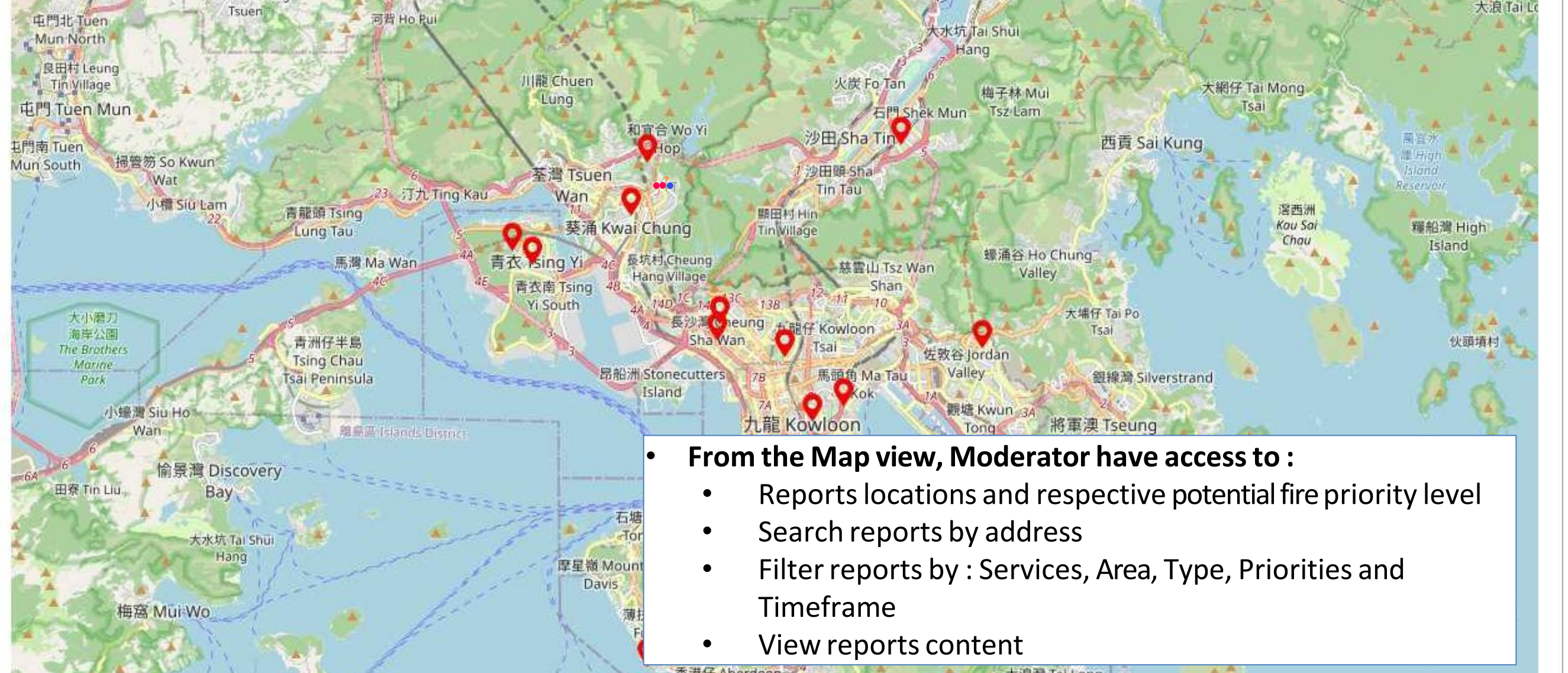## Major issues with fire in Old Buildings

Flammable building materials and lack of fire resistance
- These structures often lack modern fire stops, which are designed to prevent fires from spreading through walls and floors.

Structural and layout complexities
- Old buildings frequently have irregular layouts, narrow staircases, small doorways, and limited escape routes that can impede evacuation.
- The original structure may not be able to support the weight of modern fire protection systems, such as heavy fire doors, requiring advanced engineering and lightweight materials.
- Deterioration over time can lead to hidden structural issues, such as weakened walls or roofs, which can make the building more susceptible to fire and hinder evacuation efforts.

Challenges in retrofitting and preservation
- Installing modern fire detection and suppression systems like sprinklers can be complex, potentially clashing with the building's aesthetic or architectural integrity.
- Many older buildings were constructed with highly flammable materials like timber beams, which can contribute to the rapid spread of fire.
- There is a constant tension between preserving the current features of the building and implementing the necessary modern fire safety standards.

Other issues
- Densely built buildings can make fire spread more quickly between adjoining buildings, especially if they have shared roofs or attics or very nearest.
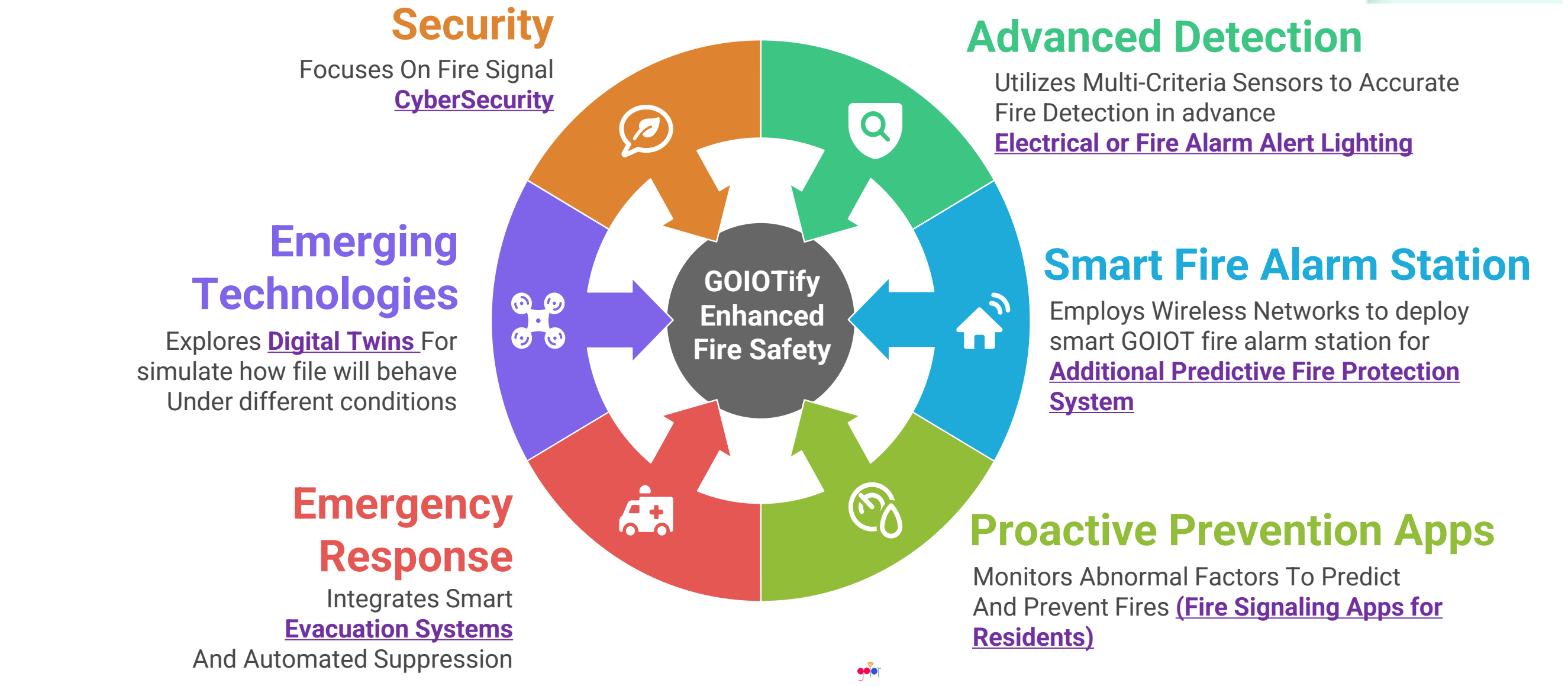- Narrow streets can be difficult for modern fire trucks to navigate, slowing down the emergency response.

Fire Signaling is shown in Map for visualization.

- **From the Map view, Moderator have access to :**
  - Reports locations and respective potential fire priority level
  - Search reports by address
  - Filter reports by : Services, Area, Type, Priorities and Timeframe
  - View reports content

LoRaWAN®   Modbus   4G LTE 5G   BACnet   Wi Fi   MESH

Each Fire Signaling is equipped with 6 fire protection features.

Security
Focuses On Fire Signal
CyberSecurity

Emerging Technologies
Explores **Digital Twins** For simulate how file will behave Under different conditions

Emergency Response
Integrates Smart **Evacuation Systems** And Automated Suppression

GOIOTify Enhanced Fire Safety

Advanced Detection
Utilizes Multi-Criteria Sensors to Accurate Fire Detection in advance
Electrical or Fire Alarm Alert Lighting

Smart Fire Alarm Station
Employs Wireless Networks to deploy smart GOIOT fire alarm station for **Additional Predictive Fire Protection System**

Proactive Prevention Apps
Monitors Abnormal Factors To Predict And Prevent Fires (**Fire Signaling Apps for Residents**)

Benefits

Faster Detection: Early identification reduces damage and saves lives.
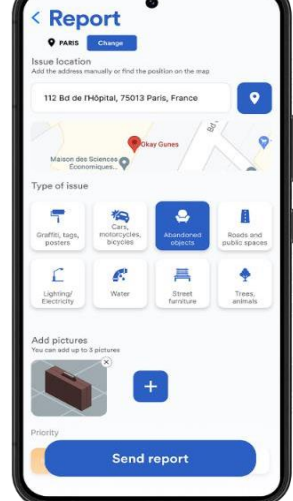**Real-time Alerts:** Enables quick evacuation and response.
Remote Access: Continuous monitoring from any location.
Integration: Works with Existing Fire Alarm Panel, Electrical Alarm Panel and Building Management System BMS for efficient safety management.
Link with Residents: APPS to notify residents for evacuation for emergency.

Fire Signaling (FS-Core+)

Remote FM Office maintain and control the building (can operate in 7/24)

Fire Alarm Core Station

Monitor all the IOT sensors wirelessly and notify APPS and SMS to the residents. Activate the Siren for alert the residents. Programming Buttons for any alarms and alerts.

Apps for Buildings Owners/Residents

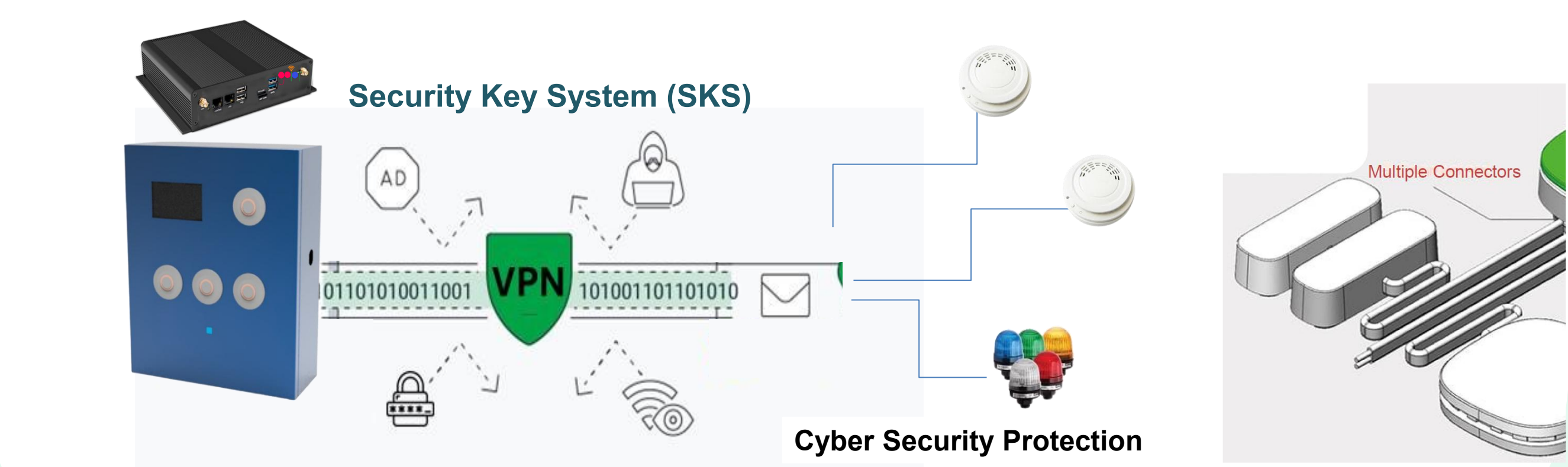Allows "unknow" end users / residents to report issues. Moderated by the moderators.

Remote Communication and Integration

- **IOT-driven hazard prediction:** monitor temperature, smoke, gas and electrical load to detect anomalies before a fire starts.

- **Pump health monitoring:** Alerts for water pump healthiness and appliances to prevent ignition sources and water pump issues.

- **Replacement of wireless light bulb** in the electrical panels and fire panels to remote monitoring the abnormal of alarms/alert

Data Security and Remote Monitoring

- Protect the data with security key inside the FS-Core+ system.
- Store data for yearly fire maintenance review and checking.
- Send alerts in the Fire Signaling APPS and SMS to the preset residents

Security Key System (SKS)

AD   VPN   0101010100100100   101000101101010

Multiple Connectors

Cyber Security Protection

Who we are

FSI Contractors Classes 1, 2 & 3.
- FSI contractor partnership to drive the solution in Fire Detection and Prevention Solution, which are designed to prevent fires from spreading through inside the buildings.

MEP Contractor
- The IoT Fire Detection System also request the understanding of the MEP in order to understand the importance of the fire system. We had over 30 years of experience in MEP Engineering.

IOT and IT Innovator and Implementor
- By integrating data analysis with policy implementation and IOT experience, we know the resources to be allocated where they are most needed, significantly enhancing the fire safety levels of aging buildings.