Smart Indoor Location Solution

INTRODUCTION

Wi-Fi devices are everywhere to keep us connected every day. It certainly can do more. The Smart Indoor Location Solution builds on existing Wi-Fi network infrastructure and uses any portable device with Wi-Fi features, such as a mobile phone, as a sensor. With Edgecore’s ecCLOUD add-on services, the solution can provide multiple functions to meet the indoor management needs of various application scenarios.

Whether in offices, factories, dormitories, rental properties, or other public areas, the Smart Indoor Location Solution can be quickly implemented in an existing Wi-Fi network to accurately locate and track objects through a portable Wi-Fi device such as a mobile phone. Combined with Edgecore’s leading data labeling and analysis system, and a real-time dashboard, managers can track and monitor objects, taking immediate actions in response to events.

For daily management, the Smart Indoor Location Solution can be applied to personnel management, entry-exit management, visitor flow analysis and statistics, allowing businesses to monitor guest attendance, track visitor footprints, identify high-traffic areas and footprint trends, as well as receive abnormal event notifications.

Compared with existing Wi-Fi-based indoor location systems on the market, the Smart Indoor Location Solution has the unique advantage of high integration. It covers Wi-Fi access points (APs), a cloud-based management platform, and a smart indoor positioning system. By optimizing location data through Wi-Fi AP wireless signals, integrating with the cloud-based management platform, and performing accurate data labeling and analysis, the solution helps companies from different sectors to easily adapt the smart indoor location system to meet the various location management needs.
HIGHLIGHTS

• Fast to Deploy, Reenergize Your Existing Wi-fi Investment
  • The fast-to-deploy and straightforward tracing solution reenergizes the Wi-Fi system and eliminates the complexity of the new-build indoor location system.

• An Intelligent Solution — Turns Massive IT Data Into A Management Dashboard
  • Analyze labels and records of staff, visitors, locations, time, and events for best action and response assessment
  • Utilize data for behavioral analysis, providing valuable data and reports.

• An Efficient, Cost-saving Business Intelligence Management System
  • Advanced human mobility tracing and monitoring system
  • Digital staff/ guests attendance system
  • Trace the footprints quickly, save investigation time, and reduce the risk impacting business

• Visualization and Analytical Tools
  • Visible data for footprint management in real-time improves business operational resilience in response to emergencies

DEPLOYMENT CONCEPT
# FEATURES

**Real-time Location Data Collecting & Analysis**
- Visualization dashboard
- Display human mobility and devices in every zone/ floor
- Real-time tracking of alert objects in the area

**Venue Traffic Analysis**
- Alert of human mobility exceeding limits in high-risk areas
- Alert of unauthorized entry into restricted areas

**Daily Analysis Report**
- Daily hot-zone and peak time area analysis
- Daily venue traffic analysis
- Daily footprint analysis report by employee/visitor/defined object

**Alert & Notification**
- Customization auto-trigger notification
- Flexible management settings for different areas defined by risk/ alert levels

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# CUSTOMER

**Enterprise/ ISP/ MSP**
- Office/Factory/Campus
- Public facilities
- Shopping mall
- Chain Store
- Service apartment/ Smart Building / Rental apartment
- Hospital
- Public event site
- Property management

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# APPLICATION

**Track Visitor Footprints to Increase Venue Safety**
- Personnel access control
- Visitor/vendor footprint management
- Rental property management

**Locate Risky Footprints for Taking Immediate Action**
- Contact tracing for pandemic
- Visitor identification in public spaces
- Emergency evacuation and disaster response positioning

**Analyze Real-Time Traffic Flows to Improve Management Efficiency**
- Electricity/air conditioning/elevator usage adjustment
- Manpower planning and deployment

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# INSTALLATION REQUIREMENTS

**ecCLOUD Add-on Service**
- Add-on activation kit
- User registration toolkit

**Smart Indoor Location Software (VM/Server Base)**
- Installation kit
- Visualization management platform

**Edgecore Wi-Fi Access Point**
- EAP101
- EAP102
- SP-W2-AC1200

**ecCLOUD Cloud Controller**

**Installation Requirements in Local Appliance Server/VM**
- CPU: (Min.) 4 Cores
- Memory: (Min.) 8GB
- Storage: (Min.) 200GB (Suggest SSD)
- OS: Ubuntu1804 Server LTS

*These specifications are the basic installation requirements in local appliance server/VM, actual requirements will vary based on your applications and features.