



## Perimeter Intrusion Detection System



# PERIMETER INTRUSION DETECTION

## SYSTEM Features & Advantages

### 1. Hardware Zone

In hardware zone application, a perimeter is segregated into different detection zones deployed with several sets of sensing fibers. On the other hand, software zone-based systems have basically single sensing line that run the entire perimeter.

### 2. Plug & Play Installation

The plug and play design with SC connectors facilitates swifter installation by using only simple hand tools. There is no need for expensive and fragile splicer to connect the fiber cables to their respective junctions/terminal boxes.

### 3. Full Passive

Full passive components are the design that requires no outdoor processors and electrical power to the outdoor components. In this case, the system is immune to electromagnetic interference (EMI), radio frequency interference (RFI), and lightning.

### 4. Easy to Repair

At Nxtar, each detection zone comes with two arms of sensing fiber. When one arm of fiber is cut, it is easy and efficient to repair by replacing the damaged part with one new arm. The restoration can be completed in two hours without use of expensive splicer. After the system installation, less or no maintenance is required to remain optimal performance.

H 2



# PERIMETER INTRUSION DETECTION

## SYSTEM Features & Advantages

### 5. Invisibility

When buried underground or installed on wall-top with gravels covering on it, the sensing fiber is completely invisible, thus leaving landscapes unchanged. This prevents tampering and intruder by-pass of the detection area.

### 6. Intelligent Identification Algorithm

The system with built-in Intelligent Identification Algorithm can reduce the false/nuisance alarm to the lowest level by differentiating actual intrusions from global noises (rain, snow, wind, hail storms and small animals).

### 7. Integrate with CCTV Surveillance

Inspectors can remotely monitor their premise and double confirm if it is a genuine intrusion prior to alerting guards. Nxtar has its own Fiber Optic Converter for signal transmission. By integrating with our PIDS, their signals can share the same cable, thus reduce material and deployment laboring cost.

### 8. Application Scale Classification

The solution is designed to fulfil different scale of users. it has been categorized into 3 different scales: Large Scale, Medium Scale, and Small Scale. The large scale solution is customized to accommodate an individual customer's requirements and special needs on the most cost effective manner; the small scale solution is designed to achieve DIY installation for the consumer market.

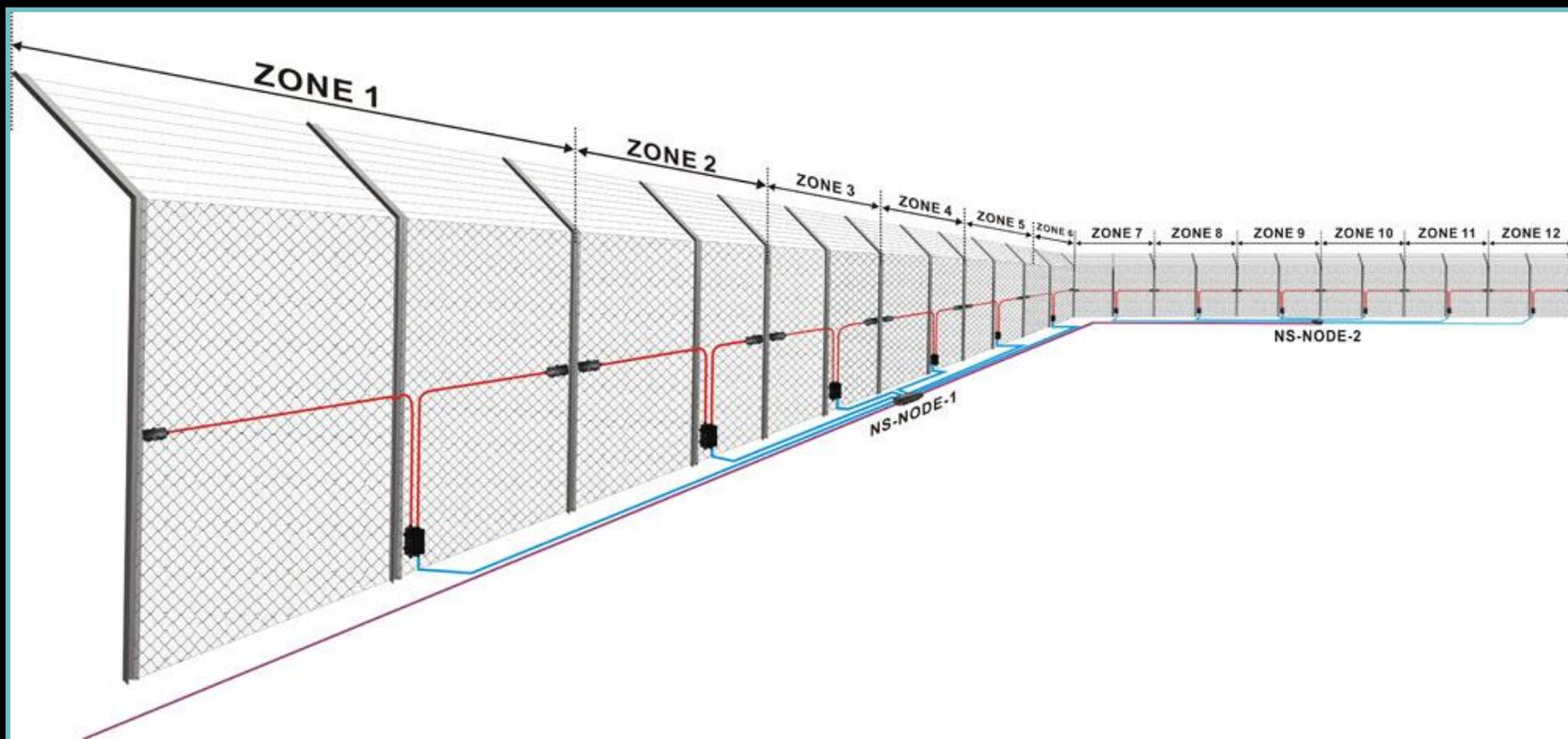
H 3



## 1. Hardware Zone SYSTEM

Each Nxtar controller comes with 1, 2, 4 or 6 zone(s) of detection and multiple systems can be linked for virtually unlimited distances. All our zones are hardware based and are advantageous against software zone in numerous ways. Detection zones that are hardware-based enable each zone to function independently, and therefore can be individually calibrated in accordance with various environments in the same perimeter. It is almost impossible to demand that a perimeter, especially a large one, is of the same landscapes. Consequently, our systems can accept individual zone settings for finer monitoring solutions.

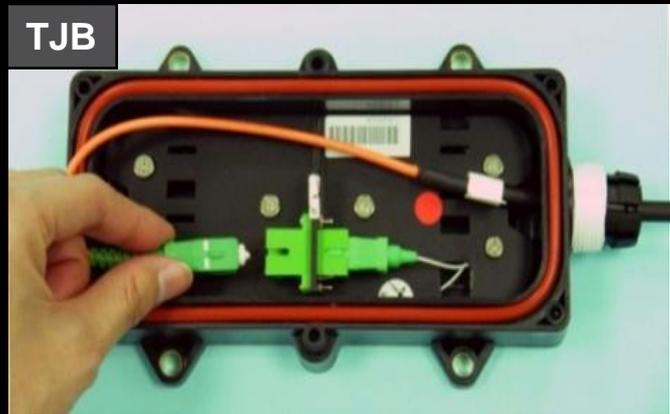
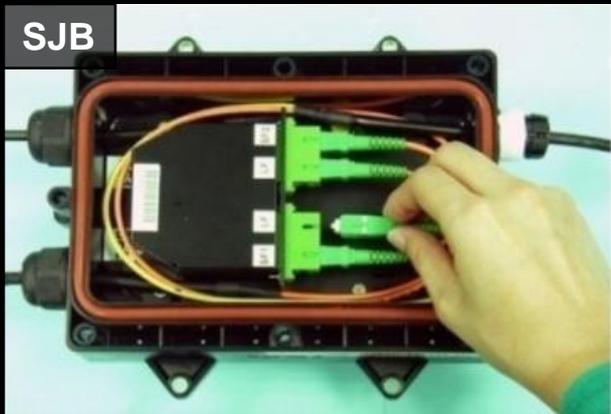
H 4



## 2. Plug & Play Installation SYSTEM

The connection between Sensing Junction Box (SJB), Terminal Junction Box (TJB) and Controller are designed to use Plug & Play installation. SC connector plugs directly into the port, making installation straightforward by using only a screwdriver. The installation can be completed in an easy and swift way.

H 5

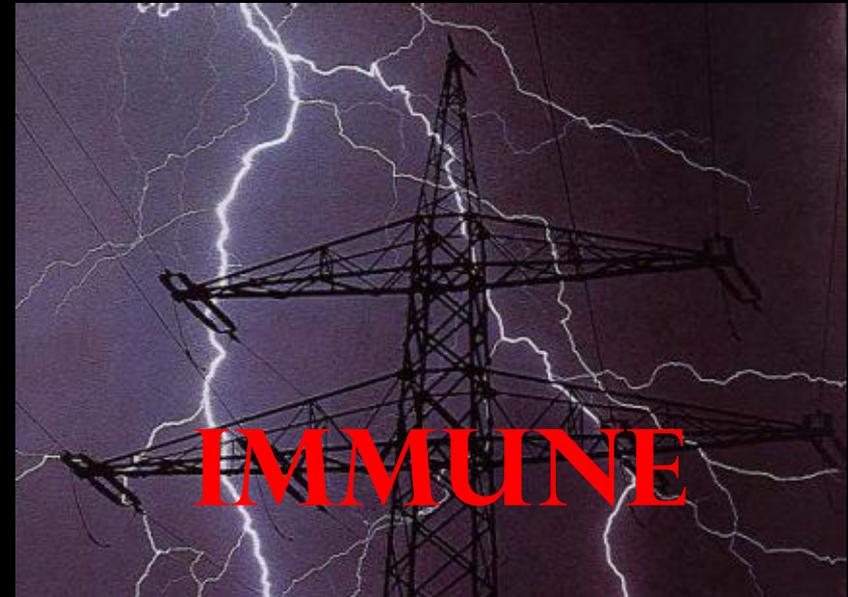


## 3. Full Passive

## SYSTEM

At Nxtar, our system is one of the few who is able to achieve a 100% passive components outfield. Our system does not require any electrical powering once installed outfield. This is a very strong feat as it requires no deployment of electrical cables for powering and signal amplification for long distance transmission. Equipped with full passive components, our system is immune to electronic-magnetic interference (EMI), radio frequency interference (RFI), and lightning.

H 6

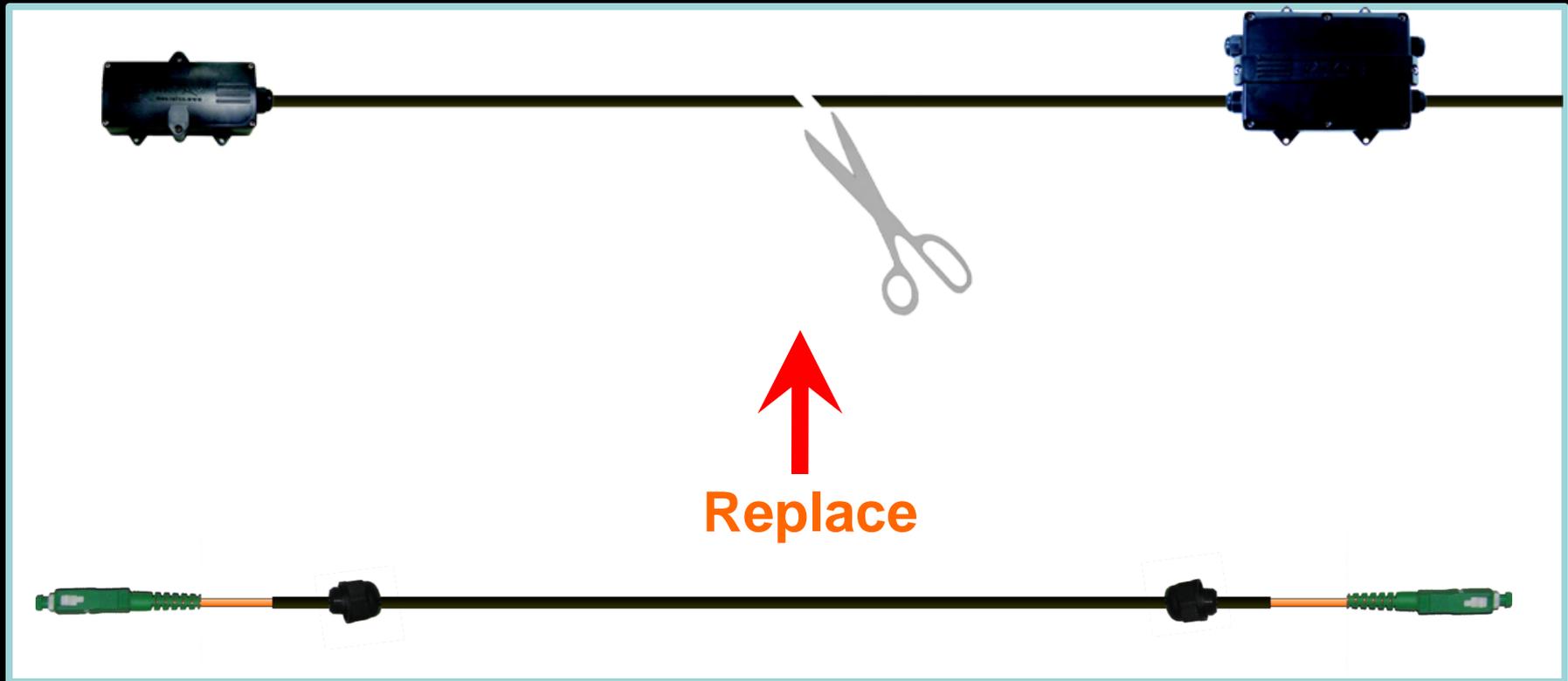


## 4. Easy to Repair

## SYSTEM

Hardware zoning enables each zone functions independently, preserving the operation of the rest of the system when one zone is damaged. By simply replacing that piece of damaged fiber cable, the reparation doesn't need to shut down the whole system , and can be rapidly done within two hours. In other words, the remaining zones still function to secure the perimeter during the repairing process. P.I.D.S is virtually maintenance-free after installation, thus lowering the maintenance cost.

H 7

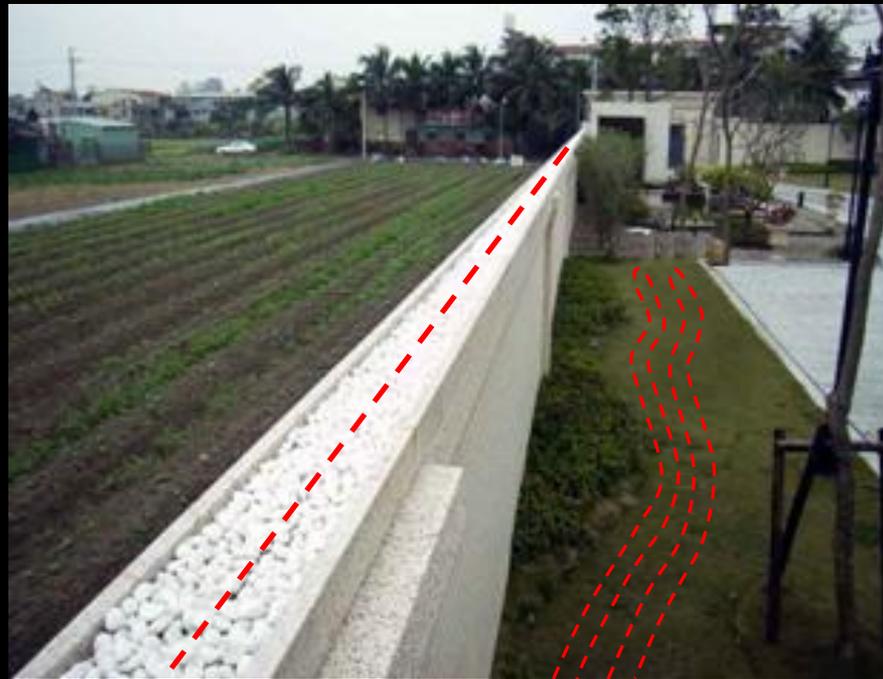


## 5. Invisibility

### SYSTEM

The system can be used to secure Fence, Wall and Field. The system smoothly integrates with the perimeter environment without affecting its aesthetics. Covert deployment allows sensing devices to be hidden from damage and awareness by intruders. The system is invisible and undetectable to intruders, thus increasing the rate of detection.

H 8



## 6. Intelligent Identification <sup>SYSTEM</sup> Algorithm

### True Intrusion Signal Recognition

Instead of just “On/Off” status report from indoor conventional devices, Nxtar Fiber Optics P.I.D.S. uses intelligent signal identification to define an Human Intrusion signal from all other environmental disturbance to give you the lowest level of false alarm in the industry. The use of parameters setting from the software can customize the system’s detection ability within that specific environment, thus reduce false alarm rate.

H 9

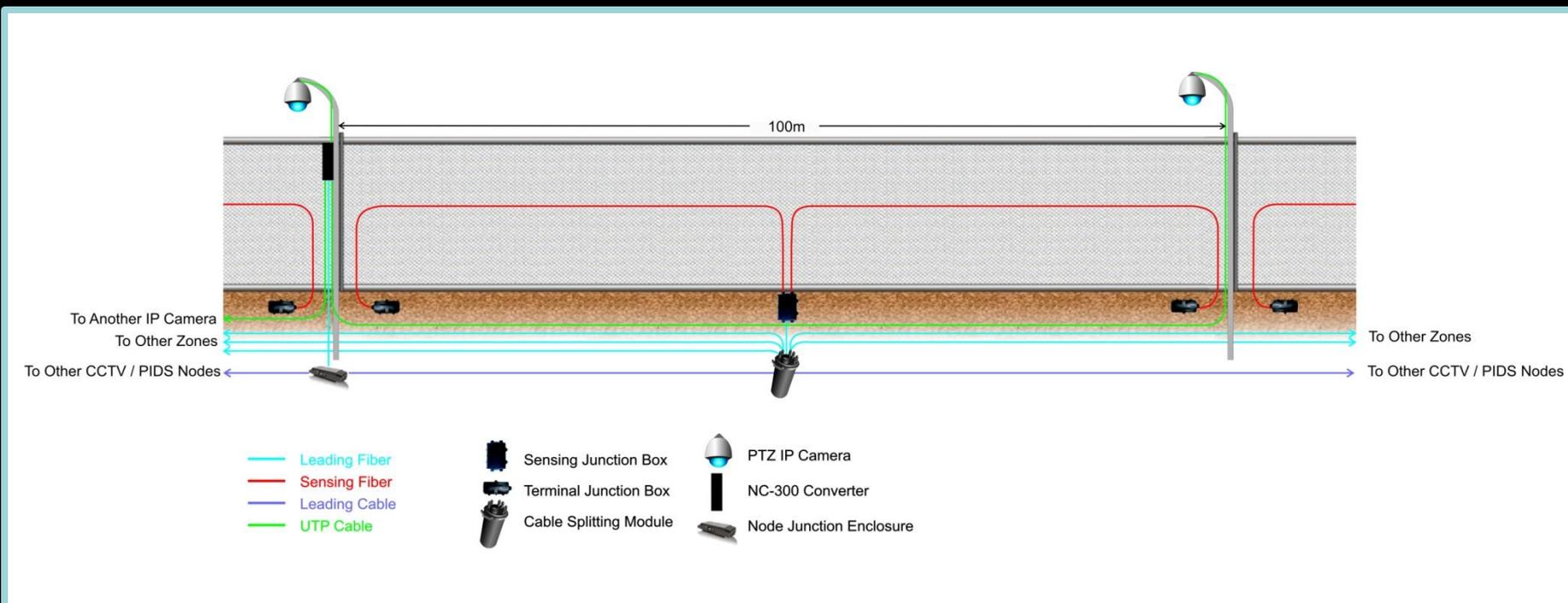


## 7. Integrate with CCTV Surveillance

### IP Camera Deployment

By integrate P.I.D.S with CCTV Surveillance together, when intrusion occurs, PTZ cameras will be triggered to turn to the specific zone to observe. Inspectors can remotely monitor their premise and double confirm if it is a genuine intrusion prior to alerting guards.

H 10



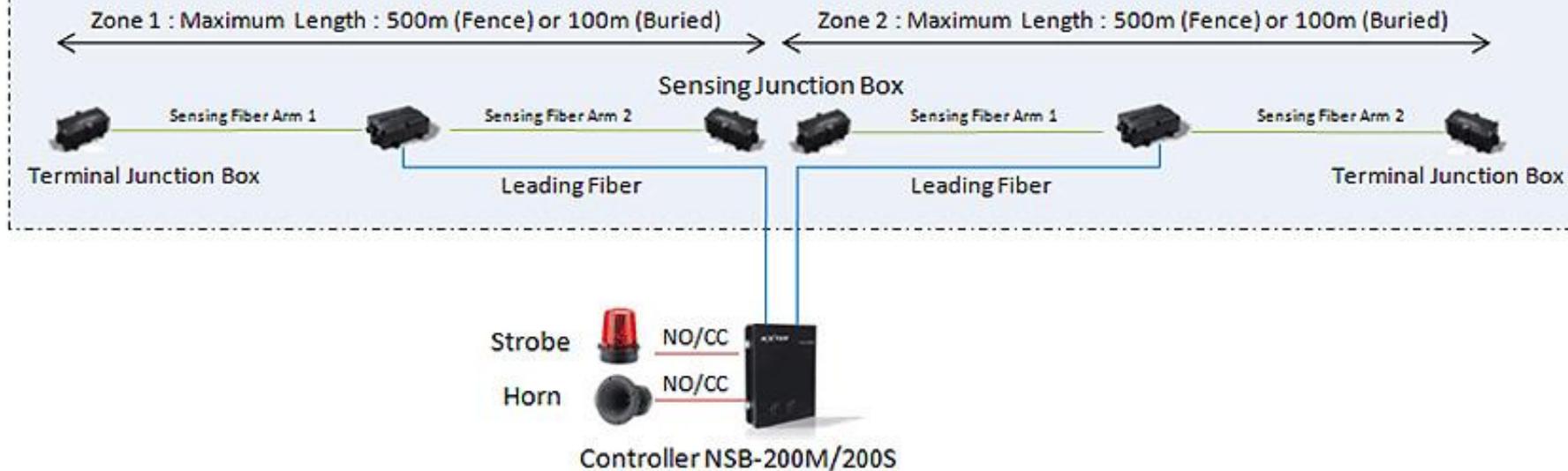
## 8. Application Scale Classification

### Small Scale

The small scale solution is mainly designed to cover 1 to 2 detection zones in a perimeter within 1km. The installation only requires two workers to complete within one day, saving time and labour cost. Military/industrial performance security system is utilized for household use and any small unit applications.

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### ONE OR TWO ZONE(S) OF DETECTION



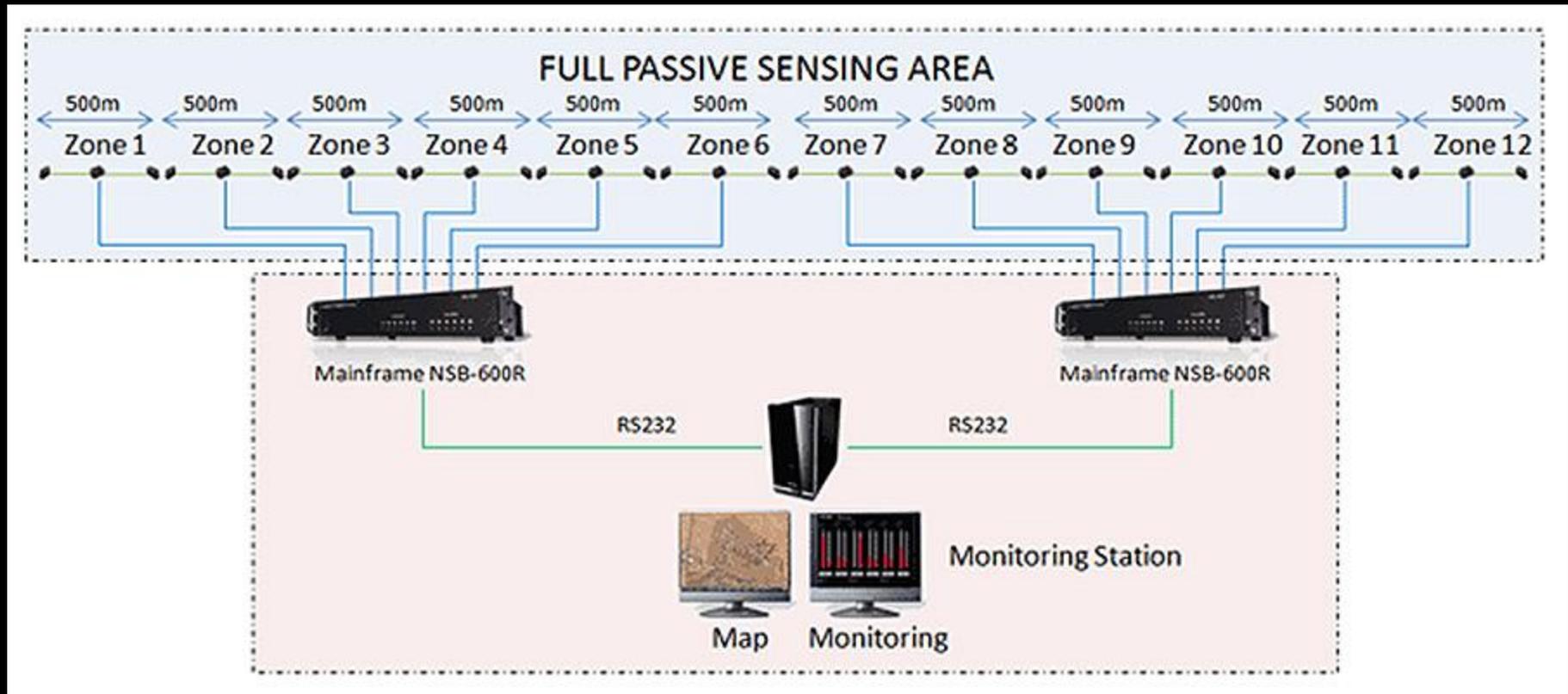
2 Zones of Detection managed by one NSB-200M controller.

## 8. Application Scale Classification

### Medium Scale

The medium scale application targets a wide variety of markets such as military base, prison, warehouse, factory, power plant, and logistic facility. The standard application for medium scale is suitable for both 4-12 zones of detection and a perimeter ranging from 1-3 km.

H 15



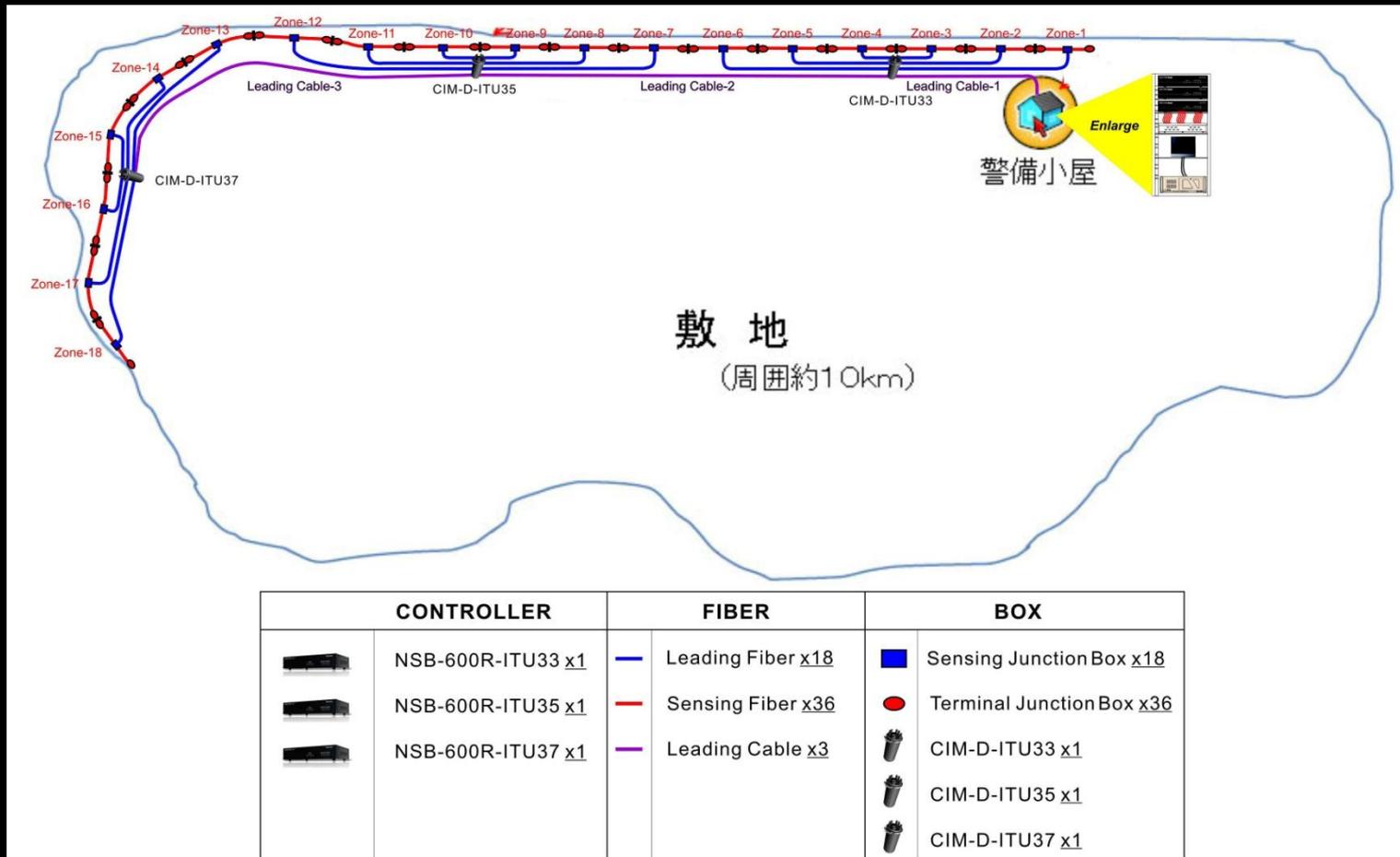
12 Zones of Detection managed by two NSB-600R controllers

## 8. Application Scale Classification

### Large Scale

The large scale solution is utilized to secure large areas: airports, national borders, oil refineries, military bases, pipe lines are only just few common examples. This application is suitable for more than 18 zones of detection and a perimeter beyond 9km in length. In fact, the large scale solution can be applied to virtually unlimited distances through connecting multiple systems.

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18 Zones of Detection managed by three NSB-600R controllers.

## Typical P.I.D.S Deployment SYSTEM

This airport application is an example of typical P.I.D.S deployment on fence with multiple detection zones. Possible deployment types are Fence, Wall, and Underground.

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# PERIMETER INTRUSION DETECTION

## Fence Deployment SYSTEM



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Barbed-wire fence deployment on wall



Steel bar fence deployment



Wire mesh fence deployment

# PERIMETER INTRUSION DETECTION SYSTEM

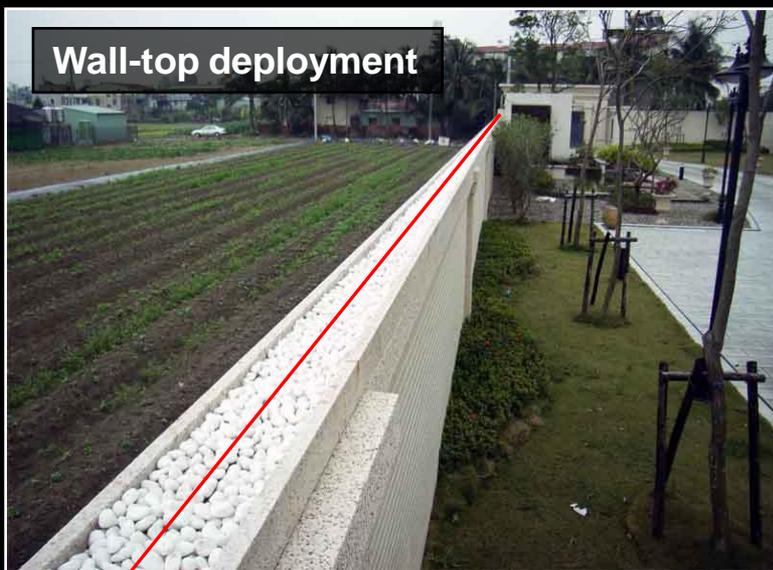
## Wall Deployment



H 28



Stone wall with wire cage



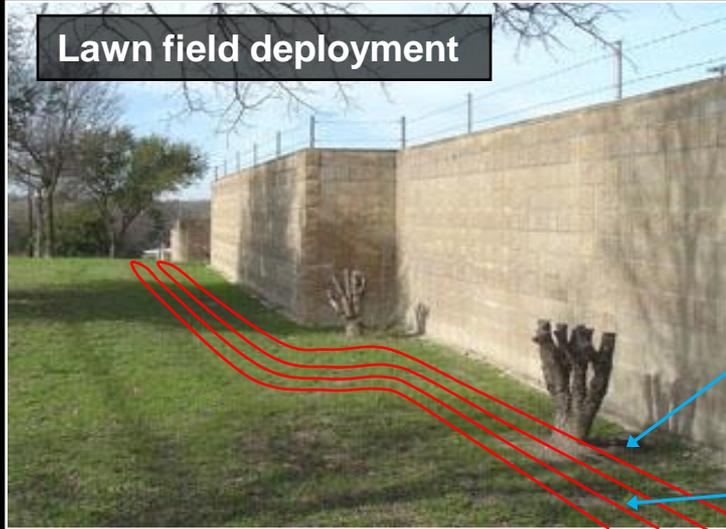
Wall-top deployment



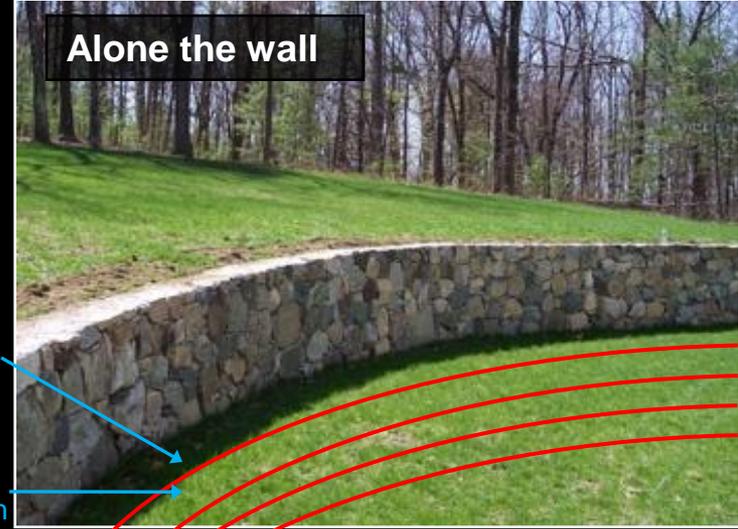
Wall-top deployment with L-Bracket

## Example of Underground Deployment

Lawn field deployment



Alone the wall

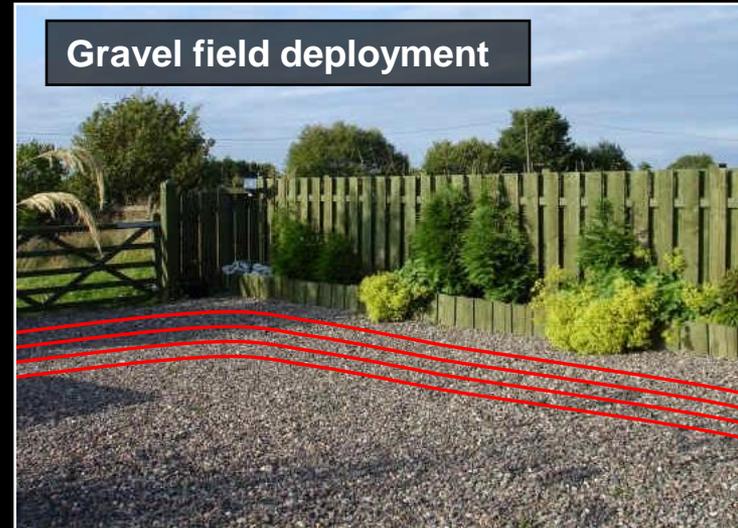


H 32

Landscape random deployment



Gravel field deployment



**Thank you very much!**



**Nxtar Technologies Incorporated**

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**▲ <http://www.nxtar.com>**

**Perimeter Security Solution**

**- The End -**