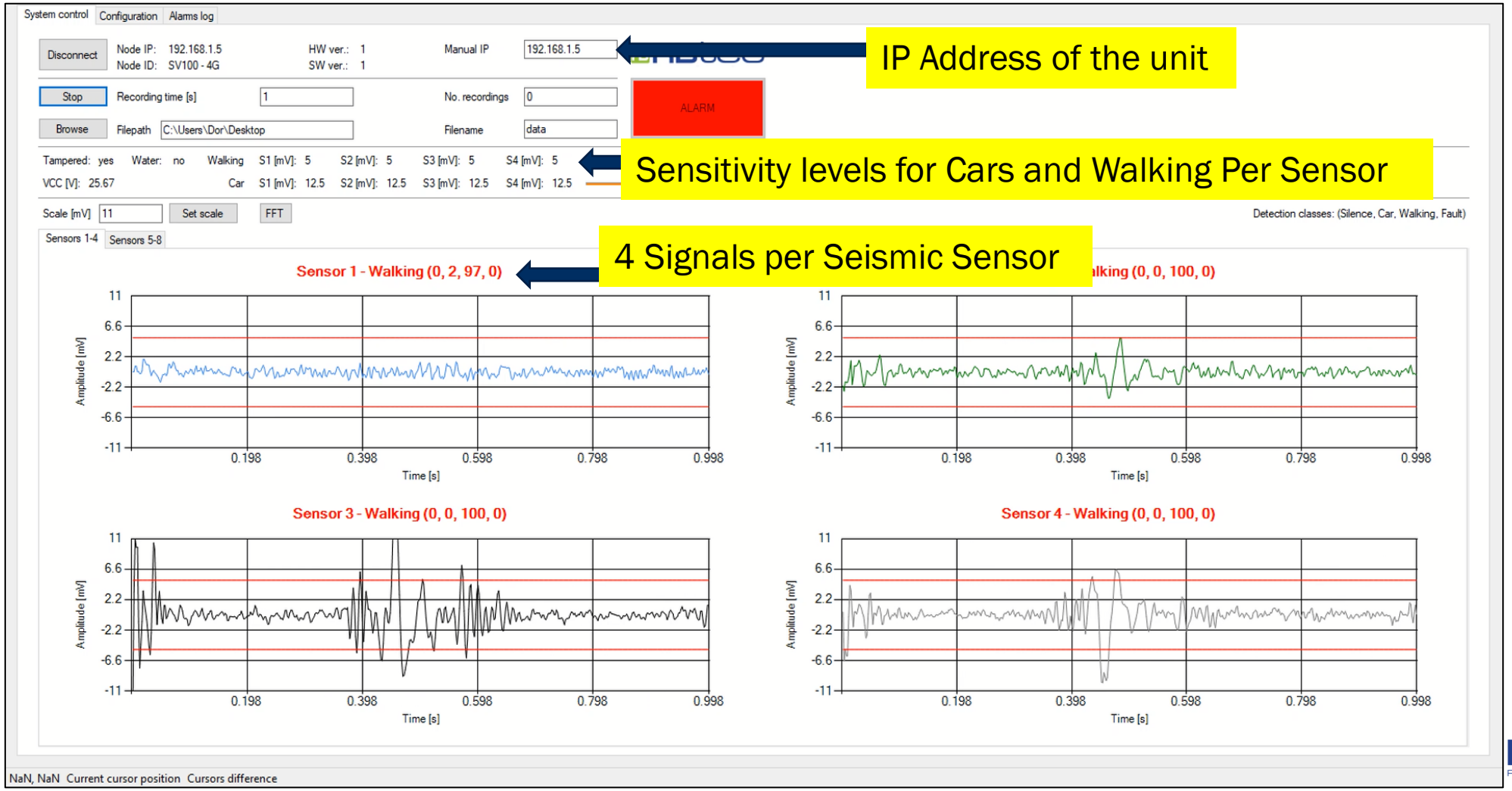
The PoE Network version in based on single cable in the trench.

The ethernet cable provides power and connectivity to Seismo controllers from the control center. At the control center alarms can be received in either relay form or software alarm or both at the same time.



Calibration Software

Each Sensor is calibrated and monitored independently



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Calibration Software

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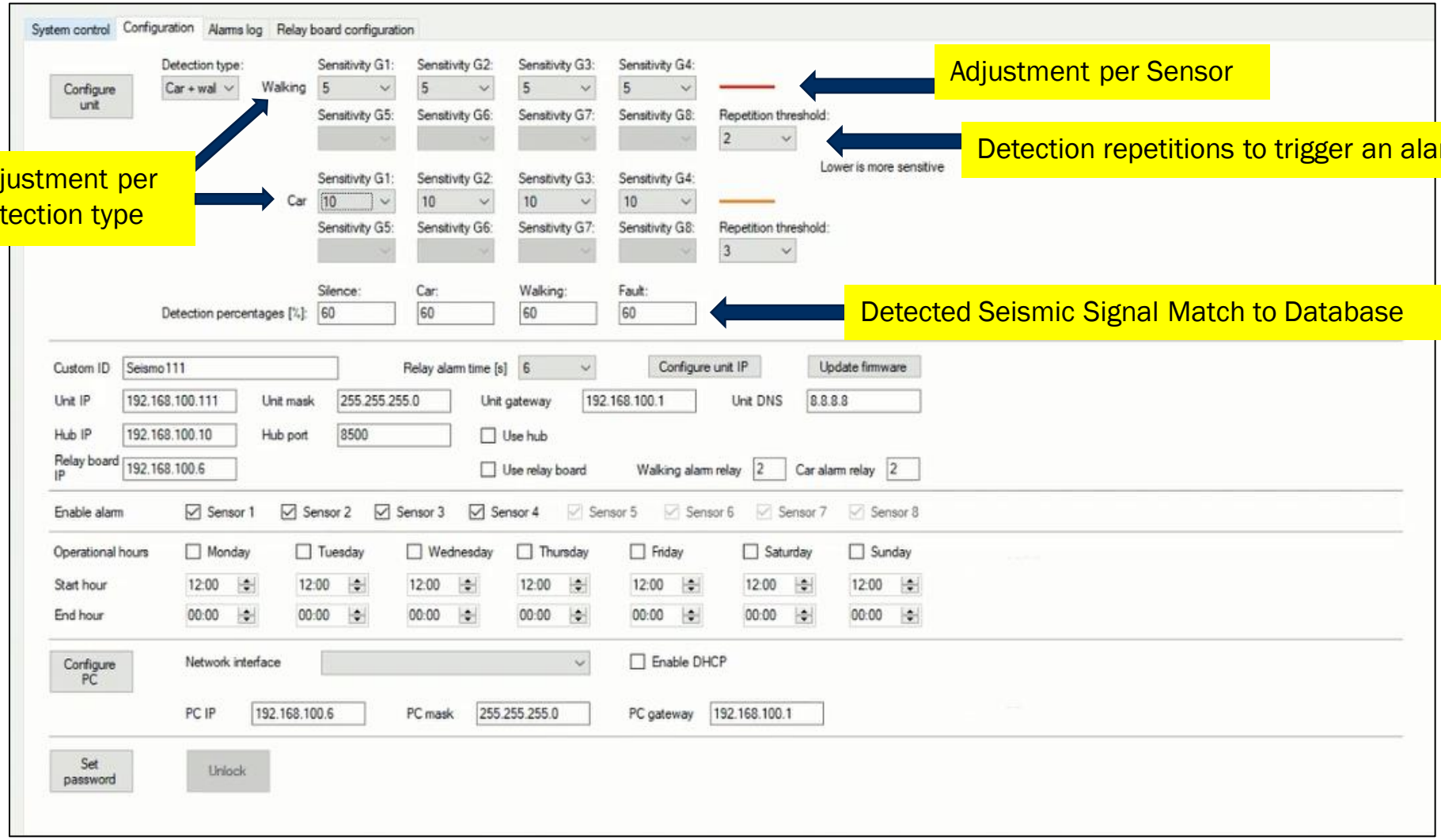
Configuration

Alarm Triggering is based on 3 key components: Sensitivity, Repetition and Signal Match to Database



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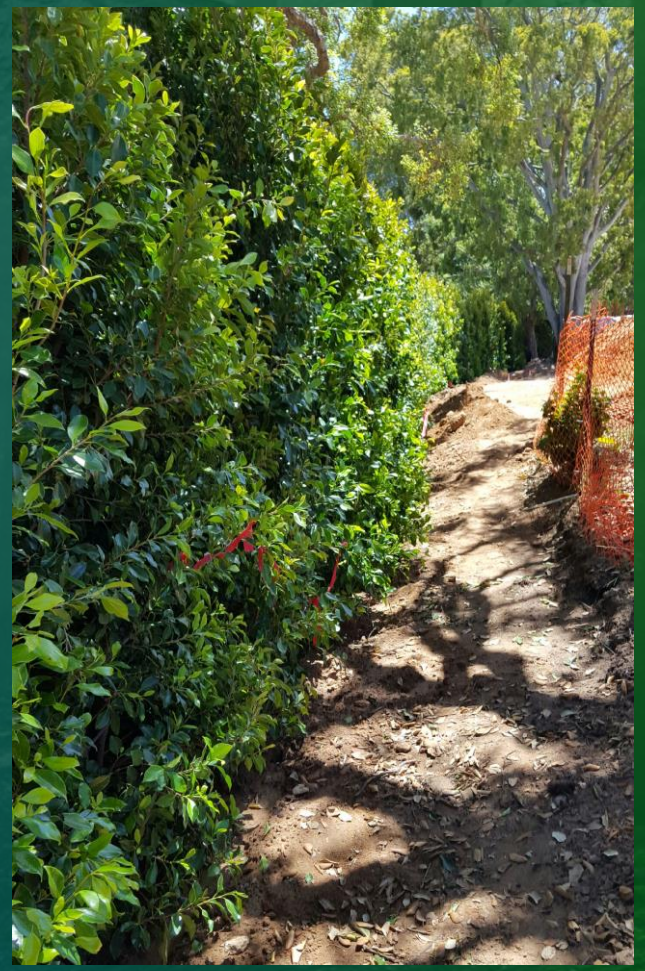
EXAMPLES OF SEISMO INSTALLATIONS



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Thank you!

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