MAP based
IoT Center Solution
(Ex : Fire Detection)



AddPac

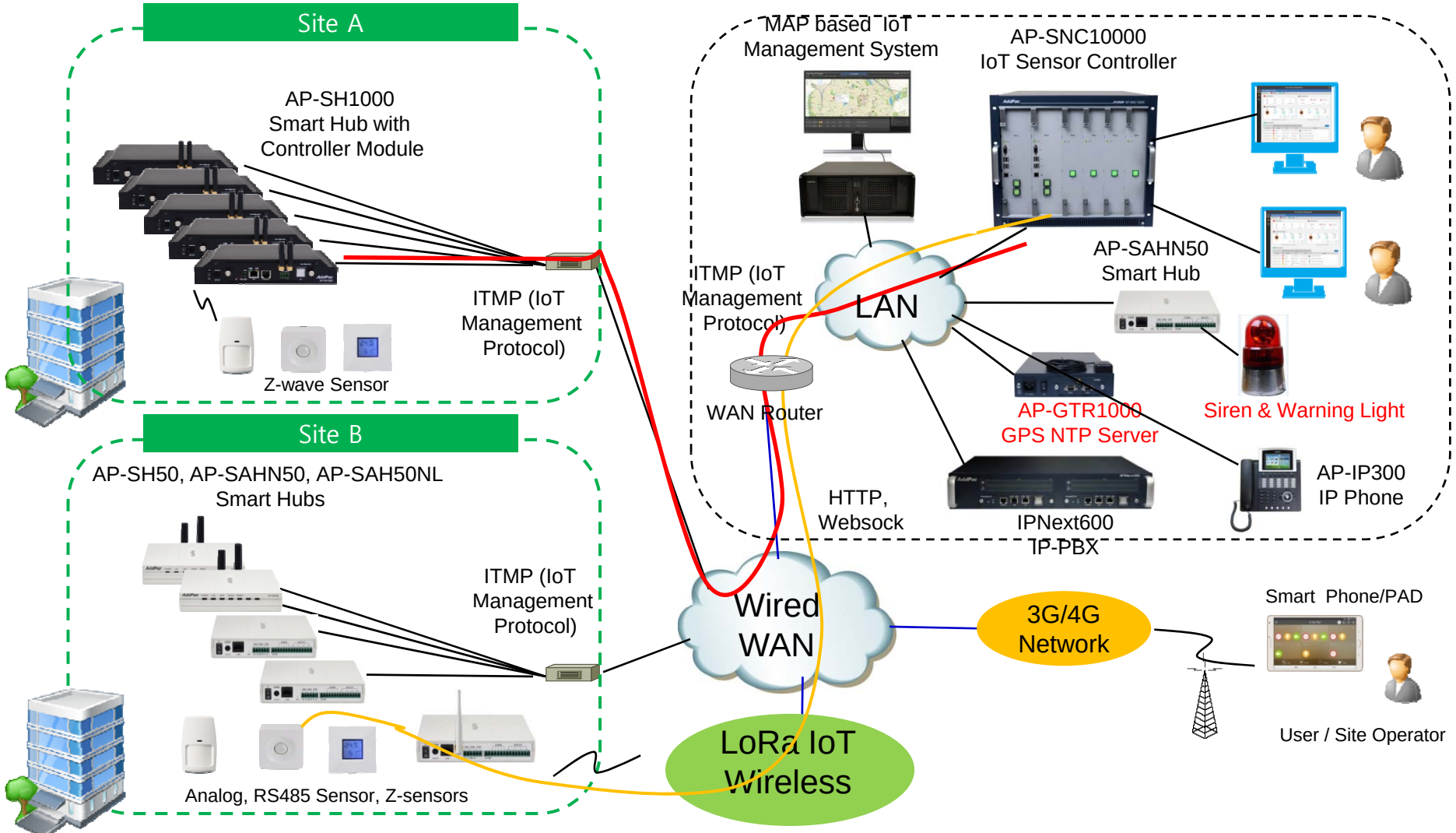
AddPac Technology

Sales and Marketing

Contents

- Network Diagram
- Smart IoT Hub for Fire Detection
  - AP-SAH50NL
- MAP based IoT Center System for Fire Detection Appl.
- AP-SNC10000 Smart Sensor Network Controller
- Smart IoT Web Manager
- IPNext600 IP-PBX Solution for Emergency Call
- IP Phone Solution for Emergency Call
- IP Voice Recording Solution (Option)
- GPS based Embedded NTP Server for Time Sync.
- Fire Detection Sensor Survey (Example)

Network Diagram



IoT based Fire Detection Central Management Solution Product Table

MAP based Management System	Smart Sensor Network Controller	Smart IoT Hub	SIP Call Manager	SIP Phone for Call Center	IP Voice Recording Server	GPS based NTP Server
	 AP-SNC10000	 AP-SAH50NL	 IPNext600	 AP-IP300	 AP-NR1500	 AP-GTR1000
	 Smart IoT Web Manager					

Smart IoT Sensor Hub Solution

Smart IoT Hub Comparison Table

Model	AP-SAH50N	AP-SAH50NL	AP-SH50	AP-SHD50
				
Service Features				
Sensor Type	Wired	Wired	Wireless	Wireless/Wired
			Zigbee, Zwave	Zigbee, Zwave
Wired Sensor Port	5-port Alarm Input 4-port Relay Output	5-port Alarm Input 4-port Relay Output	N/A	6-Port
RS485	Support	Option	N/A	N/A
SPK, Beacon Wired Port	Support	Support	N/A	N/A
Smart Appl. for Phone, PAD	Support	Support	Support	Support
Smart Web Manager	Support	1	Support	Support
LAN Port	1	Option	1	1
LoRA Wireless	N/A	Support	N/A	N/A
PoE(Option)	Option	Option	Option	Option

AP-SAH50NL
Smart Hybrid Hub for Legacy Wired Sensors



Product Overview

AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors

- Advanced Smart Hub Solution for Enterprise
- Legacy Wired Sensor Interface Support
- RS485, Alarm Input (5Port), Relay Out(4Port), Beacon, Speaker Interface
- Wired/Wireless Dual Network Service for Uplink
- Smart IP Routing Service Features for Wired Sensor Network
- LoRa Wireless Service Support for Wireless Sensor Network
- Smart Wall Pad Interworking Service Features
- Smart Hub Interworking Support for Third Party
- High Performance RISC Programmable Architecture
- One 10/100Mbps Fast Ethernet
- High Performance LAN-to-Wired Legacy Sensor Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web based Management
- Light and Compact Design with External Power Supply

Hardware Specification

AP-SAH50N Smart Hybrid Hub for Legacy Wired Sensors



- RISC Microprocessor Computing Power
- Wired Sensor Interface
  - 5-Port Alarm Input
  - 4-Port Relay Output
  - RS485 Interface
- Speaker Port, Beacon Port
- Network Interface
  - -One(1) 10/100Mbps Fast Ethernet (RJ45)
  - -LoRa IoT Wireless Interface (Antenna)
- LAN LED, Sensor Port LED, etc
- External Power Supply

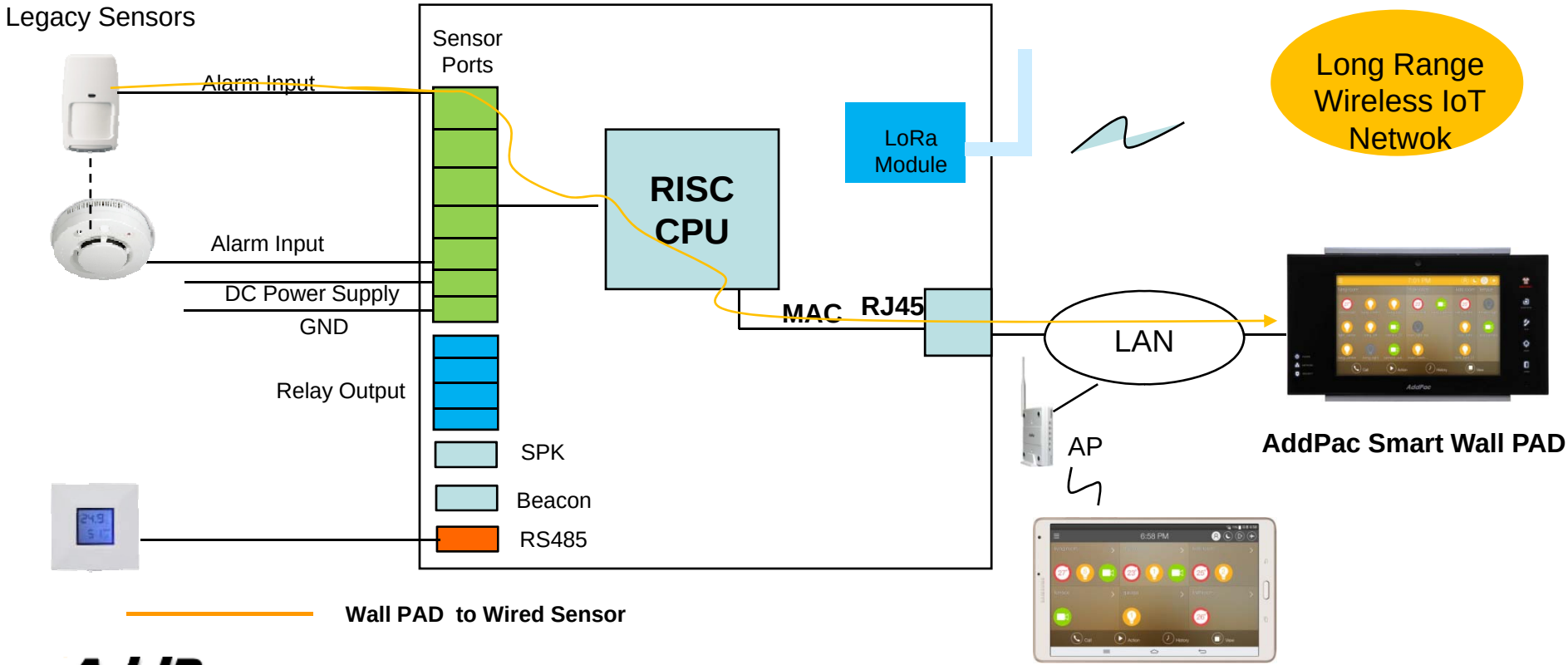
Hardware Specification

AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors

RISC CPU

Smart Hub Service Diagram

AP-SAH50NL Smart Hybrid Hub Internal H/W Block Diagram



Hardware Specification

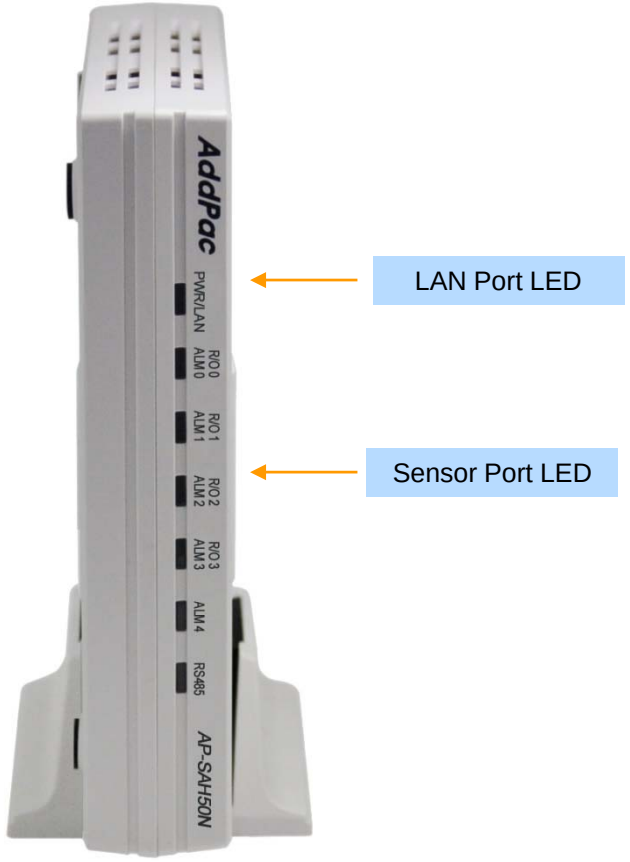
AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors

AP-SAH50NL Smart Hybrid Hub	**Basic Specifications**
Sensor Interface (Wired Sensor)	5-Port Wired Sensor Input Interface
	4-Port Relay Output Interface
	1-Port RS485 Interface
Control Interface	Speaker, Beacon Control Interface
Ethernet Interface	1-Port 10/100Mbps Ethernet Interface(1 x RJ45)
LoRa Wireless Interface	1-Port Antenna Interface (LoRa)
Flash Memory	4Mbyte High-speed Flash Memory
Base Memory	32Mbyte High-speed SDRAM
Power Requirement	Power Supply Adaptor / VAC 110~220V, 50/60Hz, 12V, 2A
Operating Temperature	0ºC ~ 45ºC (32 ºF ~ 122ºF)
Storage Temperature	-40ºC ~ 85ºC (-40ºC ~ 185ºF)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimension	142mm x 142mm x 28mm (W x D x H)
Weight (Kg)	0.42Kg

Hardware Specification

AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors

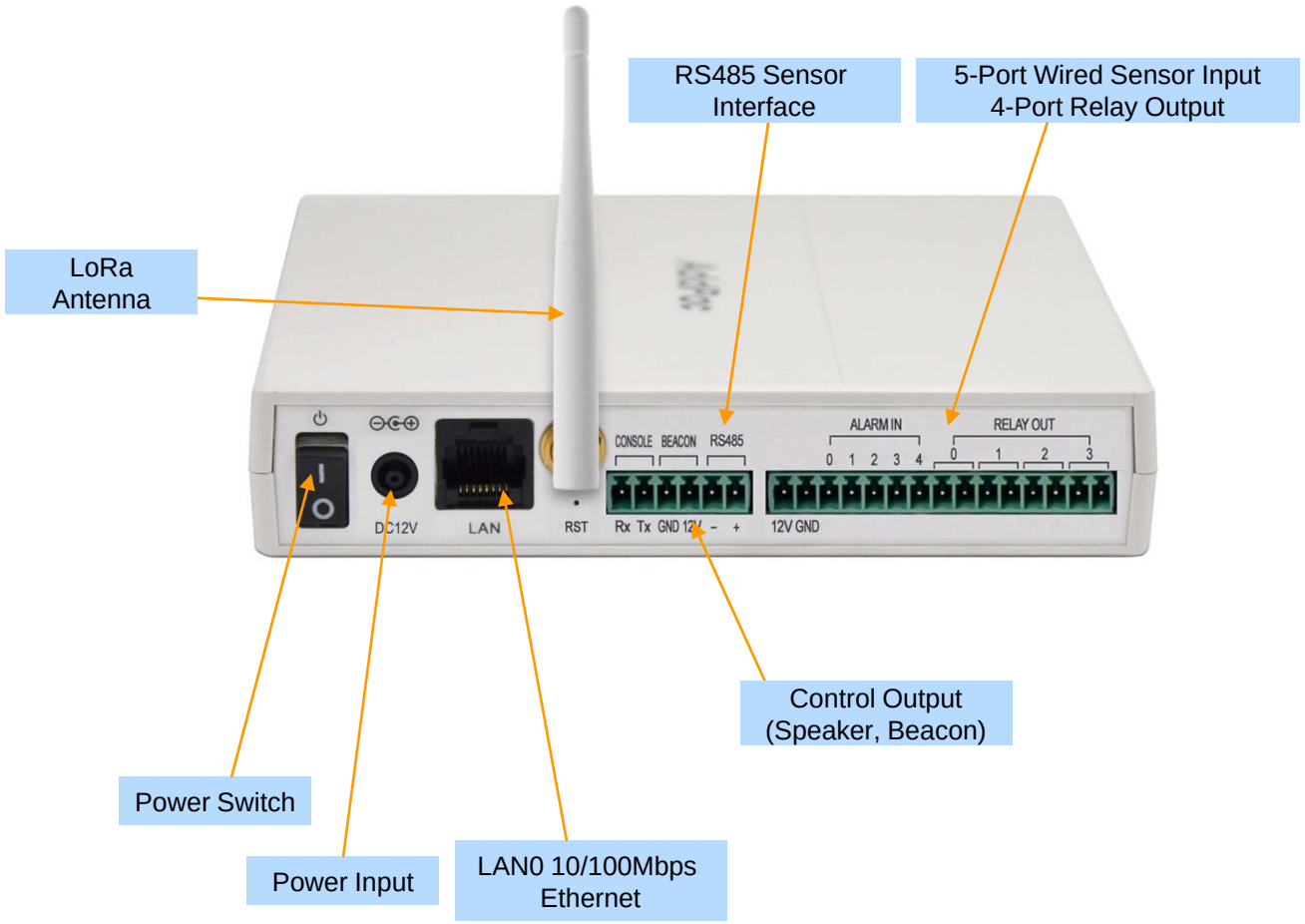
Front Side



Hardware Specification

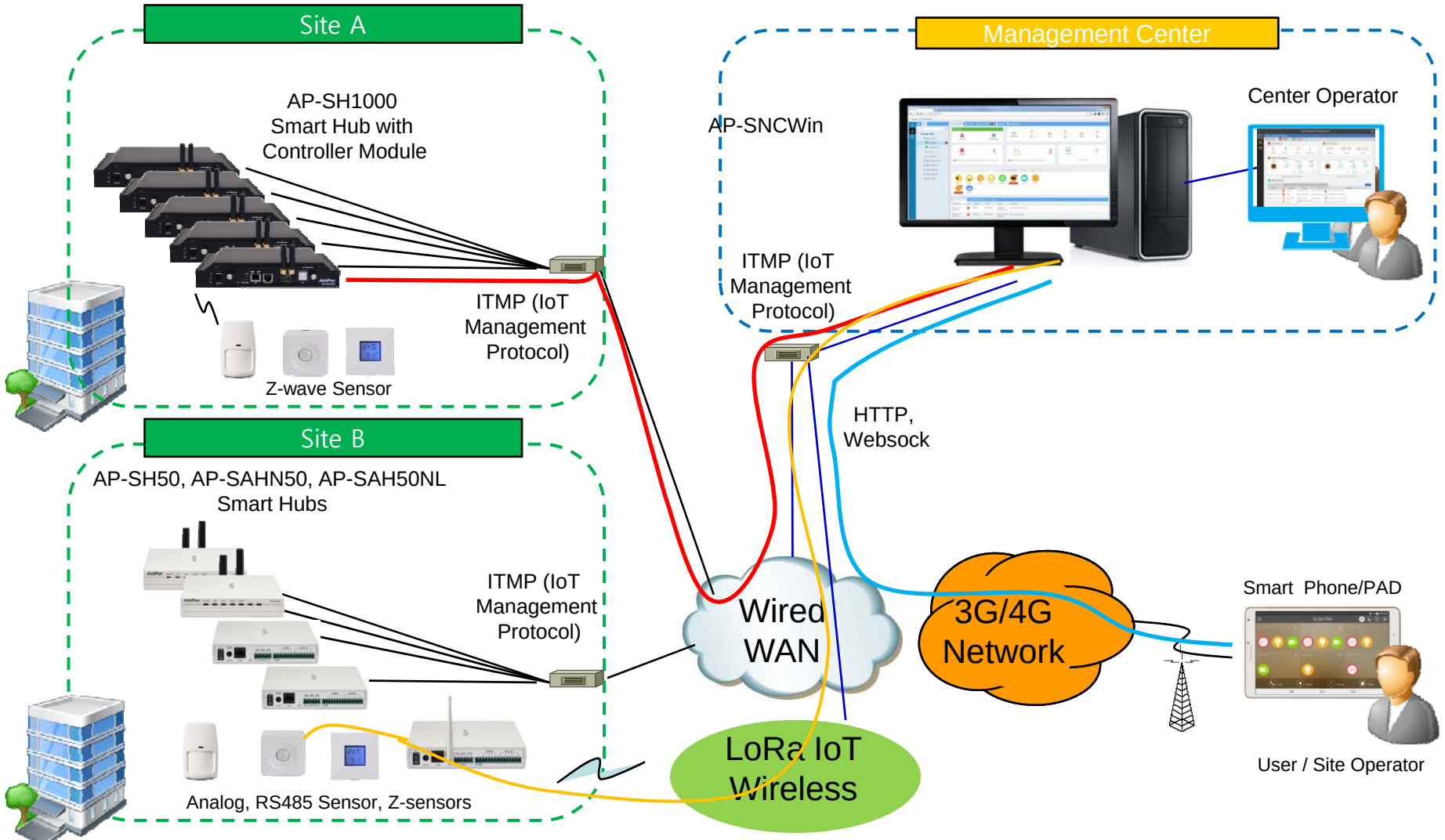
AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors

Back Side



Standard Application

AP-SAH50NL Smart Hybrid Hub for Legacy Wired Sensors



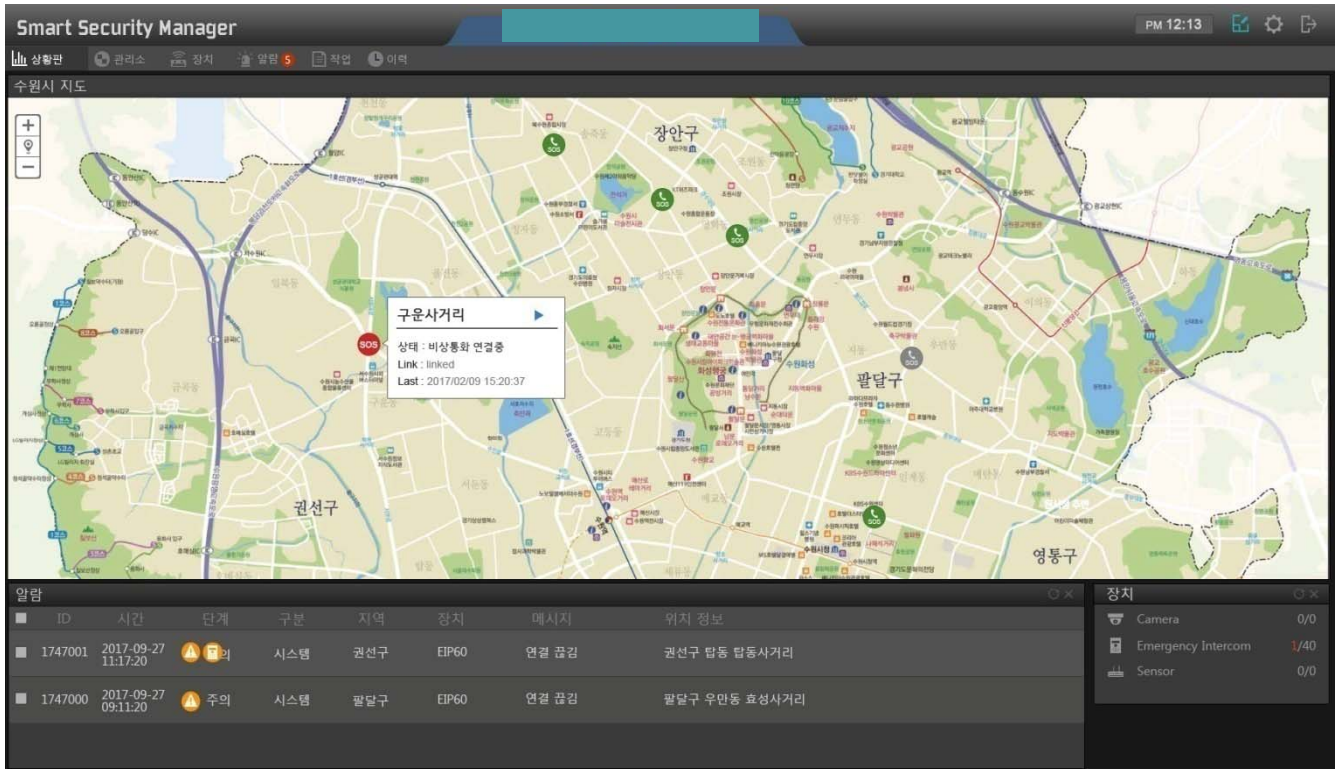
MAP based IoT Center System



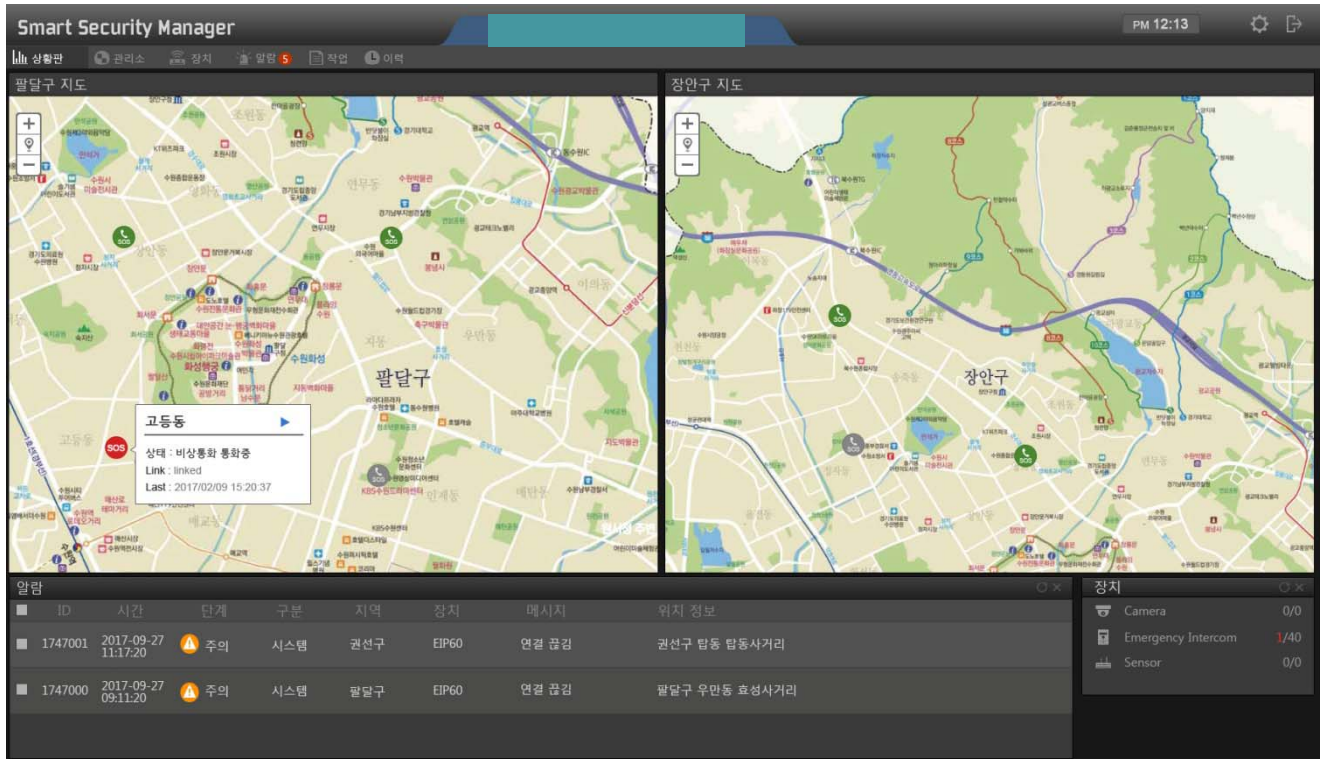
MAP based IoT Control Service Overview

- JavaScript based Interactive MAP Service
- Integrated Security Management Service via MAP based Device Overlay Display
- Fire Detection IoT Sensor Hub, etc, Geographical Display on MAP for Instinctive Control Service
- MAP Editor Service (Background Image, Device Lists, etc)
- MAP based IoT Device Status Display
- Zoom to Area, Double Click Zoom, Scroll Wheel Zoom, etc
- Tile Layer, etc

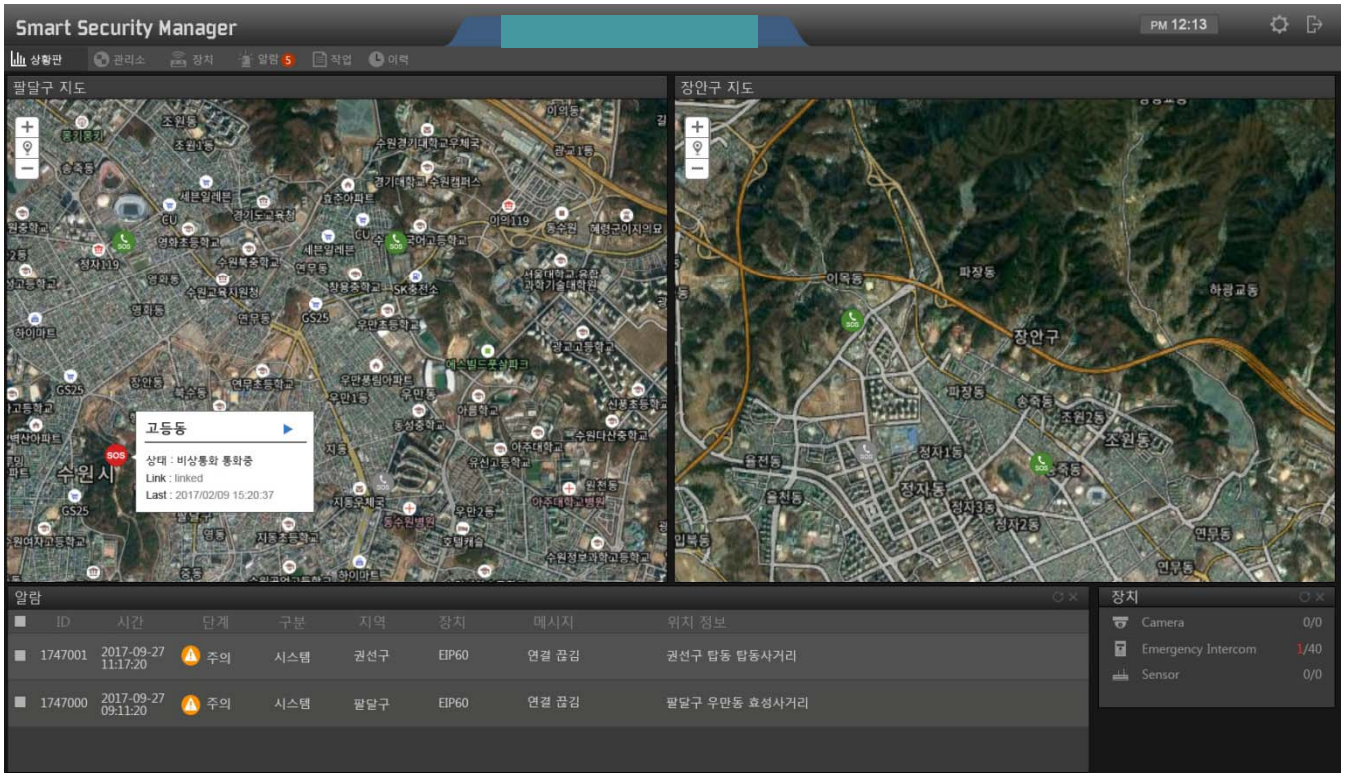
MAP based IoT Smart Hub Service Overview (Example)



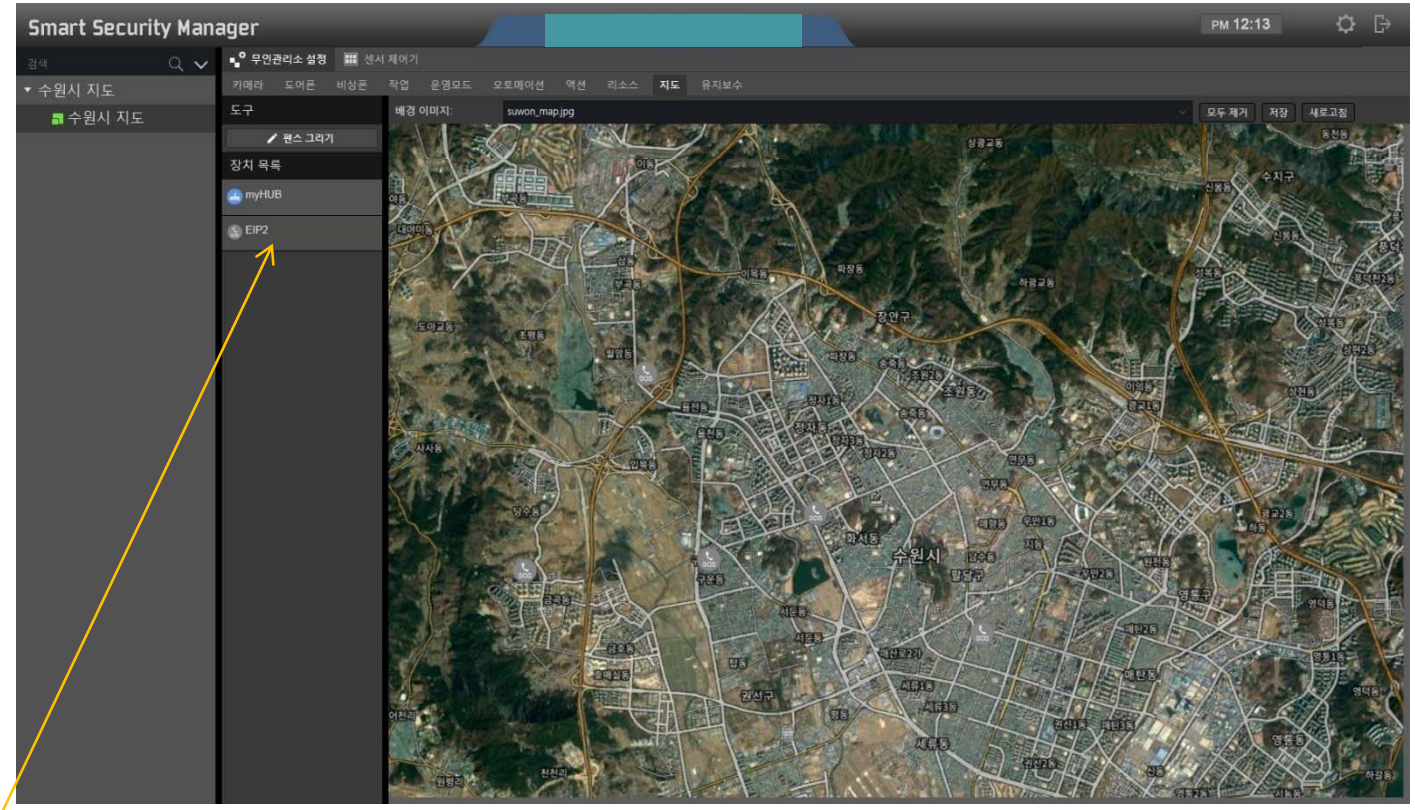
MAP based IoT Smart Hub Service Overview (Tile Layer Example)



MAP based IoT Smart Hub Service Overview (Tile Layer Example)

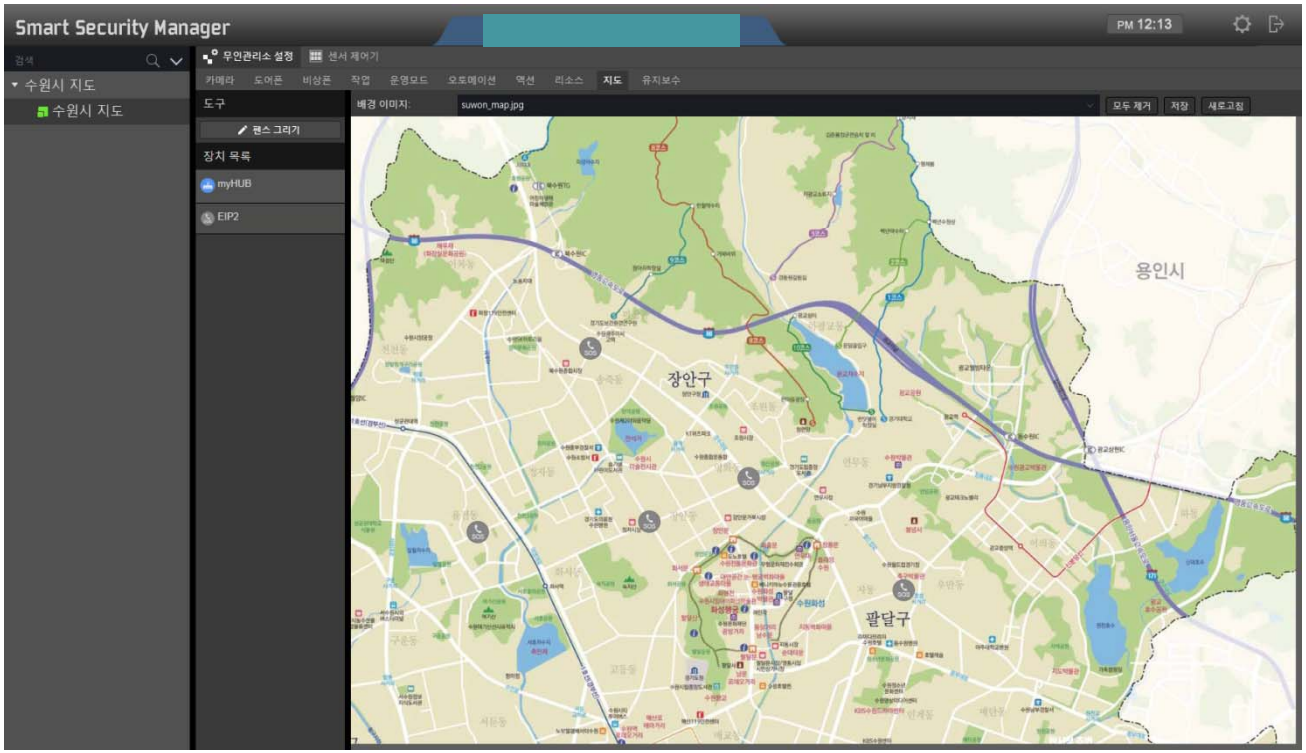


MAP based IoT Smart Hub Service Overview (MAP Editor Service)



Device Lists : IP Emergency Call Phone, IP paging terminal etc

MAP based IoT Smart Hub Service Overview (MAP Editor Service)



AP-SNC10000
Smart Sensor Network Controller



Product Overview

AP-SNC10000 Smart Sensor Network Controller

- Large-Scale Sensor Network Control Service
- Support Large-Scale Smart Hub Devices for Wired & Zigbee/Zwave sensors
- One(1) System Dual Sensor Network Controller Architecture
  One(1) Gigabit Ethernet Interface, Two(2) Hard Disk / a CPU Board
  Default : Single Smart Sensor Network Controller
  Option A : Dual Smart Sensor Network Controller
  Option B : One(1) Smart Sensor Network Controller
  + One(1) Smart Sensor Network Manager
- Fault Tolerant and Scalability Architecture
- Powerful Management and User Friendly Features
- Firmware Upgradeable Architecture
- Linux Operation System
- Dual Redundancy Power Module

Hardware Specification

AP-SNC10000 Smart Sensor Network Controller

- High-End Computing Power
- Main Chassis
  - Dual Redundancy CPU Boards for System Fault Tolerant
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - Four(4) USB Interface Port
    - VGA Interface Port for External Video Monitor
    - Two(2) 3.5 Inch Hard Disk Interface Slot (RAID 1)
  - Dual Redundancy Power Supply Module
  - Hot-Swap Features
  - Right most two(2) slots is reserved for Switch Board,, etc

Hardware Specification

AP-SNC10000 Smart Sensor Network Controller

AP-SNC10000 Front Side



VGA Connector

USB Interface

Gigabit Ethernet Port

Power On/Off Switch for System

CPU Board A (Hot-Swap)

CPU Board B (Hot-Swap)

Dual 3.5 Inch HDD Disks(RAID1) : Hot-Swap

Hardware Specification

AP-SNC10000 Smart Sensor Network Controller

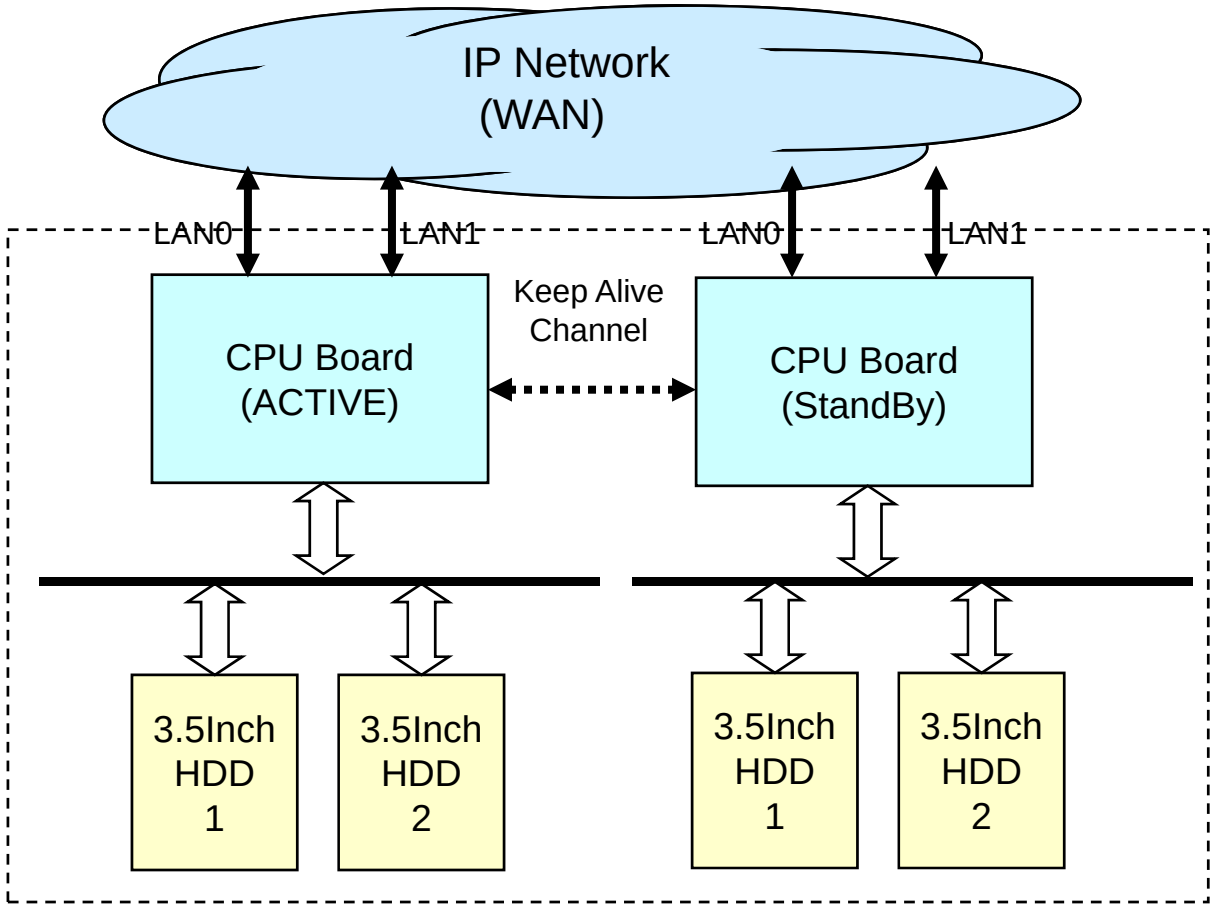
AP-SNC10000 Back Side



System Redundancy Features

AP-SNC10000 Smart Sensor Network Controller

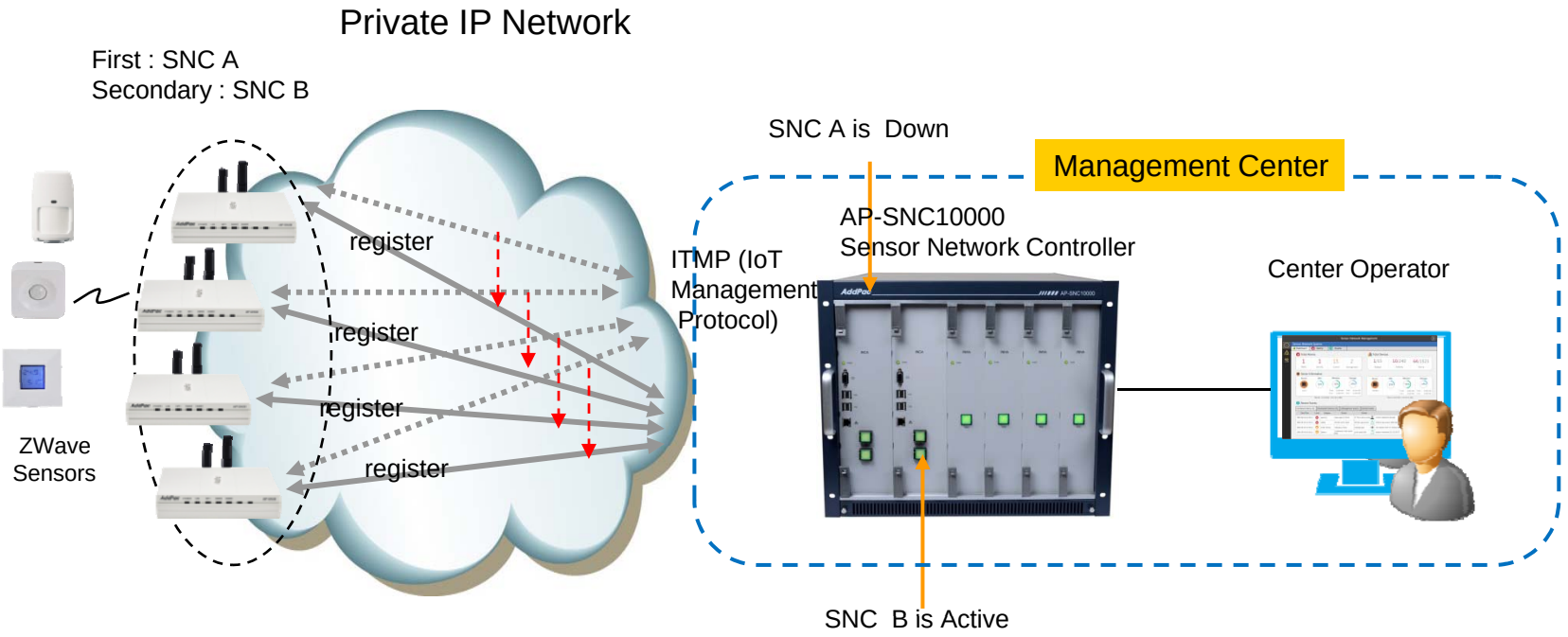
AP-SNC10000 System Block Diagram



System Redundancy Features

AP-SNC10000 Smart Sensor Network Controller

- Active– Active Duplication Scheme
- Active – Standby Duplication Scheme
- VRRP based Duplication Scheme



Active – Standby Duplication Scheme (example)

IoT Service and Features

Key Concepts for Enterprise IoT Solution

AP-SNC10000 Smart Sensor Network Controller

- Enterprise Requirements
  - The things in enterprise are controlled on much more complex environment and configurations than home.
  - Network conditions and management requirements are also much more various than home.
- Our Solution
  - We do support flexible configuration of Smart IoT Controllers and Managers to meet various enterprise requirements.
  - We do support several type of Smart IoT Controllers and Managers to meet various enterprise environments.
  - We do support flexible management authority and access control for center/site operators and users.

Hieratical Administrative Domains

AP-SNC10000 Smart Sensor Network Controller

- Super Administrator
  - He can manage multiple sites and site operators.
- Site Operator
  - A site is logically independent administrative domain which can be a building or a set of offices and buildings.
  - A site operator can manage his site and group operators of it.
- Group Operator
  - A site is composed by multiple sections that are build up by hierarchical groups.
  - A group operator can view and control the sections that are belong to the group.
- User
  - An user can view and control his section.

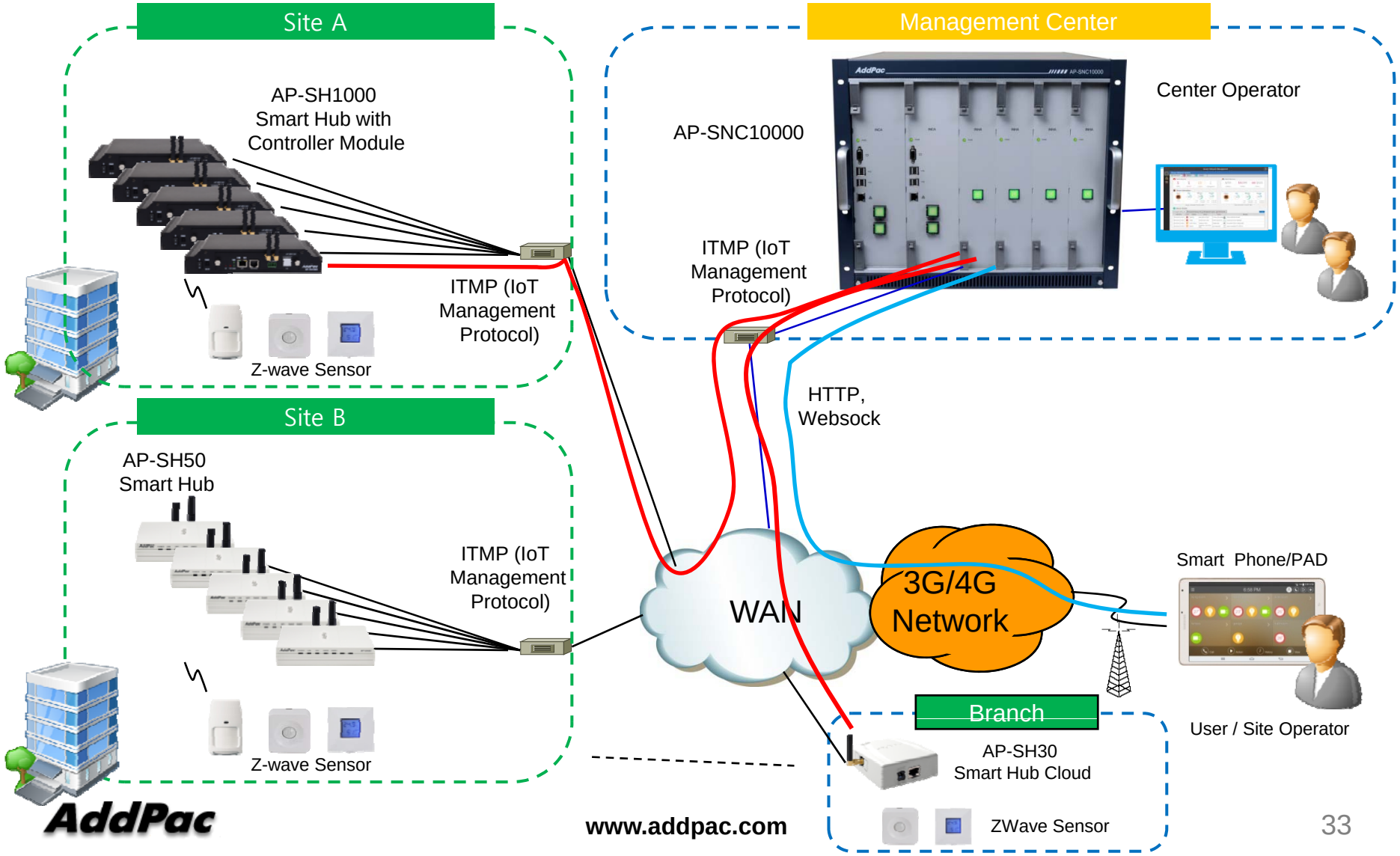
Multi Sites with Center Manager Model

AP-SNC10000 Smart Sensor Network Controller

- Smart IoT Center Controller and Manager
  - A management center has a AP-SNC10000 with ITCS-MS™, ITMS-MS™ software modules with active-standby fault tolerant configuration.
  - ITMS-MS™ is manager module for multiple sites which manages multiple sections and heretical group of sections in multiple sites.
- Smart Hubs
  - The Smart Hubs with / without built-in controller can be controlled and managed by ITMS-MS™ in a center.

Multi Sites with Center Manager Configuration

AP-SNC10000 Smart Sensor Network Controller



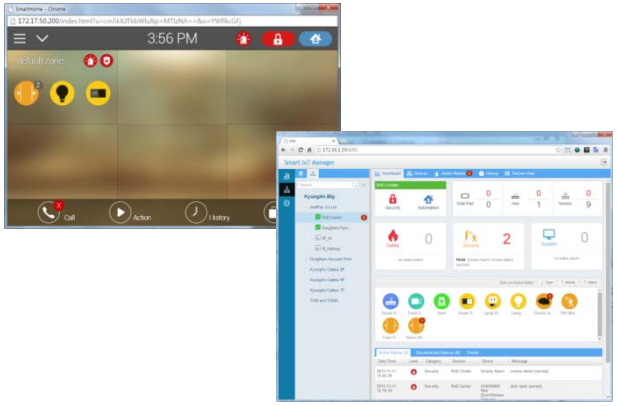
Smart IoT Manager ITMS

AP-SNC10000 Smart Sensor Network Controller

- ITMS™ is software module to manage set of Smart Hubs and controllers.
- ITMS-SS™ can manage single site and ITMS-MS™ can manage multiple sites.
- It manages super administrator, site operator, group operator.
- It manages sites, groups, sections.
- It monitors alarms, events and logs.
- It monitors servers and devices in the site.
- It provides dashboard of site, group, and section.
- It provides provisioning, upgrade, replace of Smart Hubs.

Smart IoT Web Manager

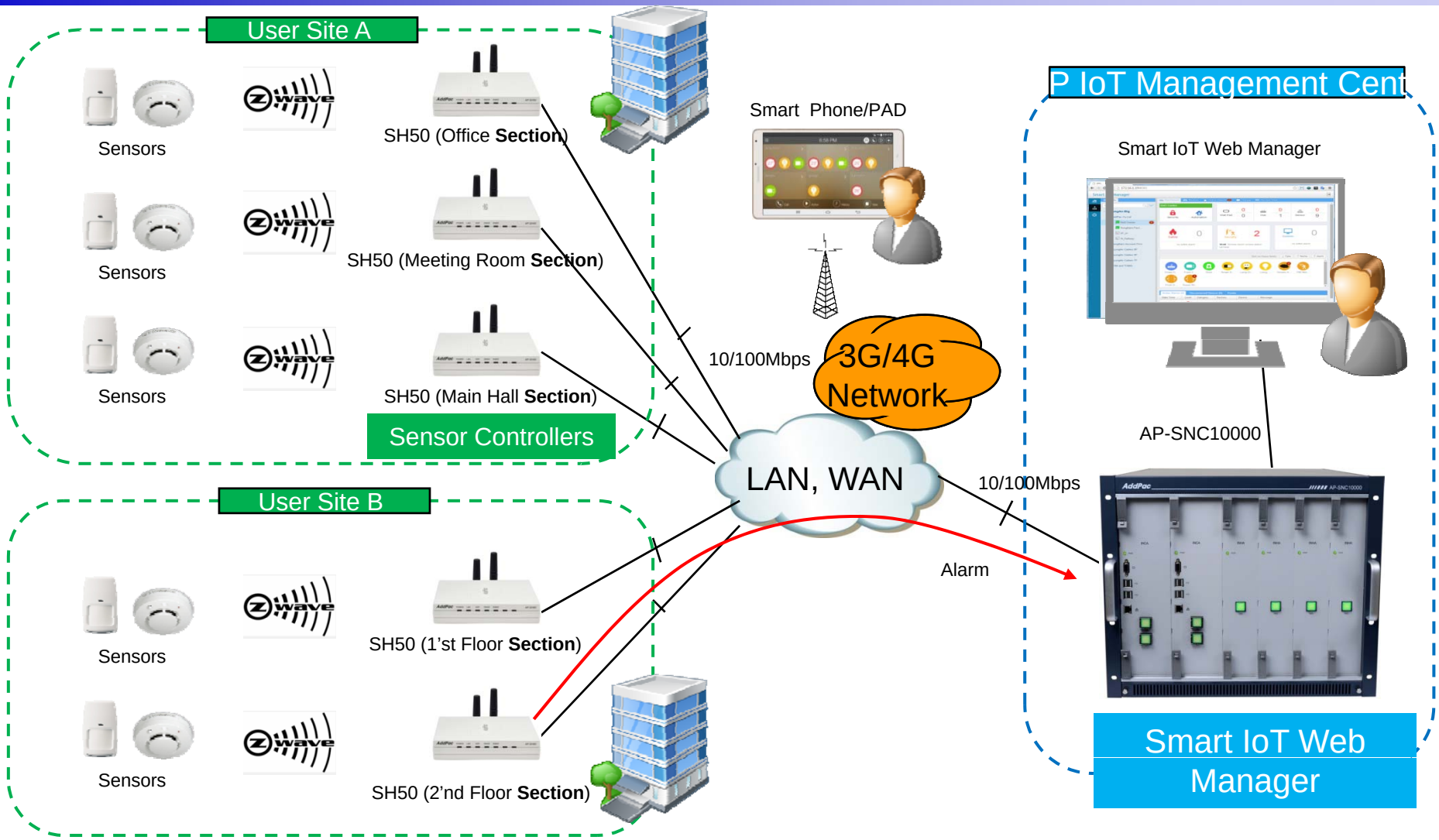




Contents

- IoT Web Manager Service Diagram
- Overview
  - Key Concepts for Enterprise IoT Solution
  - Sensor Controller and Manager Role
  - Hierarchical Administrative Domains
- Smart IoT Web Manager UI
  - Global Dashboard
  - Site Dashboard
  - Section List
  - Operator List
  - Section Dashboard
  - Device List
  - Active Alarms
  - Event History
  - Section View

Smart IoT Web Manager Service Diagram



Overview

Key Concepts for Enterprise IoT Solution

- Enterprise Requirements
  - The things in enterprise are controlled on much more complex environment and configurations than home.
  - Network conditions and management requirements are also much more various than home.

- Our Solution
  - We do support flexible configuration of Sensor Controllers and Managers to meet various enterprise requirements.
  - We do support several type of Sensor Controllers and Managers to meet various enterprise environments.
  - We do support flexible management authority and access control for center/site operators and users.

Sensor Controller and Manager Role

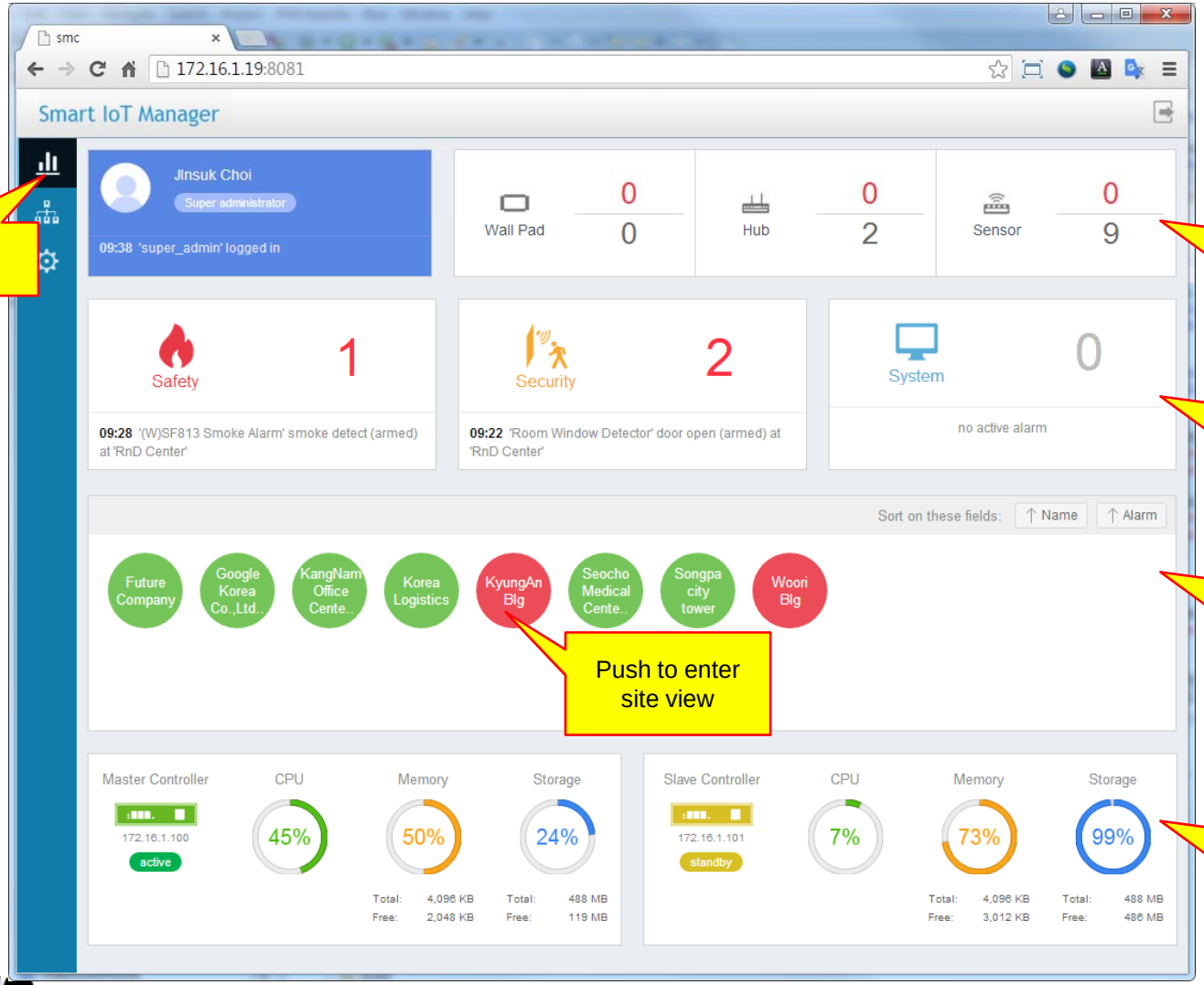
- Smart Sensor Controller
  - It controls his section composed by several sensors.
  - It provides his own smart phone app interface, PC web interface and Wall Pad interface to show sensor status and to control the sensors.
  - It provides discovering sensor for inclusion and configure it.
  - This Sensor Hub integrated with Controller provides robust on network and server fault.
- Smart IoT Manager
  - It monitors controller and sensor status for continuous service.
  - It monitors alarm status of section and device by categorizing to safety alarm, security alarm, and system alarm.
  - It controls multiple sections by task with immediately or schedule downloaded to controllers. (TBD.)

Hierarchical Administrative Domains

- Super Administrator
  - He can manage multiple sites and site operators.
- Site Operator
  - A site is logically independent administrative domain which can be a building or a set of offices and buildings.
  - A site is composed by multiple sections build up hierarchically.
  - A site operator can manage all sections in his site.
- Group Operator
  - A group operator can view and control his sections in a group.
- User
  - An user can view and control his section by Wall Pad, PC web and smart phone app.

Manager Web UI

Global Dashboard



Select Global Dashboard

Shows number of abnormal categorized devices

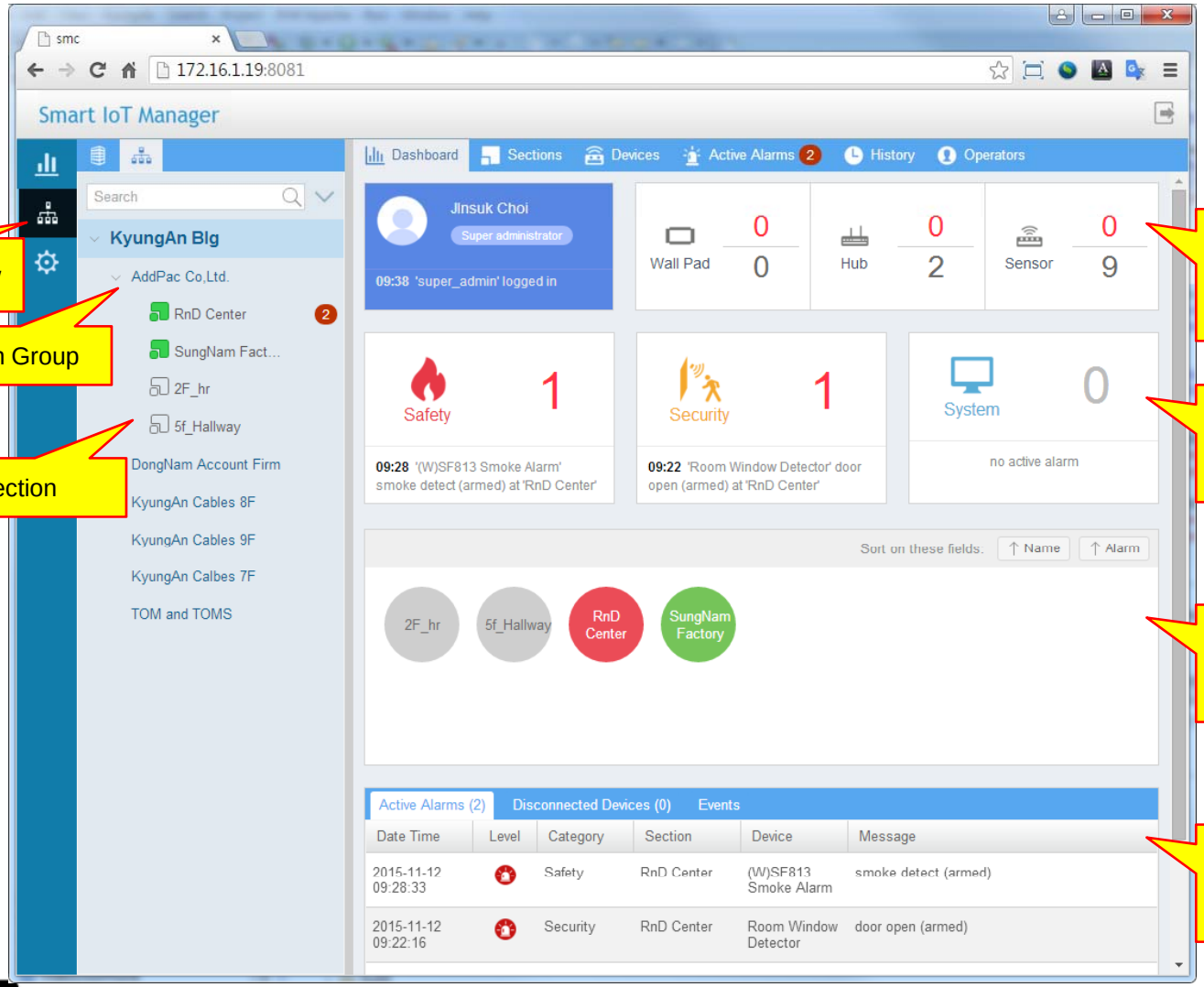
Shows number of active categorized alarms

Shows alarm status of managed sites

Push to enter site view

Shows manager system status

Site Dashboard



Select Site View

Section Group

Section

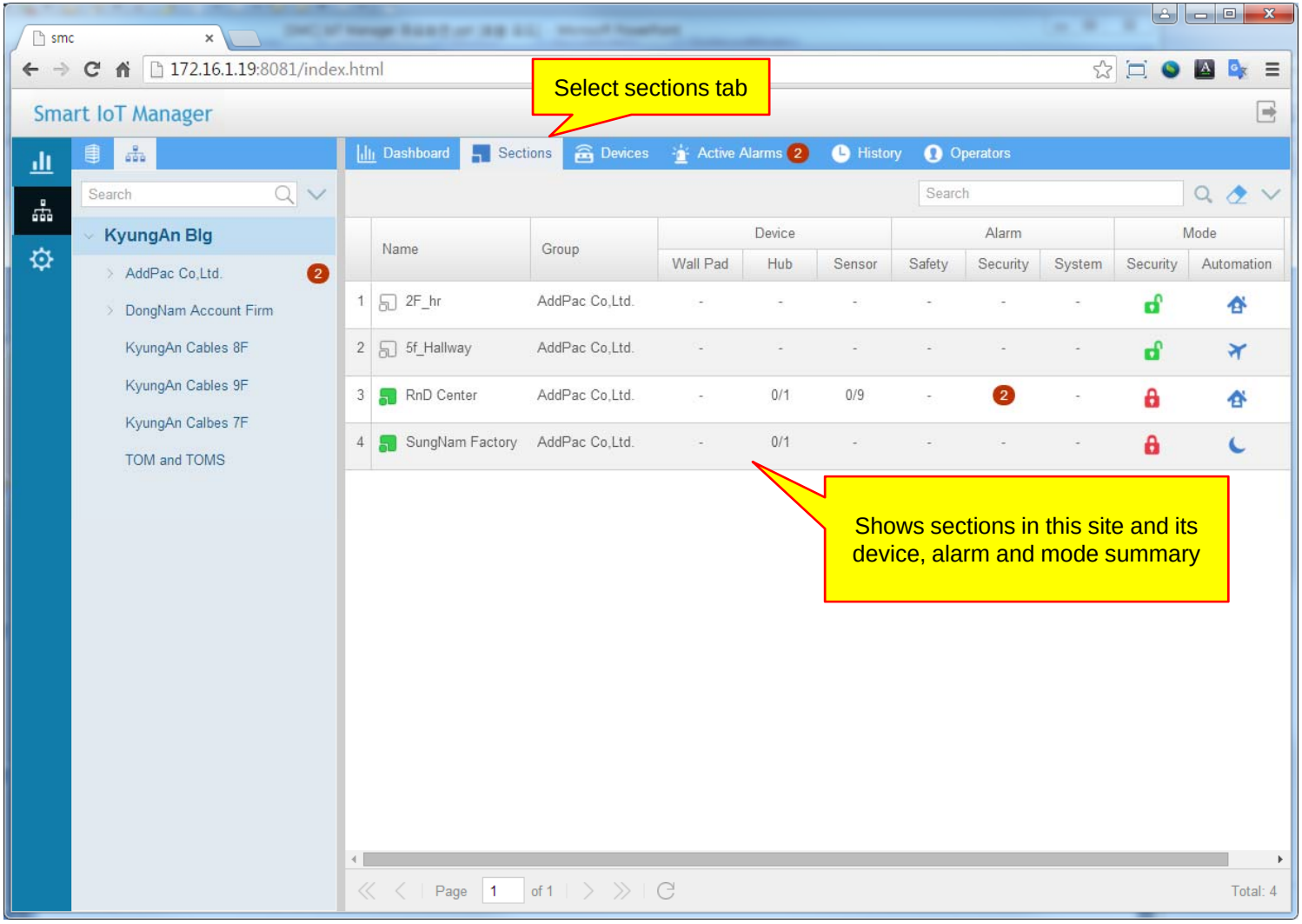
Shows number of abnormal categorized devices in this site

Shows number of active categorized alarms in this site

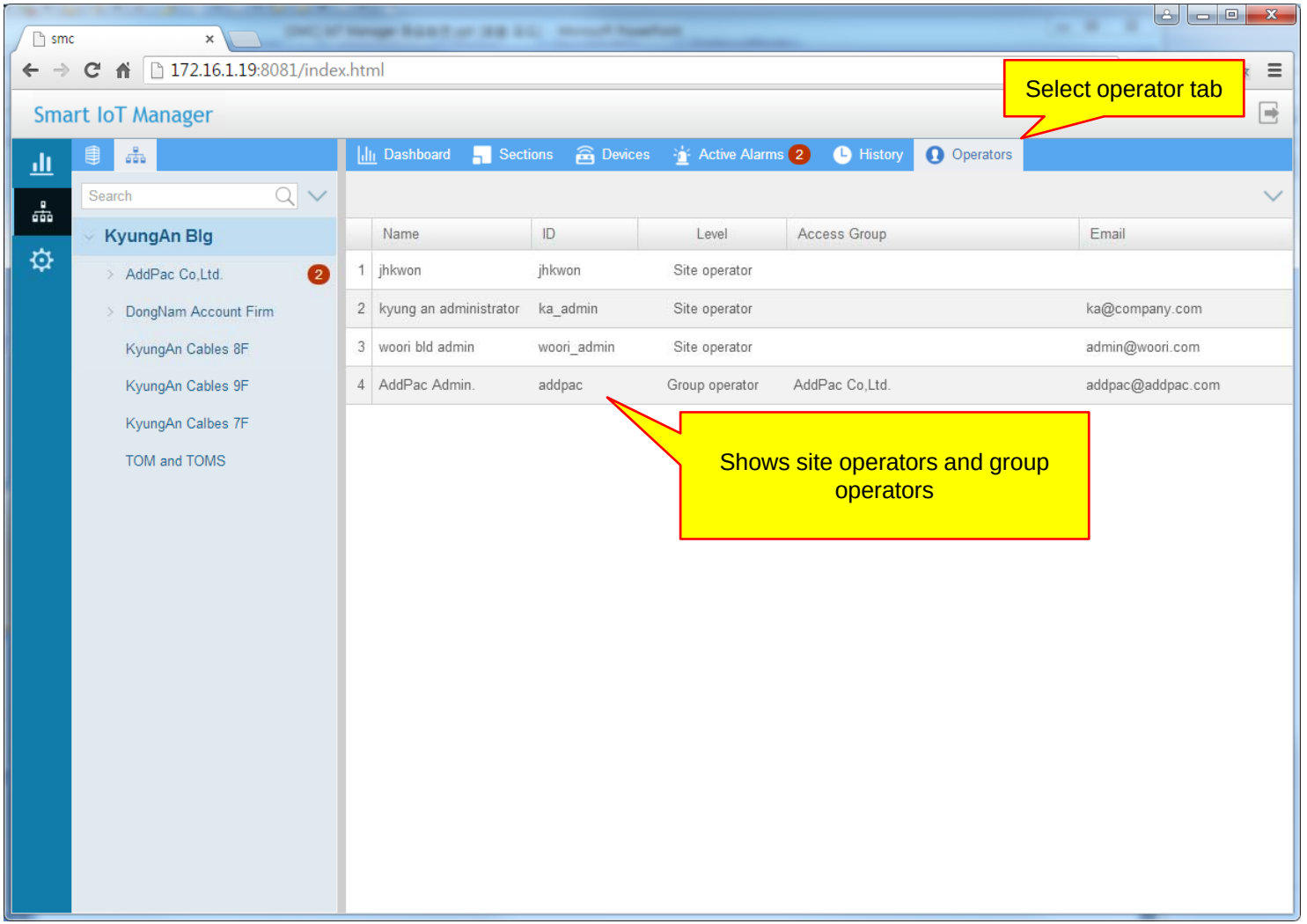
Shows alarm status of sections in this site

Shows active alarm list

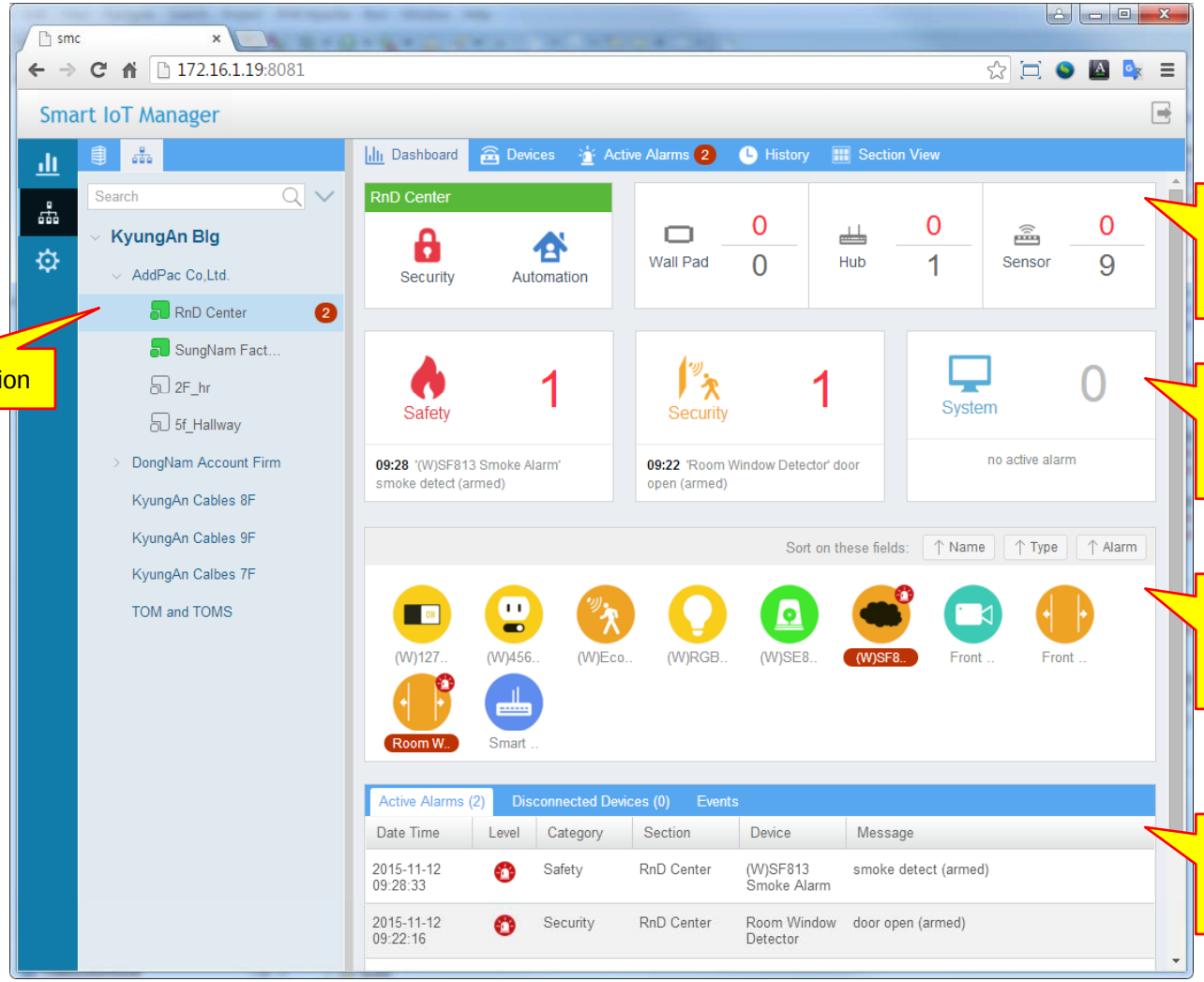
Section List



Operator List



Section Dashboard



Select a section

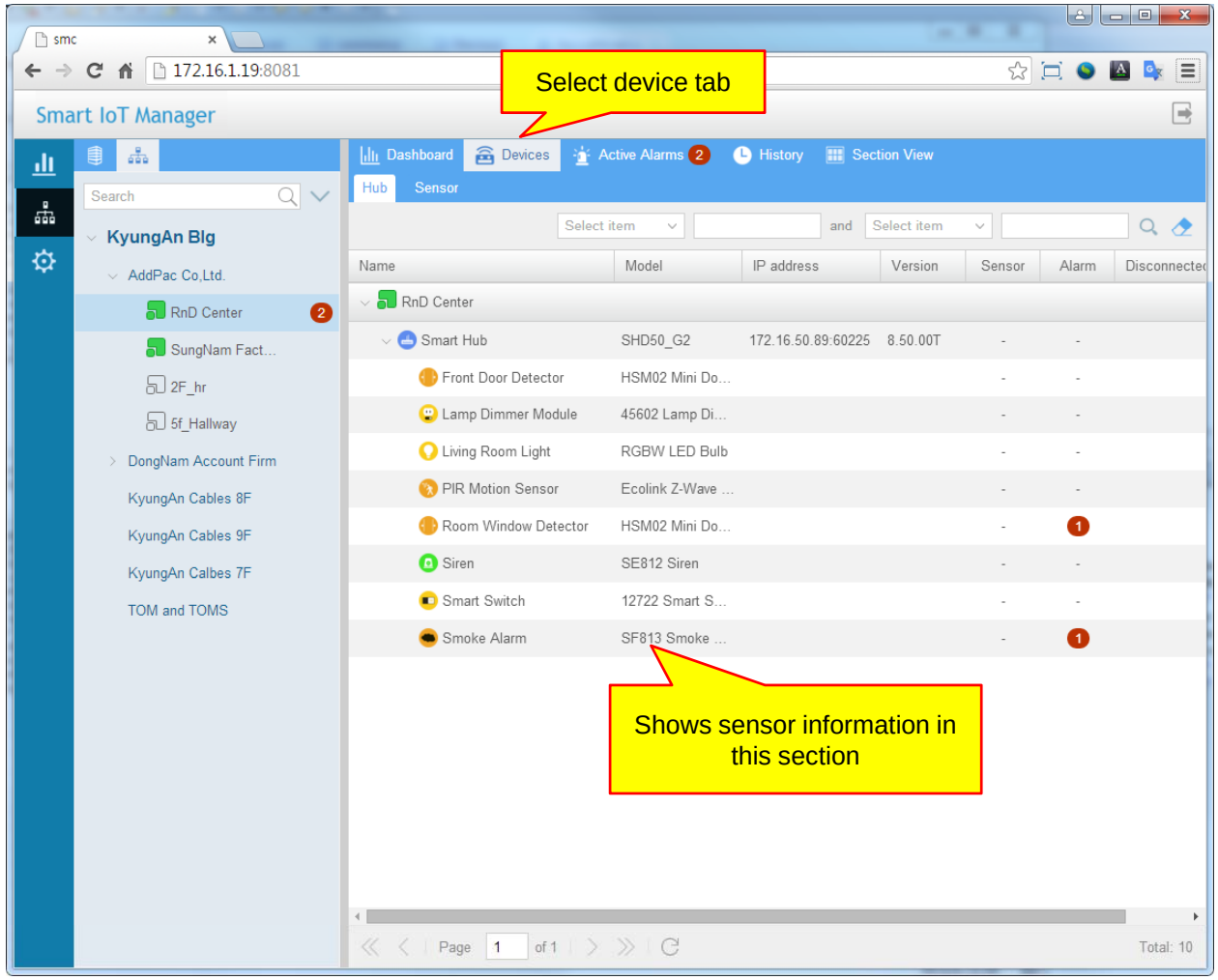
Shows number of abnormal categorized devices in this section

Shows number of active categorized alarms in this section

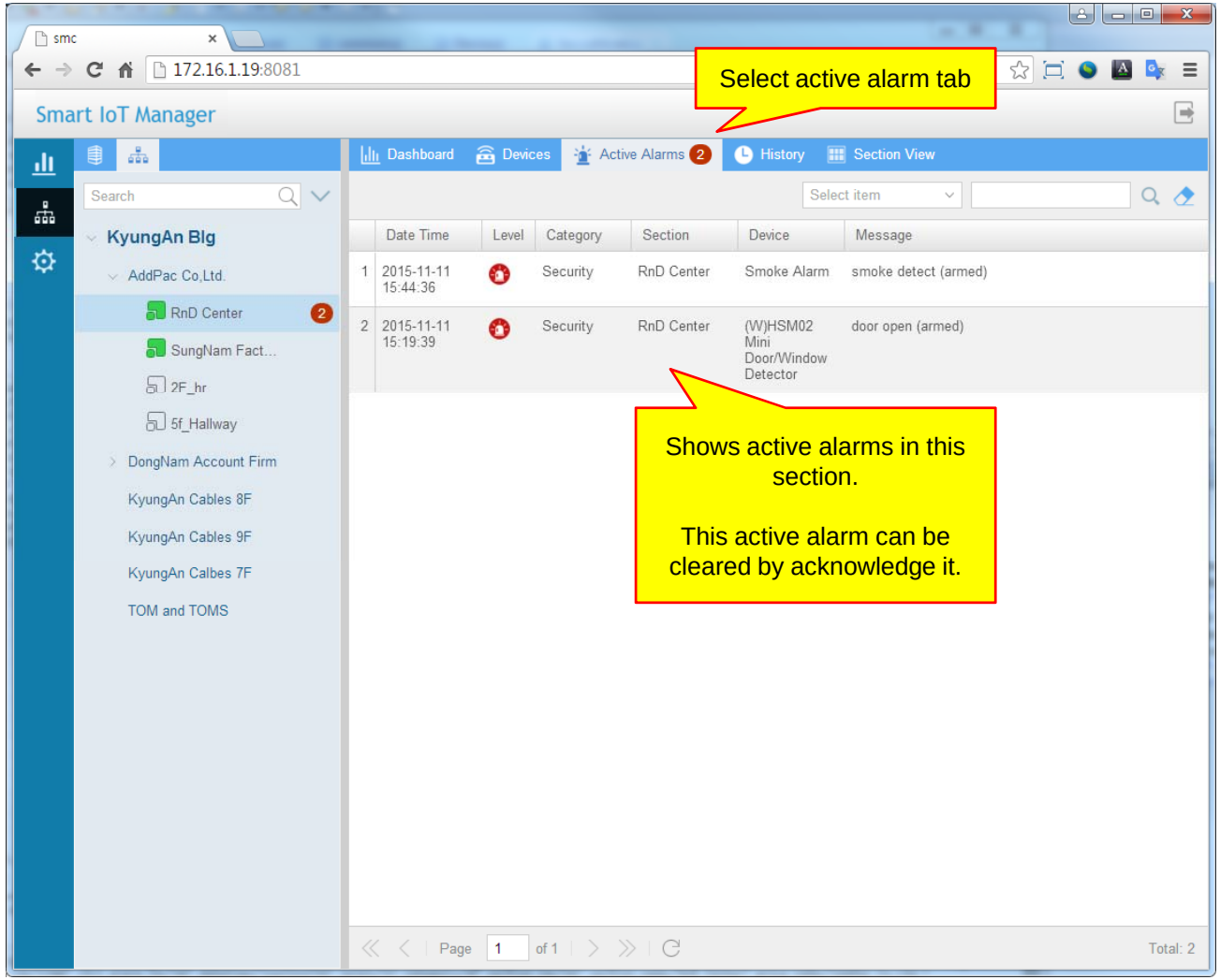
Shows alarm status of devices in this site

Shows active alarm list

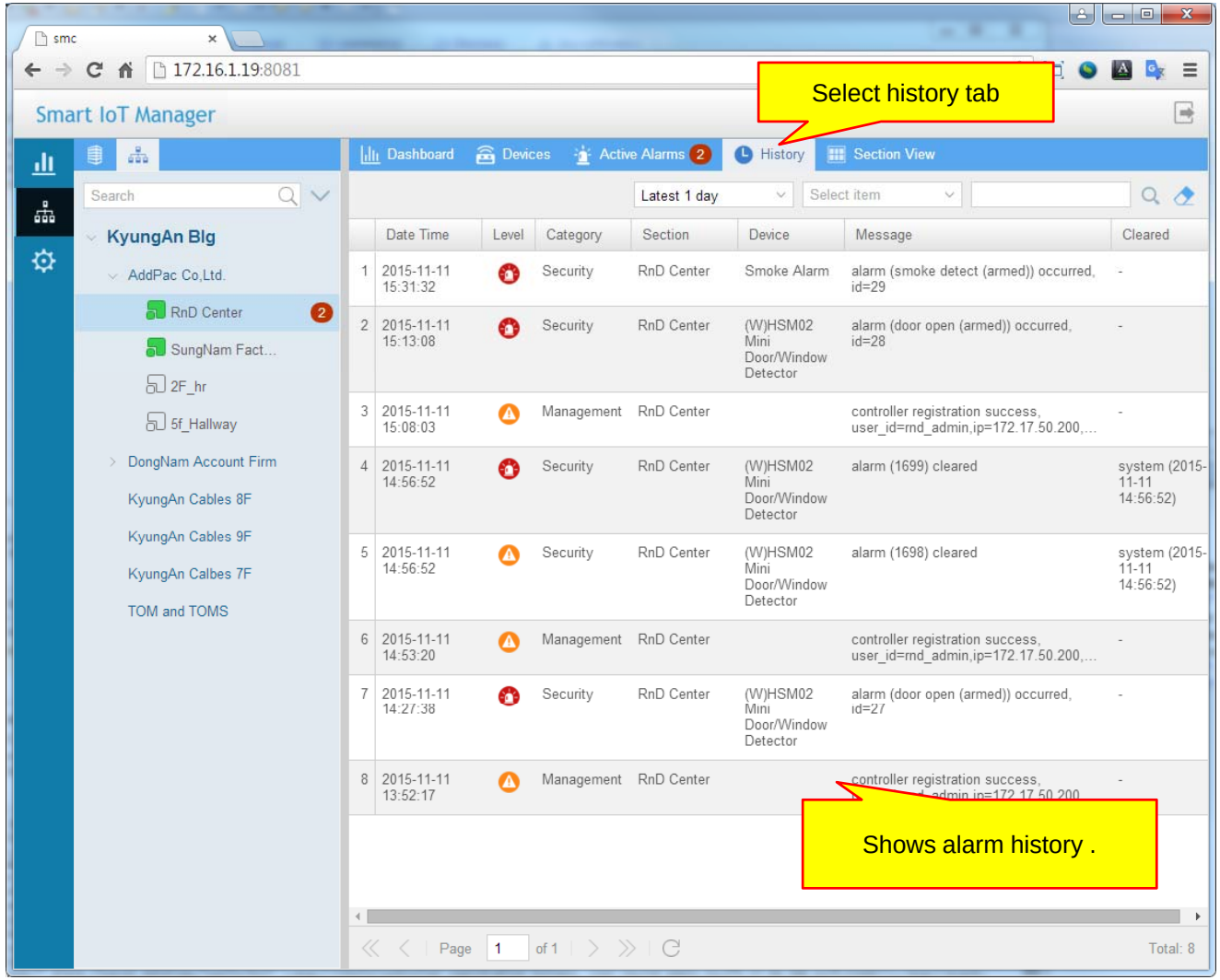
Device List


smc
172.16.1.19:8081
Select device tab
Smart IoT Manager
Dashboard
Devices
Active Alarms 2
History
Section View
Hub
Sensor
Search
KyungAn Blg
AddPac Co,Ltd.
RnD Center 2
SungNam Fact...
2F_hr
5f_Hallway
DongNam Account Firm
KyungAn Cables 8F
KyungAn Cables 9F
KyungAn Calbes 7F
TOM and TOMS
Select item
and
Select item
Name
Model
IP address
Version
Sensor
Alarm
Disconnecte
RnD Center
Smart Hub SHD50_G2 172.16.50.89:60225 8.50.00T
Front Door Detector HSM02 Mini Do...
Lamp Dimmer Module 45602 Lamp Di...
Living Room Light RGBW LED Bulb
PIR Motion Sensor Ecolink Z-Wave ...
Room Window Detector HSM02 Mini Do...
Siren SE812 Siren
Smart Switch 12722 Smart S...
Smoke Alarm SF813 Smoke ...
Shows sensor information in this section
Page 1 of 1
Total: 10

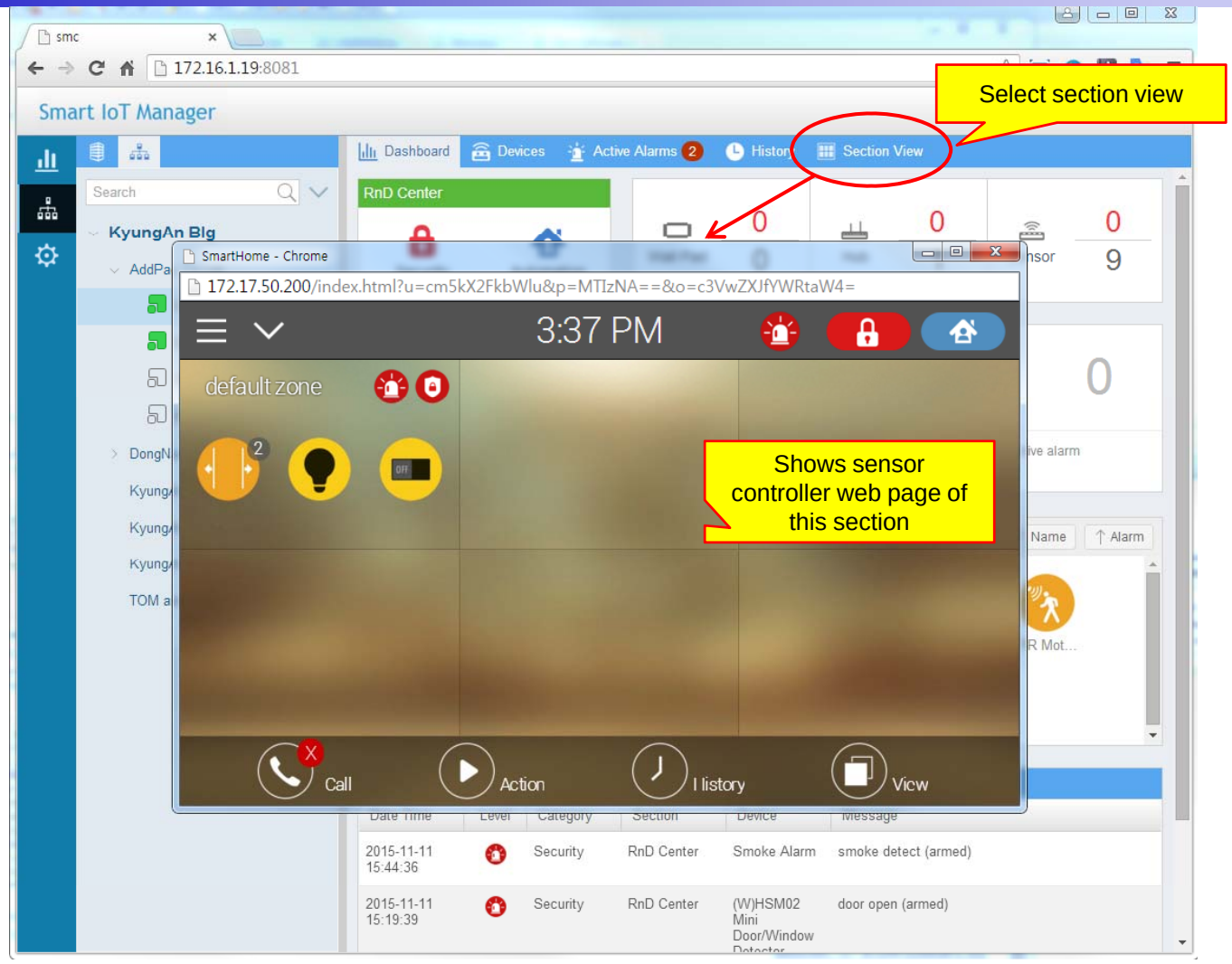
Active Alarms



Event History

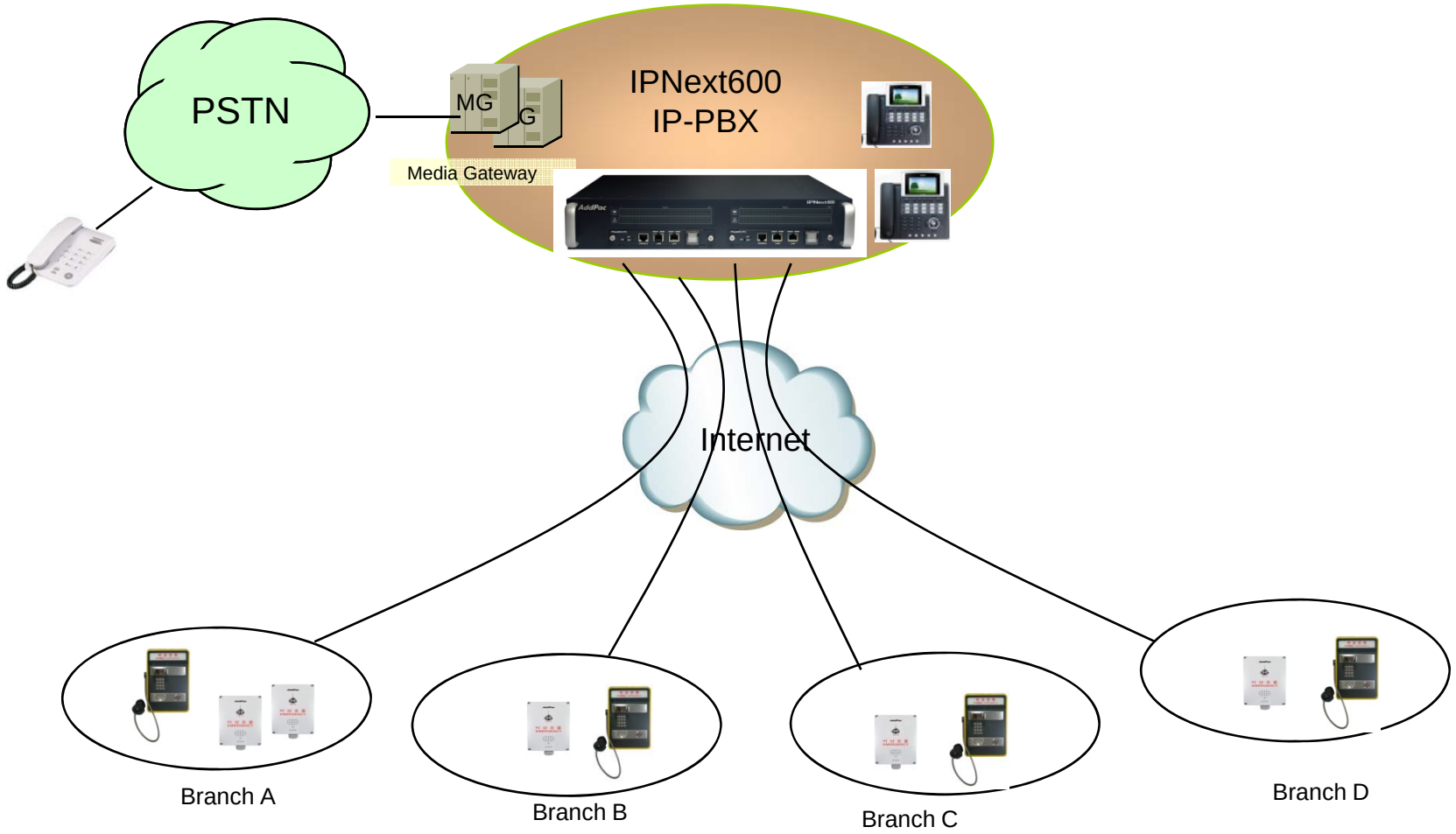


Section View



IPNext600 IP-PBX Solution for Emergency IoT Center

Network Diagram



Product Overview

IPNext 600 Next Generation IP-PBX System

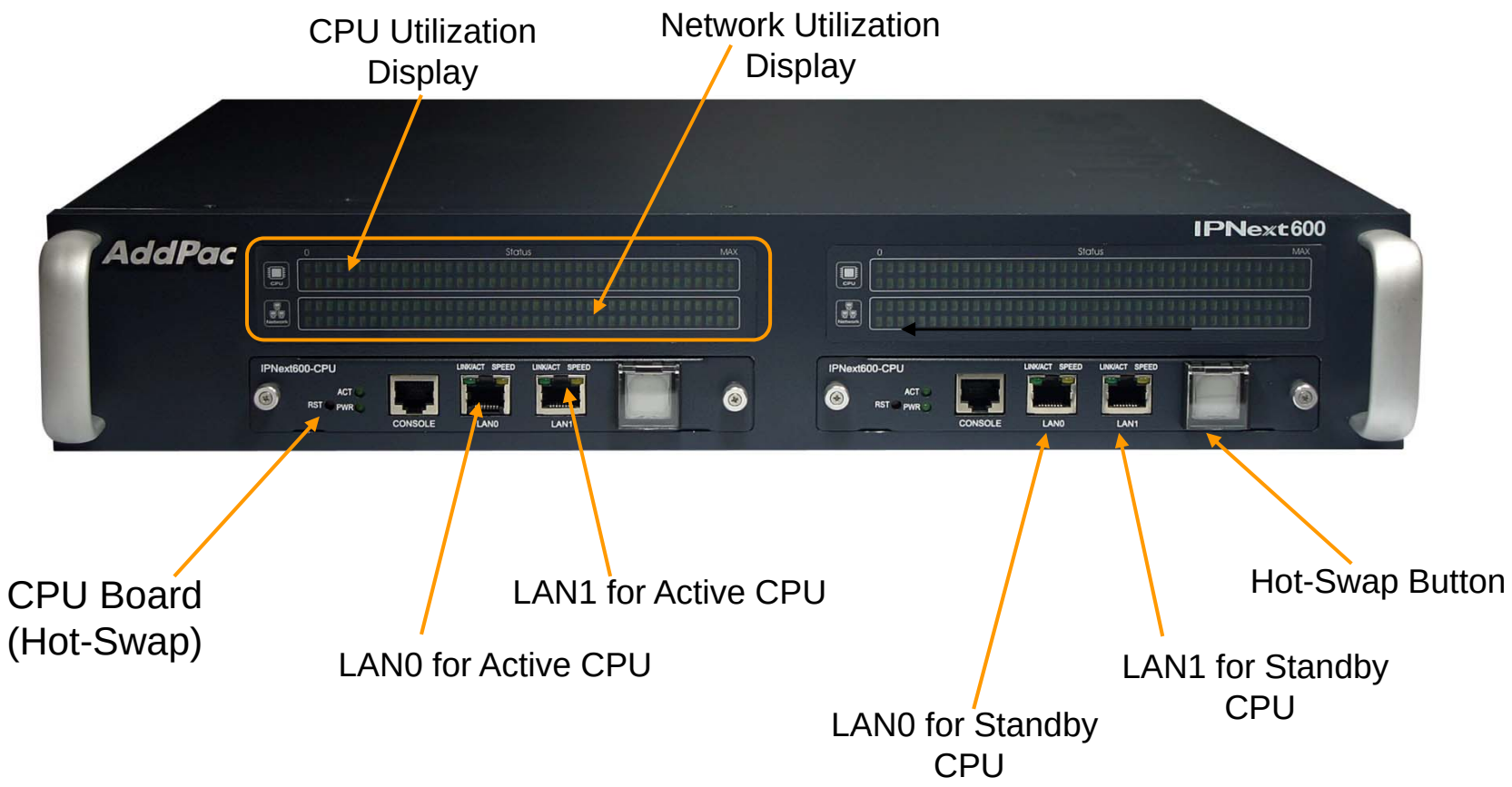
- SIP Application Server, Proxy, Registrar and Location Server
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
- Dual System Redundancy Architecture
  - Two(2) Fast Ethernet Interface / System
- High Performance RISC Architecture
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- IPv4/IPv6 Dual Stack
- RTP Proxy Function Embedded for Private IP and IPv6 Address Interworking
- User Presence Service Features for Smart Multimedia Messenger and Smart IP Phone
- IVR Scenario Editor, Voice Mail, Media Service (Coloring), Conference
- Firmware Upgradeable Architecture
- Smart Multimedia Manager for IP-PBX Management
- Smart Messenger Service (click to dial) for Unified Communication
- Smart NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Dual Redundancy Power Module

Hardware Specification

IPNext 600 Next Generation IP-PBX System

RISC CPU

IPNext 600 Front Side



Hardware Specification

IPNext 600 Next Generation IP-PBX System

RISC CPU

IPNext 600 Back Side



Dual Power Supply Modules (Hot-Swap)

PSU Module A

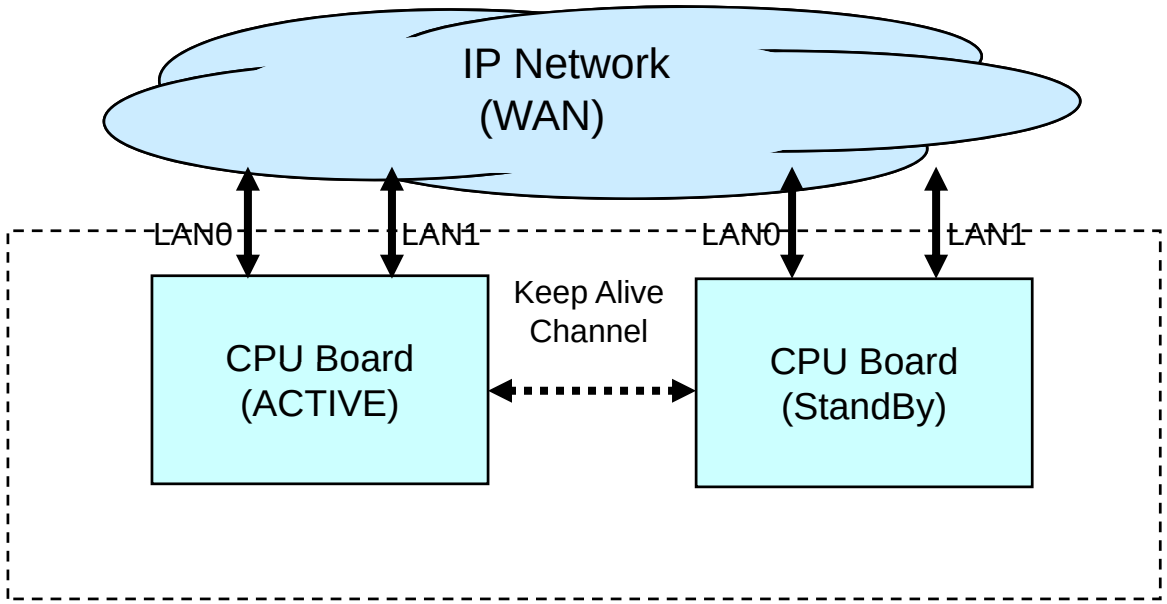
PSU Module B

Power On/Off Switch for System

System Redundancy Features

IPNext 600 Next Generation IP-PBX System

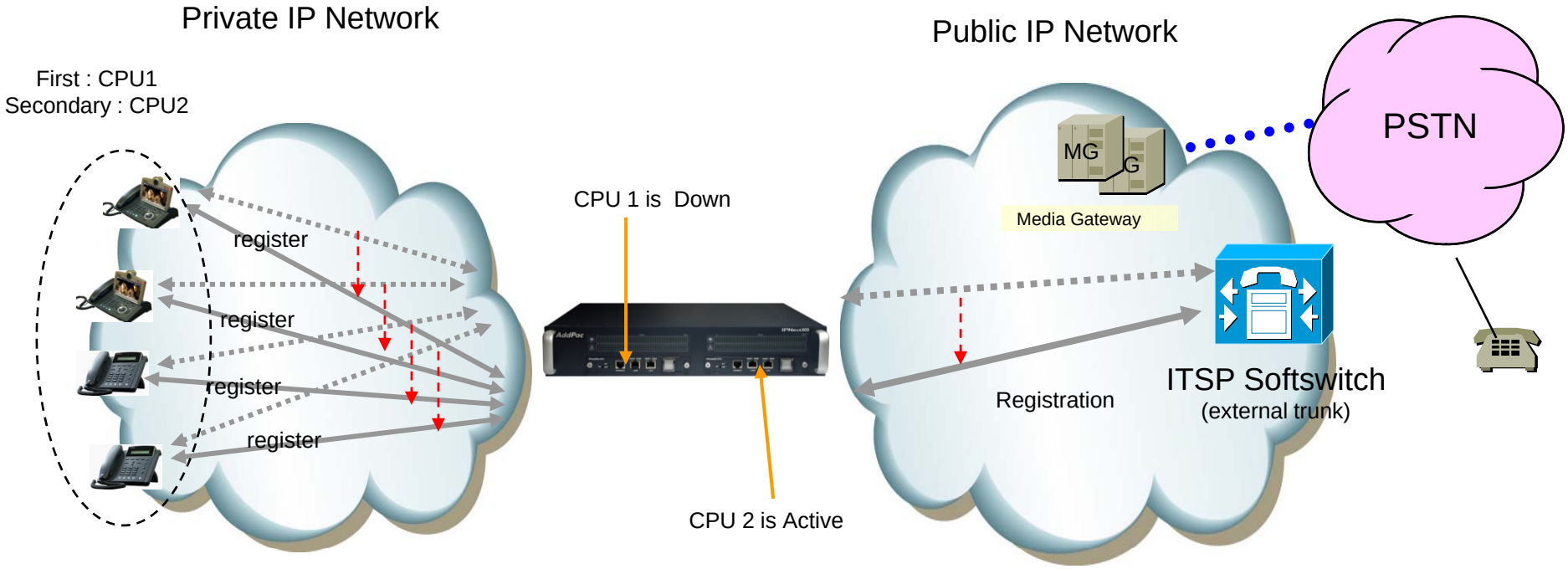
IPNext600 System Block Diagram



System Redundancy Features

IPNext 600 Next Generation IP-PBX System

- Active– Active Duplication Scheme
- Active – Standby Duplication Scheme
- VRRP based Duplication Scheme



Active – Standby Duplication Scheme (example)

IP Phone Solution for Center

IP Phone Comparison Table

Model / Spec.	AP-IP300 	AP-IP230 
LCD Size	4.3 Inch Color LCD	5 Inch Color LCD
Touch Screen	N/A	Support
Speed-Dial Keys	25 Key with Presence LED	Touch Screen based 25 Keys
Voice Codec	G.711/G.726/ G.729/G.723	G.711/G.726/ G.729/G.723
Signaling	H.323/SIP	H.323/SIP
3-Party Conversation	Support	Support
LAN Port	2	2
PoE(Option)	Support	Support
FXO(Option)	Support	Support

IP Voice Recording Solution

IP Voice Recording Server
AP-NR1500

Product Overview

AP-NR1500 IP Voice Call Recording Server

- IP based Network Voice Call Recording Server
- Linux Operating System
- Powerful Management and User Friendly Features
- High-performance Voice Recording Service
- External AddPac IP Terminal (Ex: IP Phone, IP Intercom, IP Emergency Phone) Interworking Support
- Firmware Upgradeable Architecture
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- Up to Two(2) 3.5Inch SATA Hard Disk Interface Support
- Two(2) USB Interface Support
- One(1) RS232C Console Interface

Hardware Specification

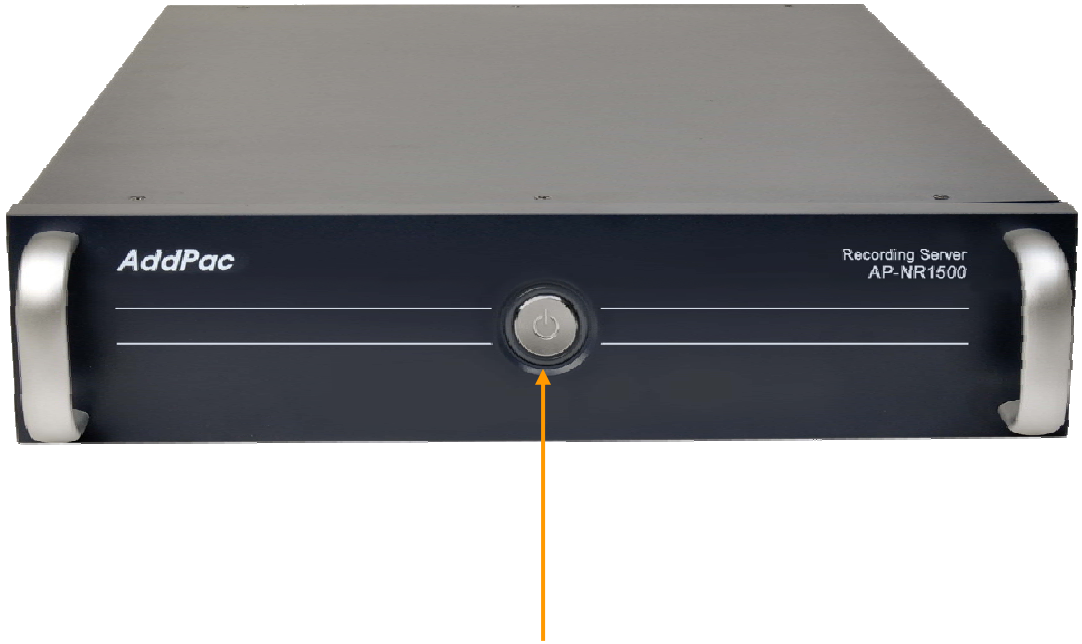
AP-N1500 IP Voice Call Recording Server

- High Performance Computing Power
- Network Interface
  - One(1) 10/100/1000Mbps Gigabit Ethernet Port
- Two(2) USB 2.0 Interfaces for Mouse, Secondary Storage, etc
- One(1) RS232C Console Interface (RJ45)
- Up Two(2) SATA type Hard Disk (4~8 Tera HDD Capacity)
- Power On/Off Soft Switch with LED Indication Lamp (Front Side)

Hardware Specification

AP-NR1500 IP Voice Call Recording Server

AP-NR1500 Front Side



Power On/Off Switch with LED Indication LAMP

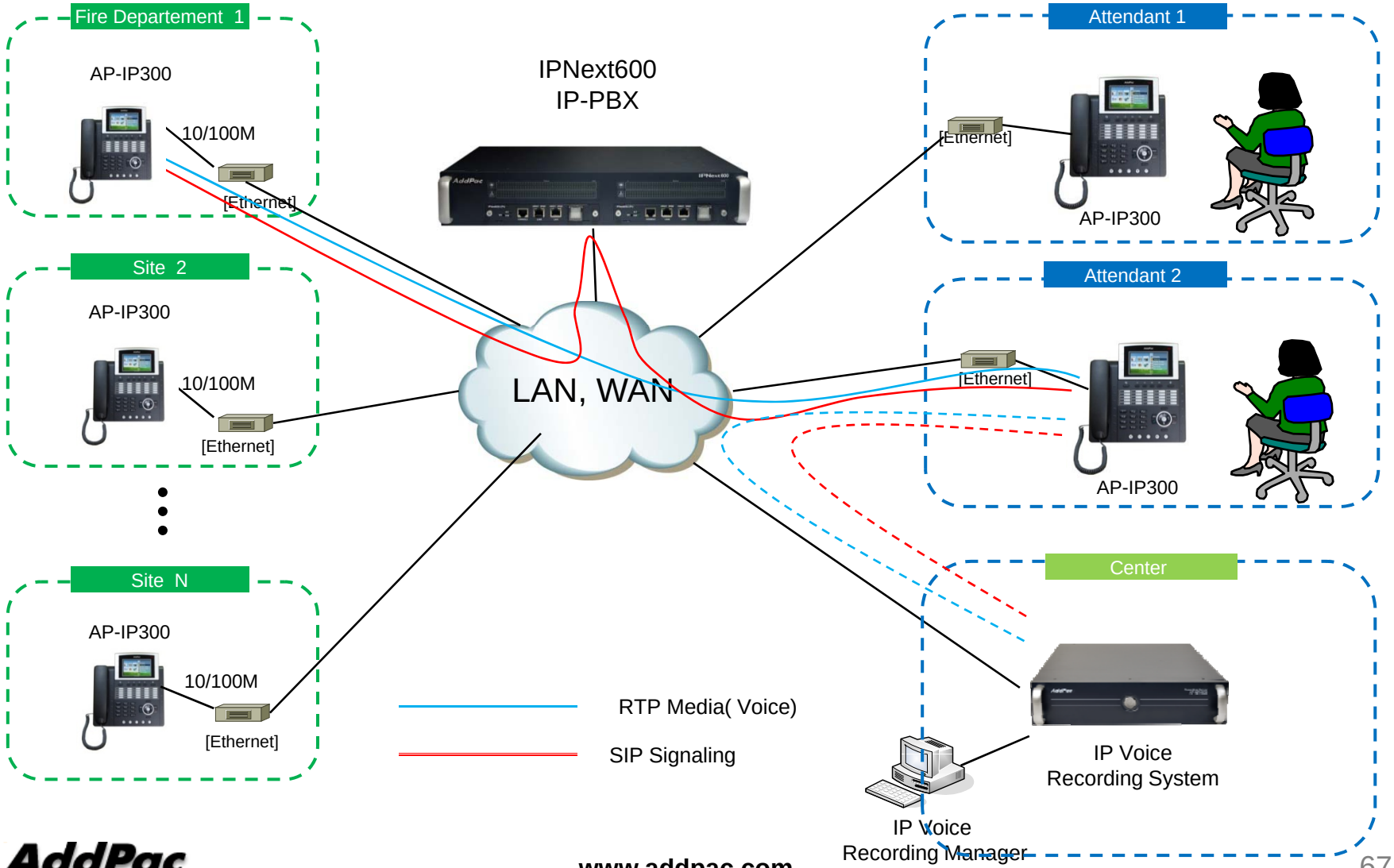
Hardware Specification

AP-NR1500 IP Voice Call Recording Server

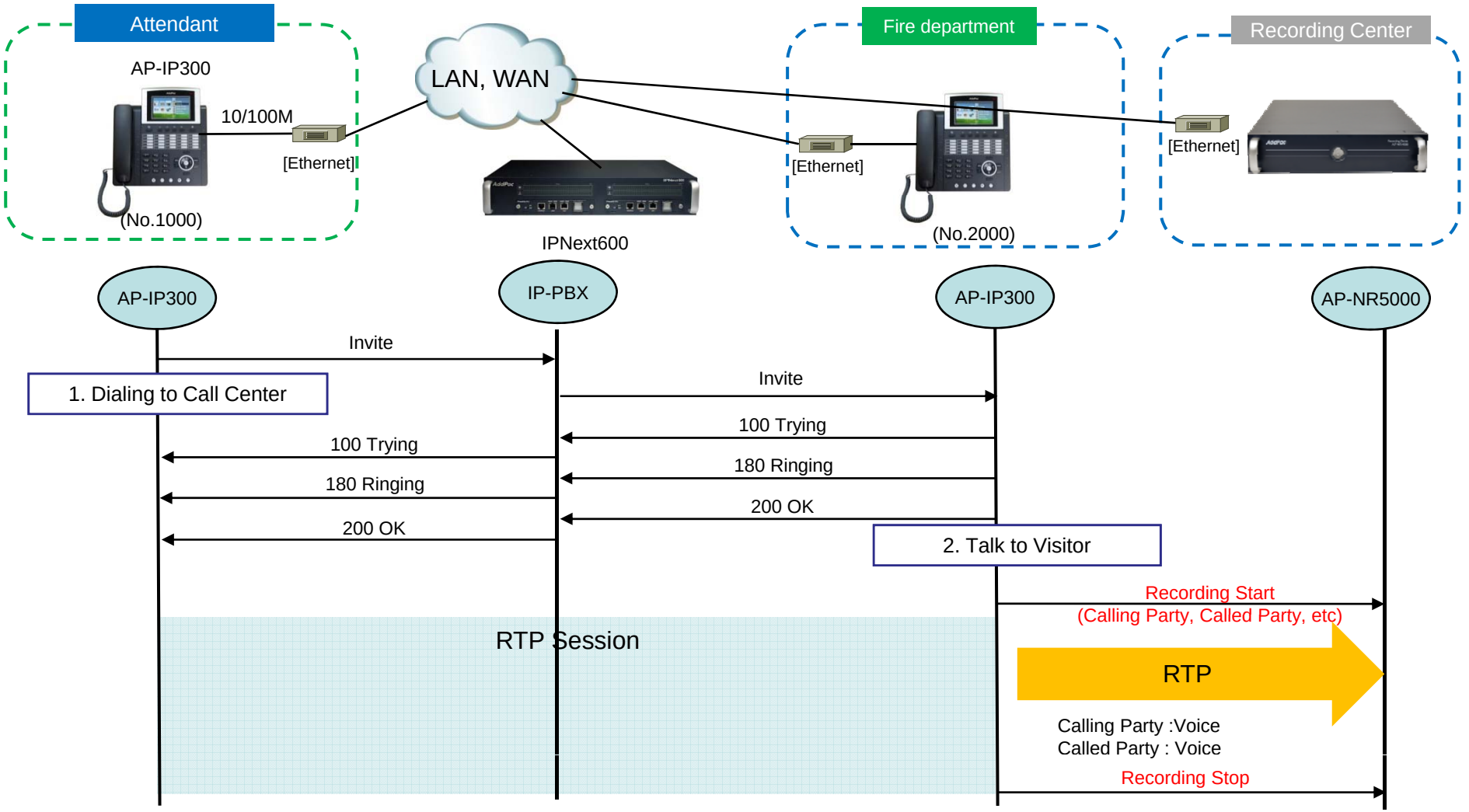
AP-NR1500 Back Side



Network Diagram for IP Phone Recording

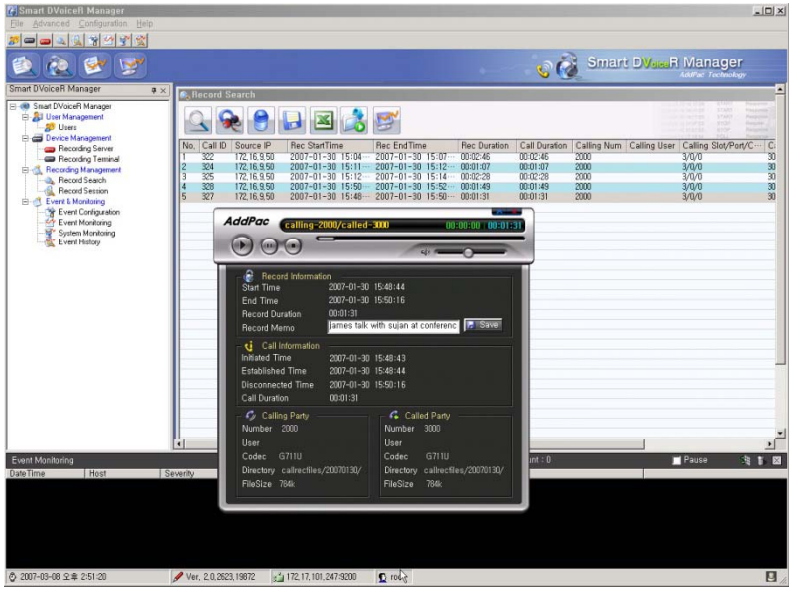


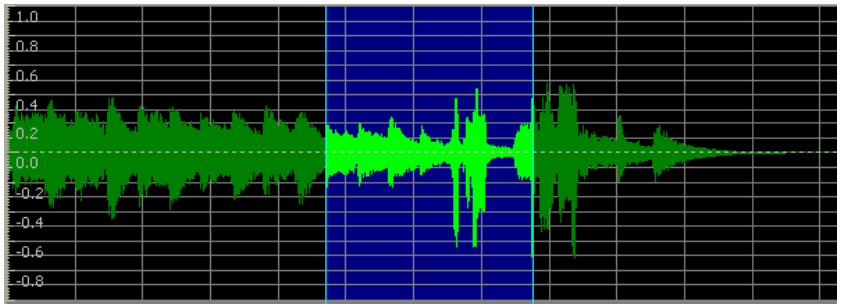
SIP VoIP Call Flow



Smart DVoiceR Manager

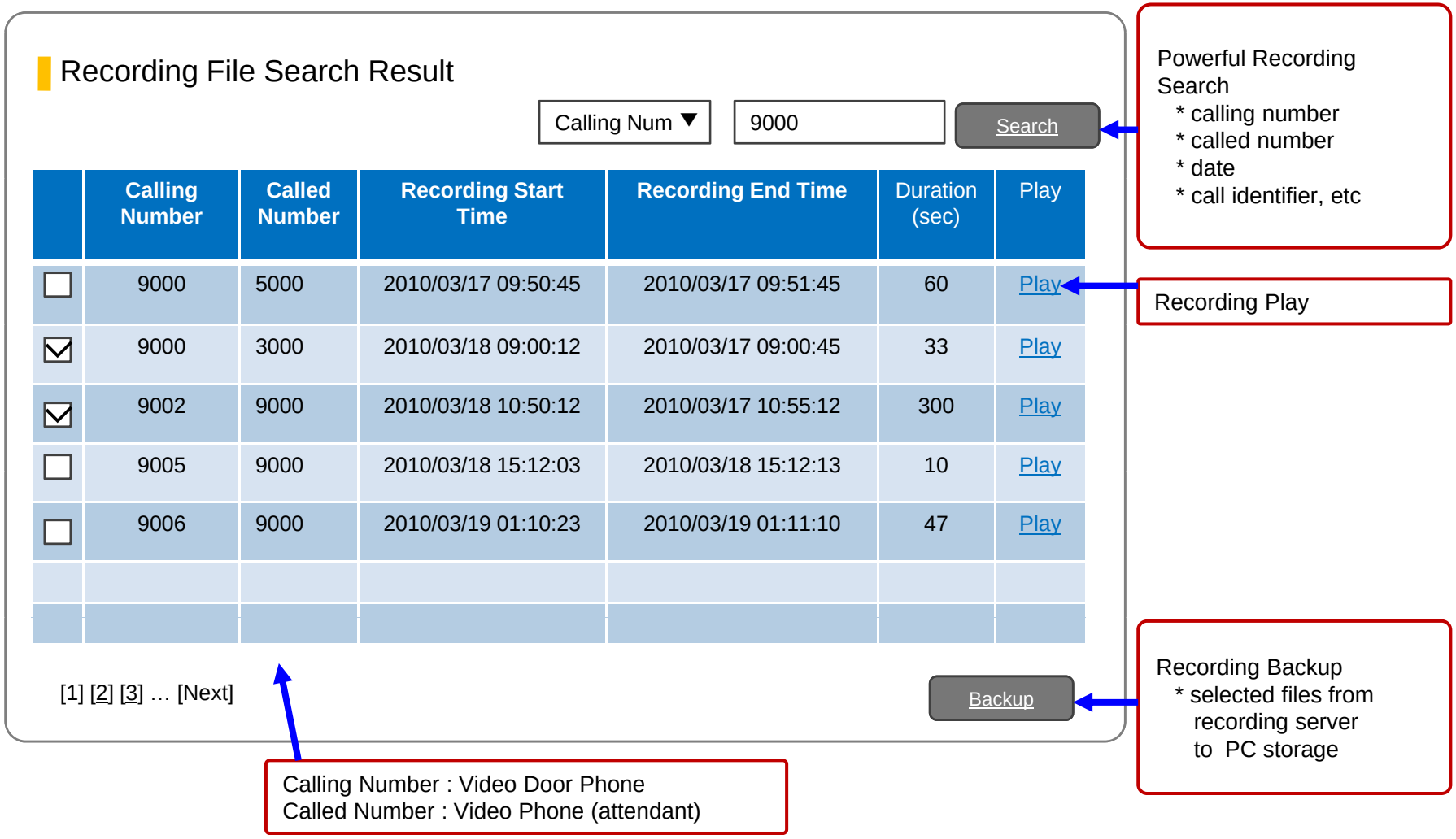
Smart DVideo door phoneR Management Program



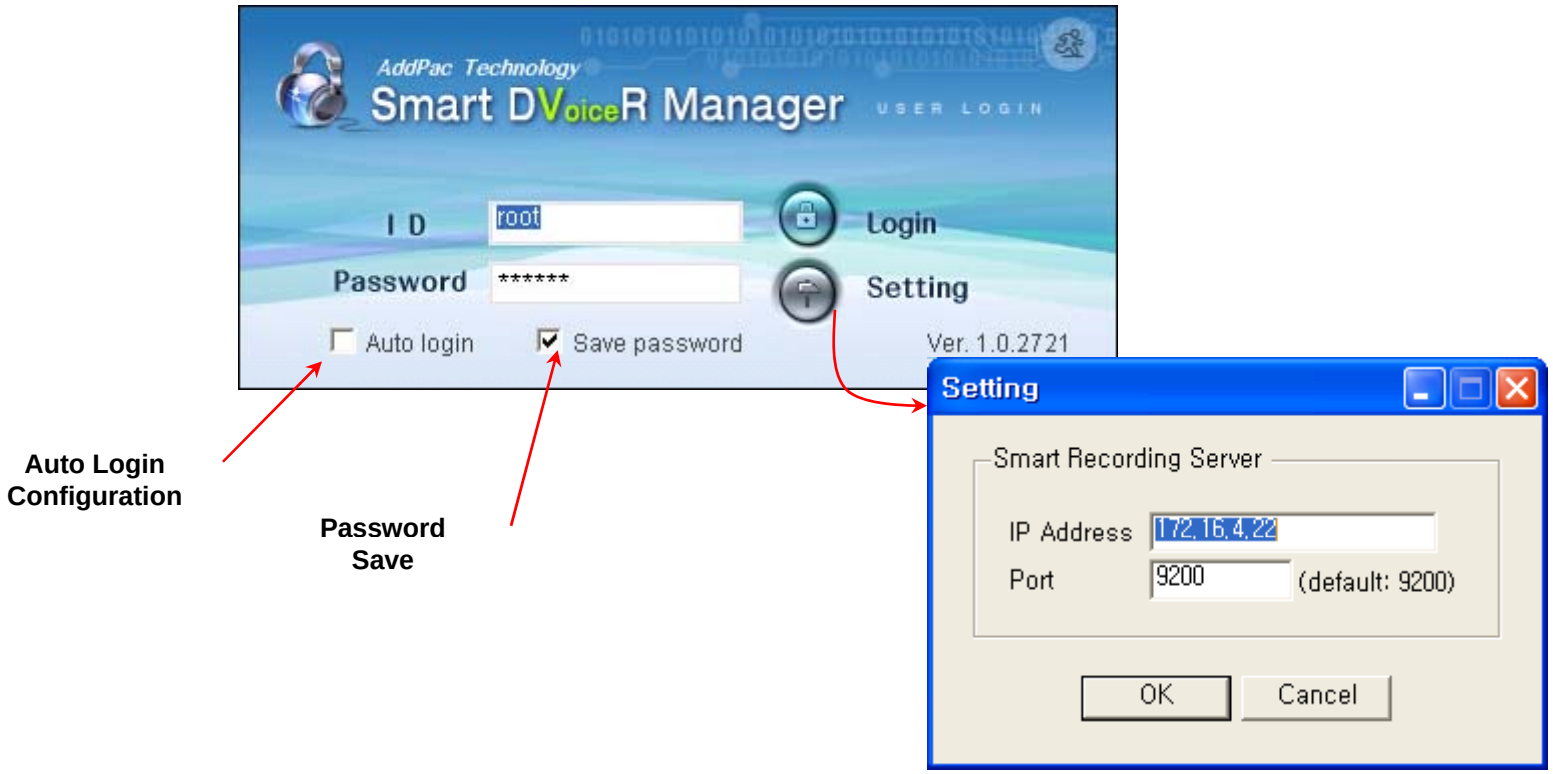


- Call History Management (search/modify/delete/save)
- Media Play Management (Play/Stop/Seek/Pause)
- Live Call List Management, Live Call Monitoring
- Local Backup (File Manager Support, PC HDD, DVD) and Local Play
- User Management (registration/modify/delete/search)
- Server Status (CPU/Memory/HDD) & Event Monitoring
- Recording Source Management (Video Phone, etc)
- Live Recording Board

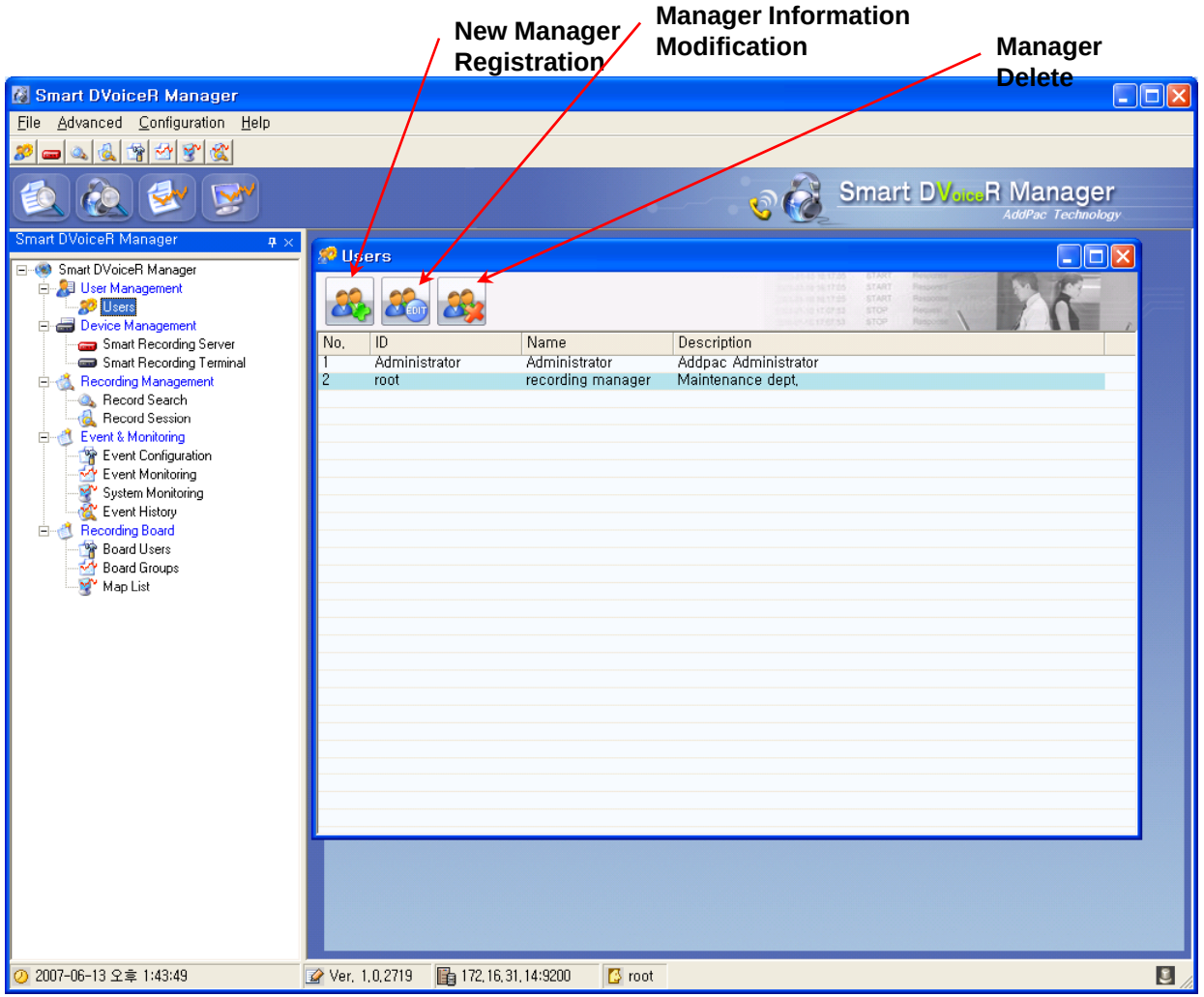
UI example (recording file search..)



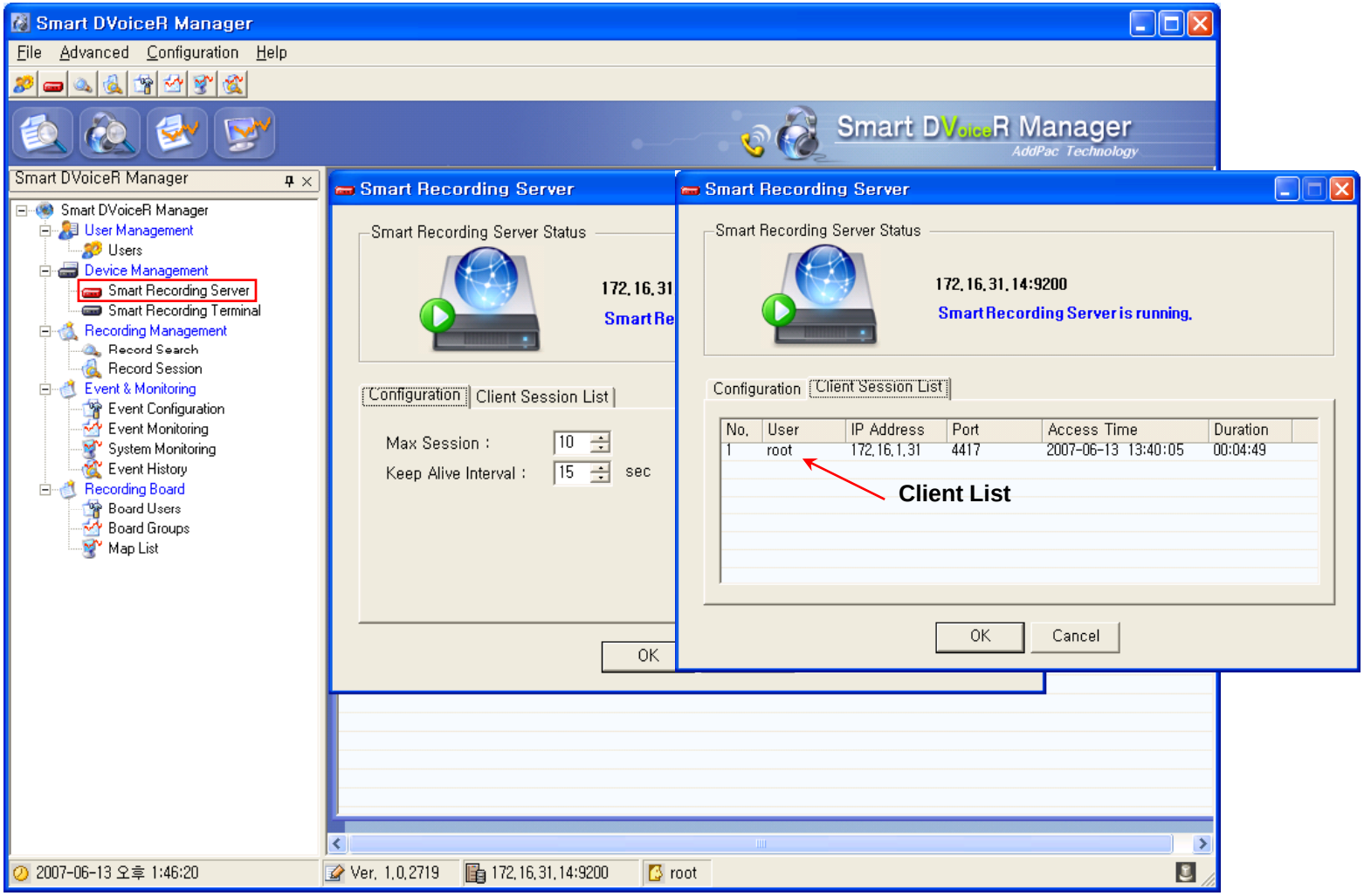
Login


AddPac Technology
Smart DVoiceR Manager
USER LOGIN
I D
root
Password
******
Auto login
Save password
Login
Setting
Ver. 1.0.2721
Setting
Smart Recording Server
IP Address
172.16.4.22
Port
9200
(default: 9200)
OK
Cancel
Auto Login Configuration
Password Save

User Management

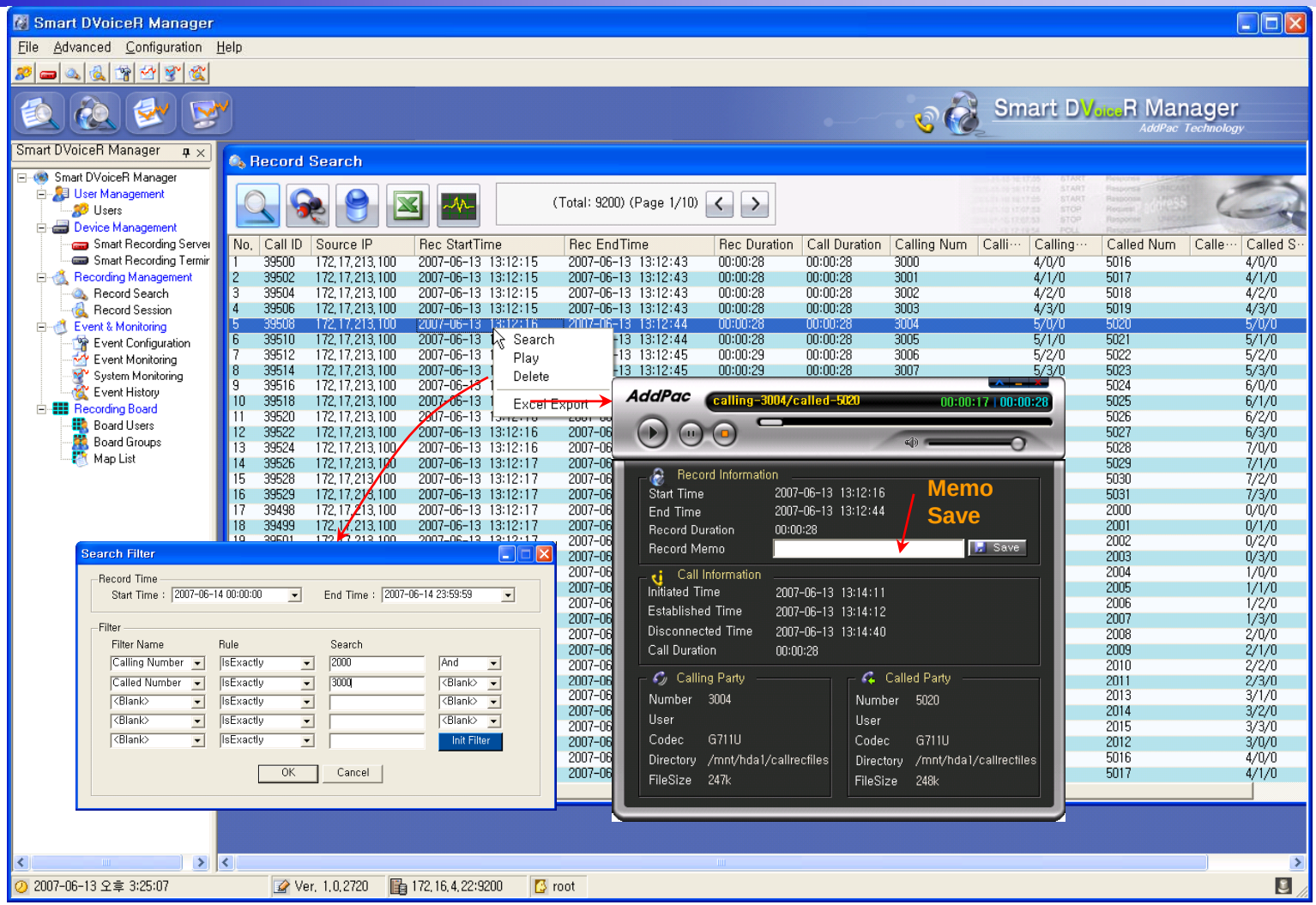


Recording Server Status Monitoring

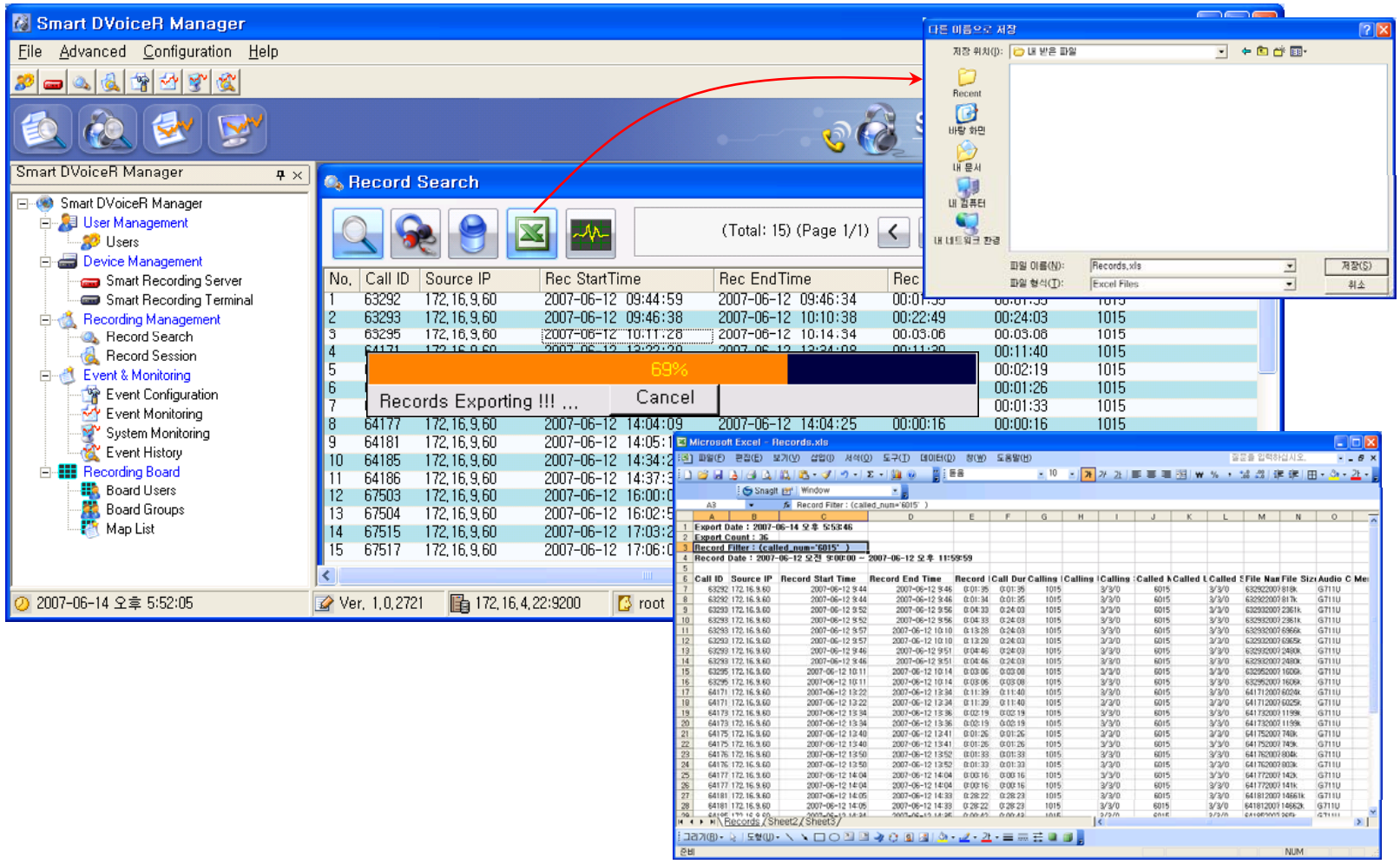


Recording File Management

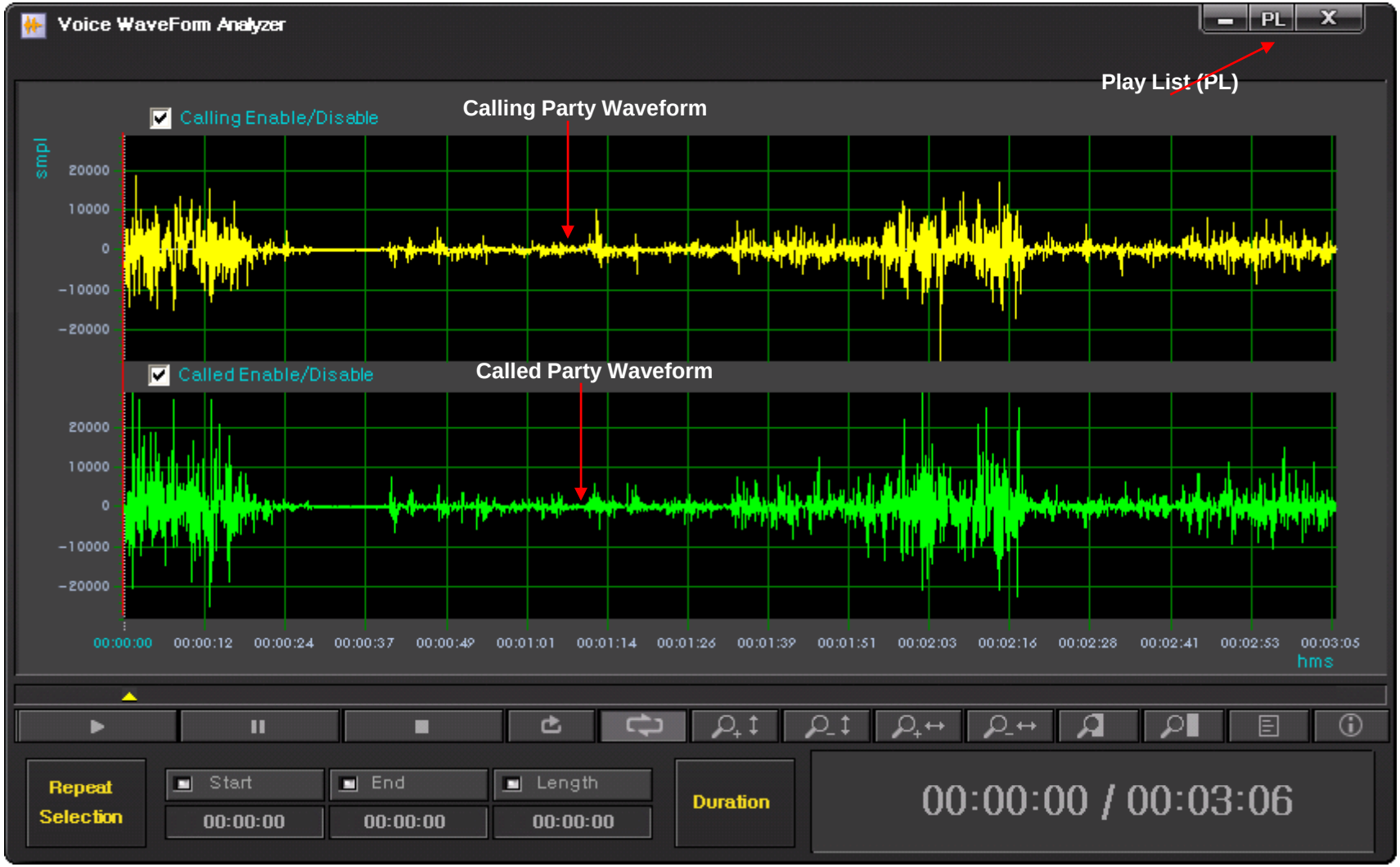
(Recorded File Monitoring (play/seek/pause/resume/stop))



Recording File List Save
(Excel File Format)



Recording File Waveform Analyzer



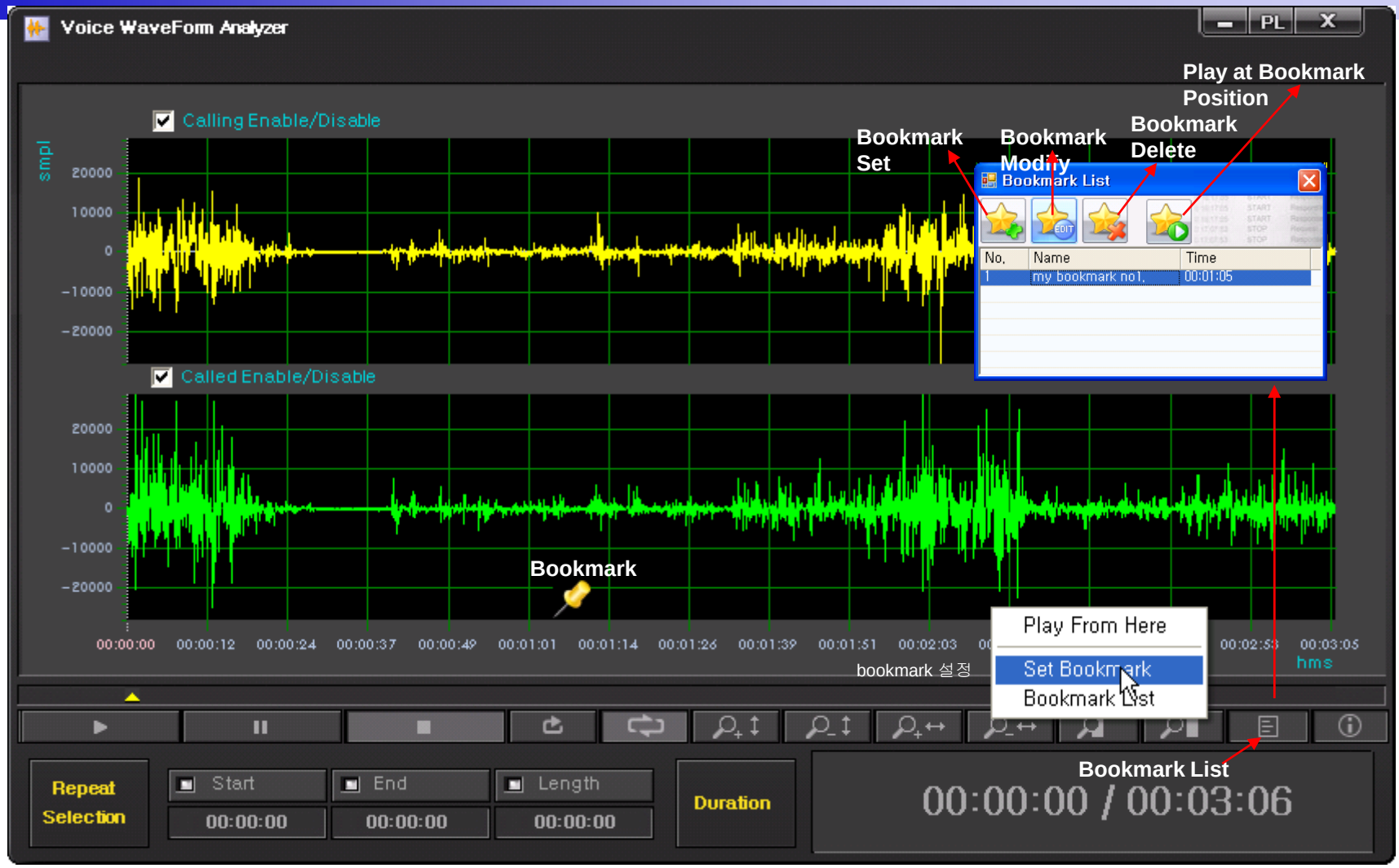
Recording File Waveform Analyzer

(Repeated Play)



Recording File Waveform Analyzer

(Bookmark Play)



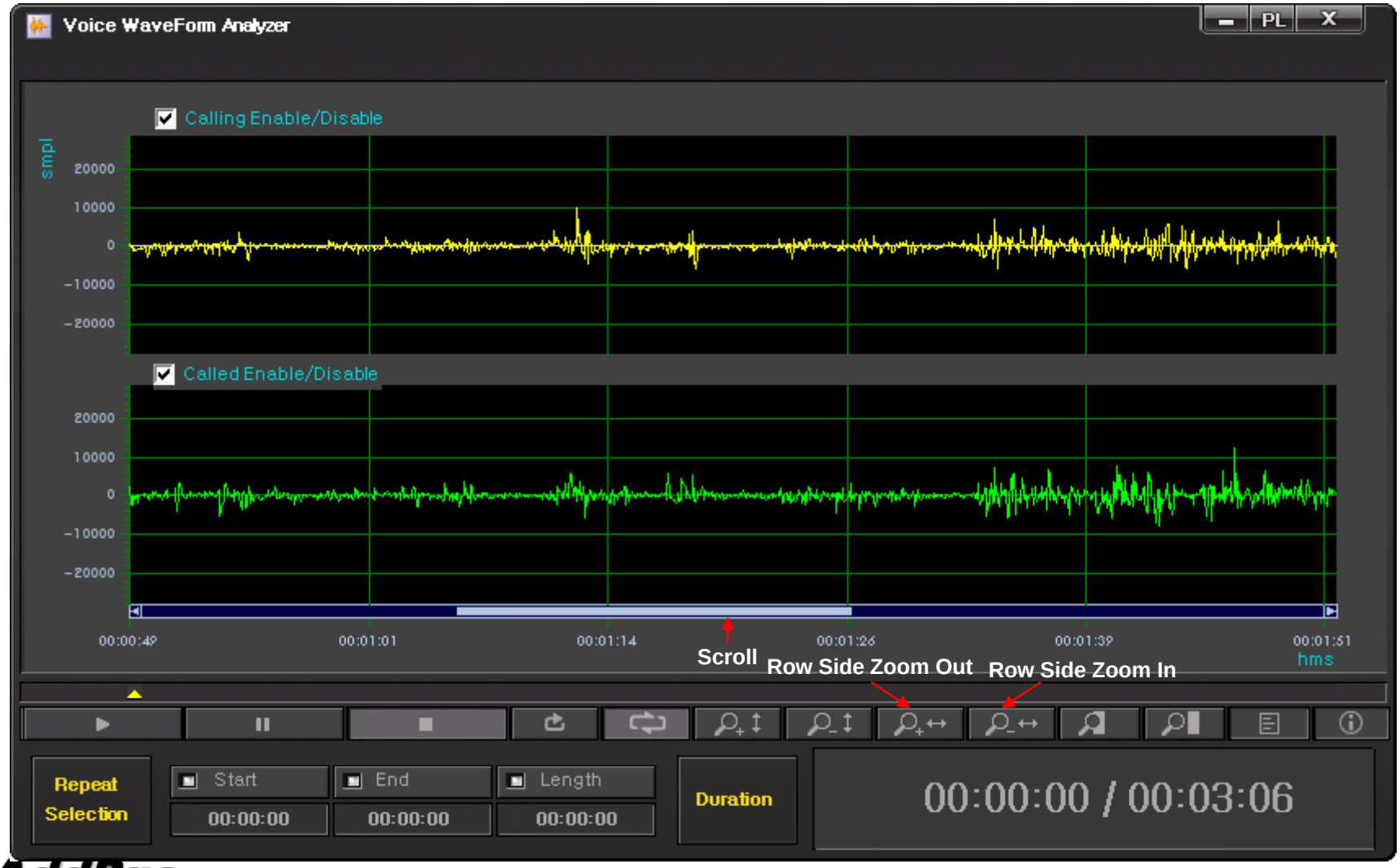
Recording File Waveform Analyzer

(Column Side Zooming)

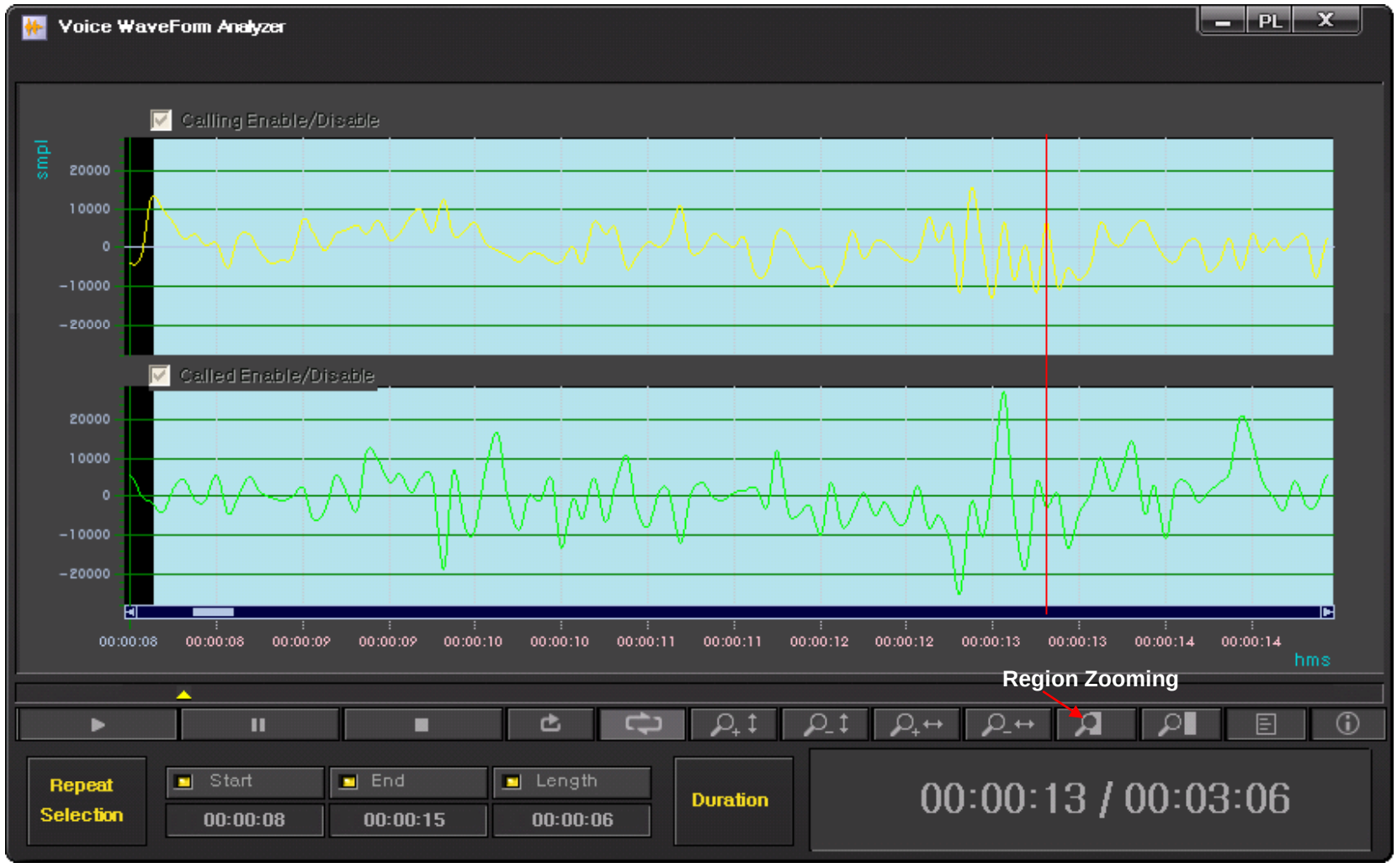


Recording File Waveform Analyzer

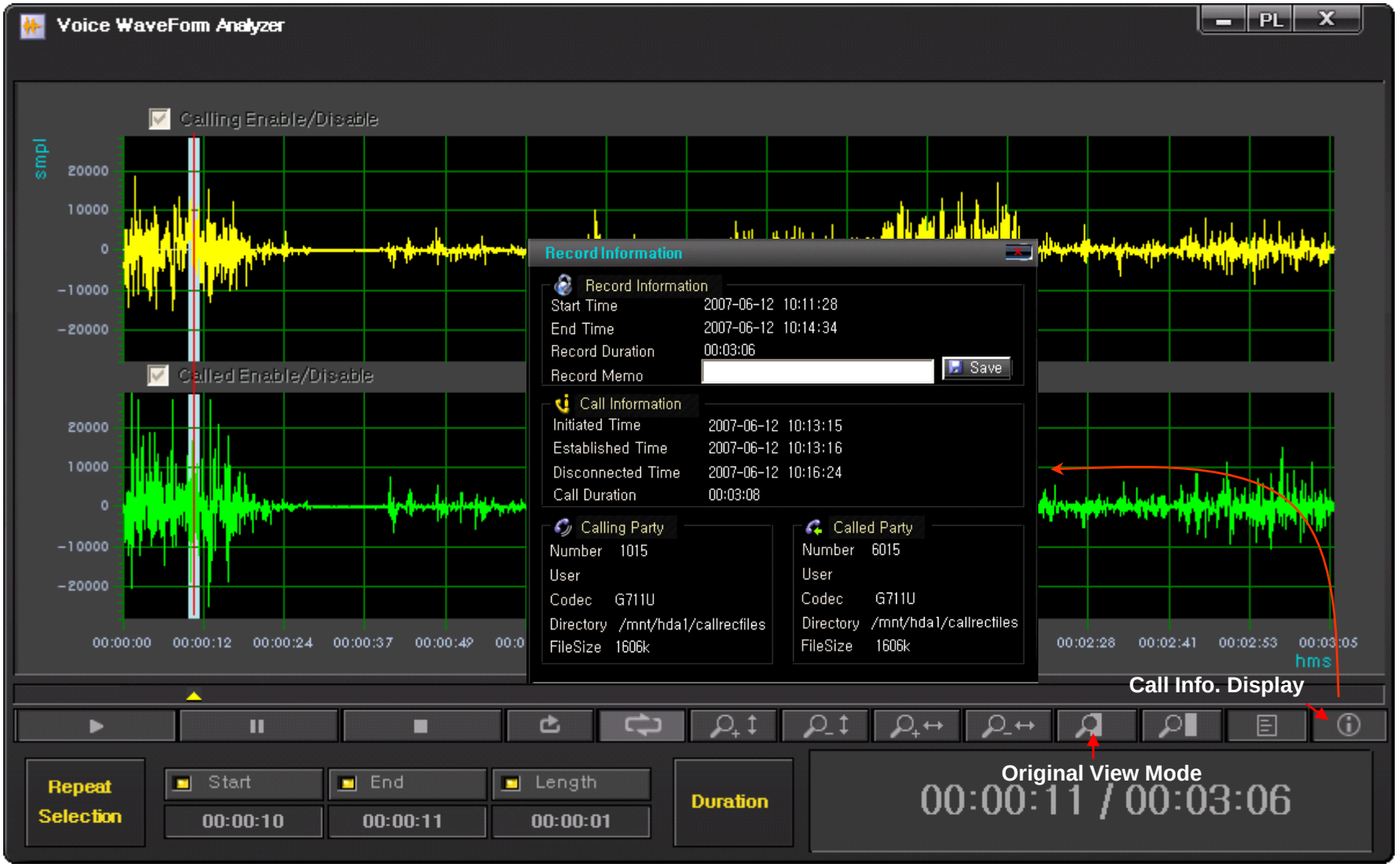
(Row Side Zooming)



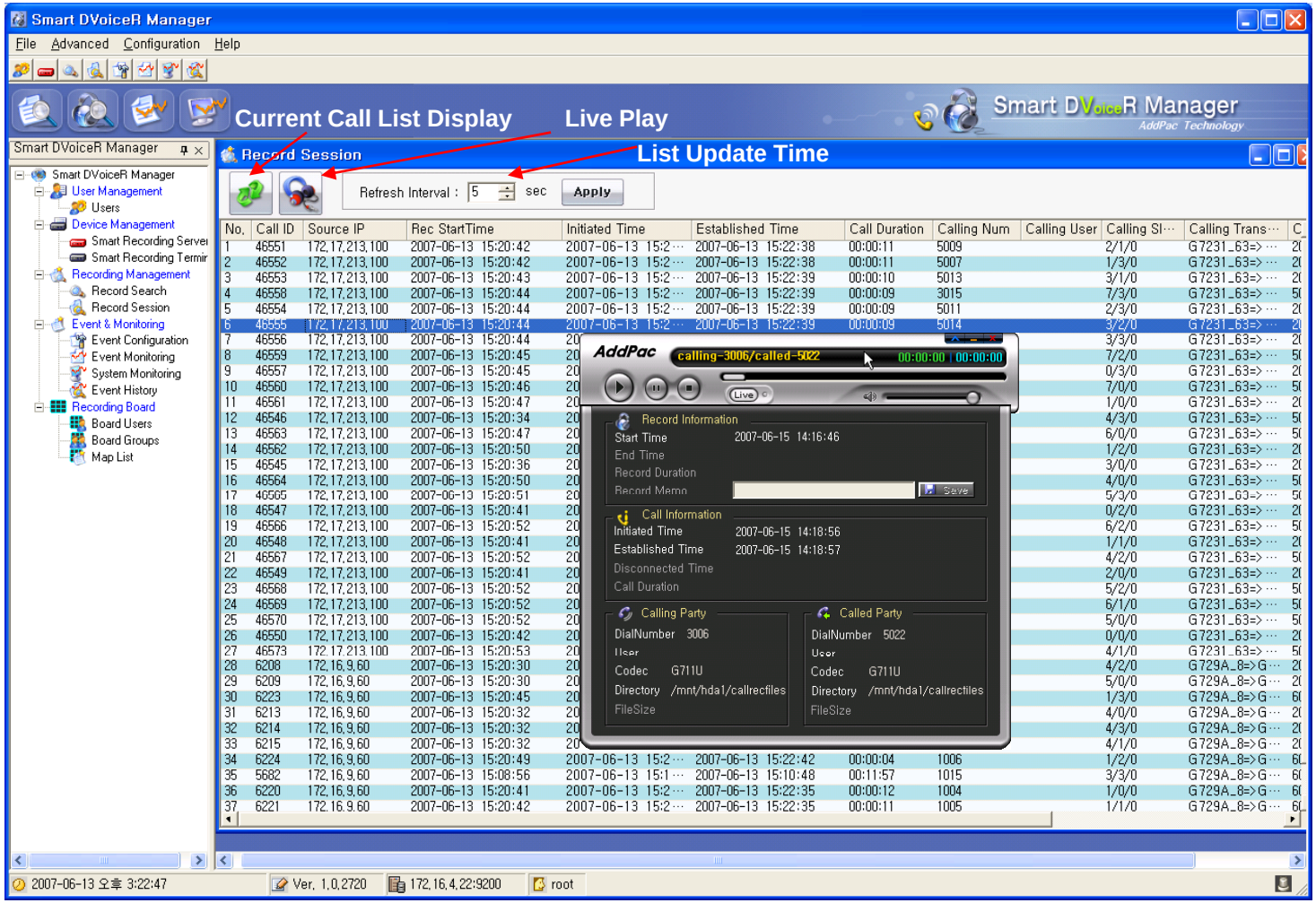
Recording File Waveform Analyzer
(Region Zooming)



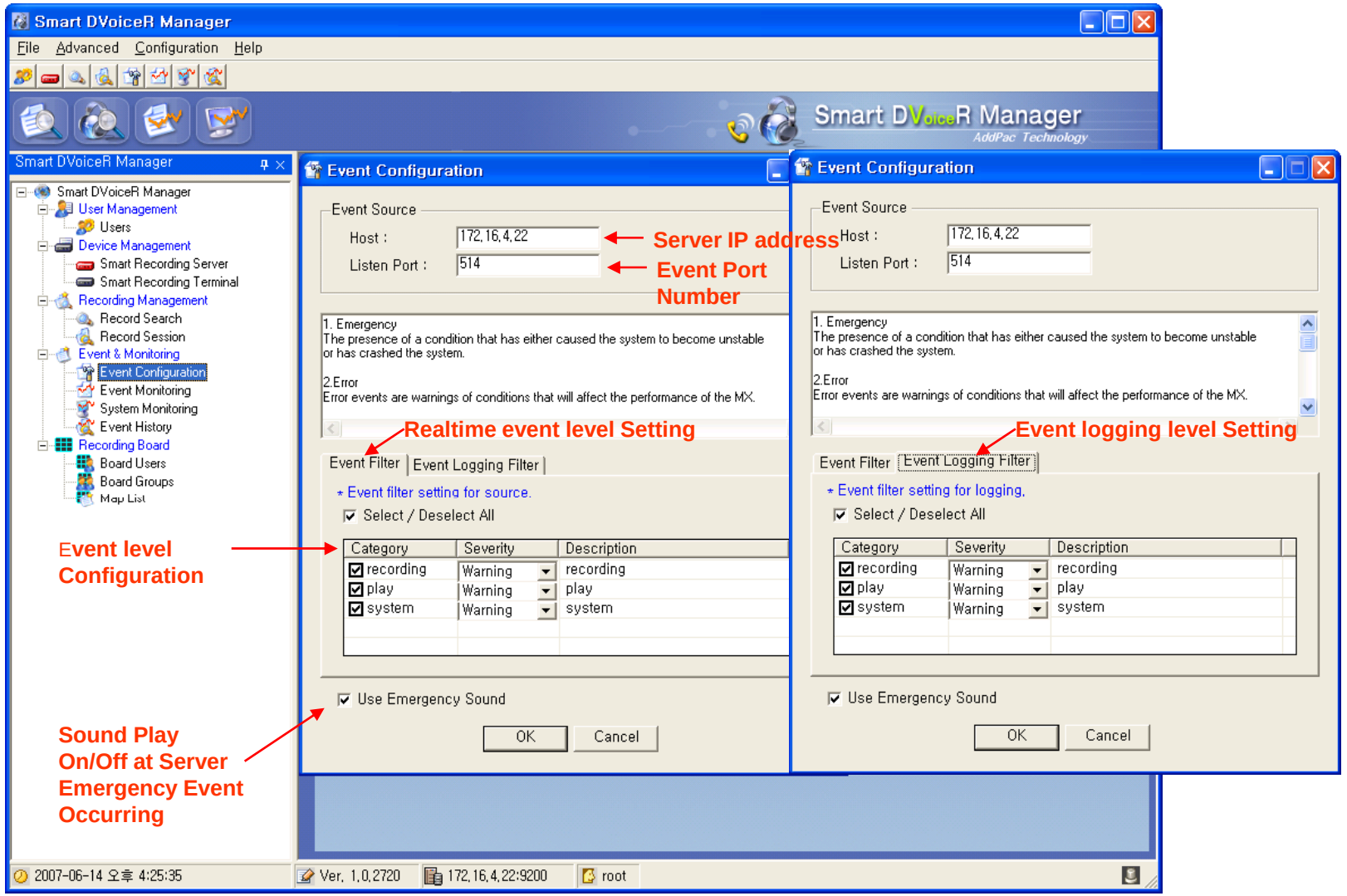
Recording File Waveform Analyzer
(Call Info. Display)



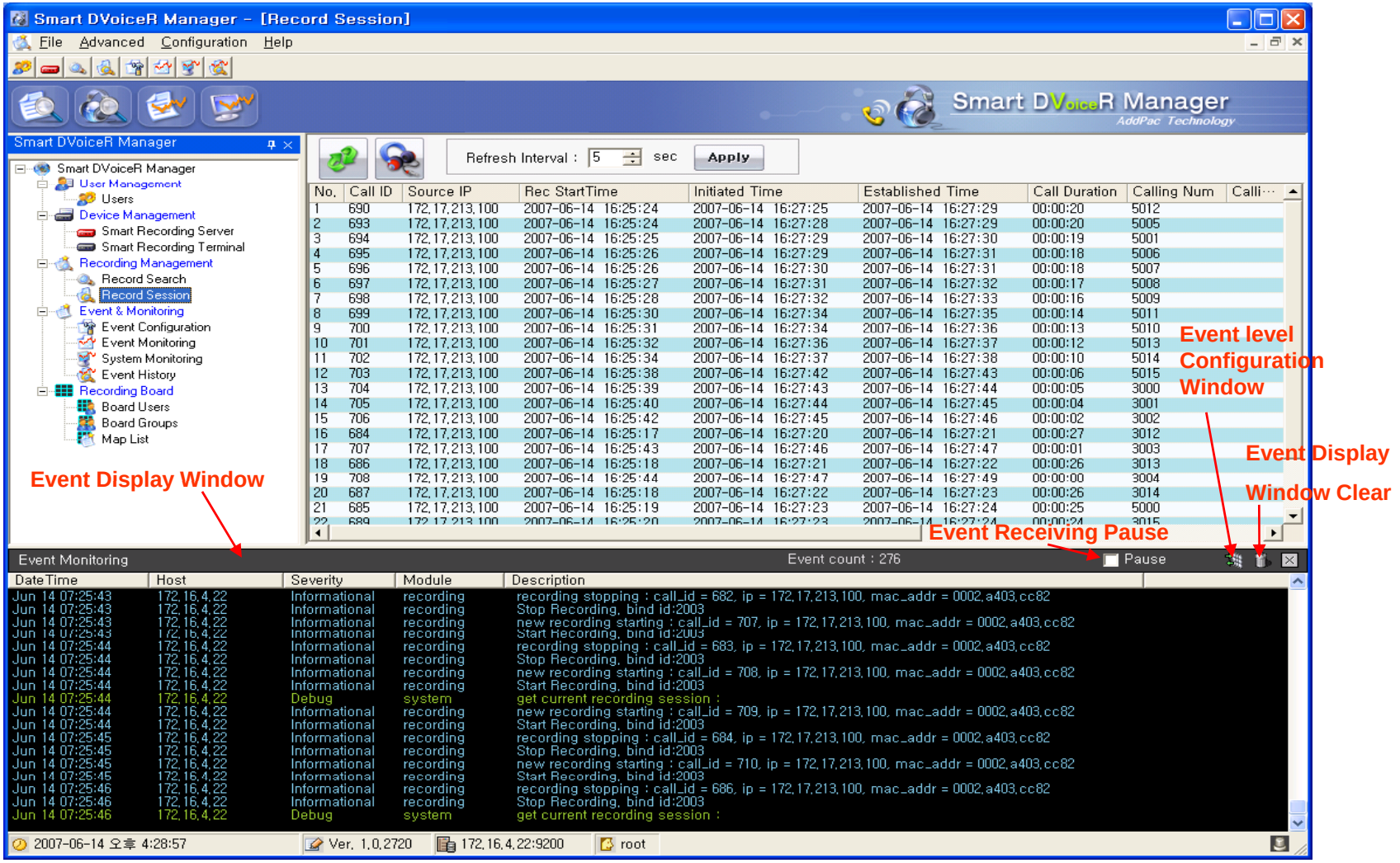
Live Call Recording List and Monitoring



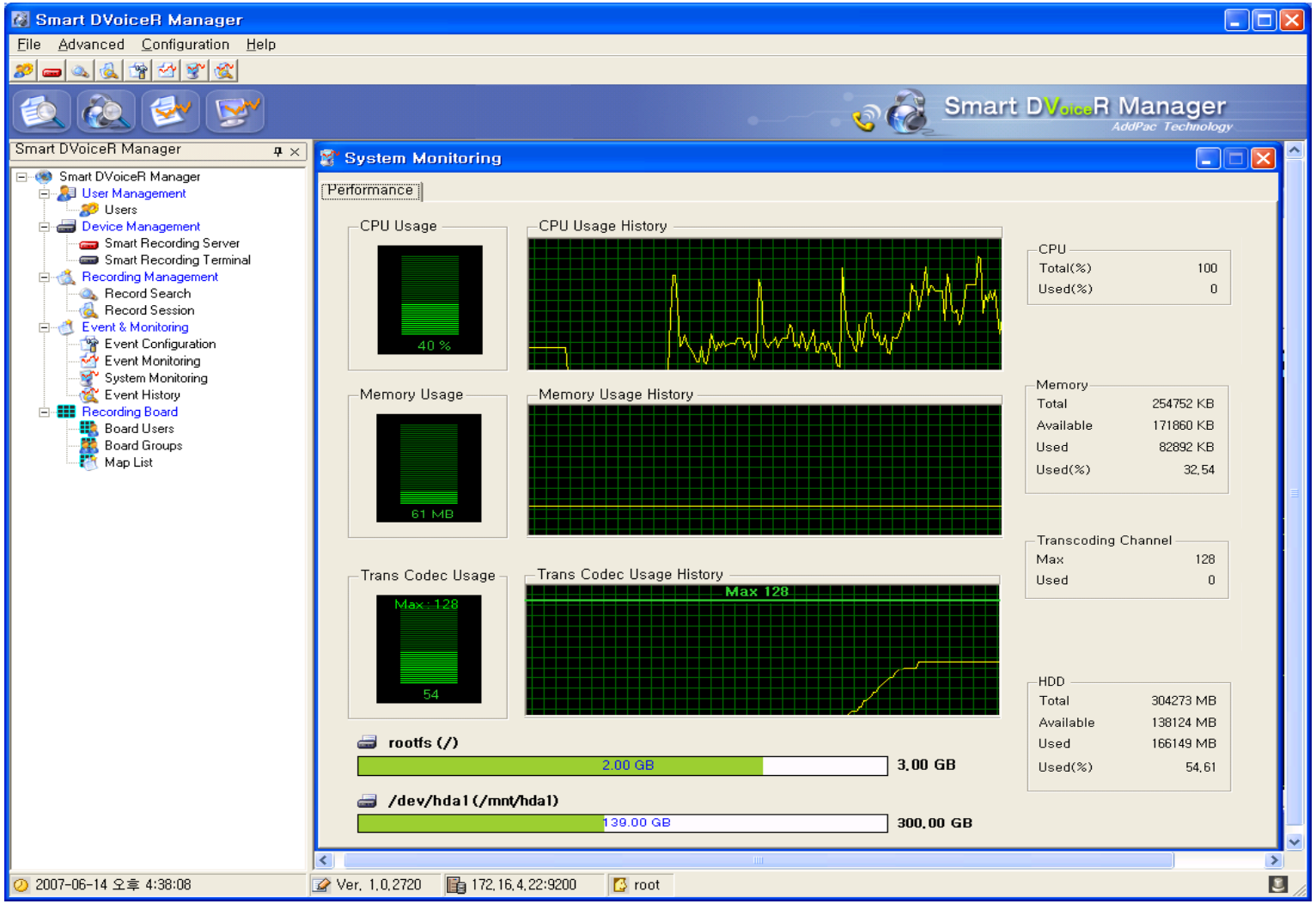
Event Management
(Configuration)



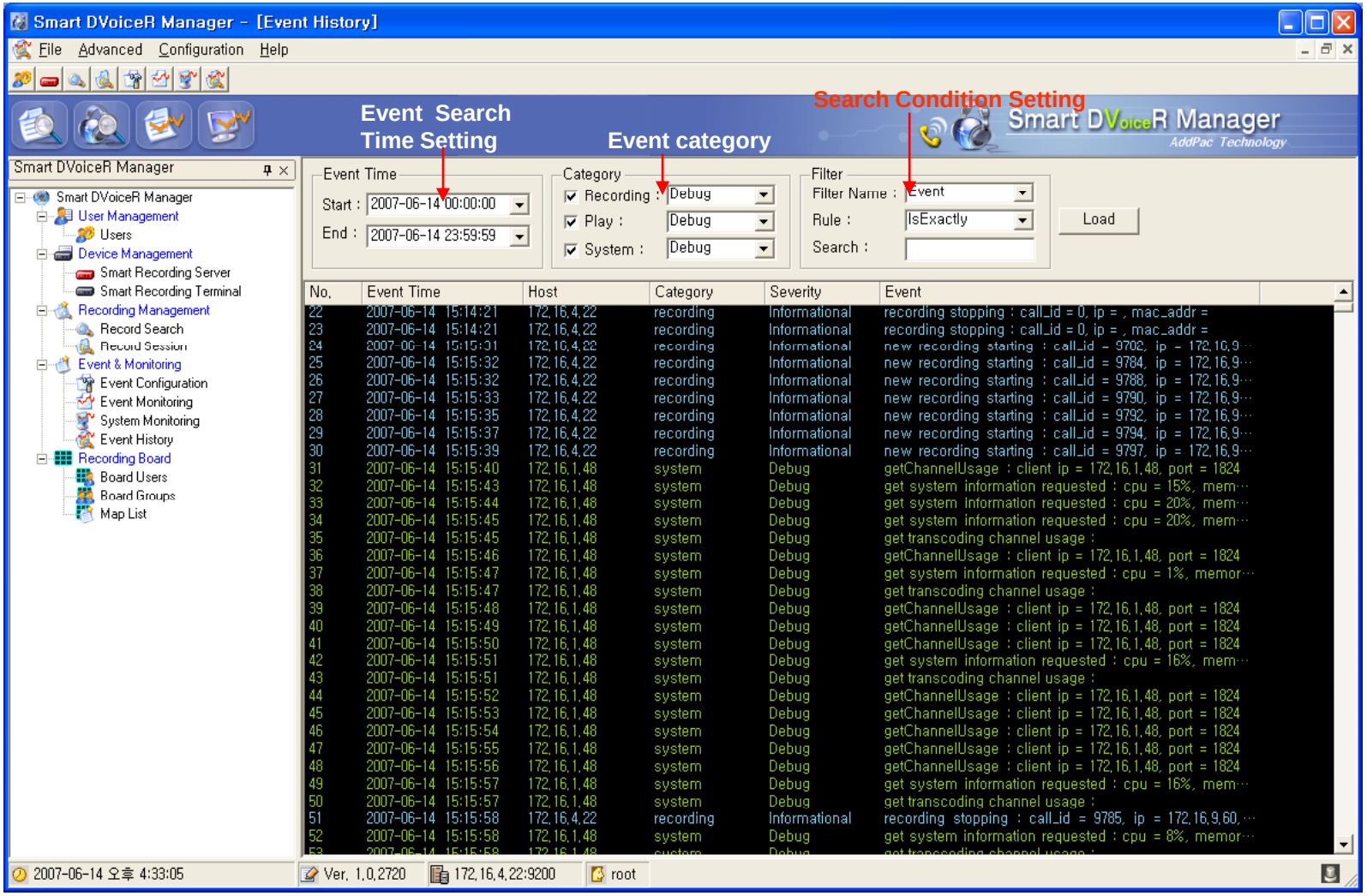
Event Management
(Monitoring)



Event Management
(System Monitoring)



Event Management
(Event History)



GPS based Embedded NTP Server for Time Sync. AP-GTR1000



Contents

- Product Overview
- Hardware Specification
- Simple NTP (Network Time Protocol)
- Network Diagram



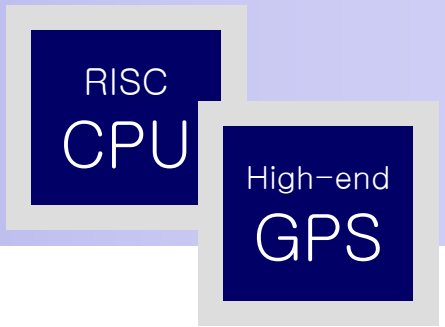
Product Overview

AP-GTR1000 IP based GPS Time Receiver Terminal

- High Performance GPS Time Receiver Terminal Solution
- IP based GPS Time Receiver (Location Free, etc)
- NTP (Network Time Protocol) Sever Solution
- Dual RS232 Port for GPS Time Information Transmission
- LCD Display for GPS Time Information
- External Antenna Interface Support
- Various Antenna Support for GPS Signal
- Blue LAMP for Device Status
- Smart Web Manager for System Configuration & Management
- Window, Linux Simple Socket API Program Support
- Firmware Upgradeable Architecture
- Broadcasting Solution with Outstanding Network Service Capability

Hardware Specification

AP-GTR1000 IP based GPS Time Receiver Terminal



- RISC Microprocessor Computing Power
- High-end GPS Module Hardware Architecture
- One(1) Module Slot for GPS Module
- LCD Display at Front Side
- Blue LAMP
- One(1) 10/100Mbps Fast Ethernet Interface
- Dual(2) DB-9 RS232C Interface
- Internal Power Supply
- Rack Mount Bracket (Option)
- GPS Antenna (Option)
- Option Module : AP-GPS-RS232
  - Two(2) DB-9 RS232C Interface Port
  - GPS Antenna Interface Port

Hardware Specification

AP-GTR1000 IP based GPS Time Receiver Terminal

RISC CPU

High-end GPS

Front Side



One(1) 10/100Mbps LAN

RS232C Console

Status LCD

On-Air Blue LAMP & Switch

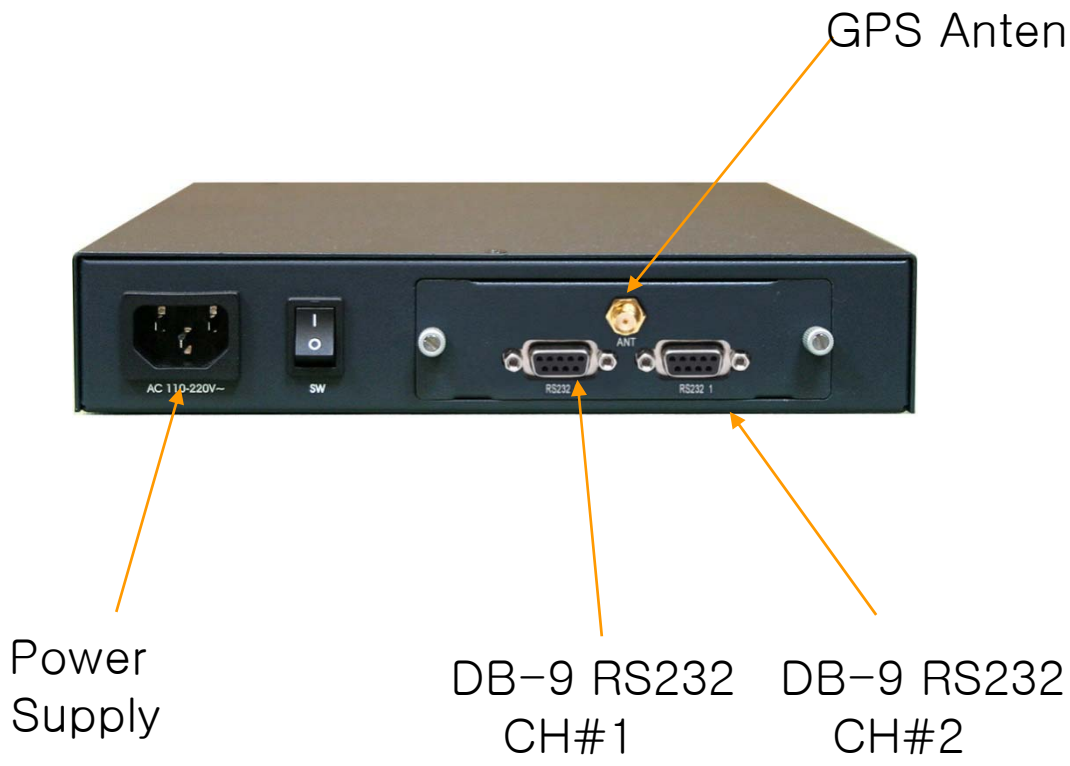
Hardware Specification

AP-GTR1000 IP based GPS Time Receiver Terminal

RISC CPU

High-end GPS

Back Side



Hardware Specification

AP-GTR1000 IP based GPS Time Receiver Terminal

RISC CPU

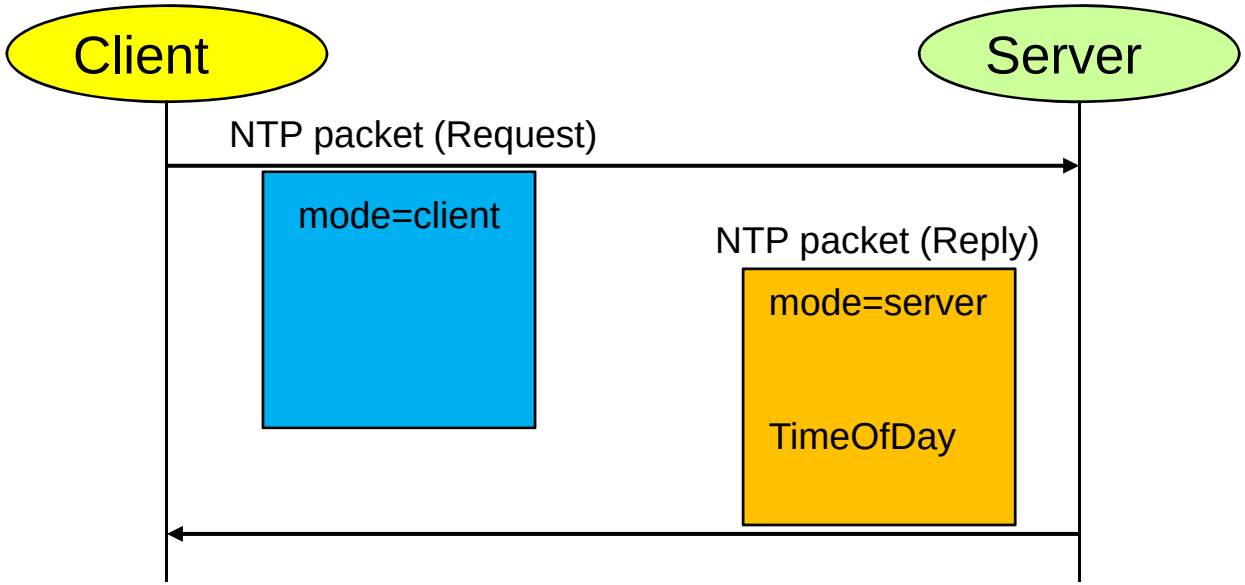
High-end GPS

GPS Antenna

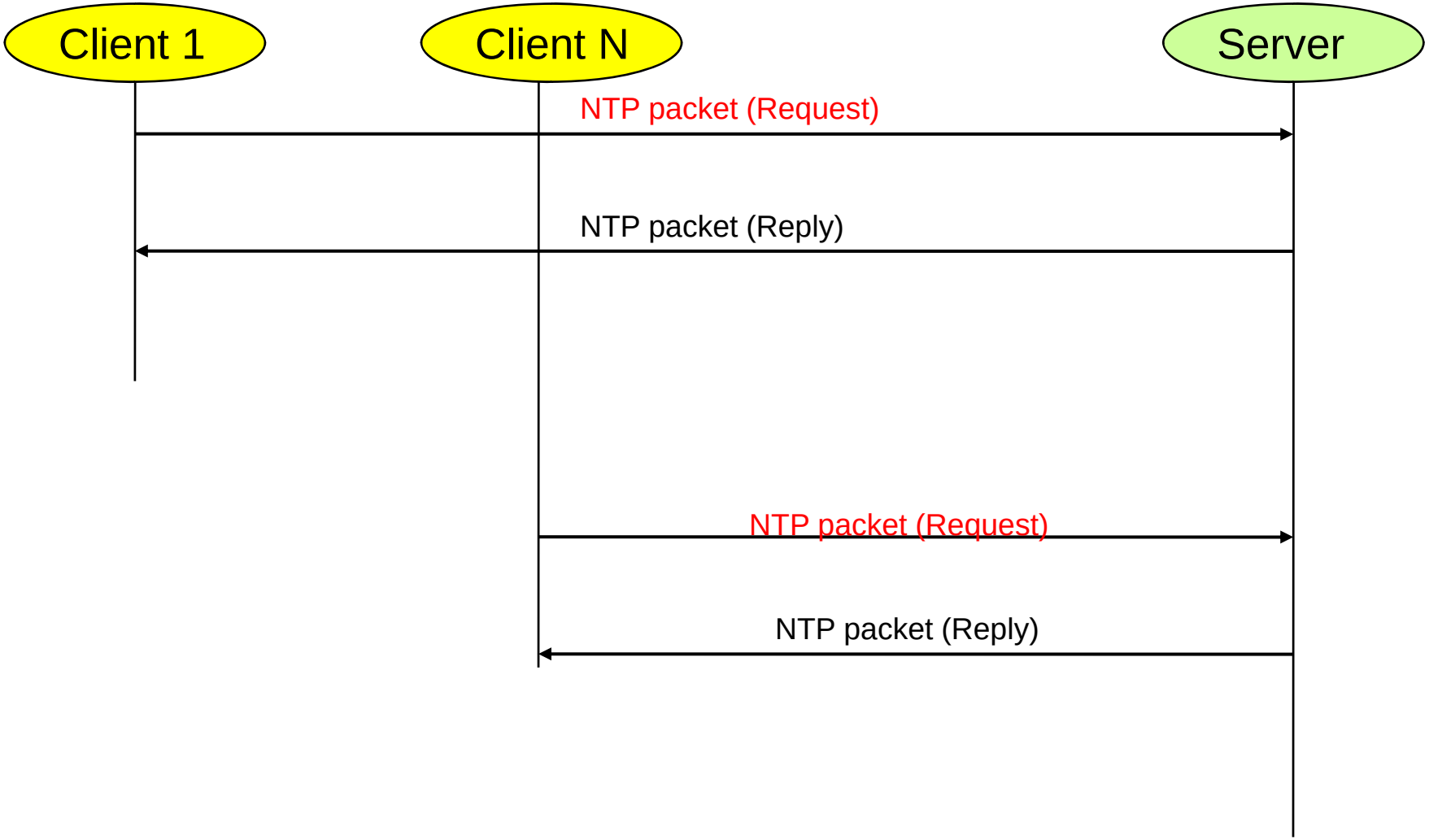


SNTP (Simple Network Time Protocol)

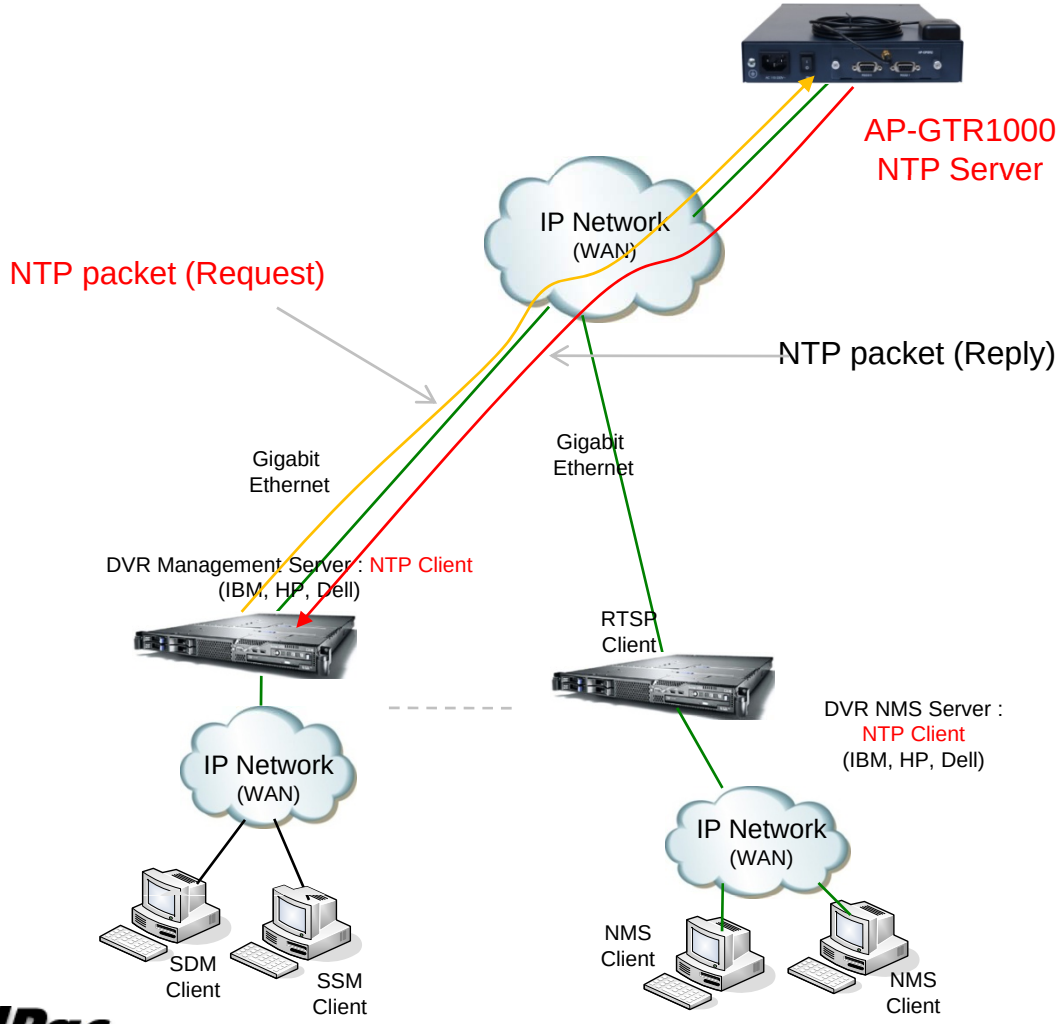
- Transport : UDP (port number 123)
- Protocol Version : 4
- Client/Server Mode



SNTP (Simple Network Time Protocol)



SNTP (Simple Network Time Protocol)



Fire Detection Sensors
(Example)

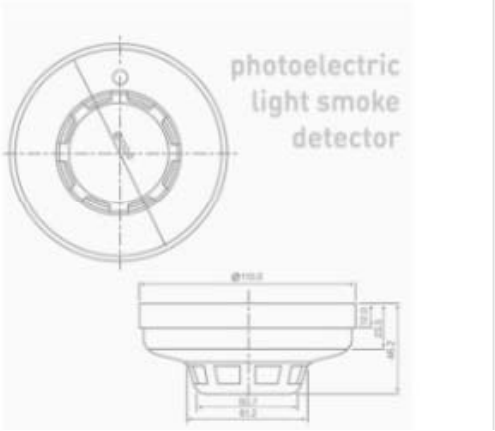
화재 경보기 타입별 조사 자료
(국내 제조사 - 형식인증제품)

㈜화경산업 - 광전식 감지기

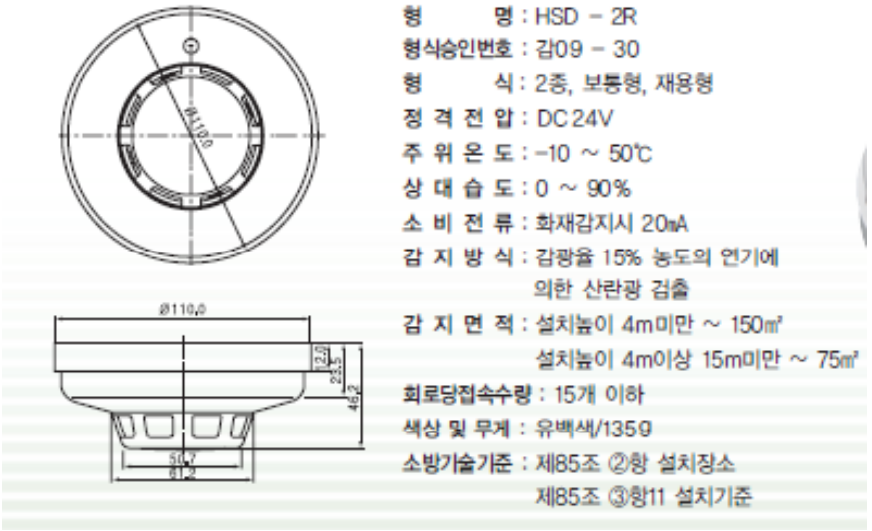
광전식 감지기

감지원리 : (연기감지)
감지기에 전원이 공급되면 연기 입자 검출용 발광부가 발진회로에 의해 약 4~5초에 1회 20ms 주기의 펄스를 발생하여 이 주기동안 발광합니다. 검출되는 광량이 증가함 따라 수광분의 출력도 증가하여 이 출력을 기준접압과 비교하여 기준전압보다 높으면 감지기가 동작합니다.





사이즈 : 110mm x 46.2mm



네이버 가격 5,500원

㈜화경산업 – 정온식 감지기

정온식 감지기

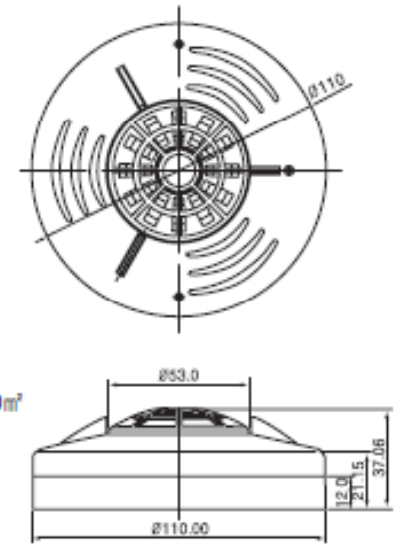
감지원리 : (일정온도 감지)
정온식 감지기는 주위온도가 일정한 온도 이상이되는 경우 작동하는 감지기 입니다.
바이메탈이 열에의해 반전될 때 연결되는 월리로 주위온도가 공칭작동온도 보다 높게 되면 가동 접점이 고정접점에 연결되어 동작확인등이 전등되고 화재신호를 수신기에 보내 작동하게 됩니다.





사이즈 : 110mm x 37.0mm

형 명 : HFD – 70R
형식승인번호 : 감09 – 29
형 식 : 1종 70℃, 보통형, 재용형
정 격 전 압 : DC 24V
주 위 온 도 : -10 ~ 50℃
상 대 습 도 : 0 ~ 90%
소 비 전 류 : 화재감지시 20㎃
감 지 방 식 : 바이메탈에 의한 공칭작동 온도점 감지
감 지 면 적 : 설치높이 4m미만 ~ 60㎡
설치높이 4m이상 8m미만 ~ 30㎡
회로당접속수량 : 제한없음
색상 및 무게 : 유백색/92 g
소방기술기준 : 제87조 ③항 설치기준



네이버 가격 3,000원

㈜화경산업 – 차동식 감지기

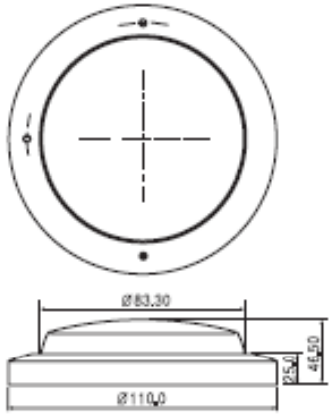
차동식 감지기

감지원리 : (온도변화감지)
차동식 감지기는 주위 온도가 일정 상승률 이상으로 상승하면 감열실 내부의 온도 상승으로 공기가 팽창하여 다이아프렘을 상부로 밀어줍니다. 이때 아이 아램프가 상층부 접범에 접촉하면 동작 확인등이 점등되고 10mA이하의 전류를 흘려 수신기를 동작시킵니다.





형　　명 : HRD – 2R
형식승인번호 : 감09 – 31
형　　식 : 2종, 보통형, 재용형
정 격 전 압 : DC 24V
주 위 온 도 : -10 ~ 50℃
상 대 습 도 : 0 ~ 90%
소 비 전 류 : 화재감지시 20㎃
감 지 방 식 : 온도상승율(15℃/분)을 다이아후램에 의해 감지
감 지 면 적 : 설치높이 4m미만 ~ 70㎡
설치높이 4m이상 8m미만 ~ 35㎡
회로당접속수량 : 제한없음
색상 및 무게 : 유백색/1429
소방기술기준 : 제85조 ③항 설치기준



사이즈 : 110mm x 46.5mm

네이버 가격 3,000원

리더스테크 – 광전식 열감지기

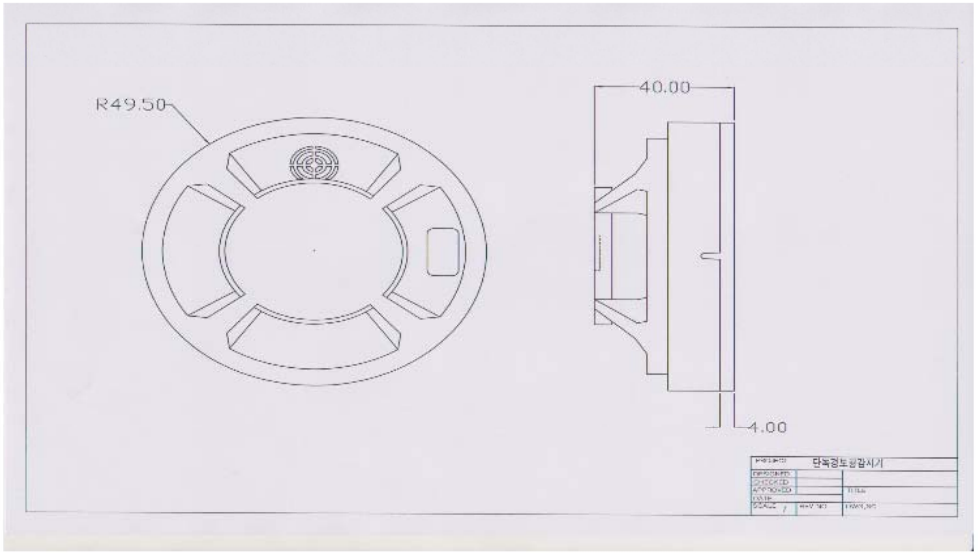


사이즈 : 99mm x 40mm

네이버 가격 6,000원

제품 상세정보 DETAIL PRODUCTS

구분	단독경보형 감지기(광전식/연동형)
형식승인번호	감 13-54-1
모델명	LTD-3200B
사용전압	DC3V 리튬전지(1500mAh)
특징	▶ 극성이 있으므로 극성끼리 연결하여주세요. ▶ 최대30개까지 연결가능 ▶ 형광등으로부터 60Cm이상 이격시켜주세요. ▶ 연기에 의해 동작하는 감지기 입니다. ▶ 축적기능 : 공칭축적시간10초 ▶ 경보음량 : 1m떨어진 위치에서 85dB이상 ▶ 비화재경보 정지기능 내장 ▶ 건전지수명 : 약 10년



리더스테크 – 정온식 감지기



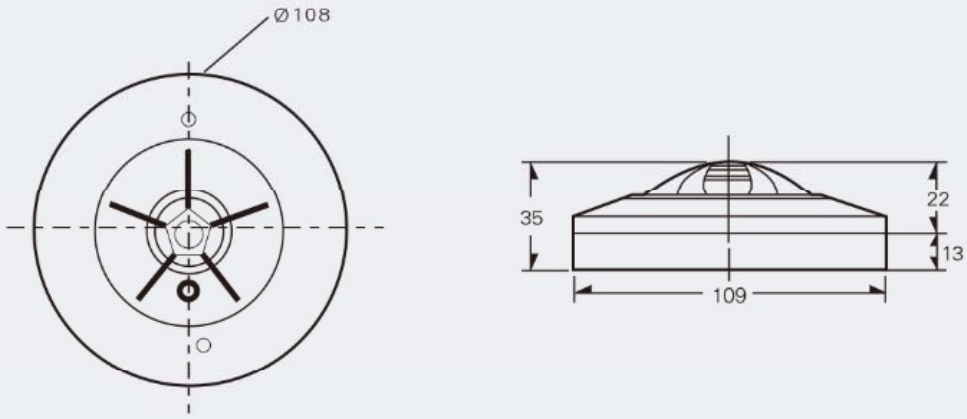
사이즈 : 109mm x 35mm

네이버 가격 3,200원

제품 상세정보 DETAIL PRODUCTS

구분	정온식 열감지기
형식승인번호	감 15-10
모델명	LDS-D110B
정격전압	DC 24V
최대접속개수	30개/회선
색상	베이지색
극성	무극성

■ 도 면



리더스테크 – 차동식 열감지기



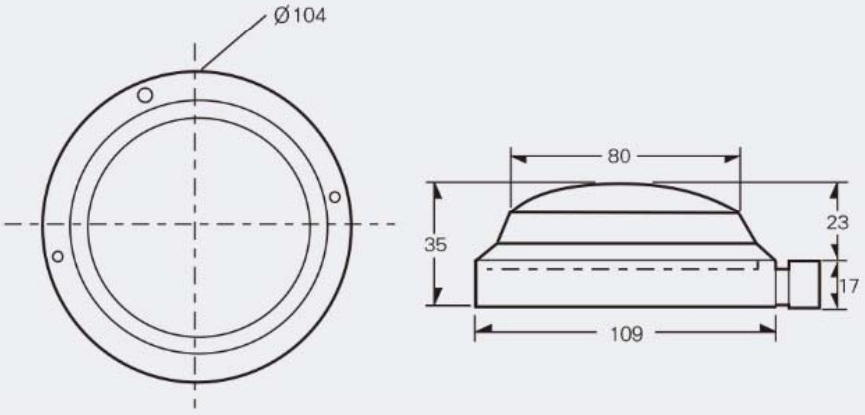
사이즈 : 109mm x 35mm

네이버 가격 3,200원

제품 상세정보 DETAIL PRODUCTS

구분	차동식 열감지기
형식승인번호	감12-65
모델명	LTD-1000B
정격전압	DC 24V
최대접속개수	무한
색상	베이지색
극성	무극성

■ 도 면



KTC 케이텔 – 광전식 감지기



사이즈 : 107mm x 45.2mm

네이버 가격 5,500원

KTC 케이텔 – 차동식 감지기

사이즈 : 105mm x 42mm

네이버 가격 3,200원





차동식스포트형감지기

판매가격 : 3,000원

		4m미만	4m~8m
감지면적	내화구조	70㎡	35㎡
	기타구조	40㎡	25㎡

반도체 감지 방식

구형 감지기는 2개의 온도센서를 조합시켜 한 쪽의 열시정수를 크게 하고, 다른 한 쪽의 열시정수를 작게 해 놓고, 그 검출 온도차로부터 온도상승 속도를 검출하는 방식으로, 검출 온도차 범위를 벗어난 온도상승 속도는 검출하지 못하거나, 오작동을 일으킬 수 있습니다.

하지만 신형 반도체 감지 방식은 온도센서를 반도체로 변경하여 기존 구형 감지기의 단점을 보완하는 제품입니다.

★ 모든 제품은 신형 반도체 감지기로 발송되며, 구형 감지기와 완벽히 호환, 설치방법 또한 동일합니다.





→ 브라켓과 본체를 돌려 끼우세요.

KTC 케이텔 – 정온식 감지기



정온식스포트형감지기

판매가격 : 3,000원

감지면적		4m미만	4m~8m
	내화구조	60㎡	30㎡
	기타구조	30㎡	15㎡

반도체 감지 방식

★ 모든 제품은 신형 반도체 감지기로 발송되며,
구형 감지기와 완벽히 호환, 설치방법 또한 동일합니다.

사이즈 : 107mm x 40mm



네이버 가격 3,200원

레존텍 – 불꽃 감지기 전문업체

인터넷 가격 없음

REZONTECH

HOME 회사소개 제품소개 홍보자료 자료실 고객지원



Products

제품소개

- 불꽃감지기 개요 및 특징
- 불꽃감지기 – UV/IR 계열
  - RFD-2000X
  - RFD-2000X-H
  - RFD-2000
  - RFD-2FT5-I
  - RFD-2FTN-I
  - RFD-2FTN
  - RFD-2TN-I
  - RFD-2FT
  - RFD-2T
- 불꽃감지기 – IR3 계열
  - RFD-3000X
  - RFD-3000
  - RFD-3FT-I
  - RFD-3FT
  - RFD-3T-I
- 특수감지기
  - RMD-5T
  - RFD-UVS
  - RFD-UVS-B
  - RFC-UI-IR3

불꽃감지기 - UV/IR 계열 - RFD-2000X

기본사양

- 타입: 자외선·적외선
- 공칭감시거리 : 30m(FM), 15m(KFI)
- 시야각: 90°
- 사용온도 : -40 ~ +75℃
- 보관온도 : -50 ~ +80℃
- 습도 : 0 ~ 95%
- 방폭등급 :
  - › Class I Division 1 Groups B,C and D(FM)
  - › Class II Division 1 Groups E,F and G(FM)
  - › Class III (FM)
  - › Ex db IIB+H2 T6(ATEX, KGS)
- 출력신호
  - › Relay
    - 화재, 오류, 경고
    - A 또는 B 접점 선택
    - 2A, 28vdc
  - › 4 ~ 20mA
  - › RS-485



DOCUMENTS DOWNLOAD

- › 형식승인서
- › 방폭승인서
- › FM
- › FM(US) Explosion Proof
- › ATEX
- › 카탈로그

RELATED PRODUCTS



기구

창성 에이스 산업 – 불꽃 감지기 3파장



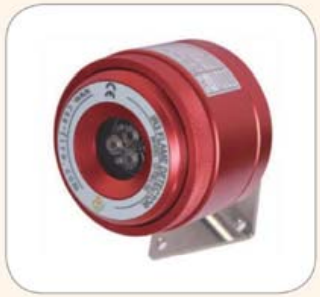
사이즈 : 75mm x 68mm 브라켓 제외

인터넷 가격 1,100,000원

3파장 적외선 불꽃감지기

Compact-Type Triple IR Flame Detector

▶ MODEL : CI – TIN – L100



▶ CI-TIN-L100

CI-TIN-L100 불꽃감지기는 불꽃에서 방사되는 적외선 파장 영역을 감지하는 서로 다른 3개의 적외선 센서를 사용하여 3중 적외선 불꽃감지기를 구성합니다.
적외선 불꽃감지기는 원거리 감지에 적합하게 각기 다른 적외선 파장대역을 감지함으로써 주위의 여러 가지 비화재보 요인으로부터 오동작을 배제하였고, 고감도의 센서 사용으로 최소의 소비전류로 최대의 민감도를 실현 하였으며, Microprocessor 제어 기술을 이용하여 불꽃에 대한 판단기능을 향상시켜 화재 검출에 대한 신뢰성을 대폭 높였습니다.
또한, 네트워크 구성이 가능하도록 시리얼 (RS-485) 통신 출력이 되며 유지관리가 용이합니다.

▶ 주요 특징

- 내부회로 자기 진단 기능 탑재 (특허기술)
- 비정상적 온도, 전압 발생 시 경보 및 알람 기능 (선택사양)
- 화재 오보율 최소화를 위한 프로그램 탑재
- 다양한 화재 출력 신호, RS-485 통신, 4~20 mA (선택), Relay 접점 출력
- CE인증 획득

▶ 적용 분야

- 화재의 급격한 확산이 우려되는 장소
  · 석유화학공장, 천연가스저장시설, 유류저장시설, 차량기지 등
- 연기, 열이 화재감지기에 도달하기 어려운 장소
  · 반옥외 및 옥외장소, 공조 설비가 가동되는 특수 창고, 터널 등
- 층고가 높은 지역, 개방된 넓은 장소
  · 제품창고, 물류창고, 랙창고, 체육관, 주차타워, 호텔로비 등
- 연기나 가시적 화염이 발생하지 않는 유류 화재 위험지역
  · 비행기 격납고, 페인트, 자동차 도장 공장 등

▶ 사양 (Specification)

MODEL	CI – TIN – L100
외형치수	75 mm×68 mm 원통형 (브라켓, 케이블그랜드 제외)
본체중량	560 g (브라켓, 케이블그랜드 제외)
공칭감지거리	50 m 이상
감지각도	90 °
반응속도	0.5초 – 10초 이내 (화염 크기에 의해 결정)
재질	알루미늄 다이케스팅 (아노다이징)
동작온도	-40 ℃ ~ +80 ℃
동작습도	RH 95 % 이하
정격전압	DC 24 V±20 %
소비전류	감시시 : 22 mA ± 3 mA 작동시 : 31 mA ± 3 mA
접점용량	1A 30V DC/ 0.5A 125V AC

아이알티 코리아 – 불꽃 감지기(적외선 복합형)

사이즈 : 64mm x 50mm 브라켓 제외

인터넷 가격 1,540,000원



소모에너지 엔테크놀러지 – 불꽃 감지기



제품기능

타입 : 삼중적외선

유효감지거리 : 50m

시야각 : 90°

사용 온도 : -20℃ ∽ +50 ℃

습 도 : 0 ~ 95%

출력 신호 (화재, 오류, 경보)
- 릴레이 A 접점 (N/O)출력
- 릴레이 B 접점 (N/C)출력
- 485통신출력

제품사양

케이스(Housing)	Aluminum Diecasting
크기(Dimensions)	W124 × H124 × D120mm
무게(Weight)	2kg
케이블 입구(Cable Entry)	1/2 inch NPT
정격전압	24V DC±20%
소비전류	작동 시 40mA / 대기 시 30mA
소비전력	0.96W (부하 시)
릴레이 접점	- Alarm -3A at 28VDC or 250VAC - Fault -3A at 28VDC or 250VAC

사이즈 :124x 124mm

인터넷 가격 880,000원

관련 업체

리더스테크 : 화재 감지기
http://www.leaders-tech.co.kr

화경산업 : 화재 감지기
홈페이지 없음

케이텔 : 화재 감지기
http://www.k-tel.co.kr/

창성 에이스 산업 :불꽃 감지기
http://csa-fire.com/ko/

아이알티 코리아 : 불꽃 감지기
http://www.irtkorea.com/

레존텍 :불꽃 감지기
http://www.rezontech.com

소모에너지 앤 테크놀러지
홈페이지 없음

Thank you!

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