

IP Emergency Video Call Center Solution

AP-EVP70 IP 비상호출 영상 인터콤 솔루션

AP-EVP70	IP 비상호출 영상 인터콤
IPNext600	IP 콜매니저
AP-NR1500	IP 비디오 레코딩 서버
AP-VP280DM	IP 비디오 전화기

[더보기 >](#)



AddPac

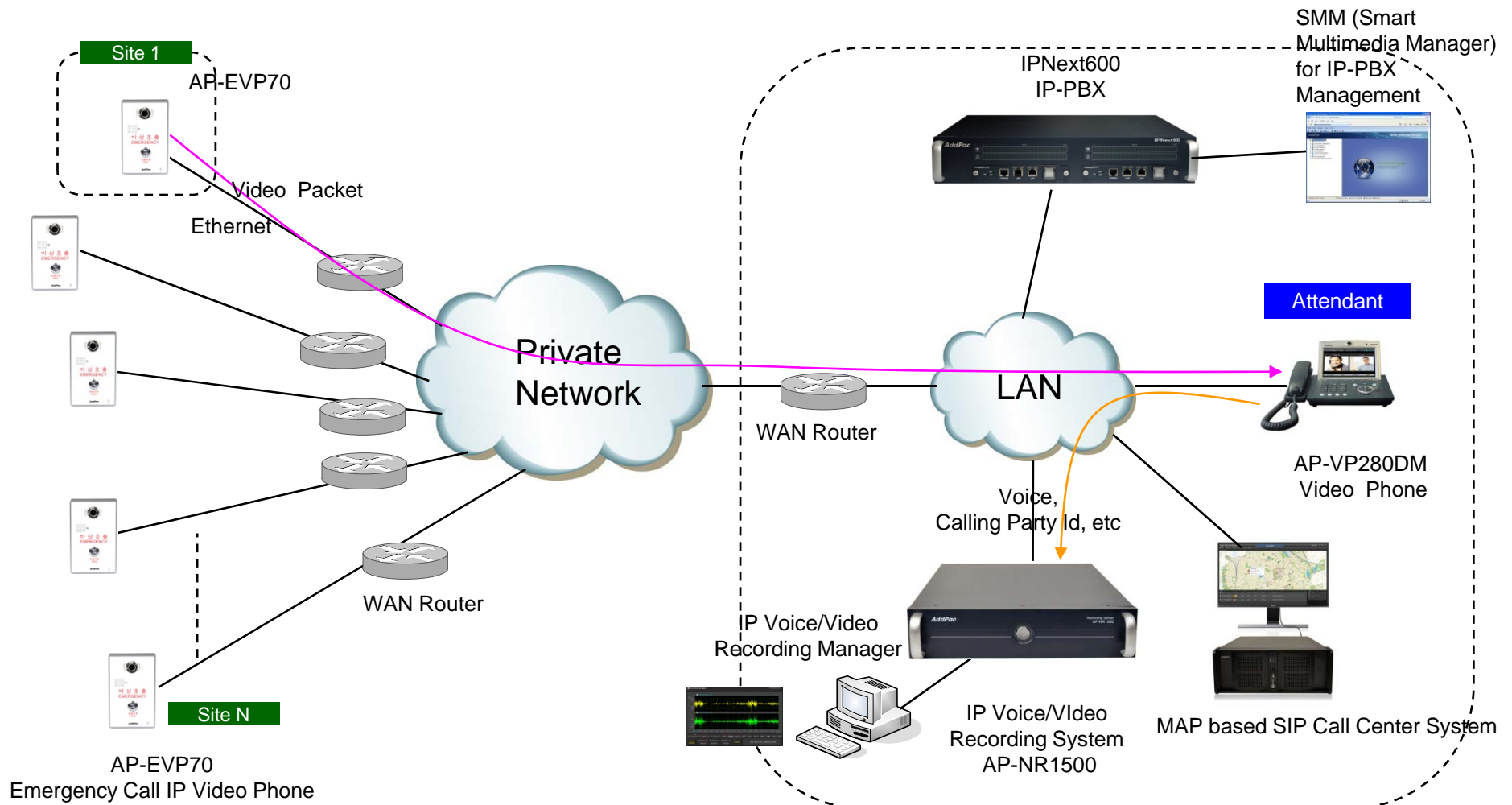
AddPac Technology

Sales and Marketing

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- Emergency Call IP Video Intercom Comparison Table
 - AP-EVP90
 - AP-EVP70
- IPNext600 IP-PBX Solution for Call Center
- AP-VP280DM IP Video Phone Solution for Call Center
- AP-NR1500 IP Video Recording Server
- AP-MSCS MAP based SIP Emergency Call Center System
- AP-GTR1000 based Embedded NTP Server for Time Sync. (Option)





Network Diagram





Emergency Call IP Video Intercom Solution

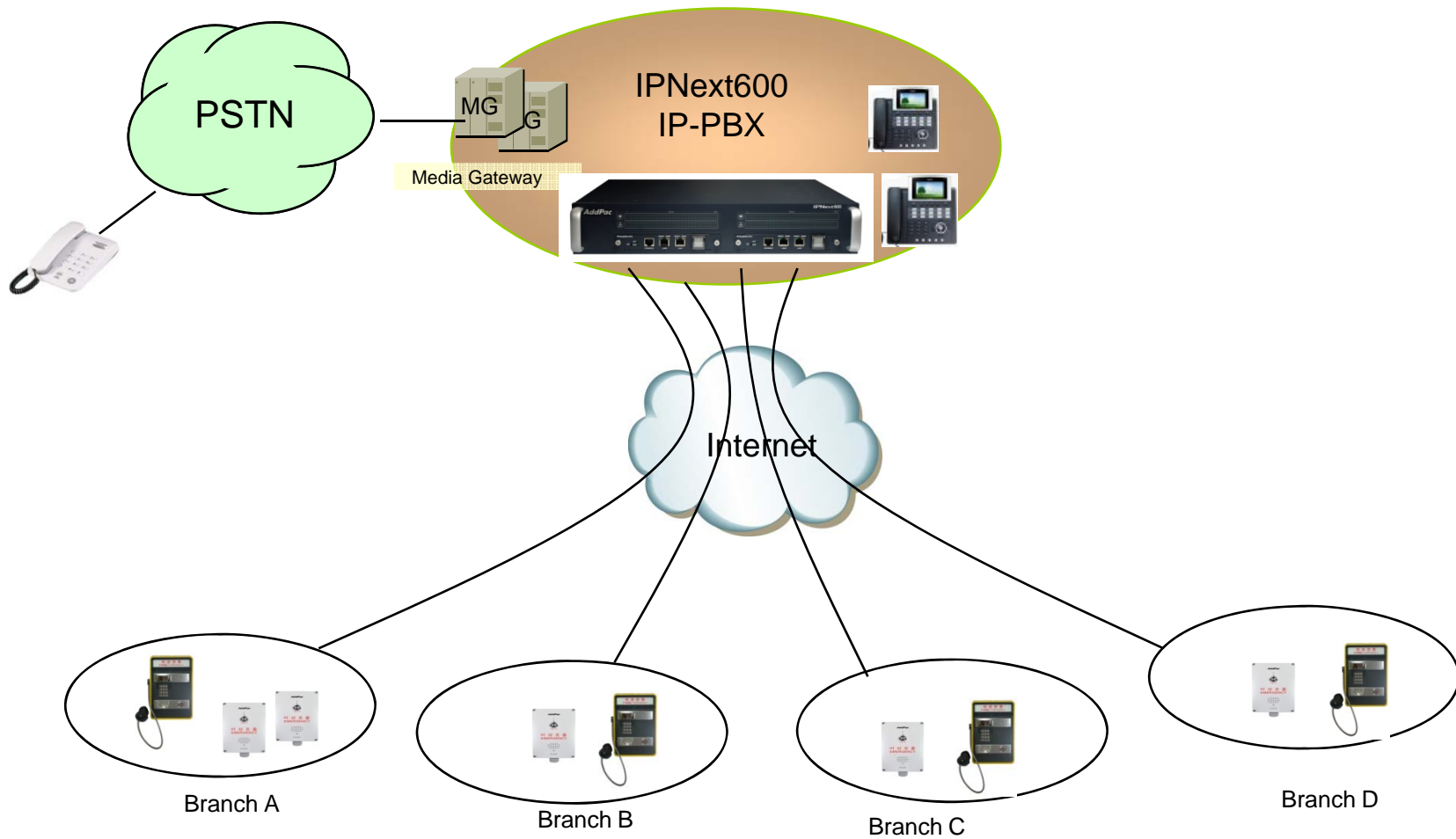
Emergency Call IP Video Intercom Comparison Table

Model	AP-EVP100	AP-EVP95	AP-EVP90	AP-EVP70
Service Features				
Voice Duplex	Full Duplex	Full Duplex	Full Duplex	Full Duplex
Key Pad	3x4 Key Support	Call Button	Call Button	Call Button
Handset	Support	N/A	N/A	N/A
Video Codec	H.264/MPEG4/H.263	H.264/MPEG4/H.263	H.264/MPEG4/H.263	H.264/MPEG4/H.263
HD/SD	SD	HD	SD	SD
AutoFocus	N/A	Support	N/A	N/A
Day & Night	N/A	Support	N/A	N/A
Voice Codec	G.711/G.726,etc	G.711/G.726,etc	G.711/G.726,etc	G.711/G.726,etc
Signaling	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP
Speaker Phone	Support	Support	Support	Support
LAN Port	1	1	1	1
PoE(Optional)	Support	Support	Support	Support



IPNext600 IP-PBX Solution for Call Center

Network Diagram



Product Overview

IPNext 600 Next Generation IP-PBX System

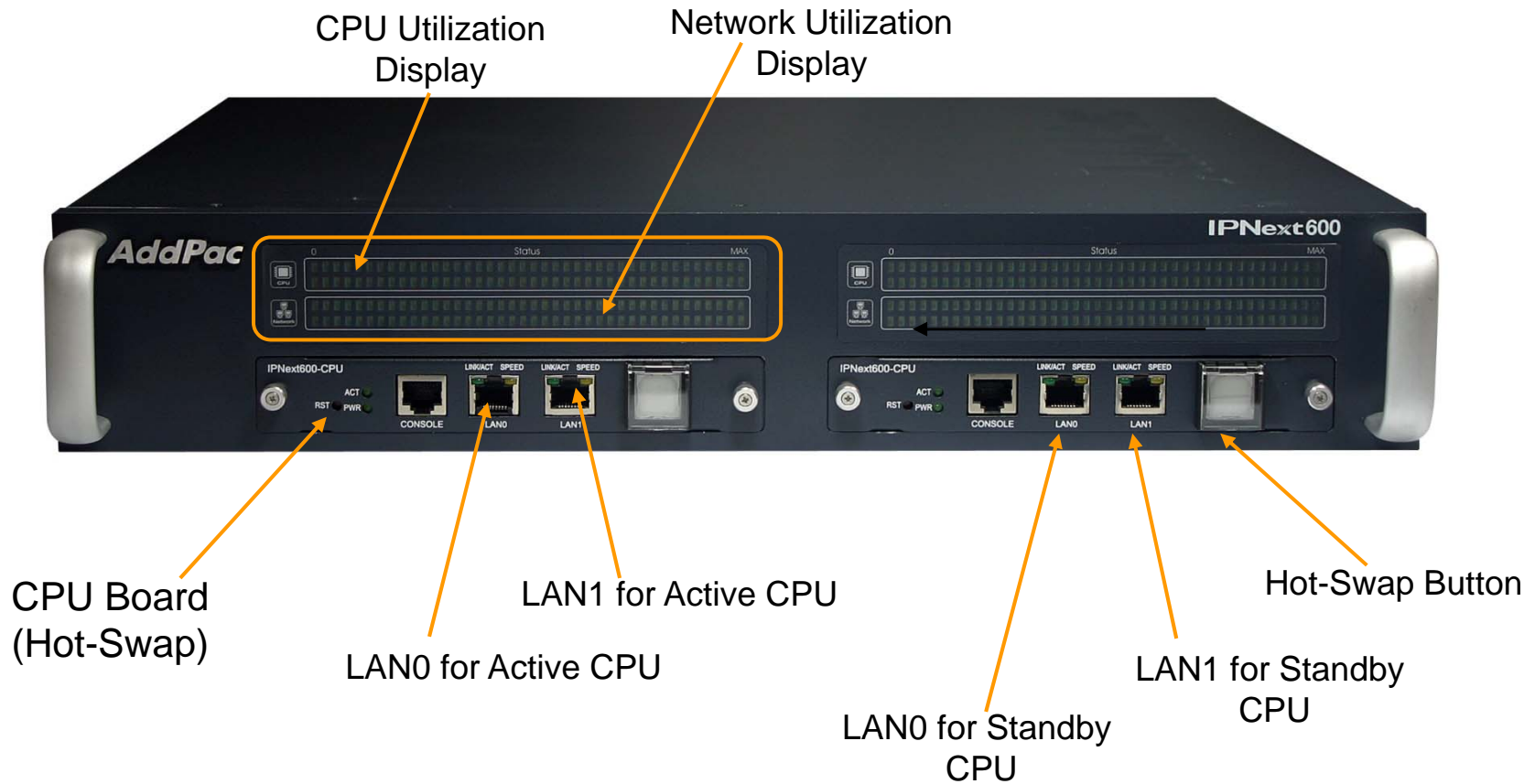
- SIP Application Server, Proxy, Registrar and Location Server
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
- Dual System Redundancy Architecture
 - Two(2) Fast Ethernet Interface / System
- High Performance RISC Architecture
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- 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

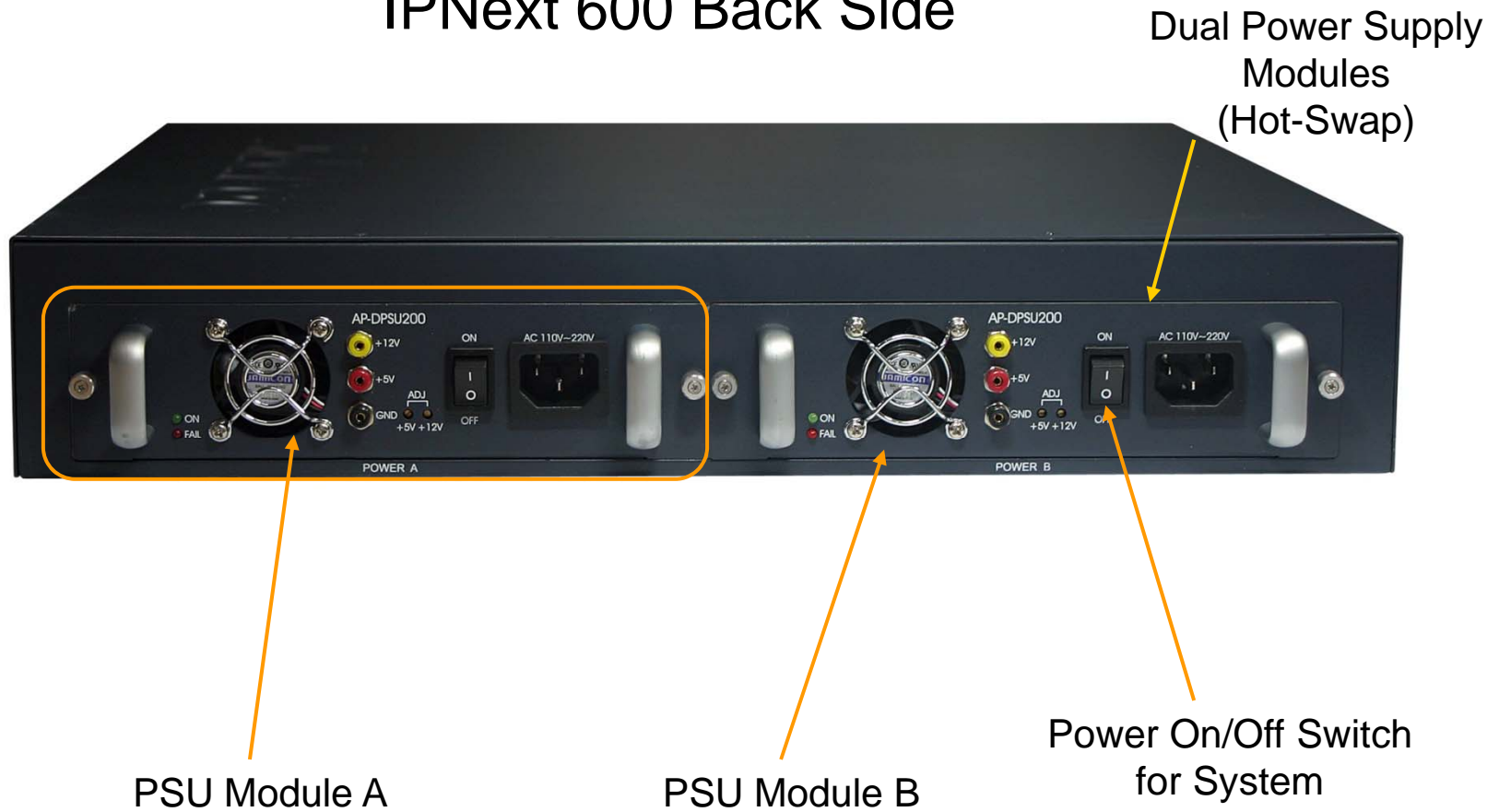


Hardware Specification

IPNext 600 Next Generation IP-PBX System



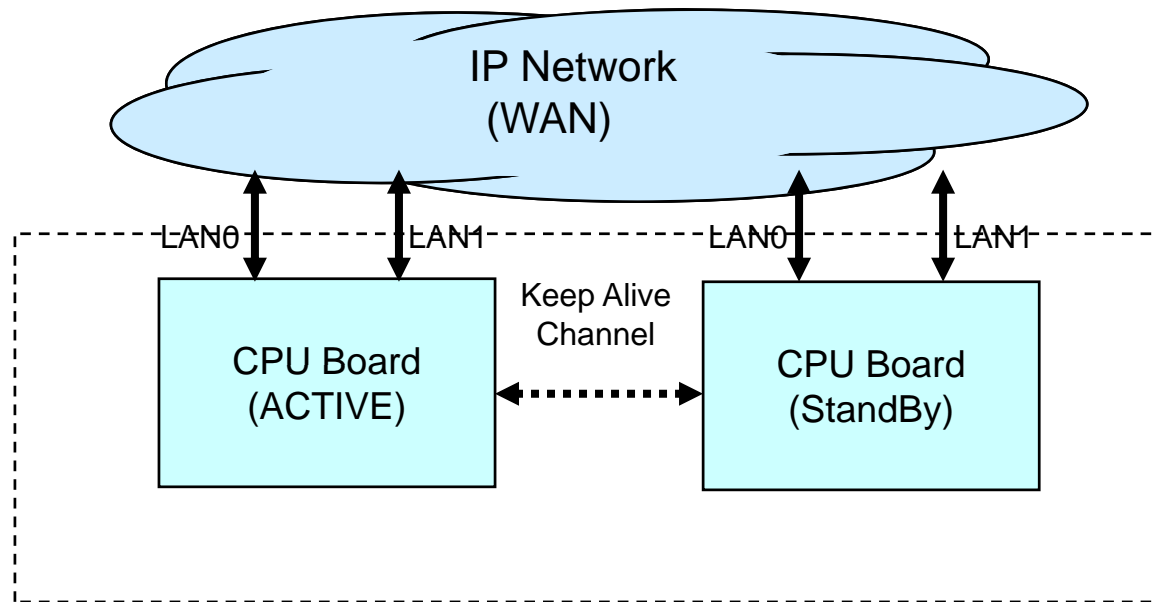
IPNext 600 Back Side



System Redundancy Features

IPNext 600 Next Generation IP-PBX System

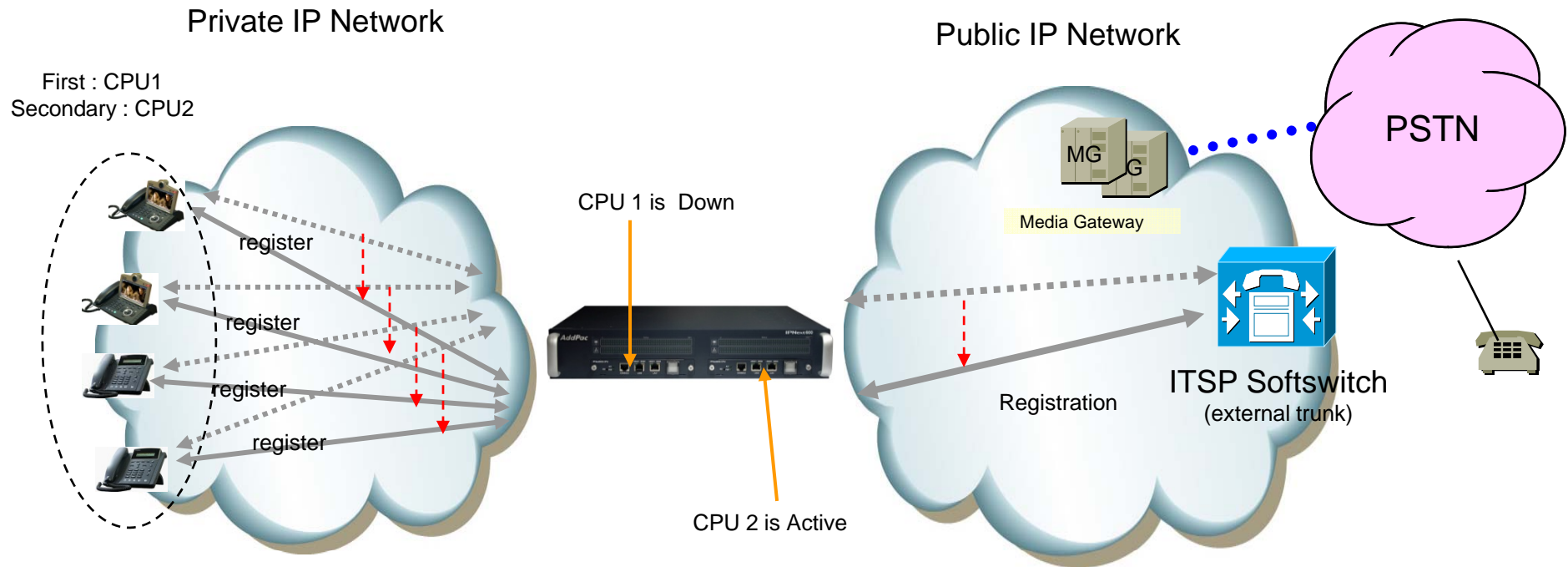
IPNext600 System Block Diagram



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 Video Phone Solution for Emergency Call Center

IP Video Phone Comparison Table

	AP-VP280DM
	
LCD Size	7 Inch Touch Screen
Camera	CMOS
Video Codec	H.263 MPEG4 H.264
Signaling	H.323/SIP
Camera Sensor	SD
Video Resolution	SD
External Monitor	HDMI
LAN Port	1
PoE	Support

AP-NR1500 IP Video Recording Server



Product Overview

AP-NR1500 IP Video Recoding Server

- IP based Network Video Recording Server
- Linux Operating System
- Powerful Management and User Friendly Features
- High-performance Video Recording Service
- External AddPac Video Terminal (Ex: Video 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 Video 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 Video Recording Server

AP-NR1500 Front Side

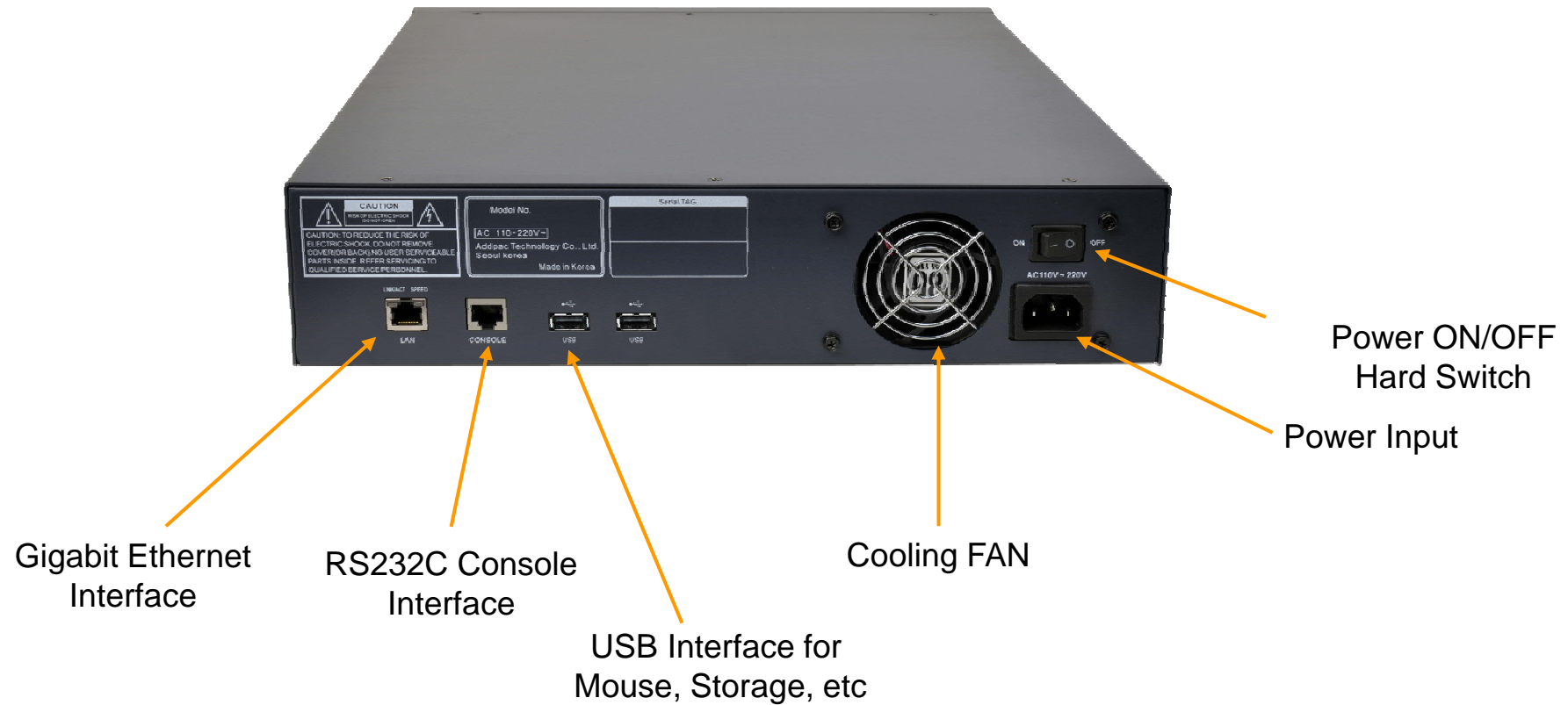


Power On/Off Switch with LED Indication LAMP

Hardware Specification

AP-NR1500 IP Video Recording Server

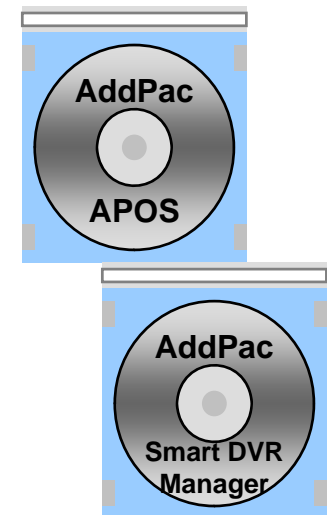
AP-NR1500 Back Side



Software Service

AP-NR1500 IP Video Recording Server

- **Built-in AddPac Internetworking Software**
 - Scalability, Functionality, and Stability Features
 - Advanced Network Video Recording & Live Streaming Features
- **Firmware Upgradeable Architecture**
- **Industry Standard Network Protocol Features**
- **Highly User Friendly Management Features**
 - PC based Window Program
 - Smart Recording Manager



Smart Recording Manager Program

AP-NR1500 IP Video Recording Server

- User Management (registration/modify/delete/search)
- Recording Server Management
- Recording File Management
- Recording File Play with VLC application
- Export Recording History to File(EXEL)
- Live Call Monitoring (Play)
- Event Management
- Recording Board Management
- Smart Recording File Manager

User Management

Smart Recording Manager

File Record Management Advanced Configuration Help

Smart Recording Manager

Users [NR5000:172.17.50.200]

User Name	ID	Level	Description
root	root	Administrator	System Administrator
Administrator	administrator	Administrator	Addpac Administrator

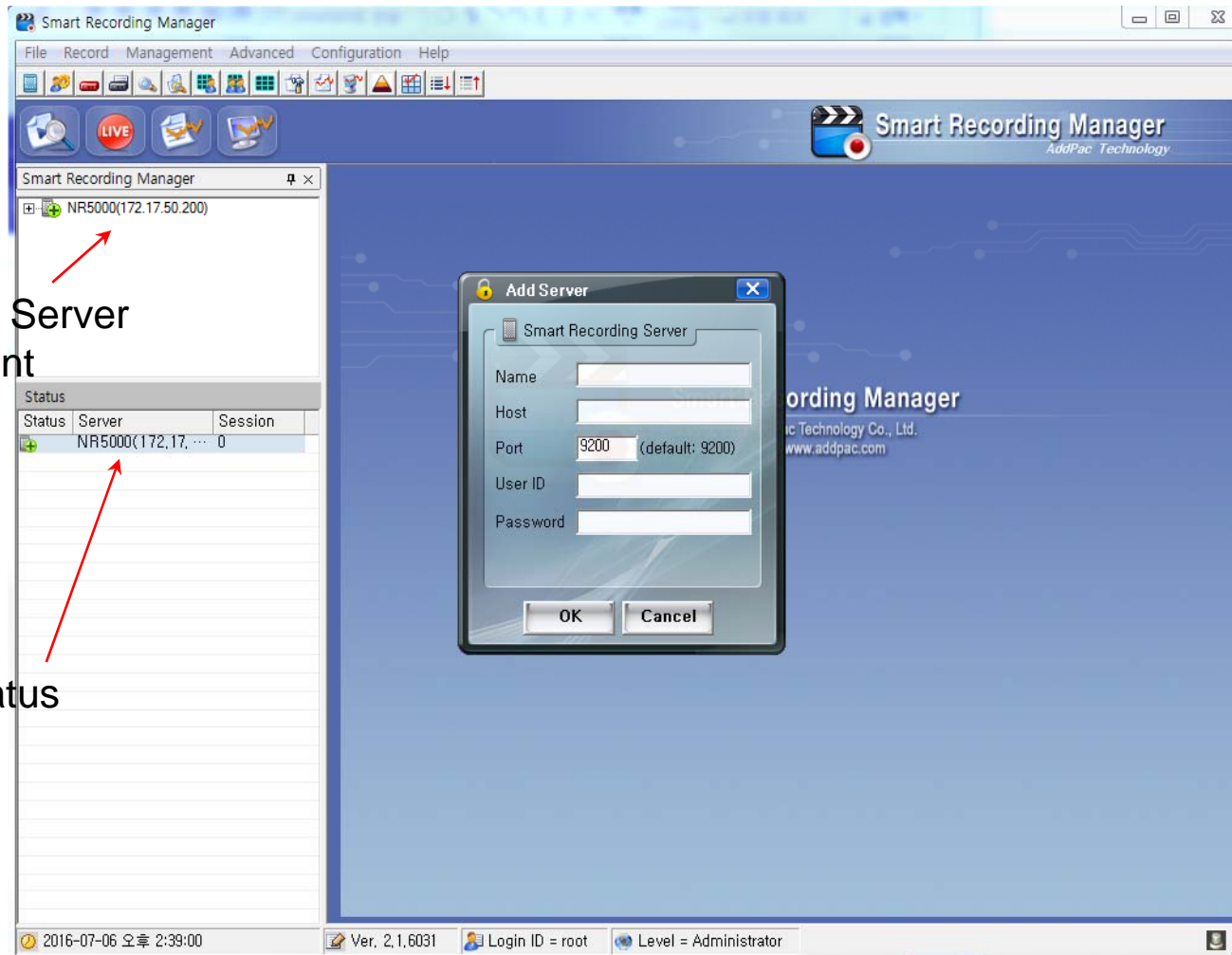
New Manager Registration

Manager Information Modification

Manager Delete

2016-07-06 오후 2:44:40 Ver. 2.1.6031 User Id = root Level = Administrator

Recording Server Management



*Recording Server Management

*Server Status Information

Recording Server Status Monitoring

The screenshot displays the Smart Recording Manager interface. The main window shows the 'Smart Recording Server [NR5000:172.17.50.200]' status as 'SmartRecording Server is running.' A configuration window for 'Client Session List' is open, showing 'Max Session' set to 10 and 'Keep Alive Interval' set to 5 sec. A 'Client List' window is also open, displaying a table of active sessions. A red arrow points to the first row of the table, which is highlighted in blue.

No.	User	IP Address	Port	Access Time	Duration
1	root	172.16.1.19	49988	2016-07-06 14:42:00	00:07:34

Client List

Recording File Management

The screenshot displays the Smart Recording Manager interface. The main window shows a search results table with columns: No., Call ID, Source IP, Rec StartTime, Rec EndTime, Rec Duration, Call Duration, Calling Num, Calling User, and Called Num. A search filter dialog box is open in the foreground, allowing users to filter records by time and other criteria.

No.	Call ID	Source IP	Rec StartTime	Rec EndTime	Rec Duration	Call Duration	Calling Num	Calling User	Called Num
2	2	172.16.9.29	2016-07-05 10:30:16	2016-07-05 10:30:16	00:00:00	00:00:01	1000		3000
3	3	172.16.9.29	2016-07-05 12:47:45	2016-07-05 12:47:45	00:00:00	00:01:00	1000		3000
6	6	172.16.9.29	2016-07-05 12:50:28	2016-07-05 12:50:28	00:00:00	00:00:00	1000		3001
7	7	172.16.9.29	2016-07-05 12:50:40	2016-07-05 12:50:40	00:00:00	00:00:16	1000		3001
9	9	172.16.9.29	2016-07-05 12:51:05	2016-07-05 12:51:05	00:00:00	00:02:03	1000		3001
10	10	172.16.9.29	2016-07-05 12:51:09	2016-07-05 12:51:09	00:00:00	00:01:05	1000		3000
12	12	172.16.9.29	2016-07-05 12:53:09	2016-07-05 12:53:09	00:00:00	00:01:03	1000		3001
14	14	172.16.9.29	2016-07-05 14:10:01	2016-07-05 14:10:01	00:00:00	00:00:43	1000		3001
15	15	172.16.9.29	2016-07-05 14:11:27	2016-07-05 14:11:27	00:00:00	00:01:02	1000		3001
16	16	172.16.9.29	2016-07-05 14:12:42	2016-07-05 14:12:42	00:00:00	00:00:11	1000		3001
17	17	172.16.9.29	2016-07-05 14:13:03	2016-07-05 14:13:03	00:00:00	00:00:13	1000		3001
18	18	172.16.9.29	2016-07-05 14:13:24	2016-07-05 14:13:24	00:00:00	00:00:10	1000		3001
19	19	172.16.9.29	2016-07-05 16:53:52	2016-07-05 16:53:54	00:00:02	00:37:33	1000		3001
15	15		17:36:21		00:00:00	00:00:05	1000		3001
15	15		17:39:37		00:00:00	00:00:22	1000		3001
15	15		17:42:57		00:00:00	00:00:37	1000		3001
15	15		17:48:28		00:00:00	00:00:16	1000		3001
15	15		18:00:25		00:00:35	00:00:39	1000		3001
16	16		09:23:08		00:00:13	00:00:19	1000		3001
16	16		09:31:32		00:02:13	00:02:18	1000		3001
16	16		09:47:12		00:00:00	00:00:00	1000		3001
16	16		09:48:11		00:00:46	00:00:49	1000		3000
16	16		09:49:08		00:00:43	00:00:46	1000		3000
16	16		09:51:31		00:00:14	00:00:17	1000		3000
16	16		10:42:17		00:00:14	00:00:15	1000		3000
16	16		13:46:19		00:00:04	00:00:06	1000		3000

Search Filter Dialog:

- Record Time: Start Time: 2016-07-05 00:00:00, End Time: 2016-07-06 23:59:59
- Filter: 5 columns with Filter Name, Rule (IsExactly), Search, and dropdown menus.
- Buttons: OK, Cancel, Init Filter
- Checkbox: Recording Service Unavailable Files (not G711U codec) - It may take a long time.

Recording File Play with VLC application

The screenshot displays the Smart Recording Manager application interface. The main window shows a table of recording sessions with the following data:

No.	Call ID	Source IP	Rec StartTime	Rec EndTime	Rec Duration	Call Duration	Calling Num	Ca
1	25	172.16.9.29	2016-07-06 09:22:55	2016-07-06 09:23:08	00:00:13	00:00:19	1000	
2	26	172.16.9.29	2016-07-06 09:29:19	2016-07-06 09:31:32	00:02:13	00:02:18	1000	
3	27	172.16.9.29	2016-07-06 09:47:12	2016-07-06 09:47:12	00:00:00	00:00:00	1000	
4	28	172.16.9.29	2016-07-06 09:47:25	2016-07-06 09:48:11	00:00:46	00:00:49	1000	
5	29	172.16.9.29	2016-07-06 09:48:25	2016-07-06 09:49:08	00:00:43	00:00:46	1000	
6	30	172.16.9.29	2016-07-06 09:51:17	2016-07-06 09:51:31	00:00:14	00:00:17	1000	
7	31	172.16.9.29	2016-07-06 10:42:03	2016-07-06 10:42:17	00:00:14	00:00:15	1000	
8	1	172.16.9.29	2016-07-06 13:46:15	2016-07-06 13:46:19	00:00:04	00:00:06	1000	
9	3	172.16.9.29	2016-07-06 15:13:06	2016-07-06 16:42:14	01:29:08	01:29:12	1000	
10	4	172.16.9.29	2016-07-06 16:42:24	2016-07-06 16:42:37	00:00:13	00:00:11	1000	
11	5	172.16.9.29	2016-07-06 16:42:45	2016-07-06 16:43:09	00:00:24	00:00:25	1000	
12	6	172.16.9.29	2016-07-06 16:43:26	2016-07-06 16:44:02	00:00:36	00:00:38	1000	

Two video playback windows are shown in the foreground. The left window, titled "2016-07-06 16:43:26", shows a woman in an office setting. The right window, titled "AddPac Technology - 0000620160706074326-000041--M.avi - ...", shows a man in an office setting. The VLC player interface at the bottom indicates the video is at 00:03 of a 00:36 duration.

Live Call Monitoring

The screenshot displays the Smart Recording Manager interface. At the top, there is a menu bar with 'File', 'Record', 'Management', 'Advanced', 'Configuration', and 'Help'. Below the menu is a toolbar with various icons, including a 'LIVE' indicator. The main area features a tree view on the left with categories like 'NR5000(172.17.50.200)', 'User Management', 'Device Management', 'Recording Management', 'Record Search', 'Record Session', 'Recording Board', 'Event & Monitoring', and 'System Management'. A central table lists recorded calls with columns for No., Call ID, Source IP, Rec StartTime, Initiated Time, Call Duration, Calling Num, Calling User, Called Num, and Called User. A red arrow points from the 'Source IP' column of the first row to two VLC media player windows at the bottom, which are displaying live video feeds from the recorded calls.

No.	Call ID	Source IP	Rec StartTime	Initiated Time	Call Duration	Calling Num	Calling User	Called Num	Called User	AI
1	25	172.16.9.29	2016-07-06 09:22:55	2016-07-06 09:23:08	00:00:13	1000		3001		
2	26	172.16.9.29	2016-07-06 09:29:19	2016-07-06 09:31:32	00:02:13	1000		3001		
3	27	172.16.9.29	2016-07-06 09:47:12	2016-07-06 09:47:12	00:00:00	1000		3001		
4	28	172.16.9.29	2016-07-06 09:47:25	2016-07-06 09:48:11	00:00:46	1000		3000		
5	29	172.16.9.29	2016-07-06 09:48:25	2016-07-06 09:49:08	00:00:43	1000		3000		
6	30	172.16.9.29	2016-07-06 09:51:17	2016-07-06 09:51:31	00:00:14	1000		3000		
7	31	172.16.9.29	2016-07-06 10:42:03	2016-07-06 10:42:17	00:00:14	1000		3000		
8	1	172.16.9.29	2016-07-06 13:46:15	2016-07-06 13:46:19	00:00:04	1000		3000		

Export Recording History

Smart Recording Manager - [Record Search [NR5000:172.17.50.200]]

File Record Management Advanced Configuration Help

Smart Recording Manager

NR5000(172.17.50.200)

- User Management
- Device Management
- Recording Management
- Record Search
- Record Session
- Recording Board
- Event & Monitoring
- System Management

Status

Status	Server	Session
+	NR5000(172.17. ...	0

No.	Call ID	Source IP	Rec StartTime	Rec EndTime
1	2	172.16.9.29	2016-07-05 10:30:16	2016-07-05 10:30:16
2	3	172.16.9.29	2016-07-05 12:47:45	2016-07-05 12:47:45
3	6	172.16.9.29	2016-07-05 12:50:28	2016-07-05 12:50:28
4	7	172.16.9.29	2016-07-05 12:50:40	2016-07-05 12:50:40
5	9	172.16.9.29	2016-07-05 12:51:05	2016-07-05 12:51:05
6	10	172.16.9.29	2016-07-05 12:51:09	2016-07-05 12:51:09
7	12	172.16.9.29	2016-07-05 12:53:09	2016-07-05 12:53:09
8	14	172.16.9.29	2016-07-05 14:10:01	2016-07-05 14:10:01
9	15	172.16.9.29	2016-07-05 14:11:27	2016-07-05 14:11:27
10	16	172.16.9.29	2016-07-05 14:12:42	2016-07-05 14:12:42
11	17	172.16.9.29	2016-07-05 14:13:03	2016-07-05 14:13:03
12	18	172.16.9.29	2016-07-05 14:13:24	2016-07-05 14:13:24
13	19	172.16.9.29	2016-07-05 16:53:52	2016-07-05 16:53:52
14	20	172.16.9.29	2016-07-05 16:53:52	2016-07-05 16:53:52
15	21	172.16.9.29	2016-07-05 16:53:52	2016-07-05 16:53:52
16	22	172.16.9.29	2016-07-05 16:53:52	2016-07-05 16:53:52
17	23	172.16.9.29	2016-07-05 17:48:28	2016-07-05 17:48:28
18	24	172.16.9.29	2016-07-05 17:59:50	2016-07-05 18:00:25
19	25	172.16.9.29	2016-07-06 09:22:55	2016-07-06 09:23:08
20	26	172.16.9.29	2016-07-06 09:29:19	2016-07-06 09:31:32
21	27	172.16.9.29	2016-07-06 09:47:12	2016-07-06 09:47:12
22	28	172.16.9.29	2016-07-06 09:47:25	2016-07-06 09:48:11
23	29	172.16.9.29	2016-07-06 09:48:25	2016-07-06 09:49:08
24	30	172.16.9.29	2016-07-06 09:51:17	2016-07-06 09:51:31
25	31	172.16.9.29	2016-07-06 10:42:03	2016-07-06 10:42:17
26	1	172.16.9.29	2016-07-06 13:46:15	2016-07-06 13:46:19

Records Exporting !!! ... Cancel

73%

Export Date: 2016-07-06 오후 2:53:25

Export Count: 26

Record Date: 2016-07-05 오전 12:00:00 - 2016-07-06 오후 11:59:59

Call ID	Source IP	Record Start Time	Record End Time	Record Di	Call Durat	Calling N	Calling U	Calling S	Called Nu	Called Us	Called Slot/Port/Chann
2	172.16.9.29	2016-07-05 10:30	2016-07-05 10:30	00:00	00:00:10	0000	0/0/0	0/0/0	3001	0/0/0	
3	172.16.9.29	2016-07-05 12:47	2016-07-05 12:47	00:00	00:00:10	0000	0/0/0	0/0/0	3000	0/0/0	
6	172.16.9.29	2016-07-05 12:50	2016-07-05 12:50	00:00	00:00:00	0000	0/0/0	0/0/0	3001	0/0/0	
7	172.16.9.29	2016-07-05 12:50	2016-07-05 12:50	00:00	00:00:16	0000	0/0/0	0/0/0	3001	0/0/0	
10	172.16.9.29	2016-07-05 12:51	2016-07-05 12:51	00:00	00:00:10	0000	0/0/0	0/0/0	3001	0/0/0	
12	10	172.16.9.29	2016-07-05 12:51	00:00	00:00:05	0000	0/0/0	0/0/0	3001	0/0/0	
13	12	172.16.9.29	2016-07-05 12:53	00:00	00:00:10	0000	0/0/0	0/0/0	3001	0/0/0	
14	14	172.16.9.29	2016-07-05 14:10	00:00	00:00:43	0000	0/0/0	0/0/0	3001	0/0/0	
15	15	172.16.9.29	2016-07-05 14:11	00:00	00:00:02	0000	0/0/0	0/0/0	3001	0/0/0	
16	16	172.16.9.29	2016-07-05 14:12	00:00	00:00:11	0000	0/0/0	0/0/0	3001	0/0/0	
17	17	172.16.9.29	2016-07-05 14:13	00:00	00:00:13	0000	0/0/0	0/0/0	3001	0/0/0	
18	18	172.16.9.29	2016-07-05 14:13	00:00	00:00:10	0000	0/0/0	0/0/0	3001	0/0/0	
19	19	172.16.9.29	2016-07-05 16:53	00:00	00:37:33	0000	0/0/0	0/0/0	3001	0/0/0	
20	20	172.16.9.29	2016-07-05 16:53	00:00	00:00:05	0000	0/0/0	0/0/0	3001	0/0/0	
23	23	172.16.9.29	2016-07-06 09:48	00:00	00:00:05	0000	0/0/0	0/0/0	3001	0/0/0	
24	24	172.16.9.29	2016-07-06 09:51	00:00	00:00:14	0000	0/0/0	0/0/0	3001	0/0/0	
25	25	172.16.9.29	2016-07-06 10:42	00:00	00:00:10	0000	0/0/0	0/0/0	3001	0/0/0	
26	26	172.16.9.29	2016-07-06 13:46	00:00	00:00:04	0000	0/0/0	0/0/0	3000	0/0/0	

2016-07-06 오후 2:53:25

Ver. 2.1,6031 User Id = root Level = Administrator

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Event Configuration

Smart Recording Manager

File Record Management Advanced Configuration Help

Smart Recording Manager

NR5000(172.17.50.200)

- User Management
- Device Management
- Recording Management
- Recording Board
- Event & Monitoring
 - Event Configuration
 - Event Monitoring
 - System Monitoring

Status

Status	Server	Session
+	NR5000(172.17. ...	0

Event Configuration [NR5000:172.17.50.200]

Event Source

Listen Port : 514

1. Emergency
The presence of a condition that has either caused the system to become unstable or has crashed the system.

2. Error
Error events are warnings of conditions that will affect the performance of the MX.

Event Filter

* Set event filter for source.

Select / Deselect All

Category	Severity	Description
<input type="checkbox"/> recording	Warning	recording
<input type="checkbox"/> play	Warning	play
<input type="checkbox"/> system	Warning	system

OK Cancel

event level filter settings

2016-07-06 오후 3:06:48 Ver. 2.1.6031 User Id = root Level = Administrator

Event Management (Monitoring)

The screenshot displays the Smart Recording Manager interface. The main window shows a table of recording sessions with the following data:

No.	Call ID	Source IP	Rec StartTime	Initiated Time	Established Time	Call Duration	Calling
1	3	172.16.9.29	2016-07-06 15:13:06	2016-07-07 00:07:38	2016-07-07 00:07:38	00:02:59	1000

Annotations with red arrows point to the following features:

- Event monitoring**: Points to the 'Event Monitoring' option in the left-hand navigation tree.
- Event filter**: Points to the 'Event filter' button in the top right of the main window.
- Pause event**: Points to the 'Pause' button in the bottom right of the main window.

At the bottom of the interface, there is an 'Event Monitoring' log window with the following data:

DateTime	Host	Severity	Module	Description
Jul 06 06:13:06	172.17.50.200	Informational	recording	Start Recording, bind id:-10000
Jul 06 06:15:31	172.17.50.200	Debug	system	get current recording session :
Jul 06 06:15:33	172.17.50.200	Debug	system	get current recording session :
Jul 06 06:15:43	172.17.50.200	Debug	system	get current recording session :
Jul 06 06:15:55	172.17.50.200	Debug	system	get current recording session :
Jul 06 06:16:05	172.17.50.200	Debug	system	get current recording session :

The bottom status bar shows: 2016-07-06 오후 3:12:38, Ver. 2.1,6031, User Id = root, Level = Administrator.

Event Management (System Monitoring)

The screenshot displays the Smart Recording Manager interface with the following components:

- Left Panel:** A tree view showing the system hierarchy: NR5000(172.17.50.200) > User Management > Device Management > Recording Management > Recording Board > Event & Monitoring > Event Configuration > Event Monitoring > System Monitoring > System Management.
- Status Table:**

Status	Server	Session
+	NR5000(172,17,...	1
- System Monitoring Dashboards:**
 - CPU Usage:** A gauge showing 0% usage.
 - Memory Usage:** A gauge showing 1501 MB usage.
 - Transcoding Usage:** A gauge showing Max: 0 and 0 usage.
 - Storage Usage:** A gauge showing 10 usage.
- Summary Tables:**
 - CPU:**

Total(%)	100
Used(%)	0
 - Memory:**

Total	1919328 KB
Available	381836 KB
Used	1537492 KB
Used(%)	80,11
 - Transcoding Channel:**

Max	0
Used	0
 - HDD:**

Total	1918,78 GB
Available	1908,75 GB
Used	10,03 GB
Used(%)	0,52

cpu usage (%)

memory usage

transcoding monitoring

Storage usage

Recording Board

(User)

The screenshot displays the 'Smart Recording Manager' application window. The title bar reads 'Smart Recording Manager - [Users [NR5000:172.17.50.200]]'. The menu bar includes 'File', 'Record', 'Management', 'Advanced', 'Configuration', and 'Help'. The interface features a sidebar with a tree view containing 'NR5000(172.17.50.200)' and sub-items like 'User Management', 'Device Management', 'Recording Management', 'Record Search', 'Record Session', 'Recording Board', 'Users', 'Groups', 'Map List', 'Event & Monitoring', and 'System Management'. The 'Recording Board' section is active, showing a table of users. The table has columns for 'No.', 'User ID', 'Name', 'Phone Number', 'Description', and 'Group'. The data rows are as follows:

No.	User ID	Name	Phone Number	Description	Group
1	bgchoi	Choi Byung Koo	1024		Signaling
2	jhkwon	Kwon	3000		NMS
3	jschoi	Choi Jin suk	1007		NMS
4	ohs	Oh hyung suk	1000		Signaling
5	sklee	Lee sang kyun	1009		Signaling

Below the table is a 'Status' section with a table:

Status	Server	Session
+	NR5000(172.17. ...	1

The bottom status bar shows the date '2016-07-06 오후 3:25:38', version 'Ver. 2.1.6031', user 'User Id = root', and level 'Level = Administrator'.

Recording Board (Group)

The screenshot displays the Smart Recording Manager application interface. The main window shows a tree view on the left with 'Recording Board' selected. The central area contains a table with the following data:

No.	Name	Description
1	NMS	
2	Signaling	

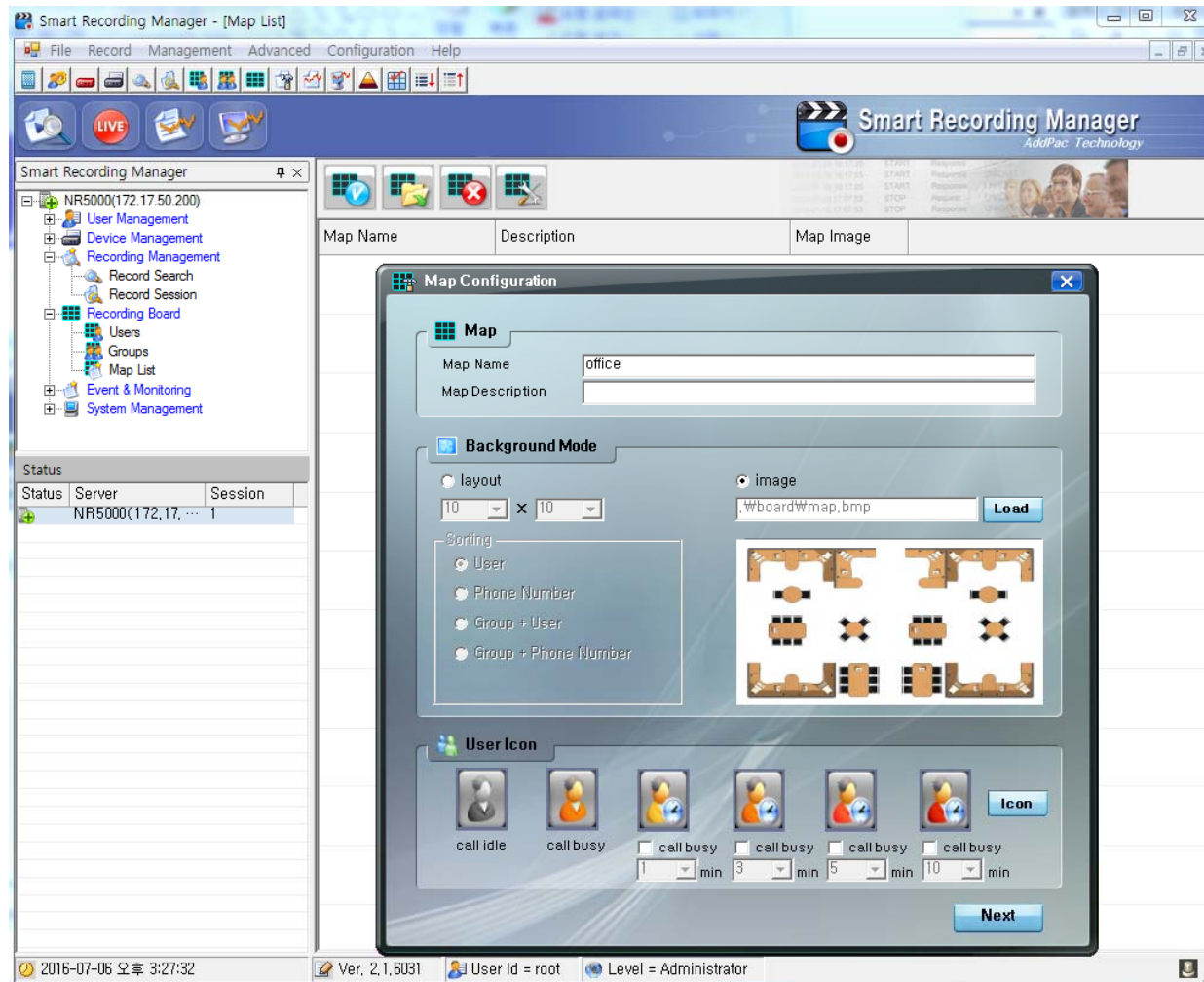
A 'Group Properties' dialog box is open, showing the 'Signaling' group selected. The dialog includes fields for 'Group Name' (Signaling) and 'Description'. Below these are two tables for user management:

Users		
User ID	Name	Phone Number

Users in Group		
User ID	Name	Phone Number
bgchoi	Choi Byu...	1024
ohs	Oh hyung...	1000
sklee	Lee sang...	1009

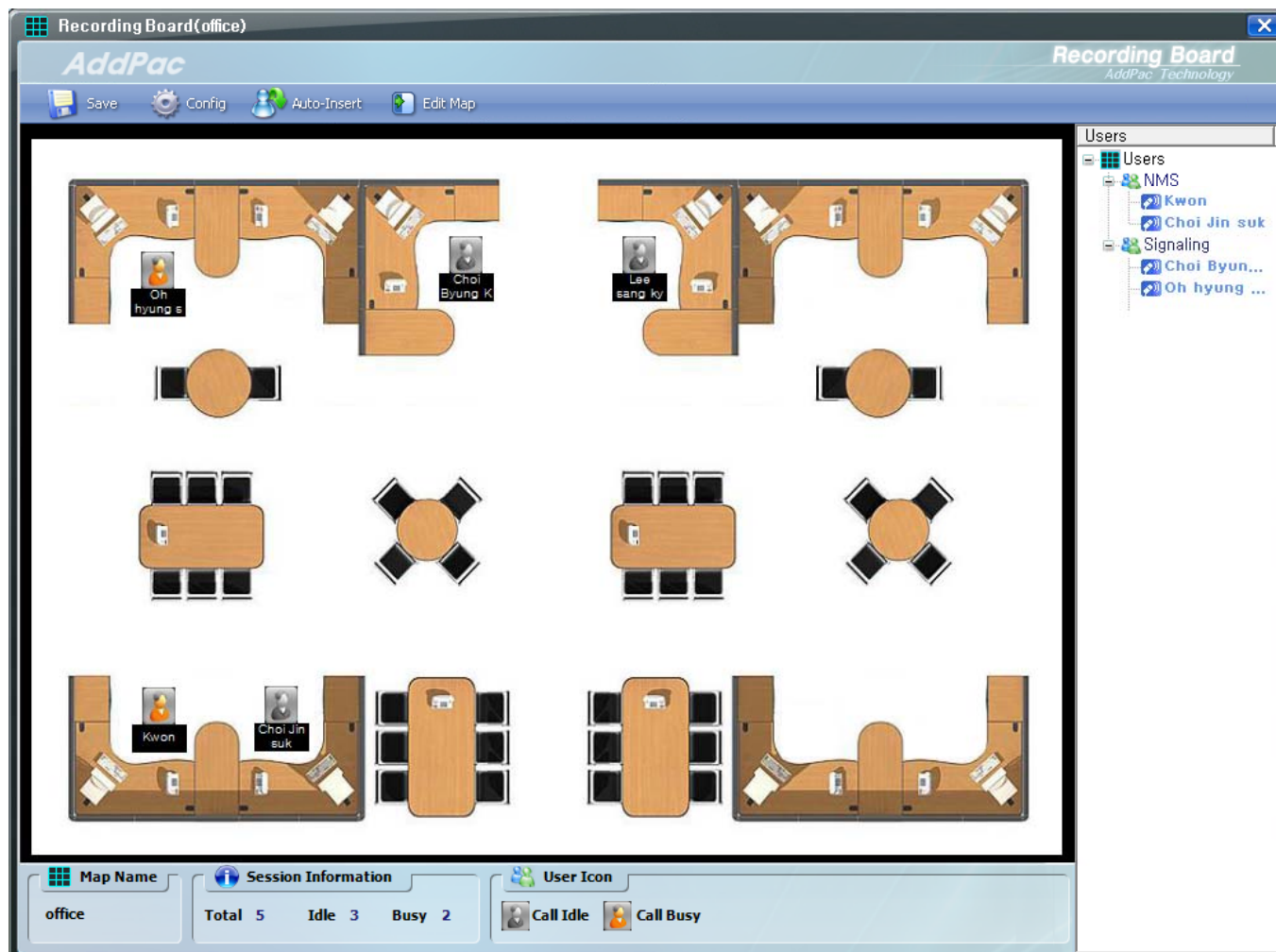
The dialog also features 'OK' and 'Cancel' buttons at the bottom.

Recording Board (Map)



Recording Board

(Map Editing and user monitoring)



Smart Recording File Manager

(Recorded Call List Search)

The screenshot displays the 'Smart Recording File Manager' application window. The interface includes a menu bar (File, Management, Help), a toolbar with icons, and a main search area. The search target is set to 'Local Database', and the search period is from '2016년 1월 1일' to '2016년 7월 6일'. The search results are displayed in a table with columns: Start Time, End Time, Duration, Calling Number, Calling User, Called Number, Called User, and Recording Source. A tree view on the left shows the directory structure for 'Remote Database (172.17.50.200)' and 'Local Database', with folders for years (2016) and months (06, 07). Red arrows point from text labels to specific parts of the interface: 'Server Recording History (Year/Month/Day)' points to the 'Remote Database' tree, 'Backup PC Recording History (Year/Month/Day)' points to the 'Local Database' tree, and 'Searched Recording History' points to the search results table.

Start Time	End Time	Duration	Calling Number	Calling User	Called Number	Called User	Recording Source
2016-07-05 10:30:...	2016-07-05 10:30:16	00:00:00	1000		3000		172.16.9.29 ...
2016-07-05 12:47:...	2016-07-05 12:47:45	00:00:00	1000		3000		172.16.9.29 ...
2016-07-05 12:50:...	2016-07-05 12:50:28	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 12:50:...	2016-07-05 12:50:40	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 12:51:...	2016-07-05 12:51:05	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 12:51:...	2016-07-05 12:51:09	00:00:00	1000		3000		172.16.9.29 ...
2016-07-05 12:53:...	2016-07-05 12:53:09	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:10:...	2016-07-05 14:10:01	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:11:...	2016-07-05 14:11:27	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:12:...	2016-07-05 14:12:42	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:13:...	2016-07-05 14:13:03	00:00:00	1000		3001		172.16.9.29 ...

Server Recording History
(Year/Month/Day)

Backup PC Recording History
(Year/Month/Day)

Searched Recording History

Smart Recording File Manager (Configuration)

The screenshot displays the 'Smart Recording File Manager' application window. A 'Configuration' dialog box is open, showing the following settings:

- FTP Information:**
 - Port: 21 (Default: 21)
 - Username: root
 - Password: *****
- Repository Directory:**
 - File path: C:\AddPac\RecordingBackupData
- Media Player:**
 - Player path: C:\Program Files\VideoLAN\VLC\vlc.exe

Below the media player path, there is a red text instruction: "Select the absolute path for executable media player. Click below link to VLC download. <http://www.videolan.org/vlc/download-windows.html>"

The background window shows a search results table with columns: Start Time, End Time, Duration, Calling Number, Calling User, Called Number, Called User, and Recording Source. The table contains two rows of data for recordings on 2016-07-05.

Start Time	End Time	Duration	Calling Number	Calling User	Called Number	Called User	Recording Source
2016-07-05 10:30:...	2016-07-05 10:30:16	00:00:00	1000		3000		172.16.9.29
2016-07-05 12:47:...	2016-07-05 12:47:45	00:00:00	1000		3000		172.16.9.29

The status bar at the bottom of the application shows: 2016-07-06 오후 3:40:26, version 1.2.6031, 172.17.50.200:9200, root, Waiting, Next Backup Time(2016-07-08 오전 3:00:00).

Smart Recording File Manager

(Call List Properties)

The screenshot displays the Smart Recording File Manager interface. The main window shows a search results table for a remote database. A context menu is open over a selected row, with the 'Properties' option highlighted. A 'Recording Session Information' dialog box is also open, showing details for two recording sessions.

Start Time	End Time	Duration	Calling Number	Calling User	Called Number	Called User	Recording Source
2016-07-05 10:30:...	2016-07-05 10:30:16	00:00:00	1000		3000		172.16.9.29 ...
2016-07-05 12:47:...	2016-07-05 12:47:45	00:00:00	1000		3000		172.16.9.29 ...
2016-07-05 12:50:...	2016-07-05 12:50:28	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05		00:00:00	1000		3001		172.16.9.29 ...
2016-07-05		00:00:00	1000		3001		172.16.9.29 ...
2016-07-05		00:00:00	1000		3000		172.16.9.29 ...
2016-07-05		00:00:00	1000		3001		172.16.9.29 ...
2016-07-05		00:00:00	1000		3001		172.16.9.29 ...
2016-07-05		00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:12:...	2016-07-05 14:12:42	00:00:00	1000		3001		172.16.9.29 ...
2016-07-05 14:13:...							

Start Time	Filename	Start Time	End Time	Duration	Size	Audio Codec	Transcoding Codec
	40003020160706005117...	2016-07-06 09:51:17	2016-07-06 09:51:31	00:00:14	1,763 KB	G711U	G711U
	0003020160706005117...	2016-07-06 09:51:17	2016-07-06 09:51:31	00:00:14	1,763 KB	G711U	G711U

Smart Recording File Manager

(Server to Local Backup)

The screenshot displays the Smart Recording File Manager interface. The main window shows a tree view of a Remote Database (172.17.50.200) with folders for 2016, 06, 07, and sub-folders for dates from 2016-07-01 to 2016-07-06. A 'Download' dialog box is open, displaying a list of 16 files with columns for File Name, Duration, Size, DateTime, and Status. The dialog also shows a progress bar and a 'Delete files after download' checkbox. The status bar at the bottom indicates 'Waiting' and 'Next Backup Time(2016-07-08 오전 3:00:00)'.

File Name	Duration	Size	DateTime	Status
/home/callrecfiles/20160706/0/00...	00:00:13	1,492 KB	2016-07-06 09:2...	Wait
/home/callrecfiles/20160706/0/00...	00:00:13	1,492 KB	2016-07-06 09:2...	Wait
/home/callrecfiles/20160706/0/00...	00:02:13	14,519 KB	2016-07-06 09:2...	Wait
/home/callrecfiles/20160706/0/00...	00:02:13	14,519 KB	2016-07-06 09:2...	Wait
/home/callrecfiles/20160706/0/00...	00:00:00	0 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:00	0 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:46	5,750 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:46	5,750 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:43	4,916 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:43	4,916 KB	2016-07-06 09:4...	Wait
/home/callrecfiles/20160706/0/00...	00:00:14	1,763 KB	2016-07-06 09:5...	Wait
/home/callrecfiles/20160706/0/00...	00:00:14	1,763 KB	2016-07-06 09:5...	Wait
/home/callrecfiles/20160706/1/00...	00:00:14	2,018 KB	2016-07-06 10:4...	Wait

Smart Recording File Manager

(Recorded Call List Search)

The screenshot displays the 'Smart Recording File Manager' application interface. A 'Search Filter' dialog box is open, allowing users to refine search results. The dialog includes a 'Record Time' section with start and end date/time pickers, and a 'Filter' section with multiple rows of dropdown menus for 'Filter Name', 'Rule', and 'Search' values. The main window shows a table of recorded calls with columns for Start Time, End Time, Duration, Calling Number, Calling User, Called Number, Called User, and Recording Source. The search target is set to 'Remote Database'.

Start Time	End Time	Duration	Calling Number	Calling User	Called Number	Called User	Recording Source
2016-07-06 12:04:33	2016-07-06 12:04:34	00:00:09	5055		5155		172.17.50.26
2016-07-06 12:04:34	2016-07-06 12:04:35	00:00:09	5067		5167		172.17.50.26
2016-07-06 12:04:35	2016-07-06 12:04:38	00:00:09	5085		5185		172.17.50.26
2016-07-06 12:04:36	2016-07-06 12:04:42	00:00:09	5098		5198		172.17.50.26

Search Filter Dialog:

- Record Time: Start [2016-07-06] 오전 12:00:00, End [2016-07-06] 오후 3:54:07
- Filter:

Filter Name	Rule	Search	Value
Calling Number	IsExactly	5067	<Blank>
<Blank>	IsExactly		<Blank>
<Blank>	IsExactly		<Blank>
<Blank>	IsExactly		<Blank>
<Blank>	IsExactly		<Blank>

Additional UI elements include a 'Recording Service Unavailable Files (not G711U codec)' checkbox and a 'Clear' button for the search filter.

Smart Recording File Manager

(Periodical Backup)

The screenshot displays the Smart Recording File Manager application. The main window shows a search results table with columns: Start Time, End Time, Duration, Calling Number, Calling User, Called Number, Called User, and Recording Source. Two records are visible for 2016-07-06.

Start Time	End Time	Duration	Calling Number	Calling User	Called Number	Called User	Recording Source
2016-07-06 12:04:34	2016-07-06 12:04:34	00:00:09	5055		5155		172.17.50.26
2016-07-06 12:04:35	2016-07-06 12:04:35	00:00:09	5067		5167		172.17.50.26

A 'Schedule Setting' dialog box is open, showing configuration options for a recording source. The 'Recording Source' list includes 172.17.207.207, 172.17.50.26, and 172.17.50.80. The 'Scheduler Run / Stop' section is checked, with 'Daily' selected and 'Every 1 Days' set. The 'Start Time' is 03:00:00. There are checkboxes for 'Delete files after download' and 'Download to file overwrite', both currently unchecked. The 'Directory' field is set to C:\AddPac\RecordingBackupData.

MAP based SIP Emergency Call Center System (AP-MSCS)



MAP based SIP Emergency Call Service Overview

- JavaScript based Interactive MAP Service
- Integrated Security Management Service via MAP based Device Overlay Display
- SIP Emergency Call Phone, Video Phone, etc, Geographical Display on MAP for Instinctive Control Service
- MAP Editor Service (Background Image, Device Lists, etc)
- MAP based Emergency Call IP Video Intercom Status Display
- Zoom to Area, Double Click Zoom, Scroll Wheel Zoom, etc
- Tile Layer, etc

MAP based SIP Emergency Call Service Overview (Example)

The screenshot displays the 'Smart Security Manager' interface. At the top, there is a navigation bar with icons for '상황판' (Status Panel), '관리소' (Control Room), '장치' (Device), '알림' (Alert), '작업' (Task), and '이력' (History). The main area is a map titled '수원시 지도' (Suwon City Map) showing various districts like 장안구, 권선구, 관달구, and 영통구. A call log table is visible at the bottom left, and a device status panel is on the bottom right.

ID	시간	단계	구분	지역	장치	메시지	위치 정보
1747001	2017-09-27 11:17:20	주의	시스템	권선구	ETP60	연결 끊김	권선구 탑동 탑동사거리
1747000	2017-09-27 09:11:20	주의	시스템	관달구	ETP60	연결 끊김	관달구 우만동 효성사거리

장치 (Device) Status:

- Camera: 0/0
- Emergency Intercom: 1/40
- Sensor: 0/0

MAP based SIP Emergency Call Service Overview (Tile Layer Example)

The screenshot displays the Smart Security Manager interface. At the top, it shows the title 'Smart Security Manager' and the time 'PM 12:13'. Below the title bar, there are navigation icons for '상황판' (Status), '관리소' (Control Room), '장치' (Device), '알림' (Alert), '작업' (Operation), and '이력' (History). The main area is divided into two map panes: '팔달구 지도' (Paldal-gu Map) on the left and '장안구 지도' (Jangsan-gu Map) on the right. A pop-up window is visible over the Paldal-gu map, showing details for '고동동' (Godong-dong) with status '비상통화 통화중' (Emergency Call Busy) and a timestamp '2017/02/09 15:20:37'. Below the maps, there is a table of alerts and a panel for device status.

알림 ID	시간	단계	구분	지역	장치	메시지	위치 정보
1747001	2017-09-27 11:17:20	주의	시스템	권선구	EIP60	연결 끊김	권선구 탑동 탑동사거리
1747000	2017-09-27 09:11:20	주의	시스템	팔달구	EIP60	연결 끊김	팔달구 우만동 효성사거리

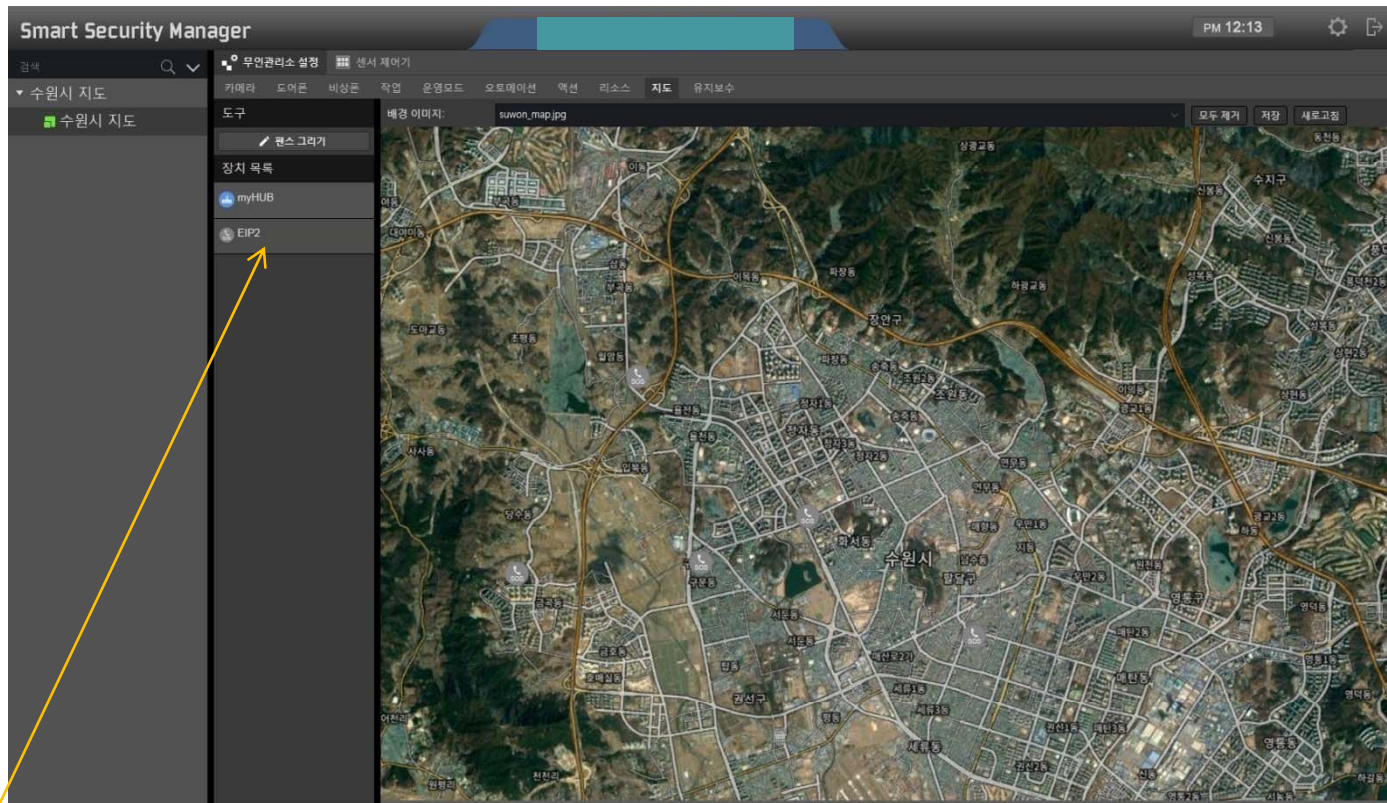
장치	상태
Camera	0/0
Emergency Intercom	1/40
Sensor	0/0

MAP based SIP Emergency Call Service Overview (Tile Layer Example)

The screenshot displays the Smart Security Manager interface. At the top, it shows the title 'Smart Security Manager' and the time 'PM 12:13'. Below the title bar, there are navigation icons for '상황판', '관리소', '장치', '알람 5', '작업', and '이력'. The main area is divided into two map panes: '팔달구 지도' (Paldal-gu Map) on the left and '장안구 지도' (Jangang-gu Map) on the right. Both maps show satellite imagery with various markers and labels. A pop-up window is visible over the Paldal-gu map, showing details for '고등동' (Godeung-dong), including its status '상태: 비상통화 통화중' (Status: Emergency Call in Progress), a link, and the last update time 'Last: 2017/02/09 15:20:37'. Below the maps, there is a table with columns for '알람' (Alarm), 'ID', '시간' (Time), '단계' (Stage), '구분' (Category), '지역' (Area), '장치' (Device), '메시지' (Message), and '위치 정보' (Location Info). The table contains two rows of alarm data. To the right of the table, there is a '장치' (Device) panel showing the status of 'Camera' (0/0), 'Emergency Intercom' (1/40), and 'Sensor' (0/0).

알람	ID	시간	단계	구분	지역	장치	메시지	위치 정보
	1747001	2017-09-27 11:17:20	주의	시스템	권선구	EIP60	연결 끊김	권선구 합동 합동사거리
	1747000	2017-09-27 09:11:20	주의	시스템	팔달구	EIP60	연결 끊김	팔달구 우안동 효성사거리

MAP based SIP Emergency Call Service Overview (MAP Editor Service)

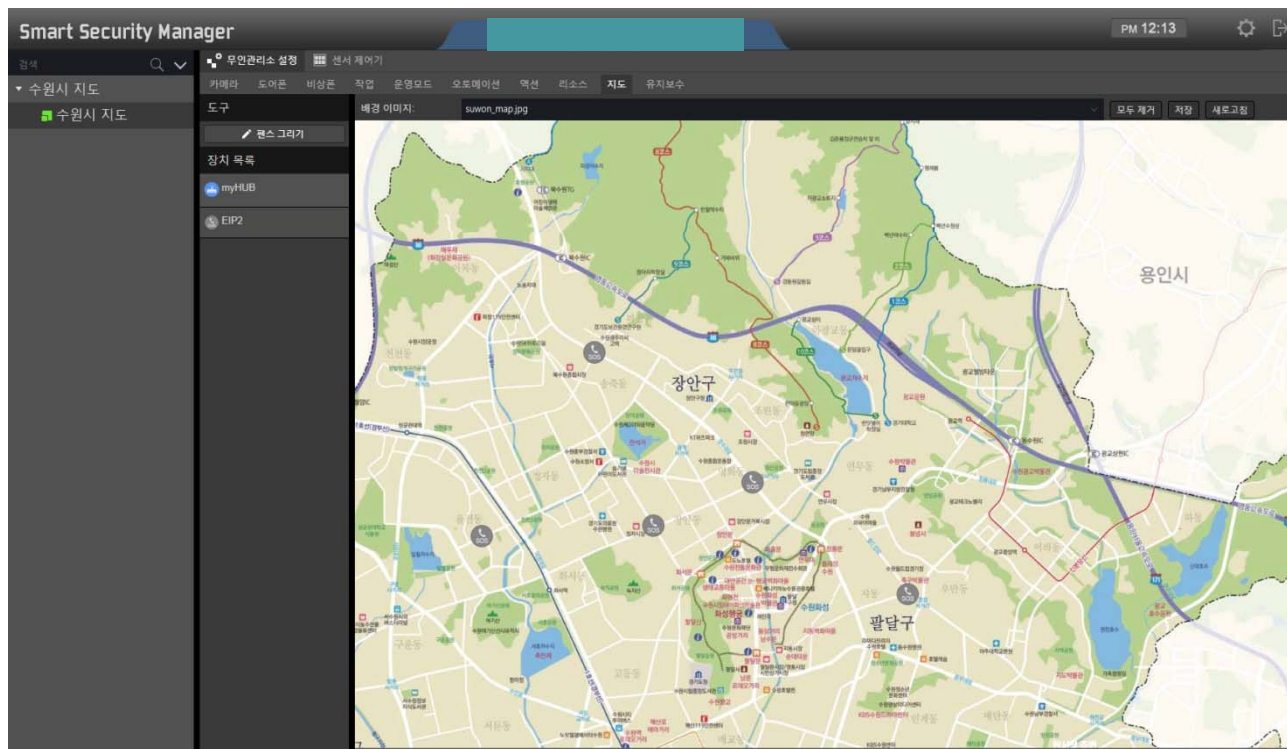


Device Lists : IP
Emergency Call Phone, IP
paging terminal etc

AddPac

www.addpac.com

MAP based SIP Emergency Call Service Overview (MAP Editor Service)



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
CPU

High-end
GPS

- 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

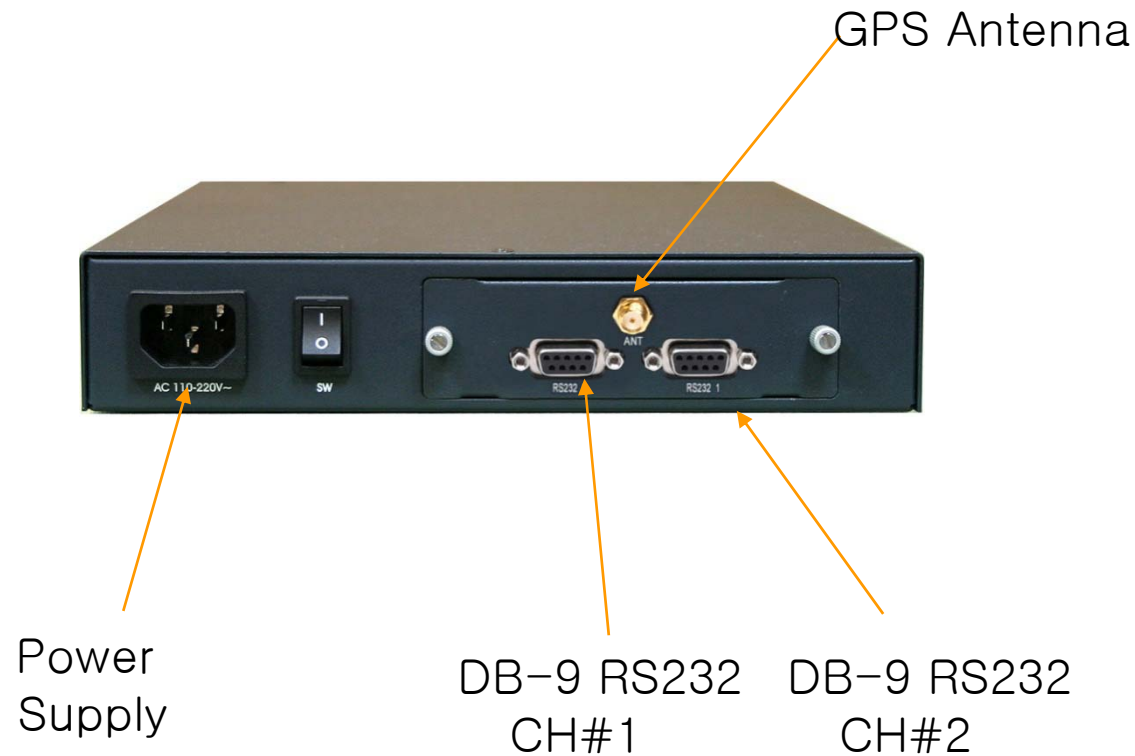
Hardware Specification

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

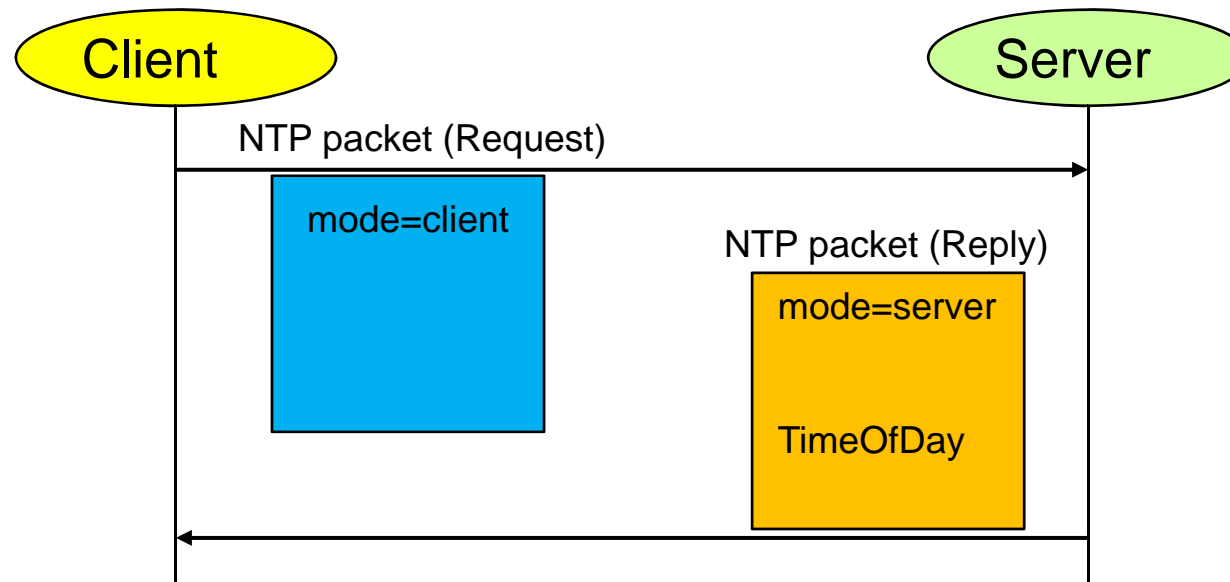
High-end
GPS

GPS Antenna

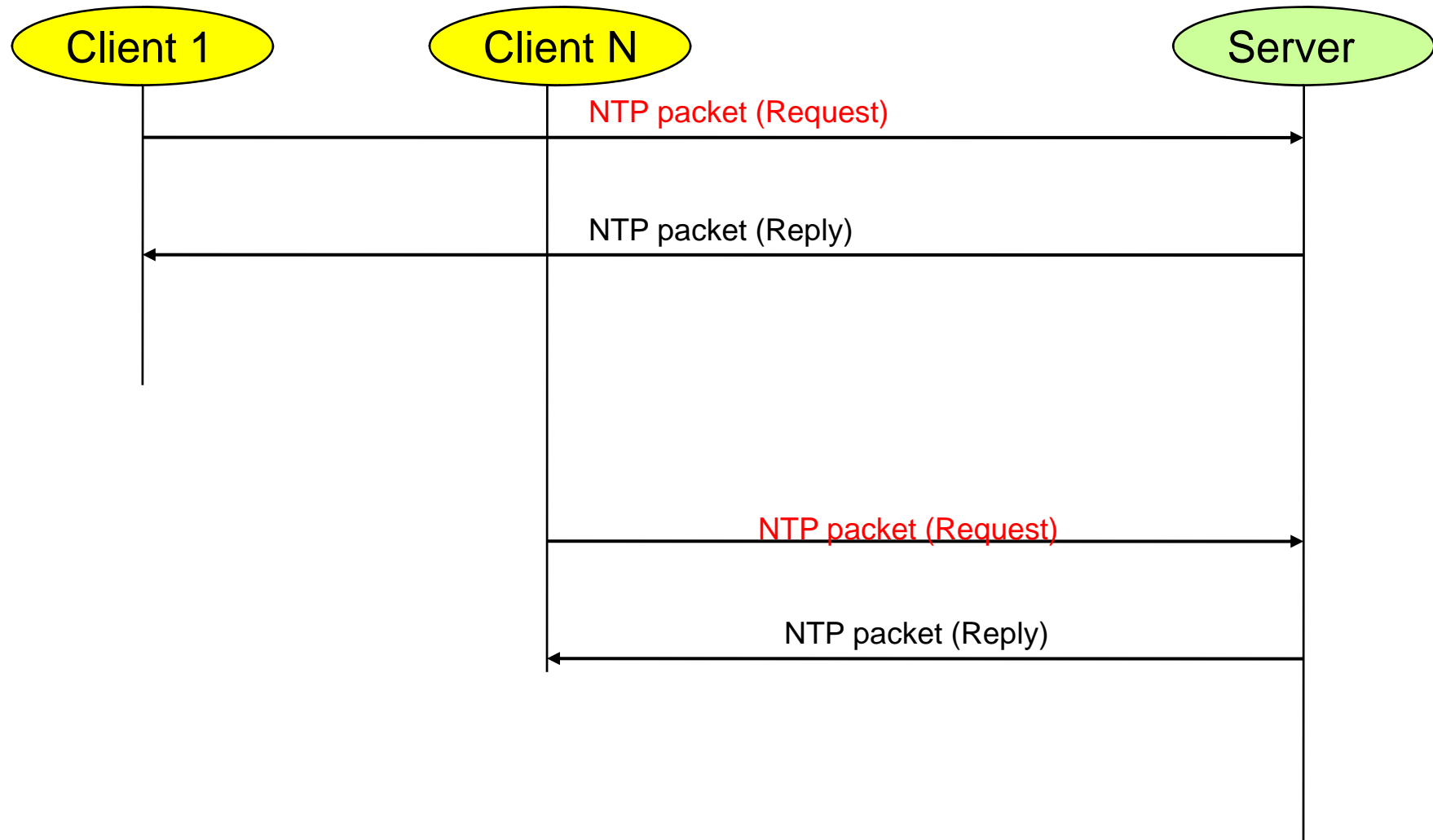


SNTP (Simple Network Time Protocol)

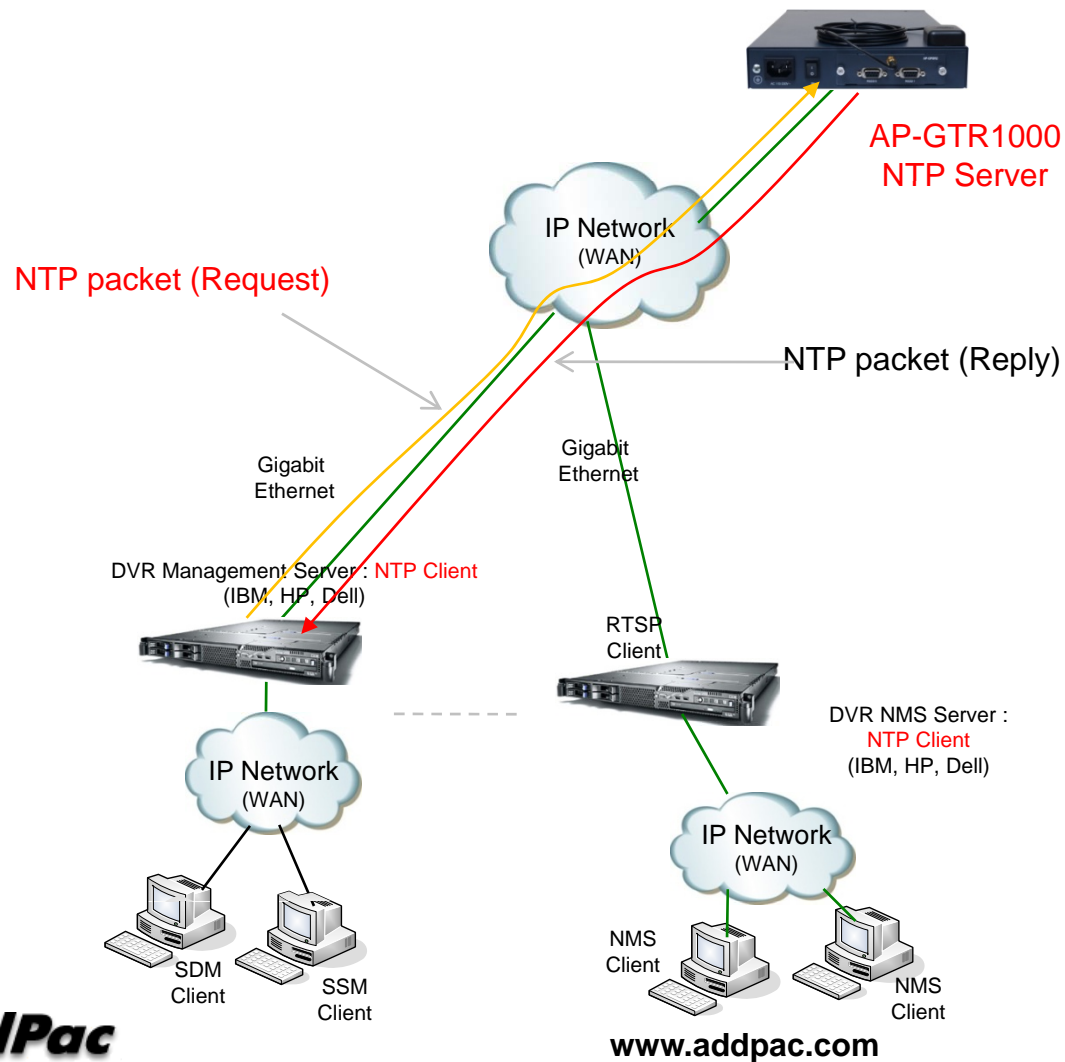
- Transport : UDP (port number 123)
- Protocol Version : 4
- Client/Server Mode



SNTP (Simple Network Time Protocol)



SNTP (Simple Network Time Protocol)





Thank you!

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