AP-ISMS200
Integrated Security Management System
High-performance Integrated Security Management System Solution for Regional Command Center

Product Overview
(Without notice, following described technical spec. can be changed)

AddPac Technology

Sales and Marketing

Contents

- Product Overview
- Product Highlight
- Hardware Specification
- Integrated Security Management Software Service
  - CCTV NVR Service
  - Sensor Management Service
  - Voice Paging Service
  - SIP Video Door Phone Attendant Service for Access Control
  - RTSP Streaming Service
- Application Network Diagram
- Integrated Security Management System Comparison Table (unmanned system, regional command center)
- Product Component Table
- Ordering Information

Product Overview

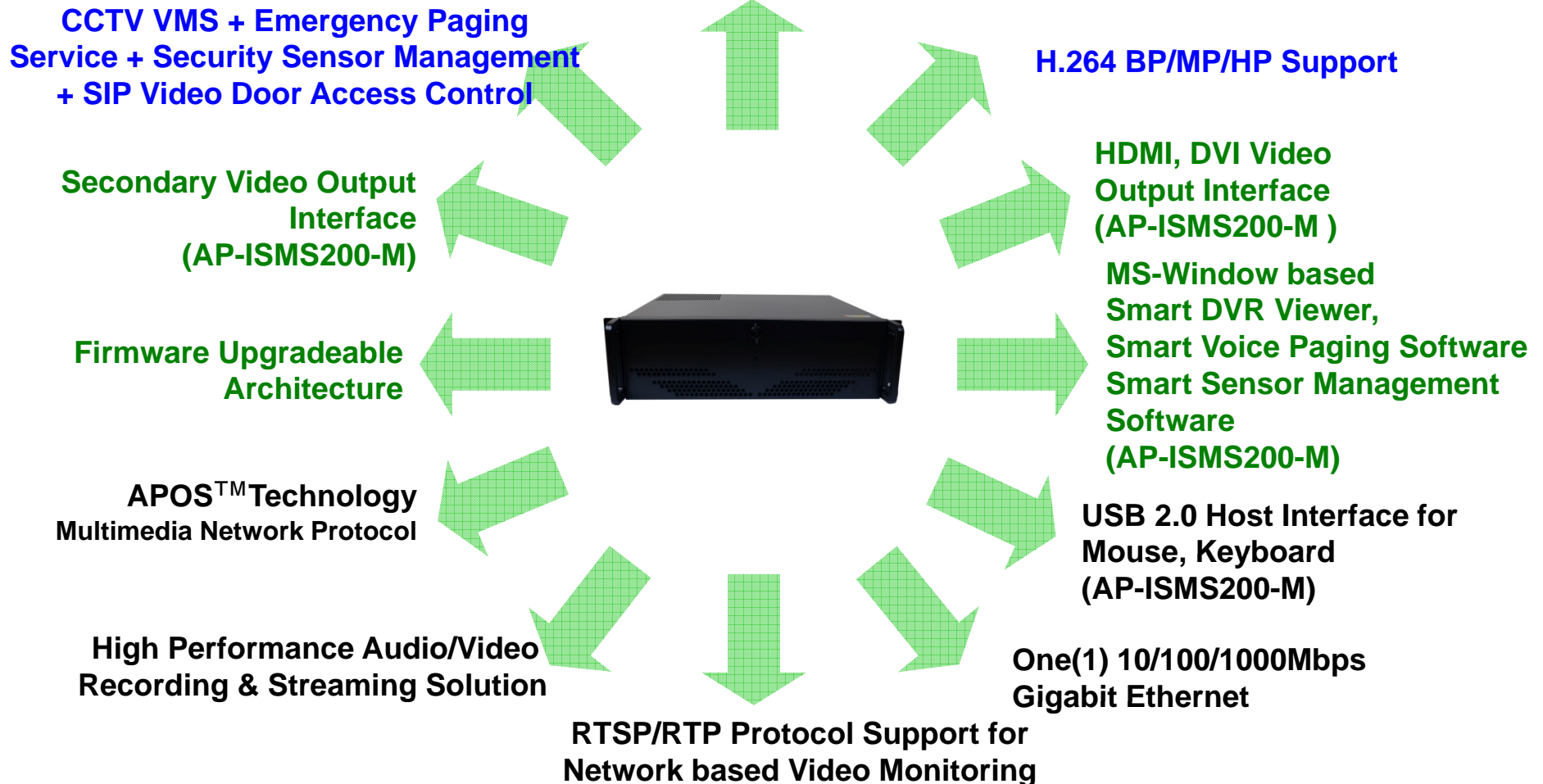- CCTV NVR Service + Emergency Paging Service + Security Sensor Management Service + SIP Video Door Phone Attendant Service for Access Control + RTSP Video Streaming Service
- Window or Linux based Operating System
- High-Performance Full HD, HD, SD Network DVR
- H.264 Video Codec BP/MP/HP
- Onvif Standard based IP Camera, Video Codec Support
- Full HD, HD, D1 Video Resolution Support
- Video Out : HDMI, DVI Interface (AP-ISMS200-M)
- Secondary Video Output Interface (AP-ISMS200-M)
- HD Video Recording and Streaming Service
- Smart DVR Viewer Support (MS-Window S/W)
- Smart DVR Manager Support (MS-Window S/W)
- File Back Manager Support (MS-Window S/W)
- Powerful Management and User Friendly Features
- High-performance Audio and Video Service
- Firmware Upgradeable Architecture

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Product Highlights

AP-ISMS200 Integrated Security Management System

Next Generation Security Service Integration System

CCTV VMS + Emergency Paging Service + Security Sensor Management + SIP Video Door Access Control

H.264 BP/MP/HP Support

Secondary Video Output Interface (AP-ISMS200-M)

HDMI, DVI Video Output Interface (AP-ISMS200-M)

MS-Window based Smart DVR Viewer, Smart Voice Paging Software Smart Sensor Management Software (AP-ISMS200-M)

Firmware Upgradeable Architecture

APOS^{TM} Technology Multimedia Network Protocol

USB 2.0 Host Interface for Mouse, Keyboard (AP-ISMS200-M)

High Performance Audio/Video Recording & Streaming Solution

One(1) 10/100/1000Mbps Gigabit Ethernet

RTSP/RTP Protocol Support for Network based Video Monitoring

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Hardware Specification

AP-ISMS200 Integrated Security Management System

- AP-ISMS200-M Management System

- High Performance Computing Power

- Main Chassis
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
  - Video Output Interface
    - HDMI, DVI Video Output
  - Secondary Video Output Interface
  - USB 2.0 Interfaces for Mouse, Keyboard, etc
  - SATA Hard Disk

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Hardware Specification

AP-ISMS200 Integrated Security Management System

High End Processor

Front Side
(AP-ISMS200-M)

Cabinet Open Key

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Hardware Specification

AP-ISMS200 Integrated Security Management System

High End Processor

Back Side
(AP-ISMS200-M)

Power ON/OFF Switch

Power Input

Video Output

Audio In/Out

USB Interface for
Mouse, Keyboard, etc

Secondary Video Output
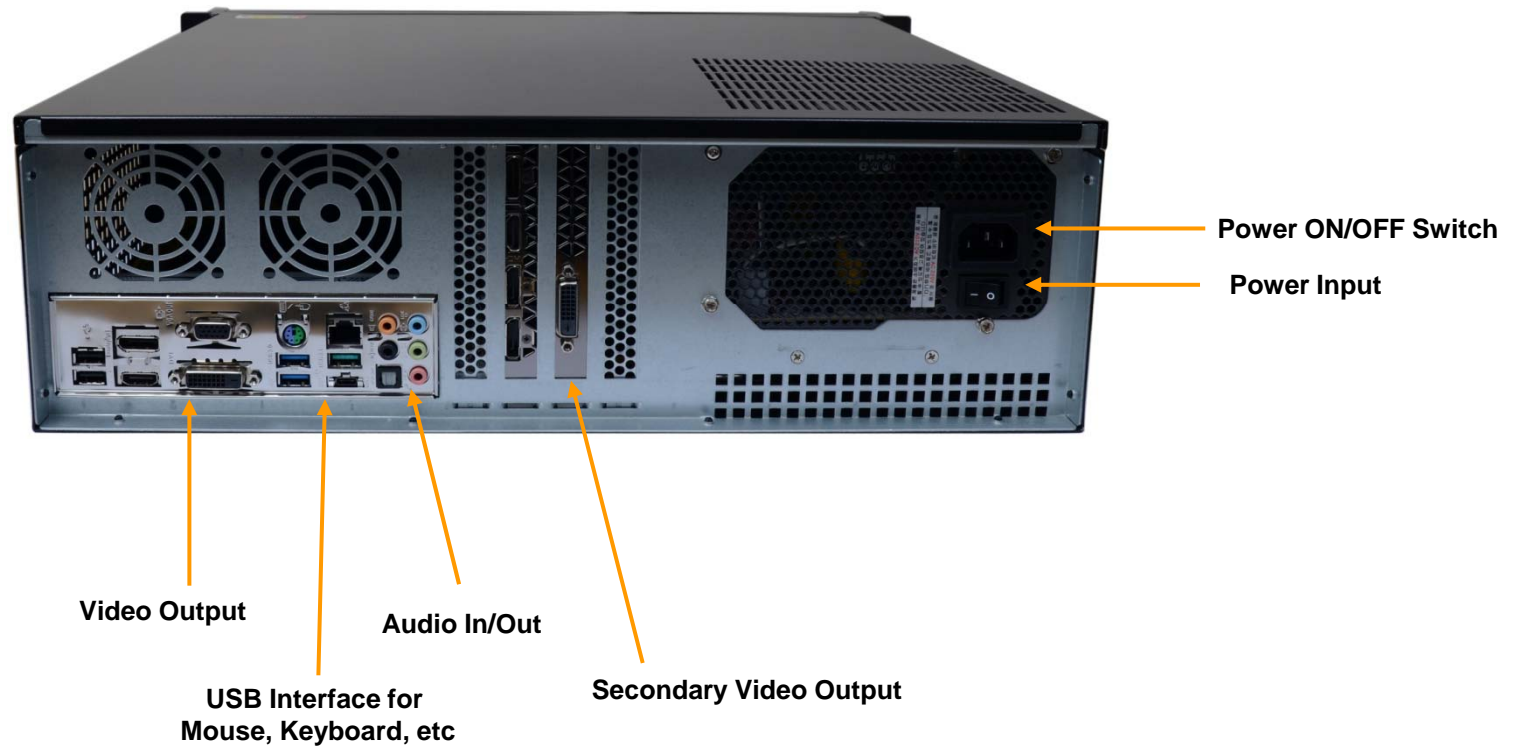
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Software Service

- **Built-in AddPac APOS Internetworking Software**
  - Scalability, Functionality, and Stability Features
  - Advanced HD Standalone DVR Recording & Streaming Features
  - QoS Control Features
- **Firmware Upgradeable Architecture**
- **Industry Standard Network Protocol Features**
- **Highly User Friendly Management Features**
  - MS-Window based Smart DVR Viewer
  - Smart DVR Manager

AddPac
APOS

AddPac
Smart DVR
Manager

CCTV NVR Service

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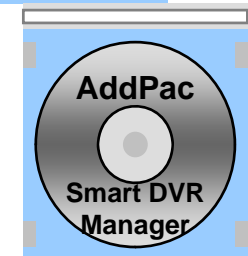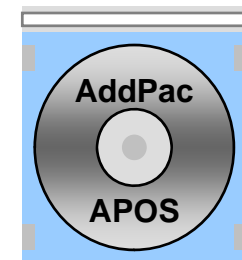
Smart DVR Viewer

AP-ISMS200 Integrated Security Management System

- Multi-Standalone DVR Server Support
- Onvif Protocol Support for CCTV Device Control
- PAN/TILT/ZOOM Control, Layout & Screen Mode Change
- Multi-Live View, Multi-Recording View, Time Synchronization View
- Fast Search, Jog Shuttle Slow Motion & Rewind
- Recording ZOOM View
- Audio/Video Support.

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Smart DVR Backup Manager

AP-ISMS200 Integrated Security Management System
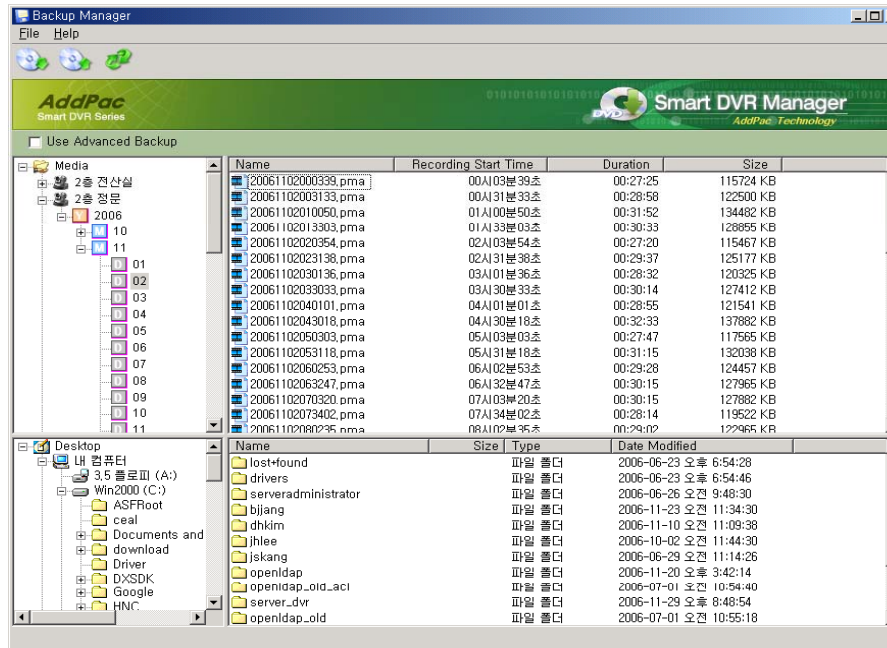
- DVR Backup Software for AddPac DVR Solution
- User can backup DVR data by using DVR Backup Manager.
- Support the Advanced Backup Function
- Support the Backup Data Restore Function
- DVD Burning Support

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Sensor Management Service

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Contents

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

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Smart IoT Sensor Manager Service Diagram

User Site A

Sensors

SAH50 (fence Intrusion Security)

Sensors

SAH50 (fence Intrusion Security)

Sensors

SAH50 (fence Intrusion Security)

User Site B

Sensors

SH50 (1'st Floor Section)

Sensors

SH50 (2'nd Floor Section)

Smart Phone/PAD

10/100Mbps

3G/4G Network

LAN, WAN

10/100Mbps

Alarm

Security Management Center

Senor Management
+ Paging Service
+ SIP Video Door Access CCTV Display
Control

AP-ISMS200

Smart IoT Sensor Manager

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Overview

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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.

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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.

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Manager UI
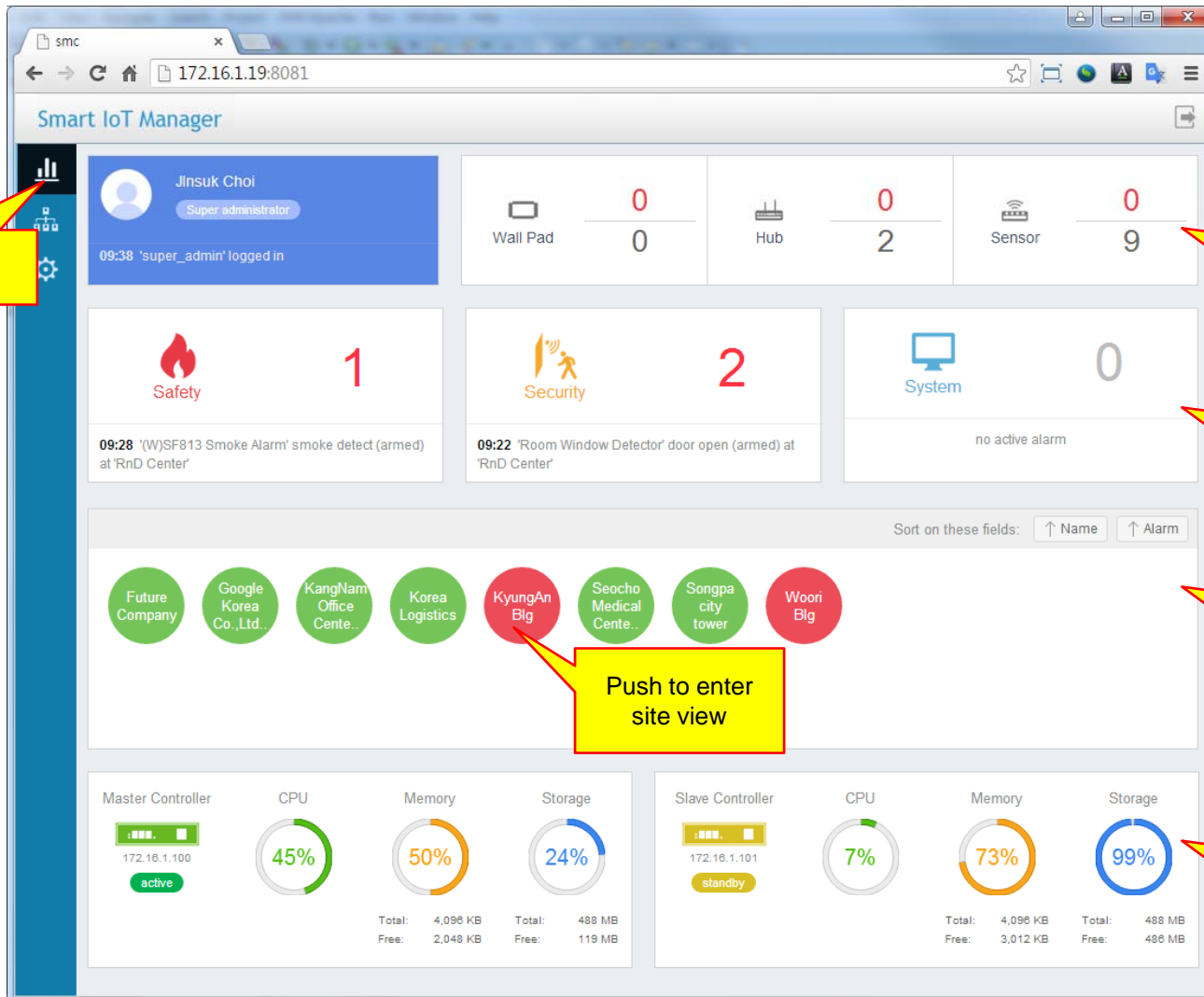
Global Dashboard

Select Global Dashboard

Smart IoT Manager

172.16.1.19:8081

Jinsuk Choi
Super administrator
09:38 'super_admin' logged in

Wall Pad   0 / 0
Hub   0 / 2
Sensor   0 / 9

Shows number of abnormal categorized devices

Safety   1
09:28 '(W)SF813 Smoke Alarm' smoke detect (armed) at 'RnD Center'

Security   2
09:22 'Room Window Detector' door open (armed) at 'RnD Center'

System   0
no active alarm

Shows number of active categorized alarms

Sort on these fields: ↑ Name   ↑ Alarm

Future Company | Google Korea Co.,Ltd.. | KangNam Office Cente.. | Korea Logistics | KyungAn Blg | Seocho Medical Cente.. | Songpa city tower | Woori Blg

Push to enter site view

Shows alarm status of managed sites

Master Controller
172.16.1.100 active
CPU 45%
Memory 50%
Total: 4,096 KB Free: 2,048 KB
Storage 24%
Total: 488 MB Free: 119 MB

Slave Controller
172.16.1.101 standby
CPU 7%
Memory 73%
Total: 4,096 KB Free: 3,012 KB
Storage 99%
Total: 488 MB Free: 486 MB

Shows manager system status

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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

Select operator tab

Shows site operators and group operators

Section Dashboard

Device List

Active Alarms

Event History

Section View

Select section view

Shows sensor controller web page of this section
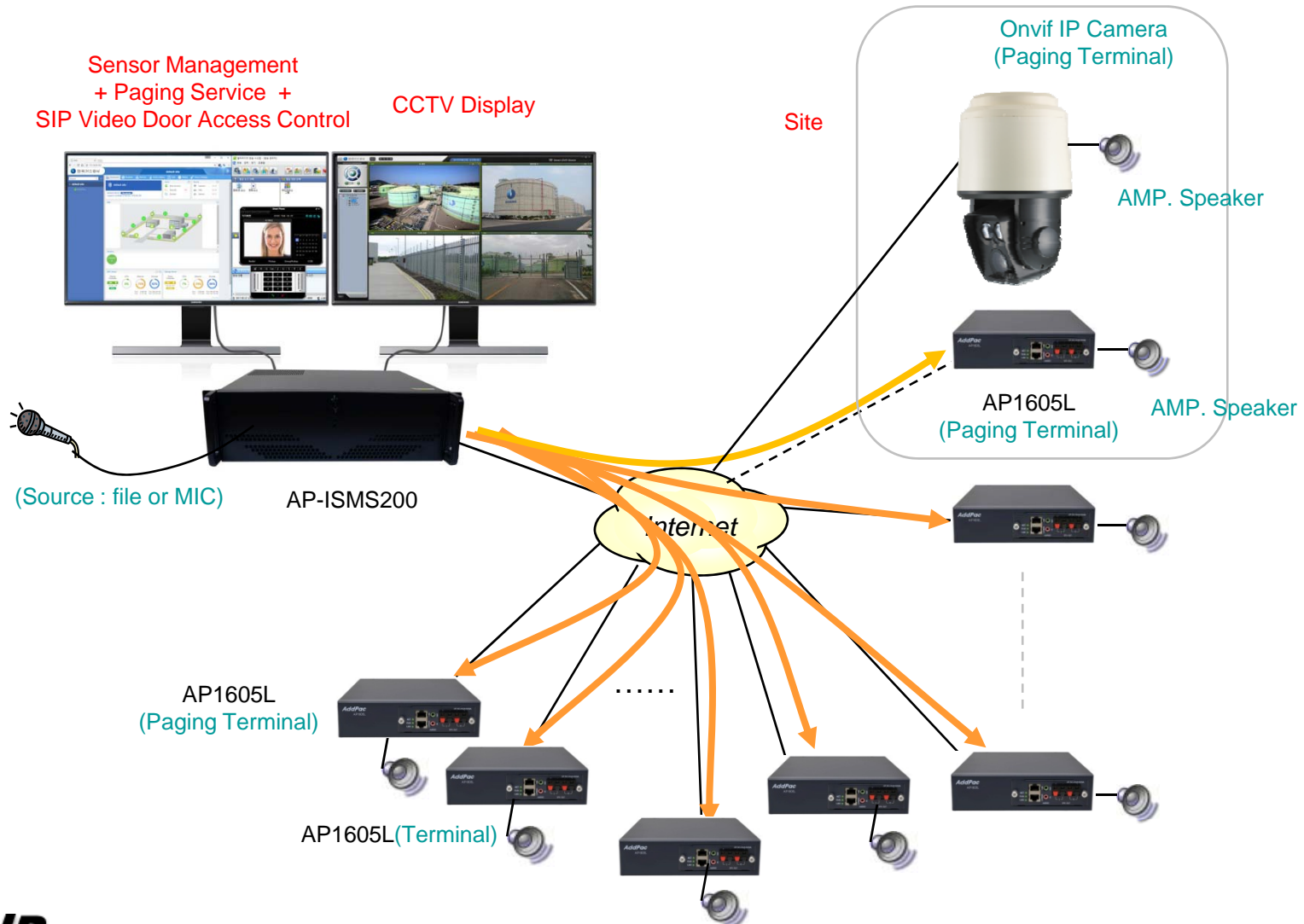
Emergency Paging Service

Contents

- Network Diagram
- Main Features
- Software Requirement
- Hardware Requirement
- GUI examples

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Network Configuration

Sensor Management
+ Paging Service +
SIP Video Door Access Control

CCTV Display

Onvif IP Camera
(Paging Terminal)

Site

AMP. Speaker

AP1605L
(Paging Terminal)

AMP. Speaker

(Source : file or MIC)

AP-ISMS200

Internet

AP1605L
(Paging Terminal)

AP1605L(Terminal)

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Main Feature

- Window based IP Broadcasting Server with Management Software

- Unicasting/Multicasting Service Support

- Onvif aware RTSP Protocol Support

- Onvif IP Camera Support for Broadcasting

- RTP (Real-time Transmission Protocol) Support

- Various Voice/Audio Codec Support (G.711, SPEEX, etc)

- User Register and Access Restriction Management

- Broadcasting Device Management

- Broadcasting Source, Group, Favorite List Management

- Reserved Broadcasting and Time Signal Broadcasting

- TTS Broadcasting

- IP Broadcasting Terminal Status Check, etc

- Search Event Log

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Software Requirement

1. Database : MySQL Server 5.0

2. e-MBMS Server
   - Java JRE 1.5
   - e-MBMS Server

3. e-MBMS Client
   - e-MBMS Client

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Hardware Requirement

1. **e-MBMS Server H/W Requirement**
   - CPU: Intel Pentium4 1GHz (minimum)
   - MEMORY: 512Mbyte (minimum)
   - HDD: 40GB
   - OS: Windows XP, Windows 2000, Windows 7..

2. **e-MBMS Client H/W Requirement**
   - CPU: Intel Pentium Series
   - MEMORY: 256Mbyte (minimum)
   - OS: Windows XP, Windows 2000, Windows 7..

WBS GUI Initial Screen

Broadcasting Device Management

Broadcasting Group Management

User Management

Reserved Broadcasting Management

TTS Broadcasting

SIP Video Door Access Control

Network Diagram

AP-VAC50 SIP Video Door Phone
for Access Control

Integrated Security Management System
for Regional Command Center

HD IP Camera   H.264 HD
Video Bit stream

Ethernet

AP-VAC50
SIP Video Door Phone

Ethernet

**IP Network
(WAN)**

Ethernet

N x RTSP
Client

N x RTSP
Server

AP-ISMS100

**IP Network
(WAN)**

Ethernet

Gigabit
Ethernet

AP-ISMS200-M

AP-SAH50N
Smart Analog Sensor Hub

Fence intrusion, RS485 Sensor , etc

Ethernet

AP-VP280DM
SIP Video Phone

AP1605L
Paging Terminal

Speaker

AP-ACS1000
Call Manager

Integrated Security Management System
for Unmanned Zone

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Overview

AP-SMP100	Main Features	MS-Window based IP Soft Video Phone
		IP Real-time Audio/Video Broadcasting Terminal Solution
		Up to 30fps with HD-Resolution(MPEG-4, H.264)
		Video Conference Call Support (AddPac External MCU Inter-working) Advanced Voice/Video Traffic QoS
		Advanced Voice/Video Traffic QoS
		SIP, H.323* Signaling Support
		Support Various Call Signal via AddPac IP-PBX Inter-working
	A/V Service Features	High-performance Video/Voice Codec Support - H.263, MPEG-4, JPEG, and H.264 - G.711,G.726, SPEEX, etc
		Powerful Image Resolution Support -QCIF(176x144), CIF(352x288), QVGA(320x240), 4CIF ,VGA(640x480) , and 720P HD
		64Kbps to 4Mbps Operating Video Traffic Bandwidth
		Rate Control for Video Traffic QoS Ensuring Optimized Quality Frame Rate with Limited Bandwidth
		High-end Error Resilient Against Various Packet Error

Integrated UI
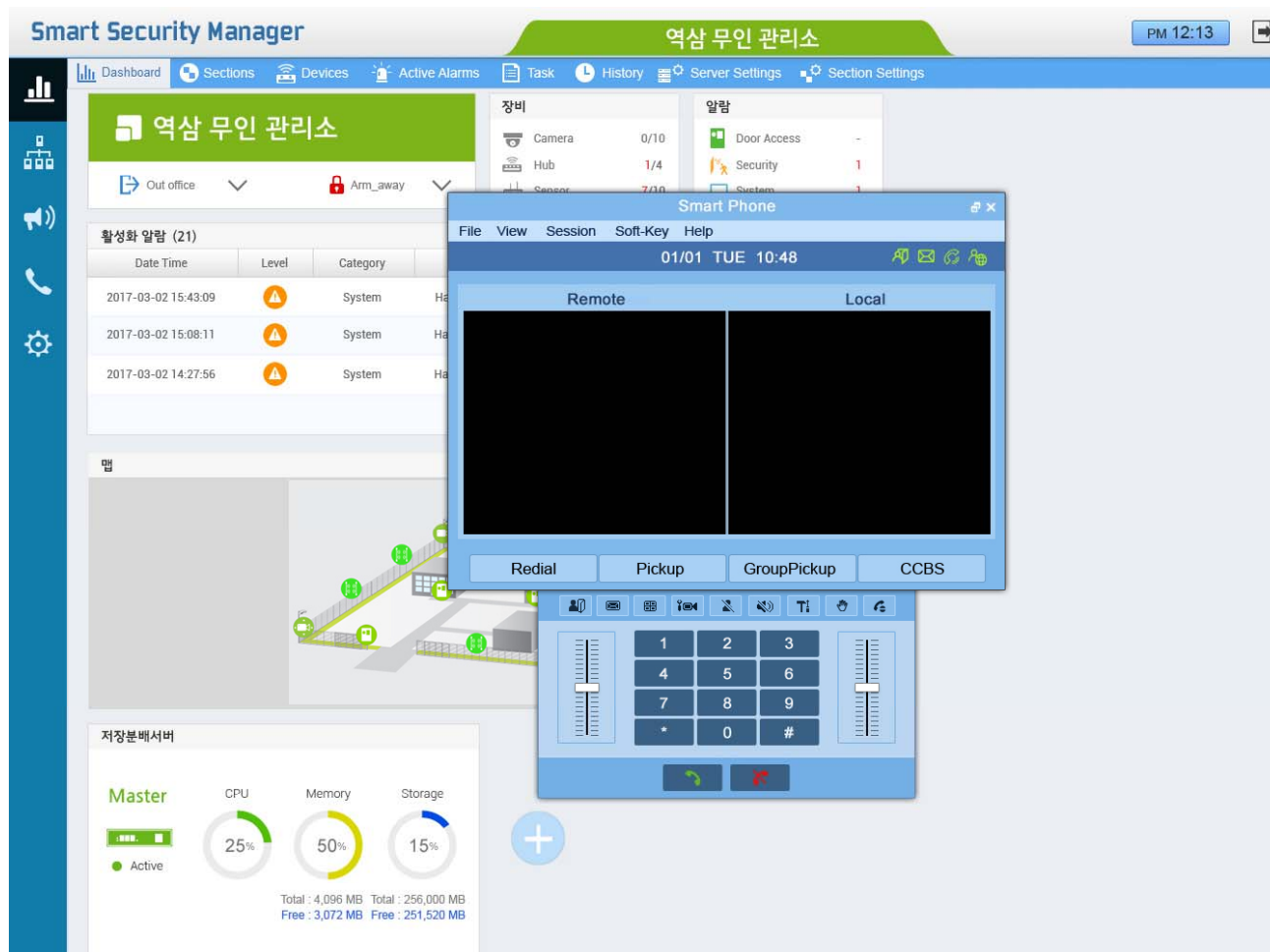
OSD Software Features

OSD Software Features

OSD Software Features

SIP Video Door Access Control Using AP-VP280DM SIP Video Phone (Option)

High Quality, High Resolution

AP-VP280DM IP Video Phone

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Network Diagram

Door Phone Group 1

1 10/100M

2

[Ethernet]

M

AP-VAC50

10/100M

Door Phone Group 2

1

2

[Ethernet]

M

Door Phone Group N

1

2

[Ethernet]

M

AP-VAC50

LAN

AP-ACS1000

Access Control Server

LAN

[Ethernet]

Central Management Center

1

2

N

AP-VP280DM

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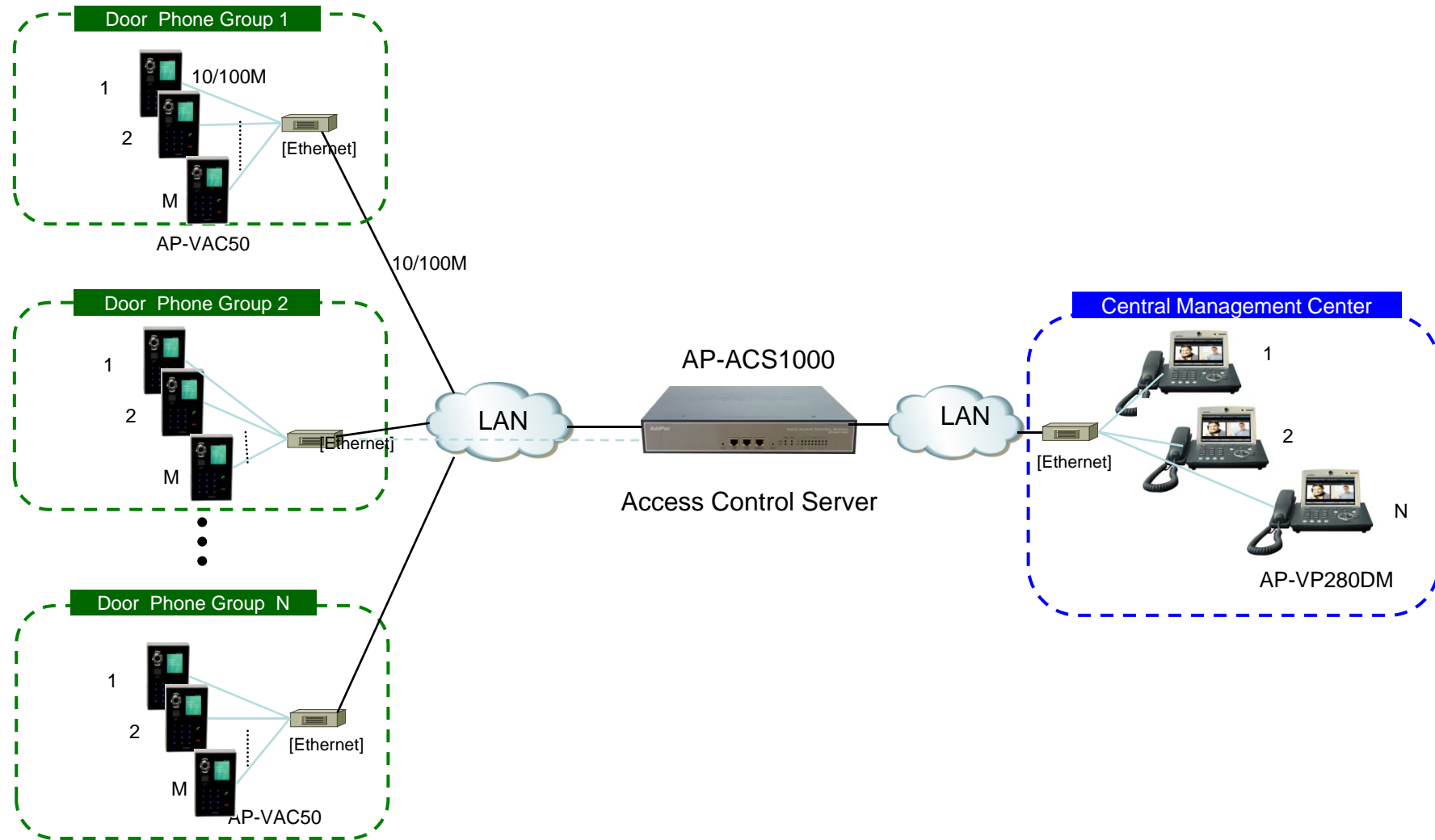
Product Overview

- IP based Video Phone Solution
- High-Quality Video, Audio, and Voice Service
- High Performance Programmable Video DSP
- Video Telephony and Videoconferencing Service Features
- H.323 and SIP Dual VoIP Signaling Protocols
- H.264/H.263 Video Codec Support
- HDMI Video Output Interface for External HDTV or Monitor
- Various Call Scenario Support
- Call Status Monitoring Support
- Firmware Upgradeable Architecture
- Audio/Video Privacy Protection

Hardware Specification

AP-VP280DM IP Video Phone

- **High-end Programmable DSP Hardware Architecture**
- **Video Input Interface**
  - RCA Video Input
- **Video Output Interface**
  - RCA Video Output, HDMI Video Output
- **High quality Audio and Voice Interface**
  - Stereo Audio Input & Output Connector
- **Network Interface**
  - One(1) 10/100Mbps Fast Ethernet
  - One(1) RS-232C Console
  - One(1) USB Interface
- **PSTN Interface**
  - One(1) FXO(RJ11) interface (Option)
- **Power Supply**
  - External Power Adaptor
  - PoE (Power over Ethernet) : Option

Touch Screen

Hardware Specification

AP-VP280DM IP Video Phone

High-end
DSP

Video Camera

Call Indication LAMP

7inch LCD with Touch Screen

Dial & Function & Menu Keys

Hardware Specification

AP-VP280DM IP Video Phone

High-end
DSP

PSTN FXO (Option)

HDMI Video Out

Power Switch   Power Input

Composite RCA Video In/out

10/100Mbps
LAN Port

RJ45
RS232C Port

Audio In/Out Port

USB Interface

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Hardware Specification

AP-VP280DM IP Video Phone

HDMI Video Out

Full HD Monitor
(Option)
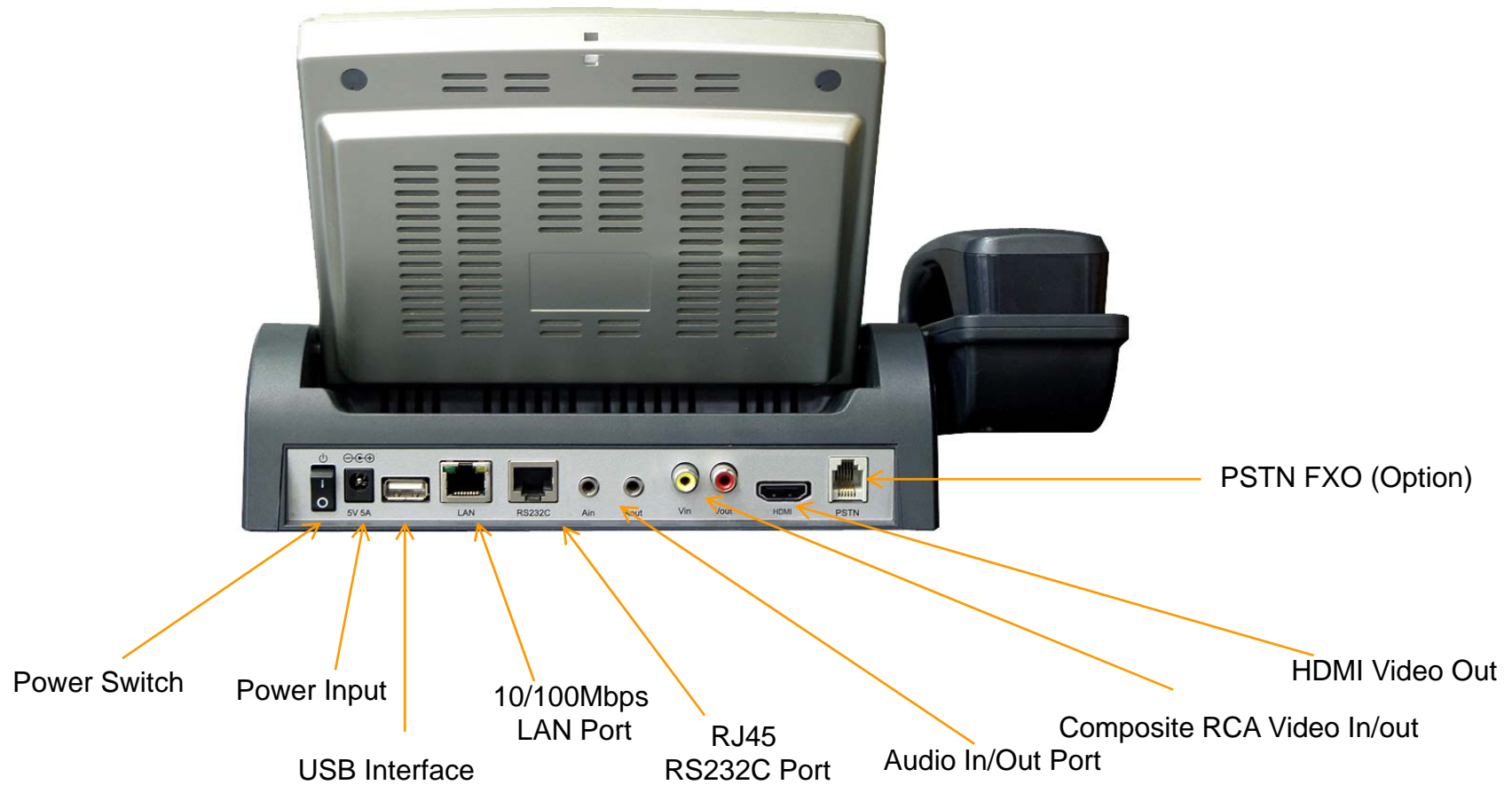
Application Diagram

AP-VP280DM IP Video Phone

LAN

AP-VAC50
SIP Video Door Phone

AP-VP280DM
SIP Video Phone

Full HD Monitor
(Option)

AP-ACS1000
Access Control Server (Call Manager + Door Access Control)

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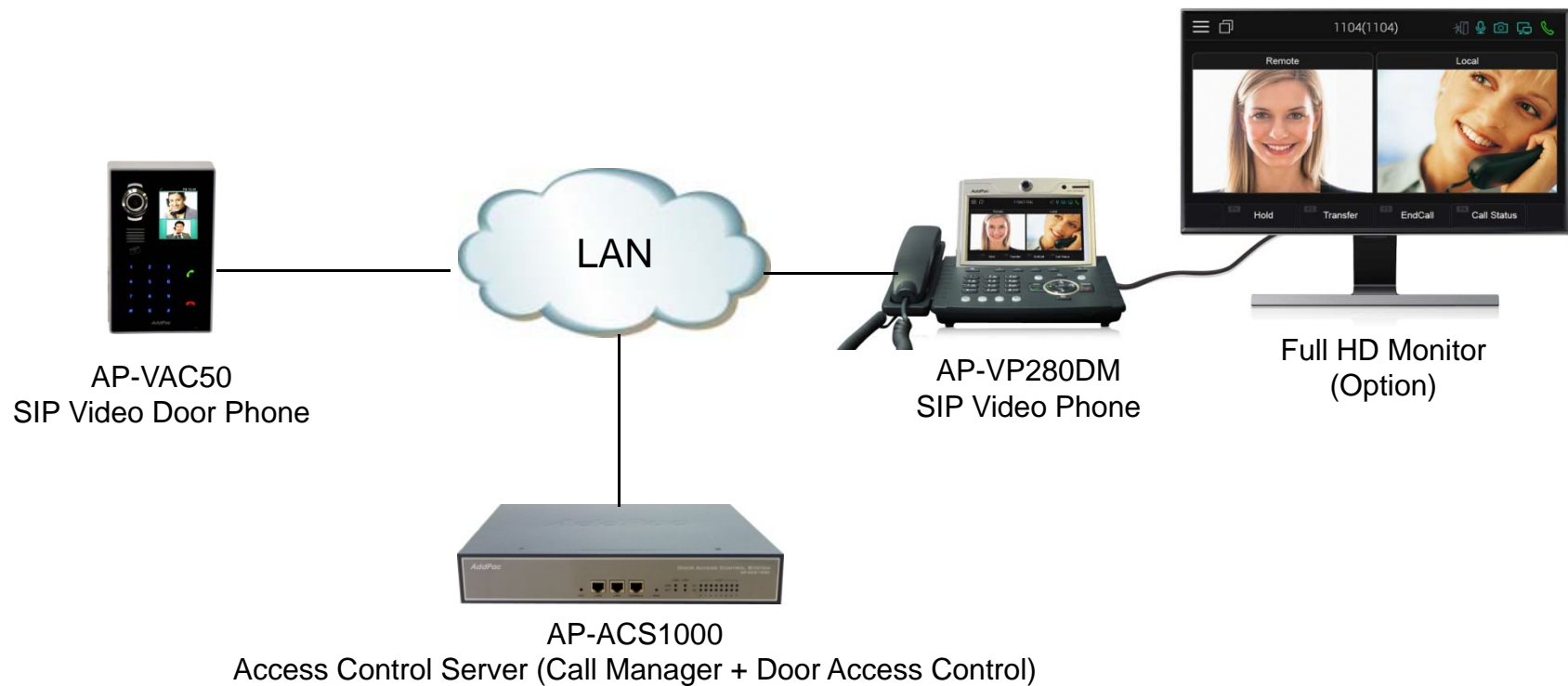
RTSP Streaming Service

RTSP Streaming Service Overview

- RTSP based Full HD/HD/D1 Streaming Service
- RTSP Server & Client Architecture
- TCP/UDP Protocol Support
- HD Video Encoder, HD Video Decoder, HD Storage Server, HD Display Server RTSP based Interworking
- HD Video Bit-Stream Input
- HD Video Bit-Stream Output
- Load Balance using RTSP Redirect Service
- IP based Network Protocol Support

RTSP based Streaming Service Diagram

Network Diagram

Example (N : M = 64 : 128)
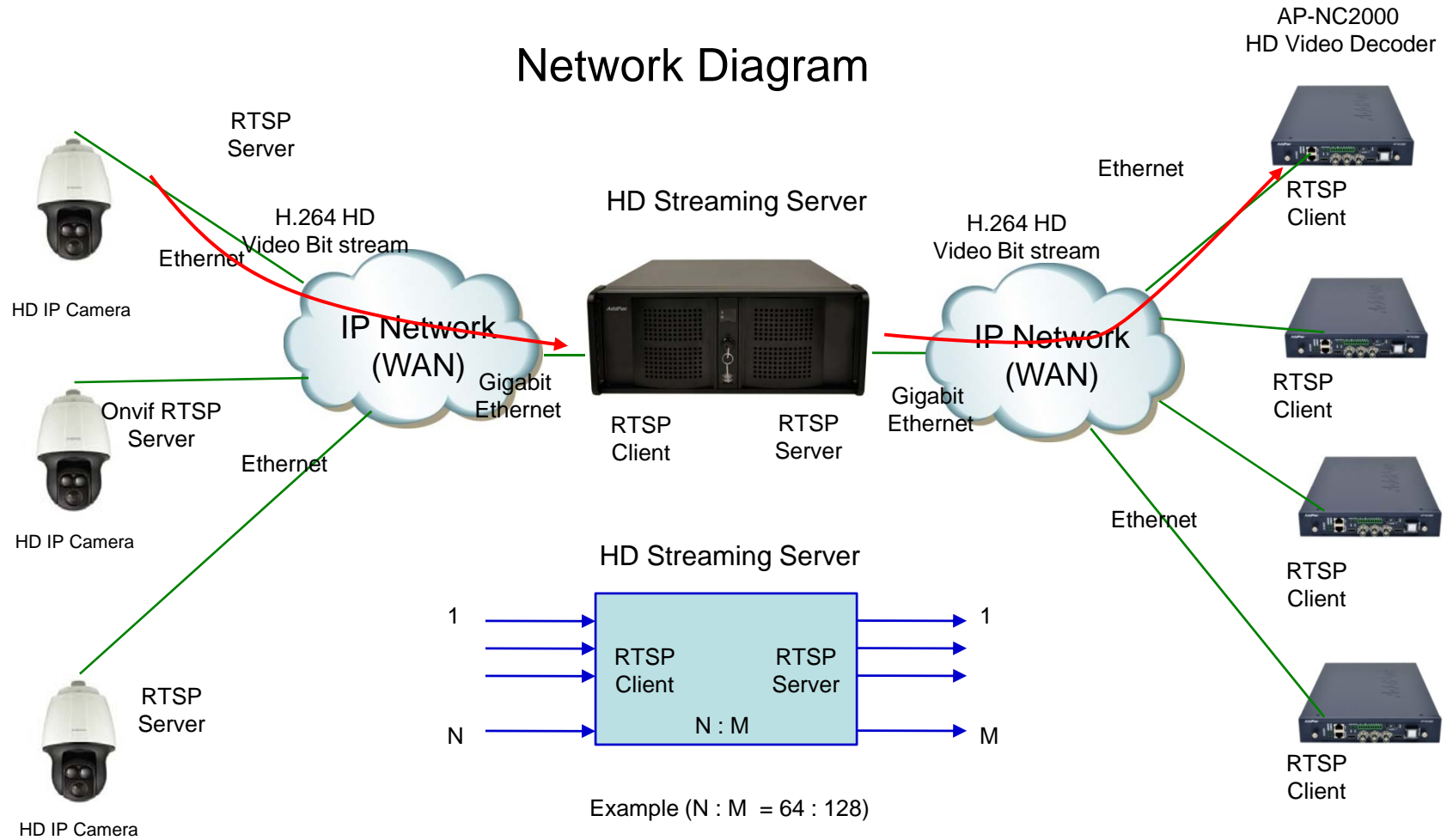
Network Service and Features

- ## RTSP (Real Time Streaming Protocol)
  - TCP transport
  - Session Description Protocol (SDP)

- ## Load balance
  - 302 Moved Temporarily
  - REDIRECT method (Optional, when the client support REDIECT)

- ## Video and Audio Support
  - Video Only
  - Audio Only
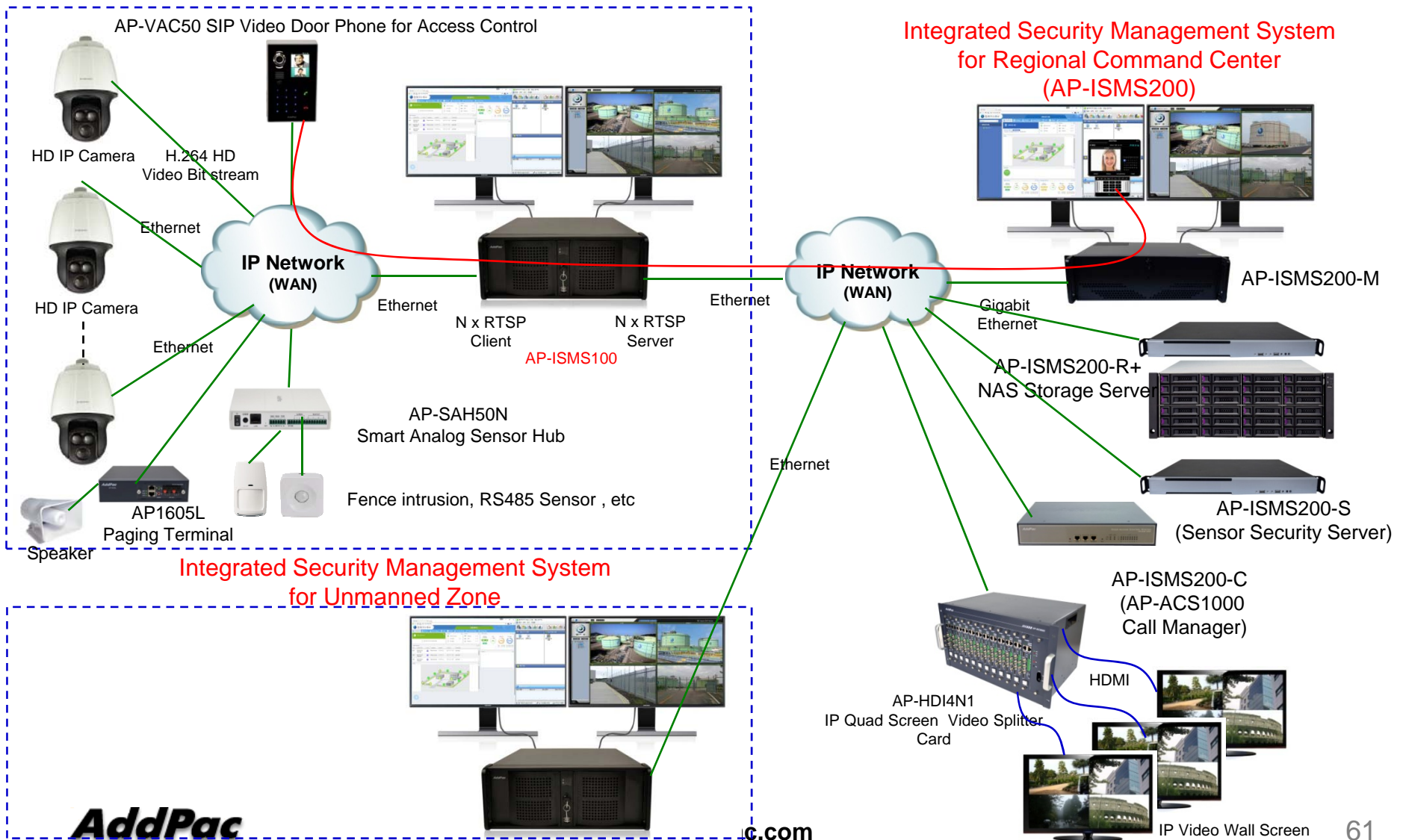 - Video + Audio

Standard Application Diagram

AP-VAC50 SIP Video Door Phone for Access Control

Integrated Security Management System for Regional Command Center (AP-ISMS200)

HD IP Camera

H.264 HD Video Bit stream

Ethernet

HD IP Camera

Ethernet

IP Network (WAN)

Ethernet

N x RTSP Client

N x RTSP Server

AP-ISMS100

Ethernet

IP Network (WAN)

AP-ISMS200-M

Gigabit Ethernet

AP-ISMS200-R+ NAS Storage Server

AP-SAH50N Smart Analog Sensor Hub

AP1605L Paging Terminal

Fence intrusion, RS485 Sensor , etc

Speaker

Ethernet

AP-ISMS200-S (Sensor Security Server)

Integrated Security Management System for Unmanned Zone

AP-ISMS200-C (AP-ACS1000 Call Manager)

HDMI

AP-HDI4N1 IP Quad Screen Video Splitter Card

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IP Video Wall Screen

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Integrated Security Management System Comparison

Model Service	AP-ISMS100 for unmanned zone 	AP-ISMS200 for regional command center
Onvif based NVR CCTV Service	Support (Small Capacity)	Support (Large Capacity, Storage Backup)
RTSP Streaming Service	Support	Support
Security Sensor Management	Support	Support
Voice Paging Service for emergency	Support	Support
Access Control Service using Video Door Phone	N/A	Support

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Integrated Security Management System Product Component for Regional Command Center

Model	AP-ISMS200 for regional command center	
Service		
Onvif based NVR CCTV Service (Large Capacity, Storage Backup) + RTSP Streaming Service	AP-ISMS200-R (Recording + Streaming Service)	Linux Server + NAS Storage Server
Security Sensor Management	AP-ISMS200-S (Sensor Security)	Linux Server
Voice Paging Service for emergency + Access Control Service using Video Door Phone	AP-ISMS200-M (Management PC)	Window
SIP Call Manager (AP-ACS1000)	AP-ISMS200-C (Call Manager)	APOS
RoIP PTT Dispatcher * (Option)	AP-ISMS200-P (PTT Dispatcher)	Window

Ordering Information

- **AP-ISMS200 Integrated Security Management System**
  - AP-ISMS200 Main Body
  - Secondary Video Output Interface
  - Including Power Supply Cable, etc.
  - Option : Video Cable (HDMI, DVI)
  - Option : Hard Disk (2ea ~ 4ea)
- **Built-in APOS Internetworking Software for AP-ISMS200**
- **Including 1 Year Hardware Warranty**
- **Product Documents**
  - Install and Operation Guide (PDF)
- **Pricing**
  - AddPac Technology Regional Sales Manager
  - Authorized Sales and Marketing Representatives
  - Please Contact www.addpac.com

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Thank you!

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