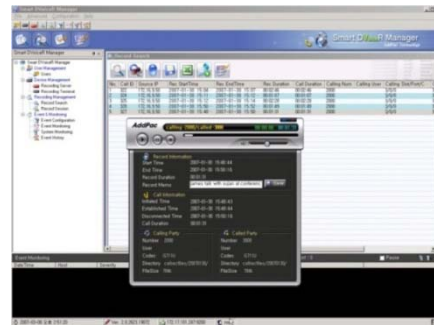


# IP Telephony Call Center Solution

IPNext180 Hybrid IP-PBX



AP-NR1500  
IP Voice Recording Server



**AddPac**

**AddPac Technology**

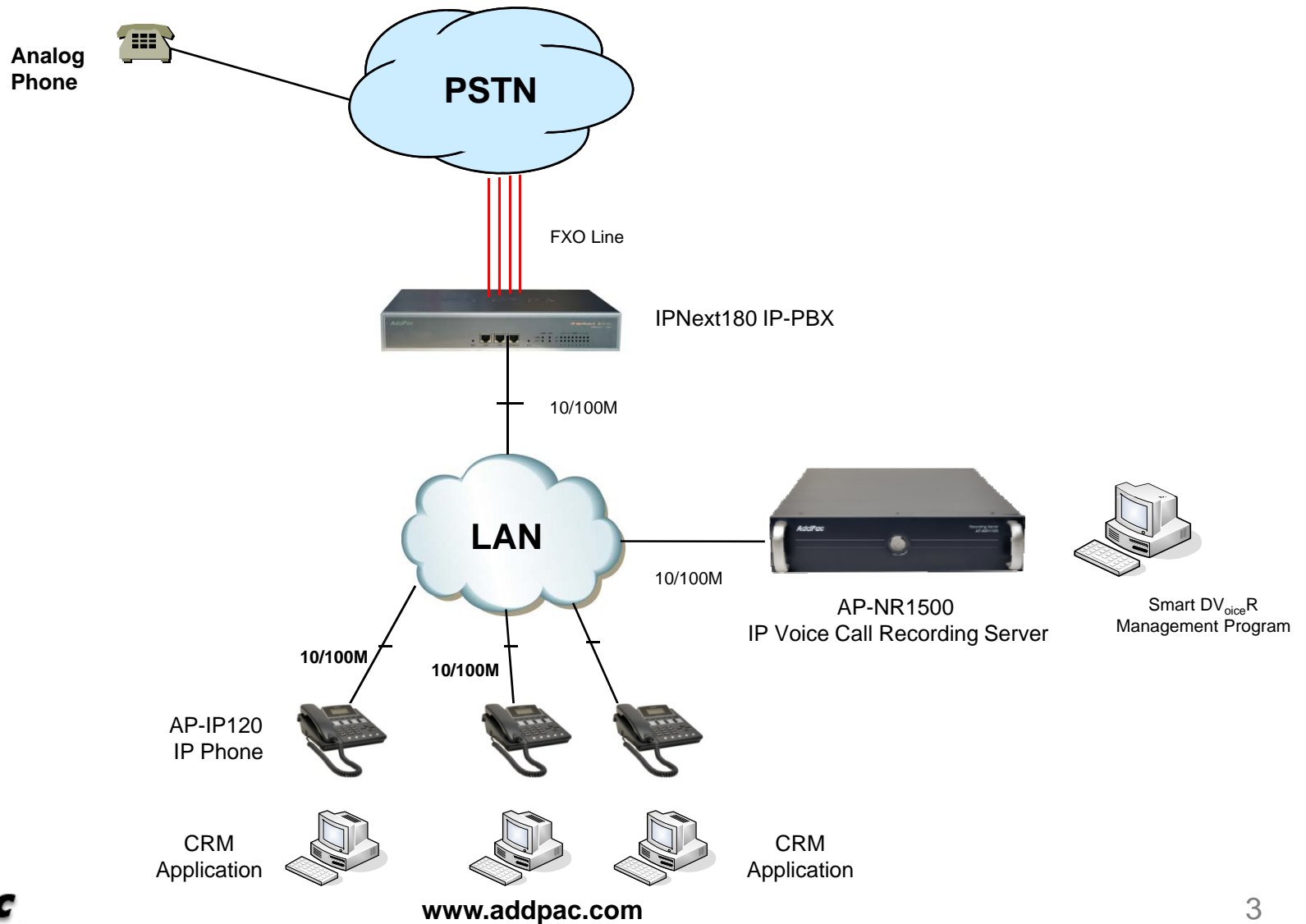
Sales and Marketing

[www.addpac.com](http://www.addpac.com)

# Contents

- Network Diagram
- Small Scale IP Call Center Solution
  - IPNext180 Hybrid IP-PBX
  - AP-IP120 IP Phone
  - AP-NR1500 IP Voice Recording Server
- Software Features for Call Center Service
  - Call Log
  - IVR Scenario Editor
  - CRM API
  - ACD, Hunt Group

# Network Diagram



# IPNext180 NGN Hybrid IP-PBX System



# Product Overview

- IP based Advanced Hybrid IP-PBX Solution
- IPv4/IPv6 Multimedia Telephony Solution for Small Office
- PSTN Interface (FXO, FXS, etc) Support
- Powerful Management and User Friendly Features
- Fault Tolerant and Scalability Architecture
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- IVR Service with Scenario Editor
- Voice Mailing Service
- Presence Service for High-End IP Key Phone, UC
- RTP Proxy Service for Private IP service
- SIP, H.323 Signaling for Outbound Calls
- Various Call Scenario (Call Pickup, Call Park, Call Transfer, etc)
- Various IP Terminal Support

# Hardware Specification

- **RISC Microprocessor Computing Power**
- **Main Chassis**
  - **Fixed Network Interface**
    - Two(2) 10/100Mbps Fast Ethernet
    - One(1) RS-232C Console (RJ45)
  - **Two(2) VoIP Module Slots for FXS, FXO etc**



# Hardware Specification

## Front Side



LAN1 (10/100Mbps)

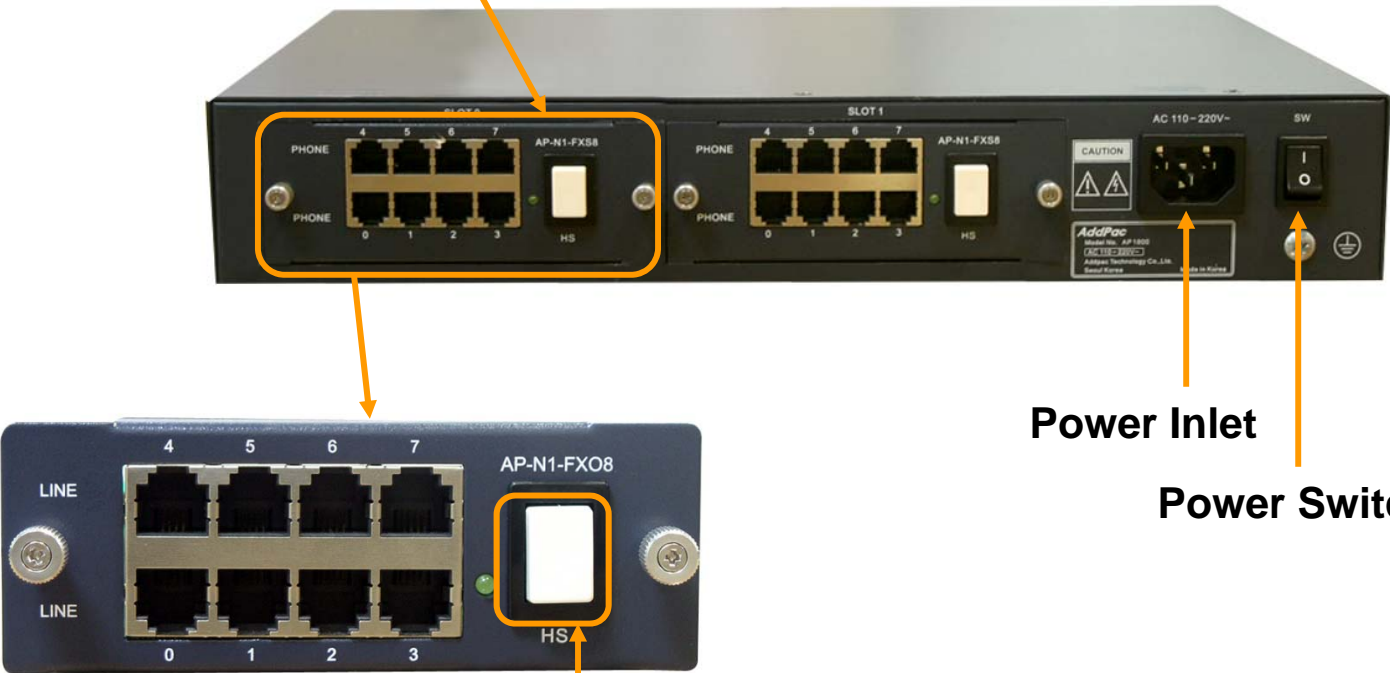
LAN0(10/100Mbps)

Console Port

# Hardware Specification

## Back Side

PSTN Interface Module



Power Inlet





Power Switch

Hot-Swap Switch & LAMP Indication



# Hardware Specification

- **VoIP Interface Module**

<b>AP-N1-FXS8</b>		8-Port FXS Voice Processing Module (8 x RJ11)
<b>AP-N1-FXO8</b>		8-Port FXO Voice Processing Module (8 x RJ11)
<b>AP-N1-FXO4</b>		4-Port FXO Voice Processing Module (4 x RJ11)
<b>AP-N1-FXO4S4</b>		4-Port FXO and 4-Port FXS Voice Processing Module (8 x RJ11)
<b>AP-N1-E1T1</b>		1-Port VoIP Digital E1/T1 Interface Module(1xRJ45)

# IP Telephony Service and Features

- **Signaling Server**

- SIP Application Server, Proxy, Registrar and Location Server (RFC3261)
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
  - IP UA Client Role for Registering to ITSP SIP Server
  - H.323 Gatekeeper Client Role for Registering to ITSP H.323 Gatekeeper Server

- **IVR & Auto Attendant**

- Default Auto Attendant Support
- Interactive Voice Response (IVR)
  - Provides with GUI-based Smart IVR Scenario Editor
  - Upload/Download Scenario by Smart IVR Scenario Editor
  - Supports Multiple Concurrent Scenarios
  - Supports Recordable IVR Prompts

- **Voice Mail**

- Support Voice Mail with IVR
- Access from Remote Site via Trunk Support
- Voice Mail Notification Support

# IP Telephony Service and Features

- **Number & Call Routing**

- Trunk Hunting by Preference or Sequential
- Call Hunting by Preference, Simultaneous, Random
- Call Hunting by Chained Hunting Group
- Partition for Address Grading
- Call Class for Call Access Control
- Number Translation Rule for Inbound/Outbound Call
- Centrex with Prefix Support
- Multiple Shared Devices with One Number
- Multiple Numbers on One Device
- Individual Call Park within Park Number Pool
- Group Call Park within a Group or Other Group
- Call Pickup of Ringing Call of Same Group or Other Group
- Call Pickup of Parked Call
- Call Transfer - Blind, Consult
- Call Forwarding - Unconditional, Busy, No Answer, Voice Mail
- Call Waiting
- Call Swaping
- Call Hold

# IP Telephony Service and Features

- **IP-PBX Advanced Features with AddPac IP Phones**

- Multiple Call Handling with Call Status and Calling Line Number and Name
- Plug and Play with Auto Discovery Function
- Softkey Map Download and Control
- Time and Date Setting
- Voice Mail List View
- Parked Call List View
- Call Forward Setting
- Recent Call List View
- Calling Number and Name Identification
- Individual Call Park within Park Number Pool by Softkey
- Group Call Park within a Group or Other Group by Softkey
- Call Pickup of Ringing Call of Same Group or Other Group by Softkey
- Call Pickup of Parked Call by Softkey
- Call Transfer - Blind, Consult by Softkey
- Call Waiting Indication
- Call Swaping by Softkey
- Call Hold by SoftKey
- Conference Control

# AP-IP120 IP Phone



# Product Overview

- IP Phone Solution
- 12 Speed-Dial Key with Presence Indication Lamp
- Audio Broadcasting Solution
- High-performance Audio, and Voice Service
- Firmware Upgradeable Architecture
- VoIP Solution with Outstanding Network Service Capability
- Audio Privacy Protection

# Hardware Specification

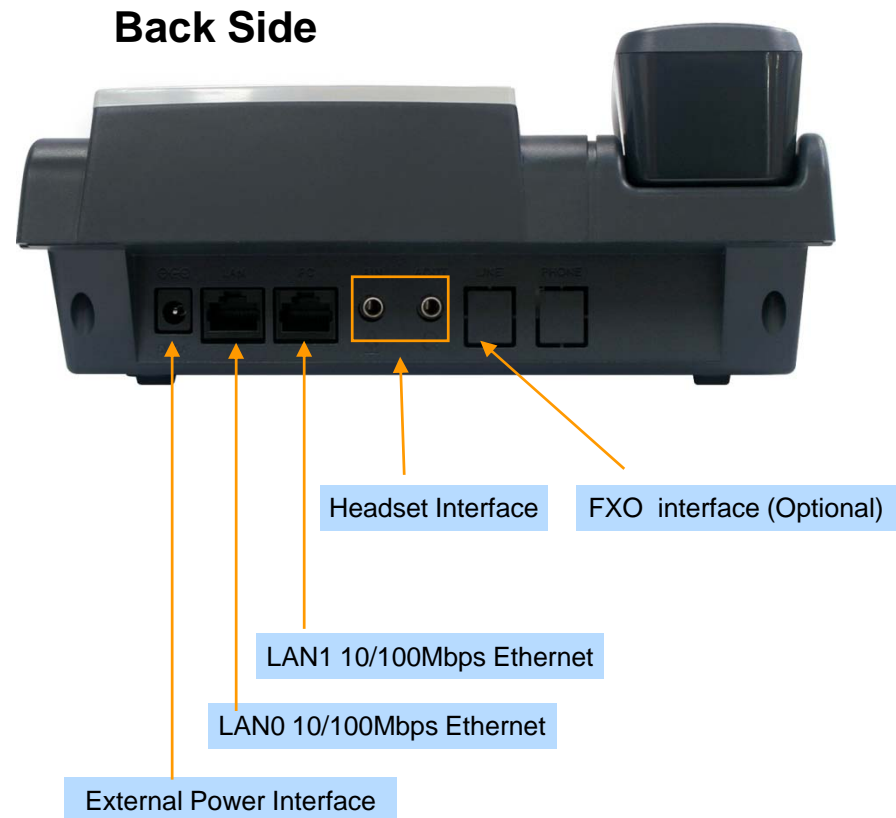
- RISC+DSP Microprocessor Computing Power (Dual Processor Architecture)
- Optional PSTN Backup (FXO) Interface
- Optional PoE (Power over Ethernet)
- High quality Audio and Voice Interface
  - Stereo Audio Input Connector
  - Stereo Audio Output Connector
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet
- LCD Window : Graphic LCD (4 Line Text)
- 12 Speed-Dial Key with Presence Indication LAMP
- Power Supply
  - External Power Adaptor (5V, 2A)

# Hardware Specification

## Hardware Specifications

AP-IP120 IP Phone	Basic Specifications
CPU	RISC Microprocessor
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
PSTN Backup Port (Optional)	1-Port PSTN Backup Port(RJ-11)
Flash Memory	4Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt(5V,2A)
	Power over Ethernet (option)
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	H x W x D ( 70mm x 200mm x 210mm)
Weight (g)	1Kg

## Network interface Configurations







# AP-NR1500

## IP Voice Recording Server

# Product Overview

- 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

- 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

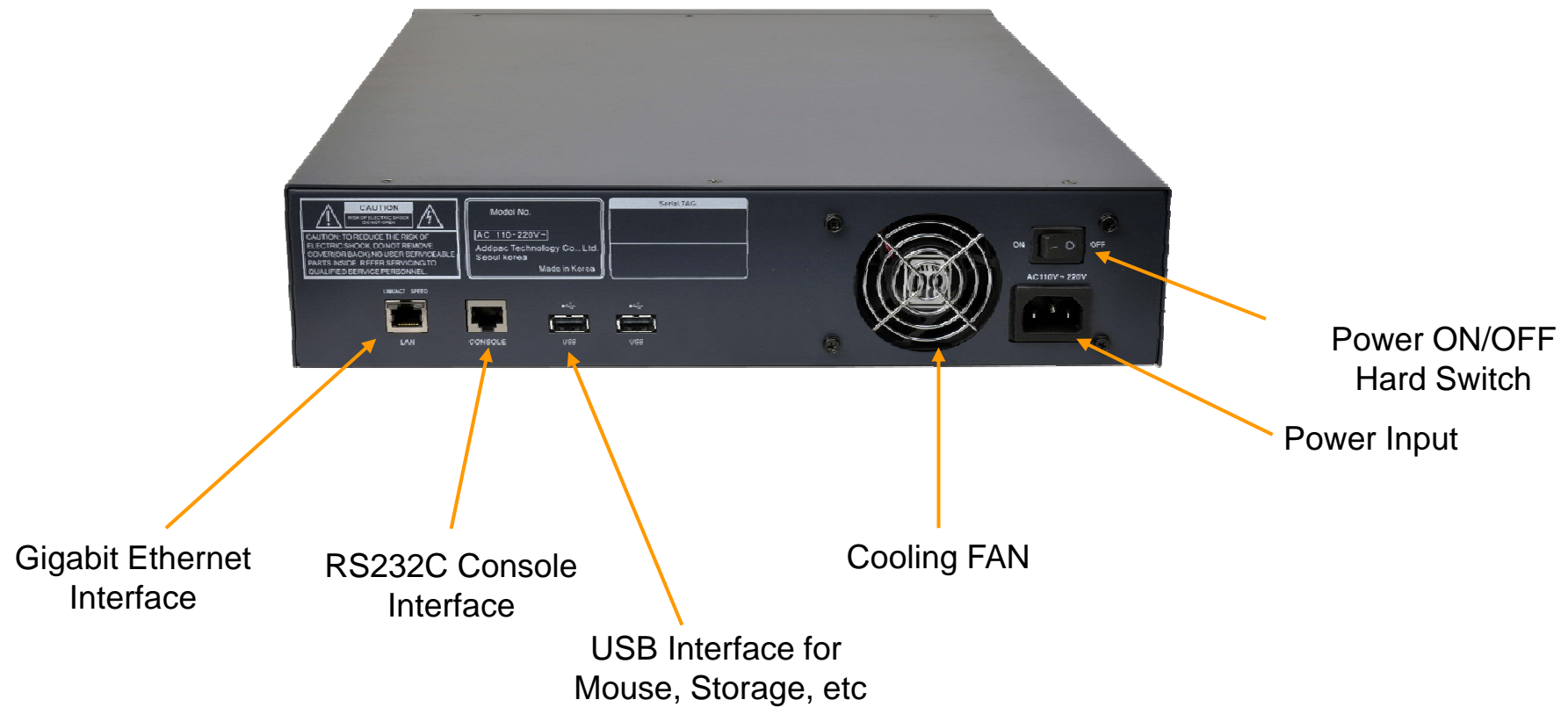
AP-NR1500 Front Side



Power On/Off Switch with LED Indication LAMP

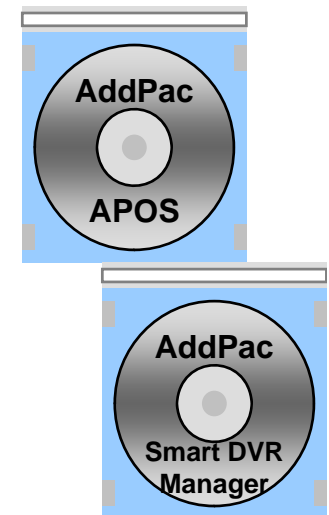
# Hardware Specification

## AP-NR1500 Back Side



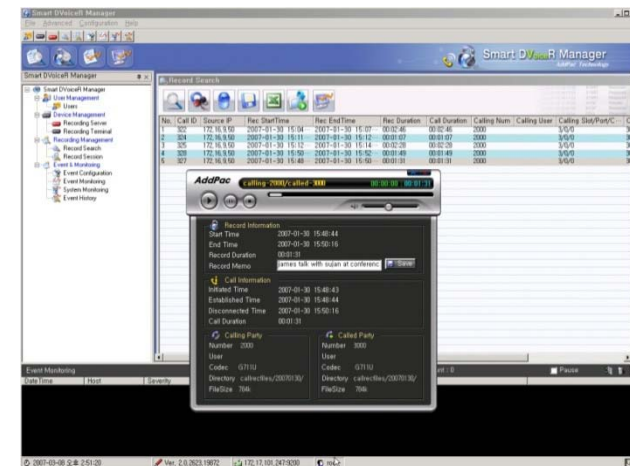
# Software Specification

- **Built-in AddPac Internetworking Software**
  - Scalability, Functionality, and Stability Features
  - Advanced Network DV<sub>oice</sub>R Recording & Live Streaming Features
  - QoS Control Features
- **Firmware Upgradeable Architecture**
- **Industry Standard Network Protocol Features**
- **Highly User Friendly Management Features**
  - PC based Window Program
  - Smart DV<sub>oice</sub>R Manager



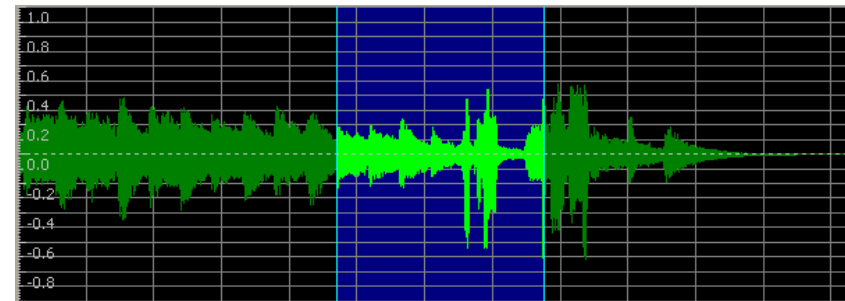
# Voice Recording Management Software

- 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
- Waveform Analyzing Function
- Recording Source Management (VoIP Gateway, IP Phone, etc)
- Live Recording Board



# Application Area

- Call Center Application
- Enterprise Application
- All IP Network Application







# Smart DVoiceR Management Program for Voice Recording Server

# Contents

- Overview
- Smart Digital Voice Recorder Manager
- Smart File Manager for Secondary Backup



# Overview

- Call History Management (search/modify/delete/Excel File save)
- Media Play Management (Play/Stop/Seek/Pause)
- Live Call Recording List Management
- Live Call Monitoring (Play)
- Local Backup (File Manager Support, PC HDD, DVD) and Local Play
- Event History Search
- User Management (registration/modify/delete/search)
- Server Status (CPU/Memory/HDD/Transcoding) & Event Monitoring
- Recording File Waveform Analyzing Function
- Recording Source Management (VoIP Gateway, IP Phone, etc)
- Live Call Recording Board (Recording Board Design, Live Call Status, Voice Monitoring)

# Login

The image shows the 'Smart DVoiceR Manager' login screen. At the top, it says 'AddPac Technology' and 'Smart DVoiceR Manager USER LOGIN'. There are two input fields: 'ID' with 'root' and 'Password' with '\*\*\*\*\*'. To the right are 'Login' and 'Setting' buttons. Below the password field are two checkboxes: 'Auto login' (unchecked) and 'Save password' (checked). A 'Setting' dialog box is open, showing 'Smart Recording Server' settings: 'IP Address' (172.16.4.22) and 'Port' (9200, default: 9200). Red arrows point from the 'Auto login' checkbox to the text 'Auto Login Configuration' and from the 'Save password' checkbox to the text 'Password Save'. Another red arrow points from the 'Setting' button to the 'Setting' dialog box.

**Auto Login Configuration**

**Password Save**

**Setting**

Smart Recording Server

IP Address 172.16.4.22

Port 9200 (default: 9200)

OK Cancel

# User Management

The screenshot shows the Smart DVoiceR Manager application window. The main window title is "Smart DVoiceR Manager" and it has a menu bar with "File", "Advanced", "Configuration", and "Help". Below the menu bar is a toolbar with various icons. The main content area is titled "Smart DVoiceR Manager" and "AddPac Technology". On the left is a tree view showing the application structure, with "User Management" expanded to show "Users". The "Users" window is open, displaying a table of users. Three red arrows point to the "Add", "Edit", and "Delete" icons above the table, labeled "New Manager Registration", "Manager Information Modification", and "Manager Delete" respectively. The table has columns for "No.", "ID", "Name", and "Description".

No.	ID	Name	Description
1	Administrator	Administrator	Addpac Administrator
2	root	recording manager	Maintenance dept.

2007-06-13 오후 1:43:49 Ver. 1.0.2719 172.16.31.14:9200 root

# Recording Server Status Monitoring

Smart DVoiceR Manager

File Advanced Configuration Help

Smart DVoiceR Manager

Smart Recording Server

Smart Recording Server Status

172.16.31  
Smart Re

Configuration Client Session List

Max Session : 10  
Keep Alive Interval : 15 sec

OK

Smart Recording Server

Smart Recording Server Status

172.16.31,14:9200  
Smart Recording Server is running.

Configuration Client Session List

No.	User	IP Address	Port	Access Time	Duration
1	root	172.16.1.31	4417	2007-06-13 13:40:05	00:04:49

Client List

OK Cancel

2007-06-13 오후 1:46:20 Ver. 1.0.2719 172.16.31,14:9200 root

# Recording File Management

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

The screenshot displays the Smart DVoiceR Manager software interface. The main window shows a 'Record Search' table with columns for No., Call ID, Source IP, Rec StartTime, Rec EndTime, Rec Duration, Call Duration, Calling Num, Calli..., Calling..., Called Num, Calle..., and Called S... The table contains 19 rows of recorded call data. A 'Search Filter' dialog box is open, showing search criteria for Record Time (Start Time: 2007-06-14 00:00:00, End Time: 2007-06-14 23:59:59) and Filter rules (Calling Number: IsExactly 2000, Called Number: IsExactly 3000). A playback control window is overlaid on the table, showing 'AddPac calling-3004/called-5020' with a progress bar and a 'Memo Save' button. The playback window also displays 'Record Information' and 'Call Information' details.

No.	Call ID	Source IP	Rec StartTime	Rec EndTime	Rec Duration	Call Duration	Calling Num	Calli...	Calling...	Called Num	Calle...	Called S...
1	39500	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:43	00:00:28	00:00:28	3000		4/0/0	5016		4/0/0
2	39502	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:43	00:00:28	00:00:28	3001		4/1/0	5017		4/1/0
3	39504	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:43	00:00:28	00:00:28	3002		4/2/0	5018		4/2/0
4	39506	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:43	00:00:28	00:00:28	3003		4/3/0	5019		4/3/0
5	39508	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:44	00:00:28	00:00:28	3004		5/0/0	5020		5/0/0
6	39510	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:44	00:00:28	00:00:28	3005		5/1/0	5021		5/1/0
7	39512	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:45	00:00:29	00:00:28	3006		5/2/0	5022		5/2/0
8	39514	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:45	00:00:29	00:00:28	3007		5/3/0	5023		5/3/0
9	39516	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:45	00:00:29	00:00:28	3007		5/3/0	5023		5/3/0
10	39518	172.17.213.100	2007-06-13 13:12:15	2007-06-13 13:12:45	00:00:29	00:00:28	3007		5/3/0	5023		5/3/0
11	39520	172.17.213.100	2007-06-13 13:12:16	2007-06-13 13:12:16	00:00:00	00:00:00				5024		6/0/0
12	39522	172.17.213.100	2007-06-13 13:12:16	2007-06-13 13:12:16	00:00:00	00:00:00				5025		6/1/0
13	39524	172.17.213.100	2007-06-13 13:12:16	2007-06-13 13:12:16	00:00:00	00:00:00				5026		6/2/0
14	39526	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5027		6/3/0
15	39528	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5028		7/0/0
16	39529	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5029		7/1/0
17	39498	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5030		7/2/0
18	39499	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5031		7/3/0
19	39501	172.17.213.100	2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2000		0/0/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2001		0/1/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2002		0/2/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2003		0/3/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2004		1/0/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2005		1/1/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2006		1/2/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2007		1/3/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2008		2/0/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2009		2/1/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2010		2/2/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2011		2/3/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2013		3/1/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2014		3/2/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2015		3/3/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				2012		3/0/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5016		4/0/0
			2007-06-13 13:12:17	2007-06-13 13:12:17	00:00:00	00:00:00				5017		4/1/0

# Recording File List Save (Excel File Format)

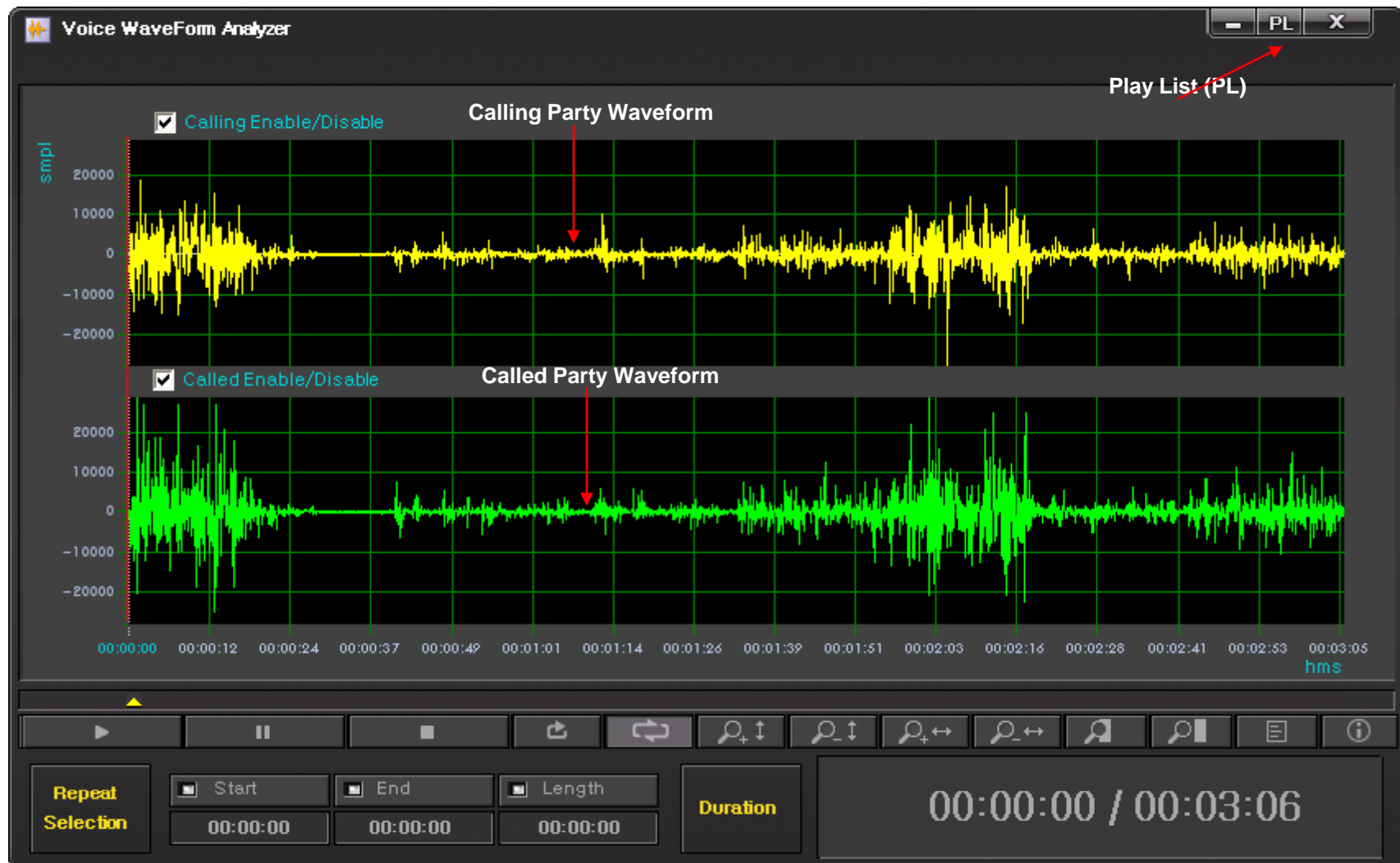
The screenshot displays the Smart DVoiceR Manager interface. The main window shows a 'Record Search' section with a table of recording data. A dialog box titled '다른 이름으로 저장' (Save As) is open, showing the file name 'Records.xls' and the format 'Excel Files'. A progress bar indicates that 69% of the records are being exported. A 'Microsoft Excel - Records.xls' window is also visible, showing the exported data in a spreadsheet format.

No.	Call ID	Source IP	Rec StartTime	Rec EndTime	Rec
1	63292	172.16.9.60	2007-06-12 09:44:59	2007-06-12 09:46:34	00:01:35
2	63293	172.16.9.60	2007-06-12 09:46:38	2007-06-12 10:10:38	00:22:49
3	63295	172.16.9.60	2007-06-12 10:11:28	2007-06-12 10:14:34	00:03:06
4	64171	172.16.9.60	2007-06-12 13:24:09	2007-06-12 13:24:09	00:00:00
5					
6					
7					
8	64177	172.16.9.60	2007-06-12 14:04:09	2007-06-12 14:04:25	00:00:16
9	64181	172.16.9.60	2007-06-12 14:05:11		
10	64185	172.16.9.60	2007-06-12 14:34:21		
11	64186	172.16.9.60	2007-06-12 14:37:31		
12	67503	172.16.9.60	2007-06-12 16:00:00		
13	67504	172.16.9.60	2007-06-12 16:02:51		
14	67515	172.16.9.60	2007-06-12 17:03:21		
15	67517	172.16.9.60	2007-06-12 17:06:00		

Call ID	Source IP	Record Start Time	Record End Time	Record	Call Dur	Callings	Callings	Called	Called	Called	File Name	Size	Audio C	Me
6	63292	172.16.9.60	2007-06-12 9:44	2007-06-12 9:46	0:01:35	0:01:35	1015	3/3/0	6015	3/3/0	63292001818K	GT11U		
7	63292	172.16.9.60	2007-06-12 9:44	2007-06-12 9:46	0:01:34	0:01:35	1015	3/3/0	6015	3/3/0	63292001817K	GT11U		
8	63293	172.16.9.60	2007-06-12 9:52	2007-06-12 9:56	0:04:33	0:24:03	1015	3/3/0	6015	3/3/0	632930012816K	GT11U		
9	63295	172.16.9.60	2007-06-12 9:56	2007-06-12 9:56	0:04:33	0:24:03	1015	3/3/0	6015	3/3/0	632950012816K	GT11U		
10	63293	172.16.9.60	2007-06-12 9:57	2007-06-12 10:10	0:13:28	0:24:03	1015	3/3/0	6015	3/3/0	632930016966K	GT11U		
11	63293	172.16.9.60	2007-06-12 9:57	2007-06-12 10:10	0:13:28	0:24:03	1015	3/3/0	6015	3/3/0	632930016965K	GT11U		
12	63293	172.16.9.60	2007-06-12 9:57	2007-06-12 10:10	0:13:28	0:24:03	1015	3/3/0	6015	3/3/0	632930012808K	GT11U		
13	63295	172.16.9.60	2007-06-12 9:46	2007-06-12 9:51	0:04:46	0:24:03	1015	3/3/0	6015	3/3/0	632950012808K	GT11U		
14	63295	172.16.9.60	2007-06-12 9:46	2007-06-12 9:51	0:04:46	0:24:03	1015	3/3/0	6015	3/3/0	632950012808K	GT11U		
15	63295	172.16.9.60	2007-06-12 10:11	2007-06-12 10:14	0:03:06	0:03:00	1015	3/3/0	6015	3/3/0	632950011600K	GT11U		
16	63295	172.16.9.60	2007-06-12 10:11	2007-06-12 10:14	0:03:06	0:03:00	1015	3/3/0	6015	3/3/0	632950011600K	GT11U		
17	64171	172.16.9.60	2007-06-12 13:22	2007-06-12 13:26	0:11:39	0:11:40	1015	3/3/0	6015	3/3/0	641710016020K	GT11U		
18	64171	172.16.9.60	2007-06-12 13:22	2007-06-12 13:26	0:11:39	0:11:40	1015	3/3/0	6015	3/3/0	641710016020K	GT11U		
19	64173	172.16.9.60	2007-06-12 13:34	2007-06-12 13:36	0:02:19	0:02:19	1015	3/3/0	6015	3/3/0	641730011198K	GT11U		
20	64173	172.16.9.60	2007-06-12 13:34	2007-06-12 13:36	0:02:19	0:02:19	1015	3/3/0	6015	3/3/0	641730011199K	GT11U		
21	64175	172.16.9.60	2007-06-12 14:00	2007-06-12 14:01	0:01:26	0:01:26	1015	3/3/0	6015	3/3/0	64175001740K	GT11U		
22	64175	172.16.9.60	2007-06-12 14:00	2007-06-12 14:01	0:01:26	0:01:26	1015	3/3/0	6015	3/3/0	64175001740K	GT11U		
23	64176	172.16.9.60	2007-06-12 13:50	2007-06-12 13:52	0:01:33	0:01:33	1015	3/3/0	6015	3/3/0	641760017804K	GT11U		
24	64176	172.16.9.60	2007-06-12 13:50	2007-06-12 13:52	0:01:33	0:01:33	1015	3/3/0	6015	3/3/0	641760017803K	GT11U		
25	64177	172.16.9.60	2007-06-12 14:04	2007-06-12 14:04	0:00:16	0:00:16	1015	3/3/0	6015	3/3/0	64177001142K	GT11U		
26	64177	172.16.9.60	2007-06-12 14:04	2007-06-12 14:04	0:00:16	0:00:16	1015	3/3/0	6015	3/3/0	64177001141K	GT11U		
27	64181	172.16.9.60	2007-06-12 14:05	2007-06-12 14:33	0:28:22	0:28:23	1015	3/3/0	6015	3/3/0	641810011466K	GT11U		
28	64181	172.16.9.60	2007-06-12 14:05	2007-06-12 14:33	0:28:22	0:28:23	1015	3/3/0	6015	3/3/0	641810011466K	GT11U		
29	64181	172.16.9.60	2007-06-12 14:34	2007-06-12 14:36	0:00:02	0:00:02	1015	3/3/0	6015	3/3/0	64181001142K	GT11U		



# Recording File Waveform Analyzer



# Recording File Waveform Analyzer

(Repeated Play)



# Recording File Waveform Analyzer

(Bookmark Play)

The screenshot displays the 'Voice WaveForm Analyzer' application. It features two waveform plots: the top one is yellow and the bottom one is green. The top plot has a 'Bookmark Set' label with an arrow pointing to a specific point on the waveform. A 'Bookmark List' dialog box is open, showing a table with one entry: 'my bookmark no1.' at '00:01:05'. The dialog has buttons for 'Modify', 'Bookmark Set', 'Bookmark Delete', and 'Play at Bookmark Position'. The bottom plot has a 'Bookmark' label with a pushpin icon. A context menu is open over the bottom plot, showing options: 'Play From Here', 'Set Bookmark', and 'Bookmark List'. The bottom of the interface includes playback controls (play, pause, stop, etc.), a 'Repeat Selection' button, and a 'Bookmark List' display showing '00:00:00 / 00:03:06'.

No.	Name	Time
1	my bookmark no1.	00:01:05

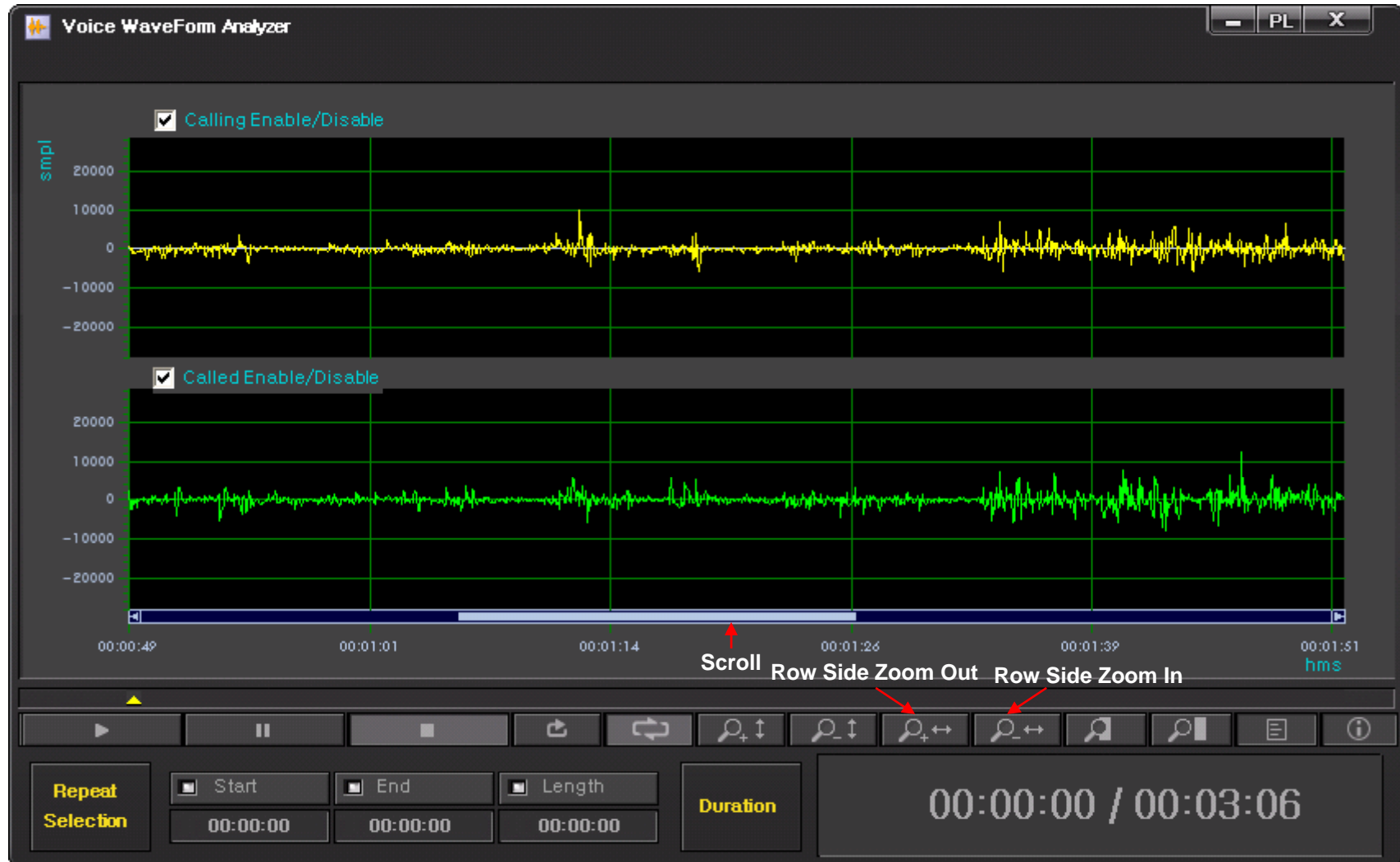
# Recording File Waveform Analyzer

(Column Side Zooming)



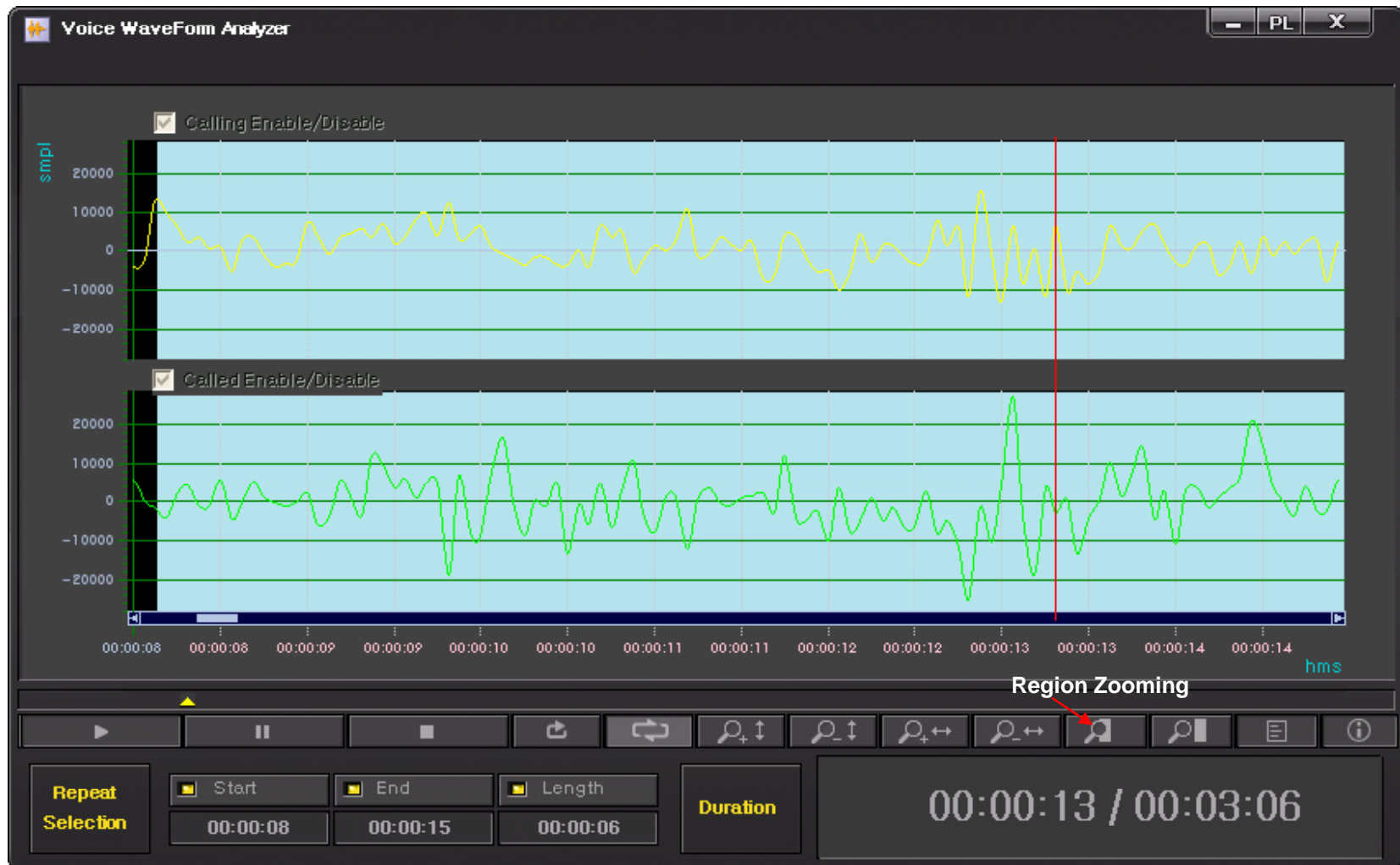
# Recording File Waveform Analyzer

(Row Side Zooming)



# Recording File Waveform Analyzer

(Region Zooming)



# Recording File Waveform Analyzer

(Call Info. Display)

The screenshot displays the 'Voice WaveForm Analyzer' application window. The main interface features two waveform plots: a top plot with a yellow waveform and a bottom plot with a green waveform. A central 'Record Information' dialog box is open, displaying the following data:

Record Information	
Start Time	2007-06-12 10:11:28
End Time	2007-06-12 10:14:34
Record Duration	00:03:06
Record Memo	<input type="text"/>

Call Information	
Initiated Time	2007-06-12 10:13:15
Established Time	2007-06-12 10:13:16
Disconnected Time	2007-06-12 10:16:24
Call Duration	00:03:08

Calling Party	
Number	1015
User	
Codec	G711U
Directory	/mnt/hda1/callrecfiles
FileSize	1606k

Called Party	
Number	6015
User	
Codec	G711U
Directory	/mnt/hda1/callrecfiles
FileSize	1606k

At the bottom of the window, there is a control bar with playback buttons (play, pause, stop, previous, next, zoom in, zoom out, zoom reset, zoom fit) and a 'Call Info. Display' button. Below the control bar, a 'Repeat Selection' section shows 'Start' (00:00:10), 'End' (00:00:11), and 'Length' (00:00:01). A 'Duration' section shows '00:00:11 / 00:03:06'. The text 'Original View Mode' is displayed above the duration.

# Live Call Recording List and Monitoring

The screenshot displays the Smart DVoiceR Manager interface. The main window shows a 'Current Call List Display' with a 'Live Play' button and a 'List Update Time' indicator. A 'Record Session' window is open, showing a table of call records. A 'Refresh Interval' is set to 5 seconds. A 'Record Information' window is also open, displaying details for a specific call.

No.	Call ID	Source IP	Rec StartTime	Initiated Time	Established Time	Call Duration	Calling Num	Calling User	Calling SI...	Calling Trans...	C
1	46551	172.17.213.100	2007-06-13 15:20:42	2007-06-13 15:2...	2007-06-13 15:22:38	00:00:11	5009		2/1/0	G7231_63->...	2
2	46552	172.17.213.100	2007-06-13 15:20:42	2007-06-13 15:2...	2007-06-13 15:22:38	00:00:11	5007		1/3/0	G7231_63->...	2
3	46553	172.17.213.100	2007-06-13 15:20:43	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:10	5013		3/1/0	G7231_63->...	2
4	46558	172.17.213.100	2007-06-13 15:20:44	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	3015		7/3/0	G7231_63->...	5
5	46554	172.17.213.100	2007-06-13 15:20:44	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5011		2/3/0	G7231_63->...	2
6	46555	172.17.213.100	2007-06-13 15:20:44	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		3/2/0	G7231_63->...	2
7	46556	172.17.213.100	2007-06-13 15:20:44	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		3/3/0	G7231_63->...	2
8	46559	172.17.213.100	2007-06-13 15:20:45	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		7/2/0	G7231_63->...	5
9	46557	172.17.213.100	2007-06-13 15:20:45	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		0/3/0	G7231_63->...	2
10	46560	172.17.213.100	2007-06-13 15:20:46	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		7/0/0	G7231_63->...	5
11	46561	172.17.213.100	2007-06-13 15:20:47	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		1/0/0	G7231_63->...	2
12	46546	172.17.213.100	2007-06-13 15:20:34	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/3/0	G7231_63->...	5
13	46563	172.17.213.100	2007-06-13 15:20:47	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		6/0/0	G7231_63->...	5
14	46562	172.17.213.100	2007-06-13 15:20:50	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		1/2/0	G7231_63->...	2
15	46545	172.17.213.100	2007-06-13 15:20:36	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		3/0/0	G7231_63->...	2
16	46564	172.17.213.100	2007-06-13 15:20:50	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/0/0	G7231_63->...	5
17	46565	172.17.213.100	2007-06-13 15:20:51	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		5/3/0	G7231_63->...	5
18	46547	172.17.213.100	2007-06-13 15:20:41	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		0/2/0	G7231_63->...	2
19	46566	172.17.213.100	2007-06-13 15:20:52	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		6/2/0	G7231_63->...	5
20	46548	172.17.213.100	2007-06-13 15:20:41	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		1/1/0	G7231_63->...	2
21	46567	172.17.213.100	2007-06-13 15:20:52	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/2/0	G7231_63->...	5
22	46549	172.17.213.100	2007-06-13 15:20:41	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		2/0/0	G7231_63->...	2
23	46568	172.17.213.100	2007-06-13 15:20:52	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		5/2/0	G7231_63->...	5
24	46569	172.17.213.100	2007-06-13 15:20:52	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		6/1/0	G7231_63->...	5
25	46570	172.17.213.100	2007-06-13 15:20:52	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		5/0/0	G7231_63->...	5
26	46550	172.17.213.100	2007-06-13 15:20:42	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		0/0/0	G7231_63->...	2
27	46573	172.17.213.100	2007-06-13 15:20:53	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/1/0	G7231_63->...	5
28	6208	172.16.9.60	2007-06-13 15:20:30	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/2/0	G729A_8->G...	2
29	6209	172.16.9.60	2007-06-13 15:20:30	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		5/0/0	G729A_8->G...	2
30	6223	172.16.9.60	2007-06-13 15:20:45	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		1/3/0	G729A_8->G...	6
31	6213	172.16.9.60	2007-06-13 15:20:32	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/0/0	G729A_8->G...	2
32	6214	172.16.9.60	2007-06-13 15:20:32	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/3/0	G729A_8->G...	2
33	6215	172.16.9.60	2007-06-13 15:20:32	2007-06-13 15:2...	2007-06-13 15:22:39	00:00:09	5014		4/1/0	G729A_8->G...	2
34	6224	172.16.9.60	2007-06-13 15:20:49	2007-06-13 15:2...	2007-06-13 15:22:42	00:00:04	1006		1/2/0	G729A_8->G...	6
35	5882	172.16.9.60	2007-06-13 15:08:56	2007-06-13 15:1...	2007-06-13 15:10:48	00:11:57	1015		3/3/0	G729A_8->G...	6
36	6220	172.16.9.60	2007-06-13 15:20:41	2007-06-13 15:2...	2007-06-13 15:22:35	00:00:12	1004		1/0/0	G729A_8->G...	6
37	6221	172.16.9.60	2007-06-13 15:20:42	2007-06-13 15:2...	2007-06-13 15:22:35	00:00:11	1005		1/1/0	G729A_8->G...	6

The 'Record Information' window shows the following details:

- Record Information:** Start Time: 2007-06-15 14:16:46
- Call Information:** Initiated Time: 2007-06-15 14:18:56, Established Time: 2007-06-15 14:18:57
- Calling Party:** DialNumber: 3006, User: G711U, Directory: /mnt/hda1/callrecfiles
- Called Party:** DialNumber: 5022, User: G711U, Directory: /mnt/hda1/callrecfiles



# Event Management (Configuration)

Smart DVoiceR Manager

File Advanced Configuration Help

Smart DVoiceR Manager AddPac Technology

Smart DVoiceR Manager

Event Configuration

Event Configuration

Event Source

Host : 172.16.4.22

Listen Port : 514

Server IP address

Event Port Number

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.

Realtime event level Setting

Event Filter | Event Logging Filter

+ Event filter setting for source.

Select / Deselect All

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

Use Emergency Sound

OK Cancel

Event level Configuration

Sound Play On/Off at Server Emergency Event Occurring

Event Source

Host : 172.16.4.22

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 logging level Setting

Event Filter | Event Logging Filter

+ Event filter setting for logging.

Select / Deselect All

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

Use Emergency Sound

OK Cancel

2007-06-14 오후 4:25:35 Ver. 1.0.2720 172.16.4.22:9200 root

# Event Management (Monitoring)

The screenshot displays the Smart DVoiceR Manager interface. The main window shows a list of call records with columns for No., Call ID, Source IP, Rec StartTime, Initiated Time, Established Time, Call Duration, Calling Num, and Calli... The interface includes a menu bar (File, Advanced, Configuration, Help), a toolbar, and a sidebar with navigation options like User Management, Device Management, Recording Management, and Event & Monitoring. A 'Refresh Interval' of 5 seconds is set. Red arrows point to specific features: 'Event Display Window' (sidebar), 'Event level Configuration Window' (top right), 'Event Display Window Clear' (bottom right), and 'Event Receiving Pause' (bottom right).

No.	Call ID	Source IP	Rec StartTime	Initiated Time	Established Time	Call Duration	Calling Num	Calli...
1	690	172.17.213.100	2007-06-14 16:25:24	2007-06-14 16:27:25	2007-06-14 16:27:29	00:00:20	5012	
2	693	172.17.213.100	2007-06-14 16:25:24	2007-06-14 16:27:28	2007-06-14 16:27:29	00:00:20	5005	
3	694	172.17.213.100	2007-06-14 16:25:25	2007-06-14 16:27:29	2007-06-14 16:27:30	00:00:19	5001	
4	695	172.17.213.100	2007-06-14 16:25:26	2007-06-14 16:27:29	2007-06-14 16:27:31	00:00:18	5006	
5	696	172.17.213.100	2007-06-14 16:25:26	2007-06-14 16:27:30	2007-06-14 16:27:31	00:00:18	5007	
6	697	172.17.213.100	2007-06-14 16:25:27	2007-06-14 16:27:31	2007-06-14 16:27:32	00:00:17	5008	
7	698	172.17.213.100	2007-06-14 16:25:28	2007-06-14 16:27:32	2007-06-14 16:27:33	00:00:16	5009	
8	699	172.17.213.100	2007-06-14 16:25:30	2007-06-14 16:27:34	2007-06-14 16:27:35	00:00:14	5011	
9	700	172.17.213.100	2007-06-14 16:25:31	2007-06-14 16:27:34	2007-06-14 16:27:36	00:00:13	5010	
10	701	172.17.213.100	2007-06-14 16:25:32	2007-06-14 16:27:36	2007-06-14 16:27:37	00:00:12	5013	
11	702	172.17.213.100	2007-06-14 16:25:34	2007-06-14 16:27:37	2007-06-14 16:27:38	00:00:10	5014	
12	703	172.17.213.100	2007-06-14 16:25:38	2007-06-14 16:27:42	2007-06-14 16:27:43	00:00:06	5015	
13	704	172.17.213.100	2007-06-14 16:25:39	2007-06-14 16:27:43	2007-06-14 16:27:44	00:00:05	3000	
14	705	172.17.213.100	2007-06-14 16:25:40	2007-06-14 16:27:44	2007-06-14 16:27:45	00:00:04	3001	
15	706	172.17.213.100	2007-06-14 16:25:42	2007-06-14 16:27:45	2007-06-14 16:27:46	00:00:02	3002	
16	684	172.17.213.100	2007-06-14 16:25:17	2007-06-14 16:27:20	2007-06-14 16:27:21	00:00:27	3012	
17	707	172.17.213.100	2007-06-14 16:25:43	2007-06-14 16:27:46	2007-06-14 16:27:47	00:00:01	3003	
18	686	172.17.213.100	2007-06-14 16:25:18	2007-06-14 16:27:21	2007-06-14 16:27:22	00:00:26	3013	
19	708	172.17.213.100	2007-06-14 16:25:44	2007-06-14 16:27:47	2007-06-14 16:27:49	00:00:00	3004	
20	687	172.17.213.100	2007-06-14 16:25:18	2007-06-14 16:27:22	2007-06-14 16:27:23	00:00:26	3014	
21	685	172.17.213.100	2007-06-14 16:25:19	2007-06-14 16:27:23	2007-06-14 16:27:24	00:00:25	5000	
22	689	172.17.213.100	2007-06-14 16:25:20	2007-06-14 16:27:23	2007-06-14 16:27:24	00:00:24	3015	

Event Monitoring window details:

DateTime	Host	Severity	Module	Description
Jun 14 07:25:43	172.16.4.22	Informational	recording	recording stopping ; call_id = 682, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:43	172.16.4.22	Informational	recording	Stop Recording, bind id:2003
Jun 14 07:25:43	172.16.4.22	Informational	recording	new recording starting ; call_id = 707, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:43	172.16.4.22	Informational	recording	Start Recording, bind id:2003
Jun 14 07:25:44	172.16.4.22	Informational	recording	recording stopping ; call_id = 683, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:44	172.16.4.22	Informational	recording	Stop Recording, bind id:2003
Jun 14 07:25:44	172.16.4.22	Informational	recording	new recording starting ; call_id = 708, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:44	172.16.4.22	Informational	recording	Start Recording, bind id:2003
Jun 14 07:25:44	172.16.4.22	Debug	system	get current recording session ;
Jun 14 07:25:44	172.16.4.22	Informational	recording	new recording starting ; call_id = 709, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:44	172.16.4.22	Informational	recording	Start Recording, bind id:2003
Jun 14 07:25:45	172.16.4.22	Informational	recording	recording stopping ; call_id = 684, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:45	172.16.4.22	Informational	recording	Stop Recording, bind id:2003
Jun 14 07:25:45	172.16.4.22	Informational	recording	new recording starting ; call_id = 710, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:45	172.16.4.22	Informational	recording	Start Recording, bind id:2003
Jun 14 07:25:46	172.16.4.22	Informational	recording	recording stopping ; call_id = 686, ip = 172.17.213.100, mac_addr = 0002,a403,cc82
Jun 14 07:25:46	172.16.4.22	Informational	recording	Stop Recording, bind id:2003
Jun 14 07:25:46	172.16.4.22	Debug	system	get current recording session ;

# Event Management

## (System Monitoring)

The screenshot displays the 'System Monitoring' window of the Smart DVoiceR Manager. The interface includes a tree view on the left, a main performance dashboard, and a taskbar at the bottom.

**System Monitoring Performance Metrics:**

Category	Sub-category	Value
CPU	Total(%)	100
	Used(%)	0
Memory	Total	254752 KB
	Available	171860 KB
	Used	82892 KB
	Used(%)	32,54
Transcoding Channel	Max	128
	Used	0
HDD	Total	304273 MB
	Available	138124 MB
	Used	166149 MB
	Used(%)	54,61

**Storage Usage:**

- rootfs (/):** 2.00 GB used of 3.00 GB
- /dev/hda1 (/mnt/hda1):** 139.00 GB used of 300.00 GB

**System Information:**

- Date: 2007-06-14 오후 4:38:08
- Version: Ver. 1,0,2720
- IP: 172.16.4.22:9200
- User: root

# Event Management

## (Event History)

The screenshot displays the 'Smart DVoiceR Manager - [Event History]' window. The interface includes a menu bar (File, Advanced, Configuration, Help), a toolbar, and a navigation tree on the left. The main area is divided into search filters and a table of event history.

**Search Condition Setting:**

- Event Search Time Setting:** Start: 2007-06-14 00:00:00, End: 2007-06-14 23:59:59
- Event category:** Recording: Debug, Play: Debug, System: Debug
- Filter:** Filter Name: Event, Rule: IsExactly

**Event History Table:**

No.	Event Time	Host	Category	Severity	Event
22	2007-06-14 15:14:21	172.16.4.22	recording	Informational	recording stopping : call_id = 0, ip = , mac_addr =
23	2007-06-14 15:14:21	172.16.4.22	recording	Informational	recording stopping : call_id = 0, ip = , mac_addr =
24	2007-06-14 15:15:01	172.16.4.22	recording	Informational	new recording starting : call_id = 9702, ip = 172.16.9...
25	2007-06-14 15:15:32	172.16.4.22	recording	Informational	new recording starting : call_id = 9784, ip = 172.16.9...
26	2007-06-14 15:15:32	172.16.4.22	recording	Informational	new recording starting : call_id = 9788, ip = 172.16.9...
27	2007-06-14 15:15:33	172.16.4.22	recording	Informational	new recording starting : call_id = 9790, ip = 172.16.9...
28	2007-06-14 15:15:35	172.16.4.22	recording	Informational	new recording starting : call_id = 9792, ip = 172.16.9...
29	2007-06-14 15:15:37	172.16.4.22	recording	Informational	new recording starting : call_id = 9794, ip = 172.16.9...
30	2007-06-14 15:15:39	172.16.4.22	recording	Informational	new recording starting : call_id = 9797, ip = 172.16.9...
31	2007-06-14 15:15:40	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
32	2007-06-14 15:15:43	172.16.1.48	system	Debug	get system information requested : cpu = 15%, mem...
33	2007-06-14 15:15:44	172.16.1.48	system	Debug	get system information requested : cpu = 20%, mem...
34	2007-06-14 15:15:45	172.16.1.48	system	Debug	get system information requested : cpu = 20%, mem...
35	2007-06-14 15:15:45	172.16.1.48	system	Debug	get transcoding channel usage :
36	2007-06-14 15:15:46	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
37	2007-06-14 15:15:47	172.16.1.48	system	Debug	get system information requested : cpu = 1%, memor...
38	2007-06-14 15:15:47	172.16.1.48	system	Debug	get transcoding channel usage :
39	2007-06-14 15:15:48	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
40	2007-06-14 15:15:49	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
41	2007-06-14 15:15:50	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
42	2007-06-14 15:15:51	172.16.1.48	system	Debug	get system information requested : cpu = 16%, mem...
43	2007-06-14 15:15:51	172.16.1.48	system	Debug	get transcoding channel usage :
44	2007-06-14 15:15:52	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
45	2007-06-14 15:15:53	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
46	2007-06-14 15:15:54	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
47	2007-06-14 15:15:55	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
48	2007-06-14 15:15:56	172.16.1.48	system	Debug	getChannelUsage : client ip = 172.16.1.48, port = 1824
49	2007-06-14 15:15:57	172.16.1.48	system	Debug	get system information requested : cpu = 16%, mem...
50	2007-06-14 15:15:57	172.16.1.48	system	Debug	get transcoding channel usage :
51	2007-06-14 15:15:58	172.16.4.22	recording	Informational	recording stopping : call_id = 9785, ip = 172.16.9.60, ...
52	2007-06-14 15:15:58	172.16.1.48	system	Debug	get system information requested : cpu = 8%, memor...
53	2007-06-14 15:15:58	172.16.1.48	system	Debug	get transcoding channel usage :

# Recording Board Management

## (Call User Registration)

The screenshot displays the Smart DVoiceR Manager interface. The main window shows a 'Board Users' table with columns for No., User ID, Name, and Phone Number. A context menu is open over the table, with 'Add' highlighted. Three dialog boxes are overlaid on the main window:

- Import Board Users:** A dialog for importing users, showing a list of users and an 'Imported Board Users' section.
- Add Board User:** A dialog for adding a new user, with fields for User ID, User Name, Description, and Group. It also includes a 'Phone Numbers' section with an 'Add' button.
- Context Menu:** A menu with options: Import, Add, Modify, Delete, and Refresh.

Red arrows point from the 'Add' menu item to the 'Add Board User' dialog and from the 'Import' menu item to the 'Import Board Users' dialog. The text 'Call User List Import' is written near the 'Import' menu item, and 'New Call User Registration' is written near the 'Add' menu item.

No.	User ID	Name	Phone Number
1	2002	james lee	2002
2	bmlee	bmlee	6002
3	cykim	cykim	1019
4	dhkim	dhkim	5075
5	hgyang	hgyang	2006
6	jhjeon	jhjeon	6008
7	jhkwon	jhkwon	1002
8	jhlee	jhlee	026
9	jhsong	jhsong	5
10	jschoi	jschoi	5
11	jwwoo	jwwoo	8
12	jkim	jkim	0
13	jypark	jypark	7
14	kkim	kkim	3
15	kscho	kscho	5
16	kswoo	kswoo	2004
17	kuhan	kuhan	1210
18	mhlee	mhlee	2007
19	mjlee	mjlee	1008
20	mkkim	mkkim	1212
21	mwlee	mwlee	1006
22	ohs	ohs	6015
23	phkwon	kwon young phil	6006
24	smkim	smkim	1003
25	syk	soyoung kim	1027
26	wshwang	senior manager	6005
27	yhj	yhj	1016
28	ymchoi	ymchoi(QA assistant)	6007
29	yslee	senior assistant	1015

# Recording Board Management

(Call Group Registration)

Smart DVoiceR Manager

File Advanced Configuration Help

Smart DVoiceR Manager AddPac Technology

Smart DVoiceR Manager Board Users

Group Name: New Service Group

Description:

User:

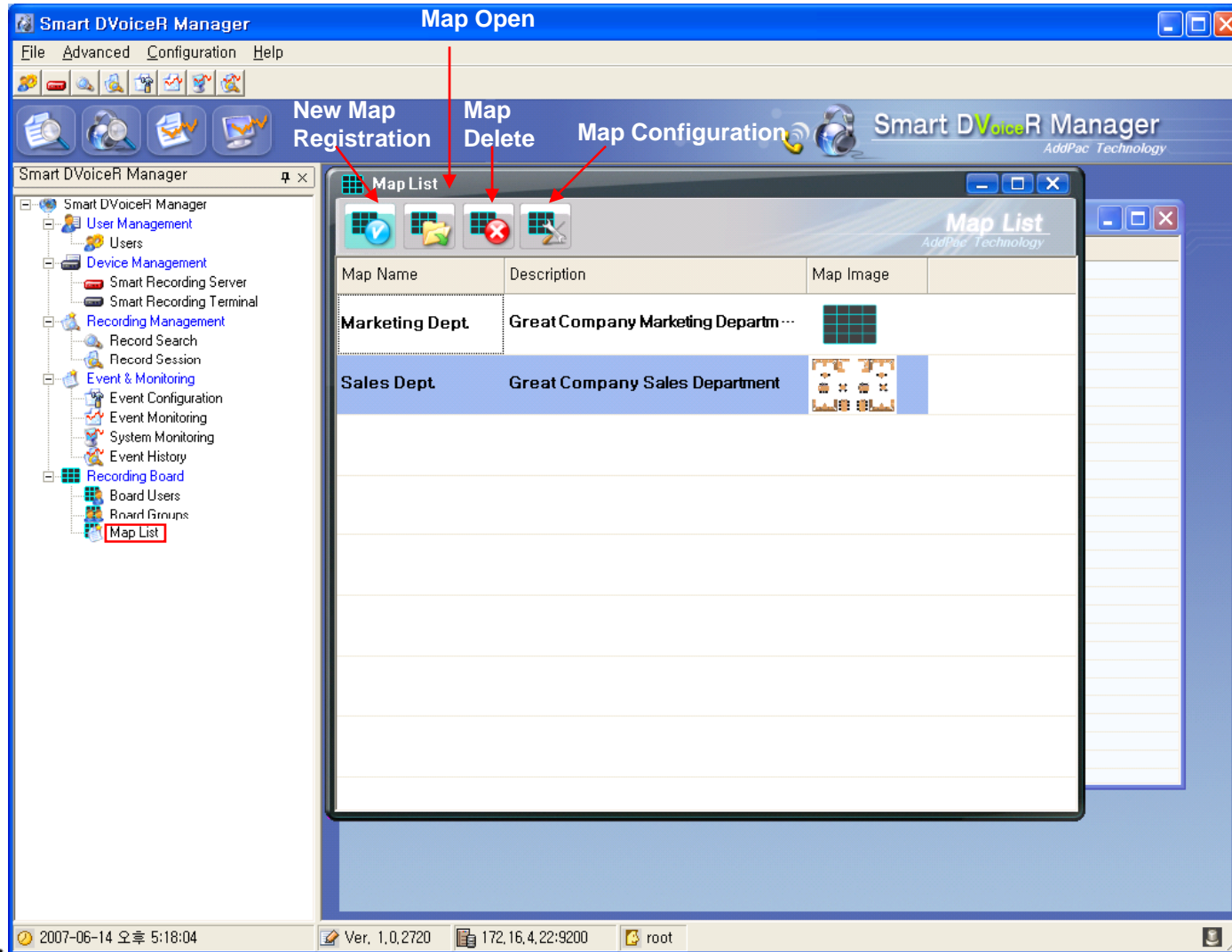
Board Users			Board Users in Group		
User ID	Name	Phone Number	User ID	Name	Phone Number
2002	james lee	2002			
cykim	cykim	1019			
kswoo	kswoo	2004			
kuhan	kuhan	1210			
mkkim	mkkim	1212			
syk	soyoun...	1027			
yhj	yhj	1016			
ymchoi	ymchoi...	6007			
hlyang	hlyang	2006			
jhlee	jhlee	1026			
jhson	jhson	2005			
jwwoo	jwwoo	1013			
iukim	iukim	2000			

OK Cancel

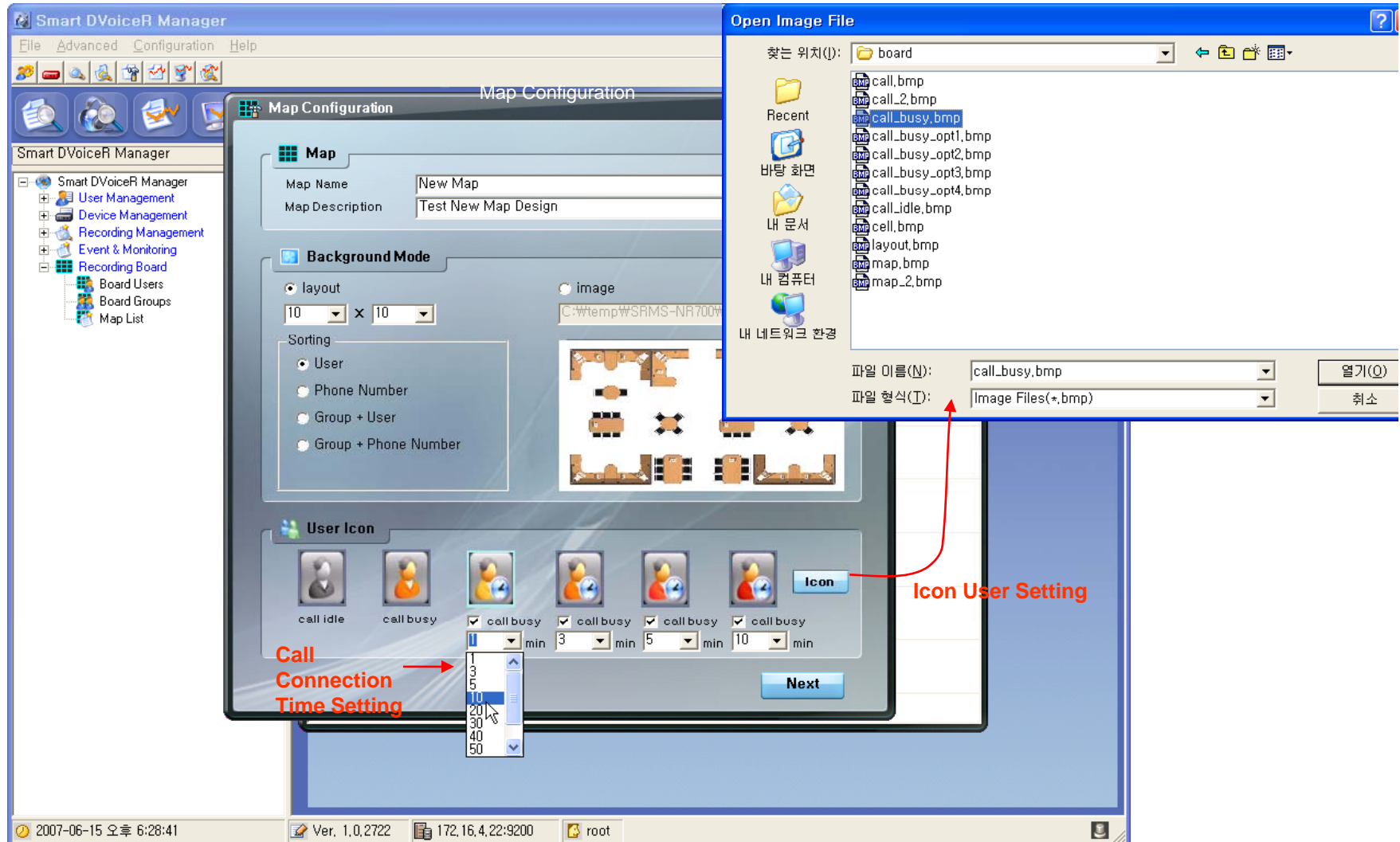
2007-06-15 오후 7:45:07 Ver. 1.0.2722 172.16.4.22:9200 root

# Recording Board Management

(Background Image (MAP) Selection)



# Recording Board Management (Layout Configuration)





# Recording Board Management

(Live Monitoring)

Map Configuration (edit)

Map Information Save

Recording Board (Marketing Dept.)

AddPac Recording Board AddPac Technology

Save Config Auto-Insert Edit Map

kwon young p jhwon senior manage kkim dhkim smkim ohs mwlee mjlee bmlee

senior assistan jhjeon kscho jschoi

Dynamic Call Status Display (Icon Color)

Call Status Display Call Connection Time Icon Display

Map Name Marketing Dept. Session Information Total 14 Idle 6 Busy 8 User Icon Call Idle Call Busy Over 1 minutes Over 3 minutes Over 5 minutes Over 10 minutes

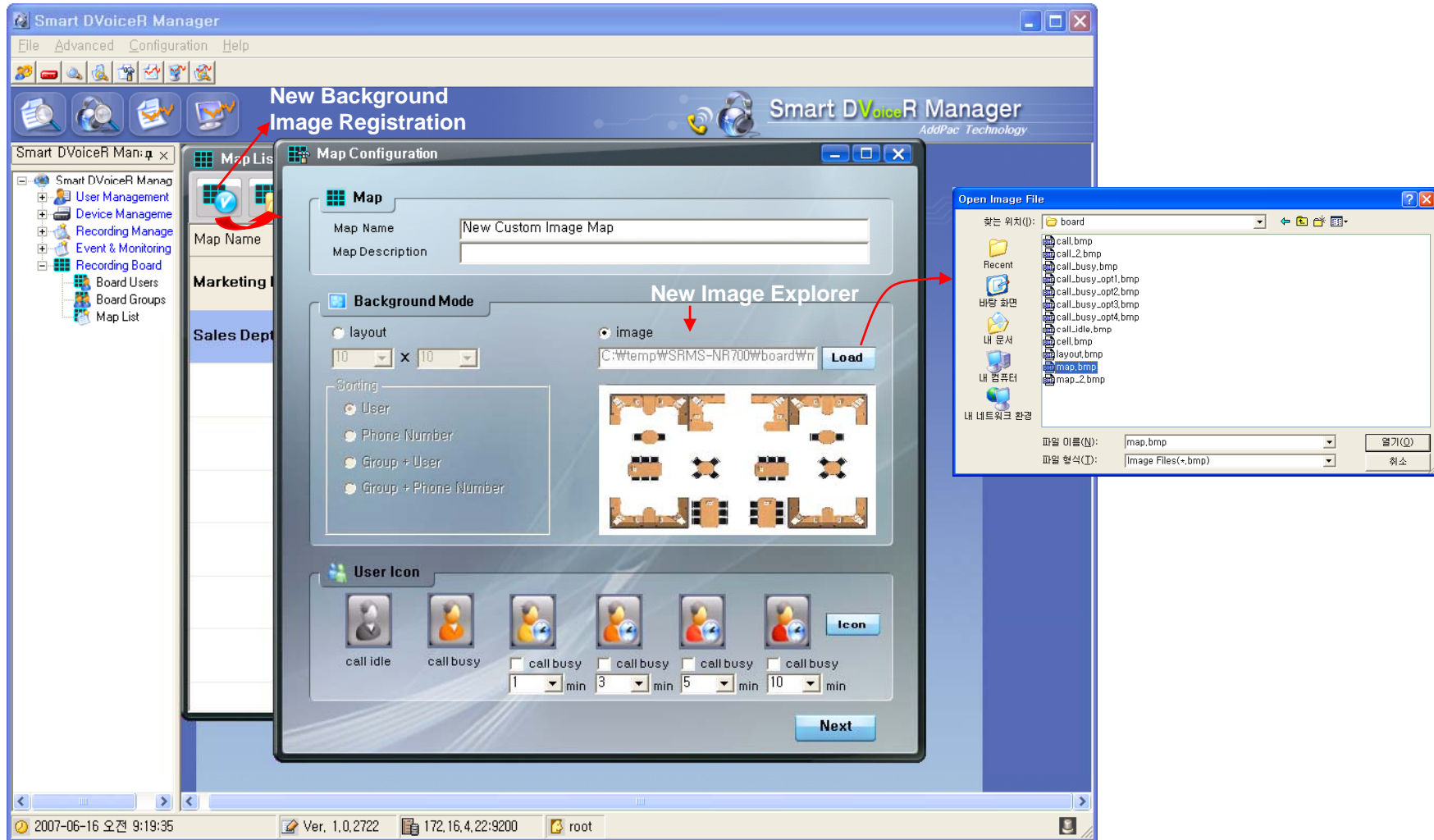
# Recording Board Management


(Call User Insert/Remove in MAP)

The screenshot displays the 'Recording Board (Marketing Dept.)' interface. At the top, there is a menu bar with 'Save', 'Config', 'Auto-Insert', and 'Edit Map' options. A red arrow points from the 'Edit Map' button to the text 'Call User List Display ON/OFF'. Below the menu is a grid of call user icons, including 'kwon young p', 'jhwon', 'senior manage', 'kkim', 'dhkim', 'smkim', 'ohs', 'mwlee', 'mjlee', 'bmlee', 'senior assistan', 'jhjeon', 'kscho', and 'jschoi'. A red dashed arrow labeled 'insert' points from the 'kscho' icon to the 'Board Users' list on the right. Another red dashed arrow labeled 'remove' points from the 'kscho' icon to the 'Board Users' list. The 'Board Users' list on the right is titled 'Board Users' and contains a tree view with categories: BCN (jyjeon, kkim, kwon youn..., mwlee, ohs, senior assi..., senior man..., smkim), NMS (jhwon, jschoi, mjlee), and SE (bmlee, dhkim, kscho). At the bottom, there is a status bar with 'Map Name' (Marketing Dept.), 'Session Information' (Total 14, Idle 4, Busy 10), and 'User Icon' (Call Idle, Call Busy, Over 1 minutes, Over 3 minutes, Over 5 minutes, Over 10 minutes).

# Recording Board Management

(Background Image Loading)





# Software Features for Call Center Service

# Contents

- Call Log
- IVR Scenario Editor
- CRM API
- Call Hunt Group (Enough for Small Call Center)
- ACD

# Call Log (Main)

Smart Multimedia Manager  
www.addpac.com

Start Call History

Call History

Search Conditions: 2019-02-19 2019-02-20 Trunk Call Type N/A Search

Summary

Calling User	Called User	Calling Ip	Called Ip	Calling Number	Called Number	Established Time	Duration (sec)	Cause
3255								
3253								
3254								
3252						02/20	2	
3251						02/20	0	
3250						02/20	2	
3249						02/20	1	
3248						02/20	0	Others
3247						02/20	1	
3246						02/18	30	
3245						02/18	08	
3244						02/18	10	
3243						02/18	0	Others
3242						02/18	0	
3241						02/17	0	
3240						02/17	40	
3239						02/17	3	
3237						02/17	56	
3236						02/17	5	Others
3236						02/17	56	
3235						02/17	20	
3234						02/17	3	
3233						02/15	3	Others
3232						02/15	3	Others
3231						02/15	1	
3230						02/15	3	
3228						02/15	61	
3229						02/15	6	
3227						02/11	2	27
3226						02/15	1102	3002

Page 1 of 5

Displaying 1 - 30 of 130

# Call Log (Search Condition)

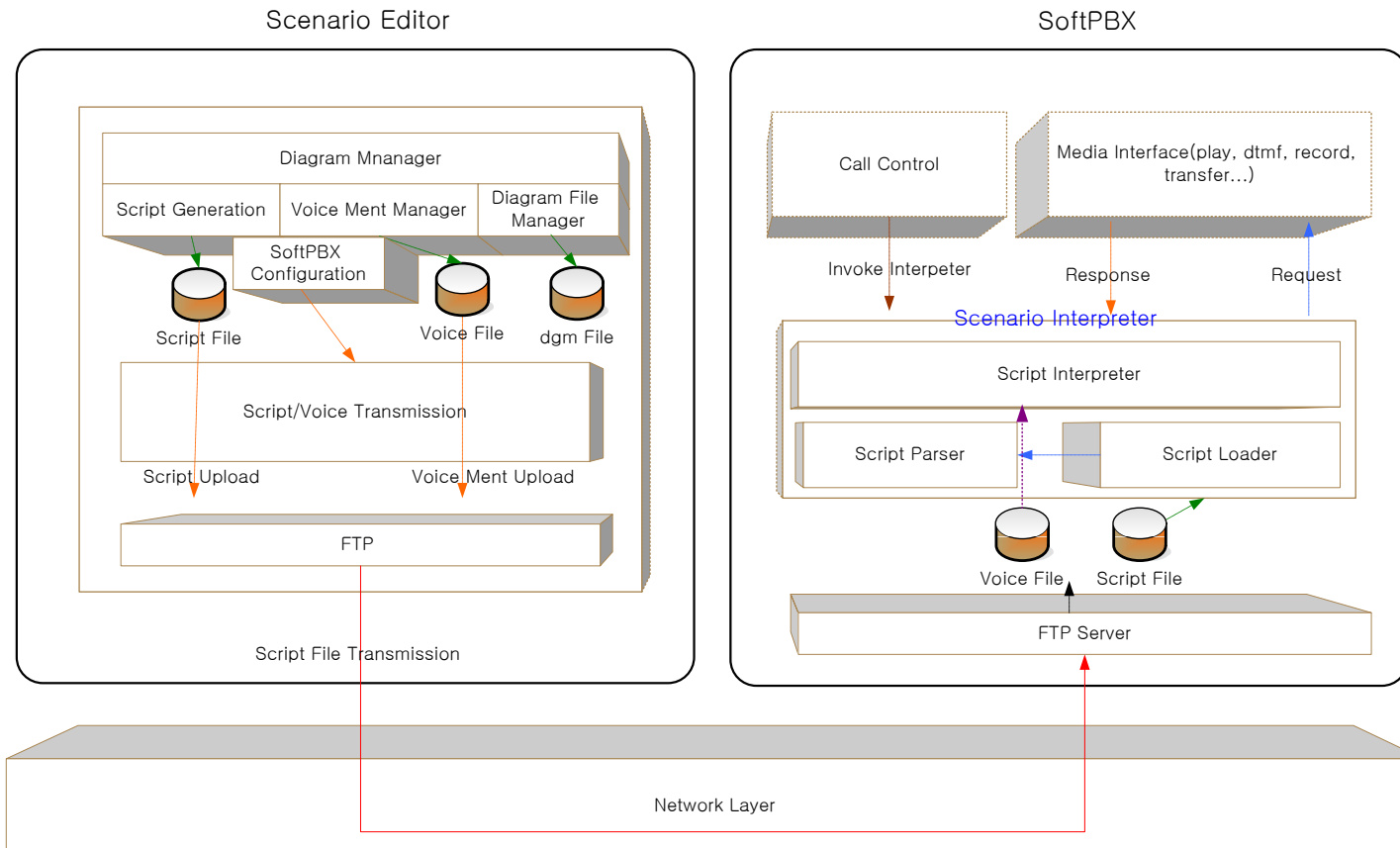
- Search Condition
  - Date
  - Trunk Call Type
    - NA
    - Unspecified
    - Inter-Site Call
    - PSTN Backup
    - Service Provider
  - User Name
  - Phone Number



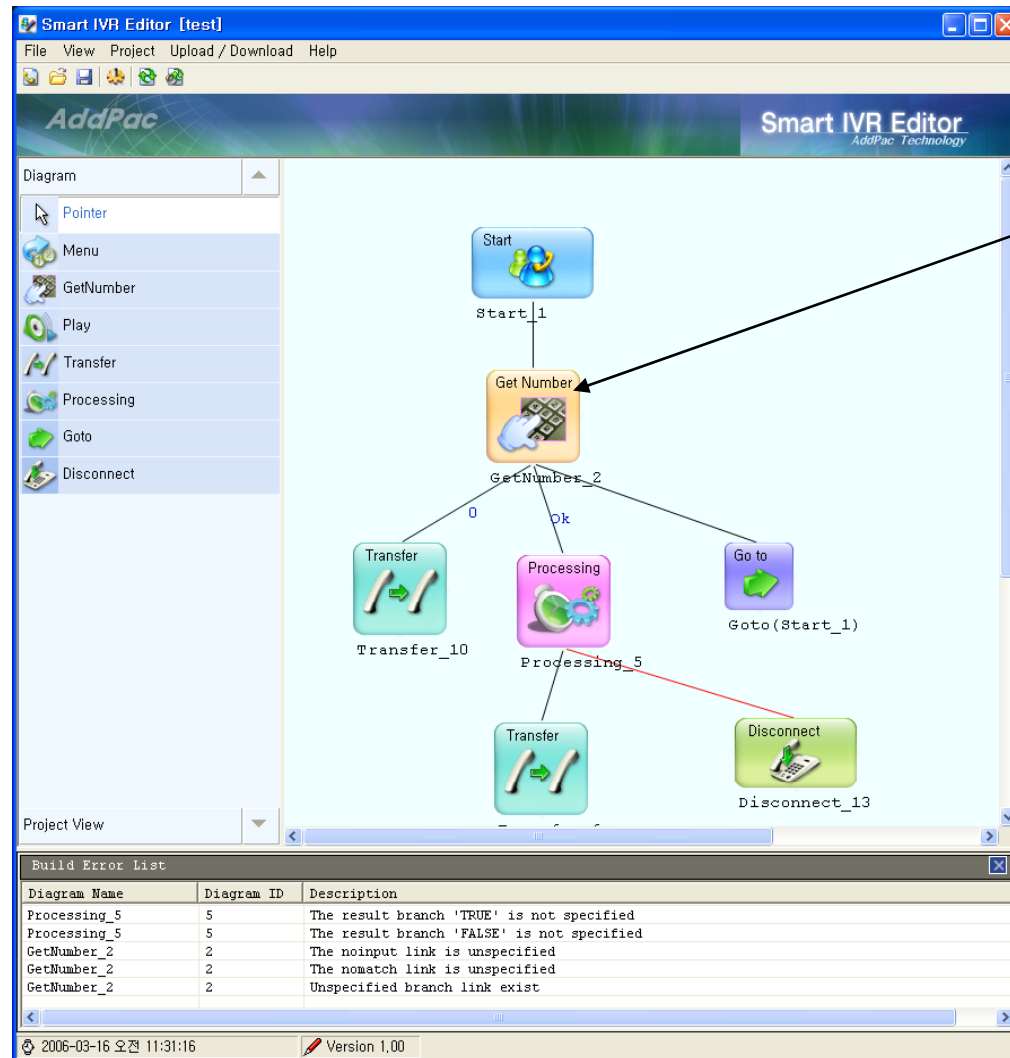
# IVR Scenario Editor



# IVR Scenario Editor Architecture



# IVR Scenario Editor Creation



Component

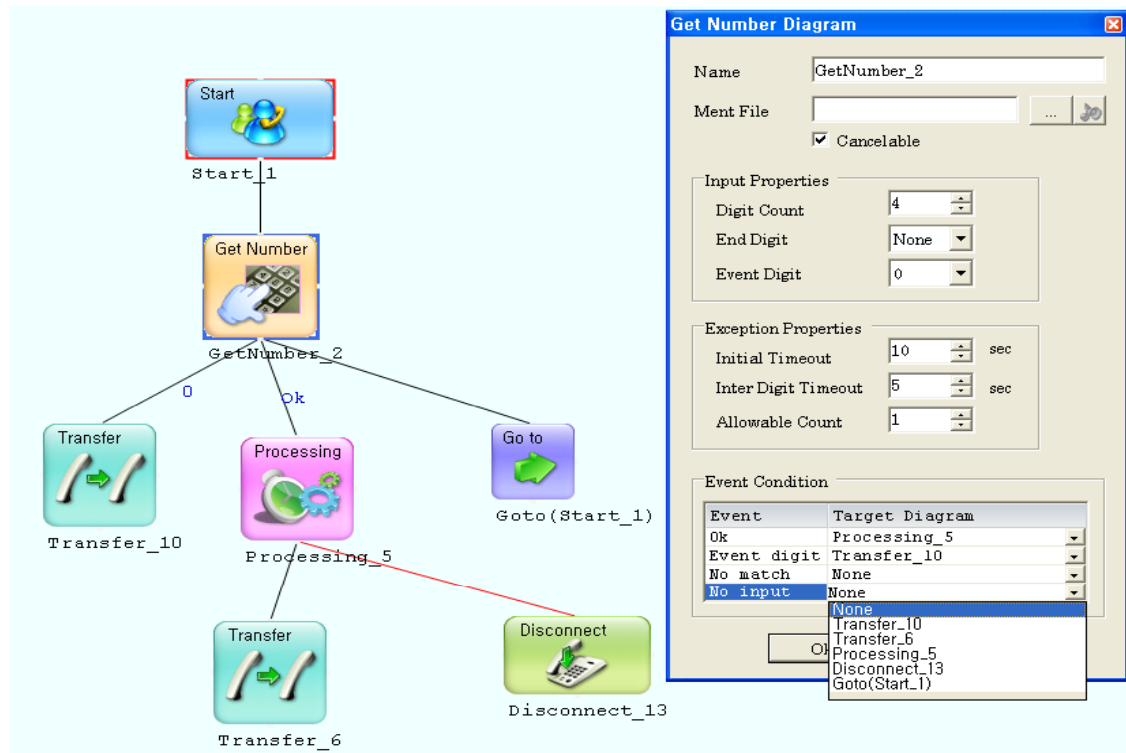
# IVR Scenario Editor Creation

IPNext180 IP keyPhone System

- GUI based IVR Scenario Editor
- Support Pre-defined Component (DTMF Input, Call Transfer, Voice File Play, etc)
- Support Project Template File for Easy Modification and Reference.
- Support Pre-Defined IP-PBX System API and Additional Customization API
- Support IVR Scenario Creation Error Debugging Features

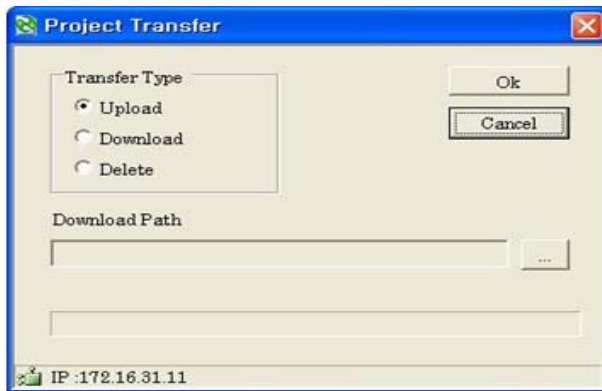
# IVR Editor Component Property

IPNext180 IP keyPhone System

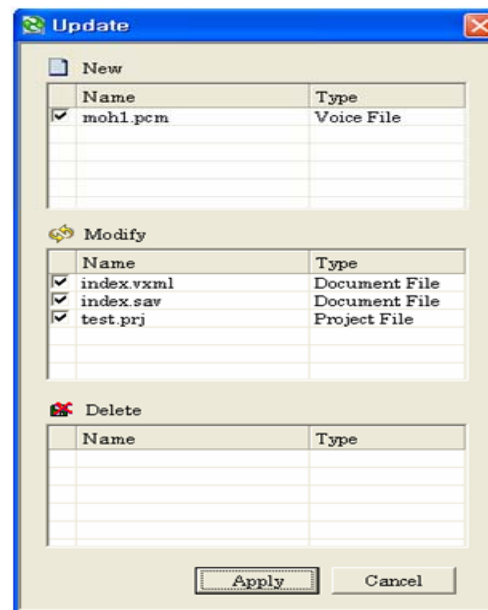


- Support the Property Setting for Component Flow Diagram (Input Event, Exception Properties, Event Condition)
- Provides the different IVR Component Flow depend on Event Condition

# IVR Scenario Management



**Project Transfer**



**Project Update**

- IVR Scenario Script File can be upload or download to (from) IP-PBX.
- IVR Scenario Script File Version Control (Update, Add and Delete)
- Register Service with Smart Multimedia Manager

# Voice Announcement File Management

Contents	Category	File Path	Type
Hello. Please dial the target extension nubmer. if you are not aware of...	Auto attendant		pcm
Thank you, hold on please. You are being connected to the operator	Auto attendant		pcm
Thank you, hold on please. You are being connected	Auto attendant		pcm
You have dialed a wong number. Please dial the correct number	Auto attendant		pcm
You have not dialed the number properly	Auto attendant		pcm
You are being connected	Dial service		pcm
Sorry, please dial the extension number again	Dial service		pcm
Sorry, the extension nubmer you have dialed does not exist	Dial service		pcm
The limitation on the number of times that an extension number is di...	Dial service		pcm
Parking to	Dial service		pcm
Please press the password	Conference		pcm
The limitation on the number of times that an extension number is di...	Conference		pcm
You are being connected	Conference		pcm
You have not dialed the nubmer properly	Conference		pcm
The password is invalid	Conference		pcm

Ok Cancel

Voice File Upload

- Voice Announcement File Upload and Download for Backup



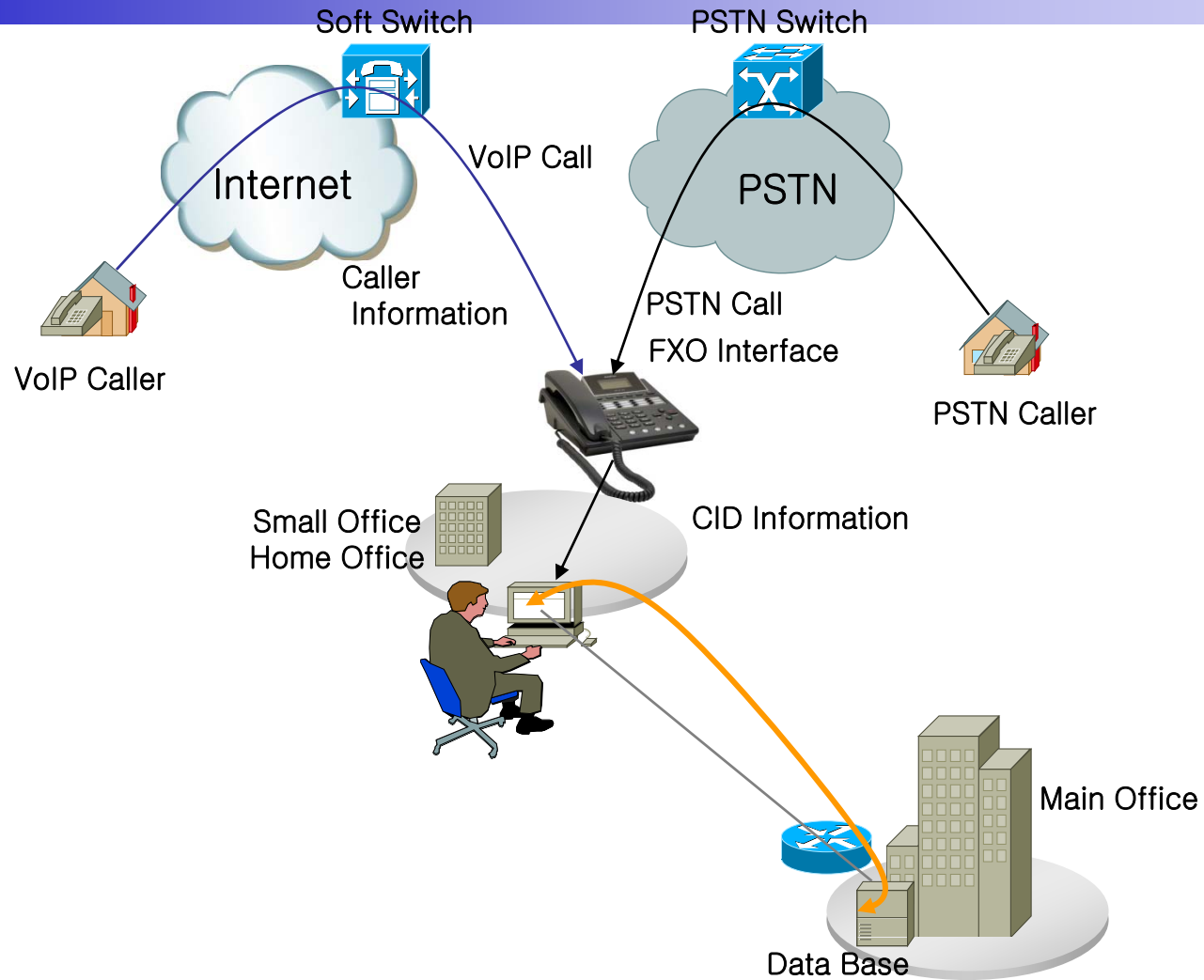
# CRM API

# CTI using CID

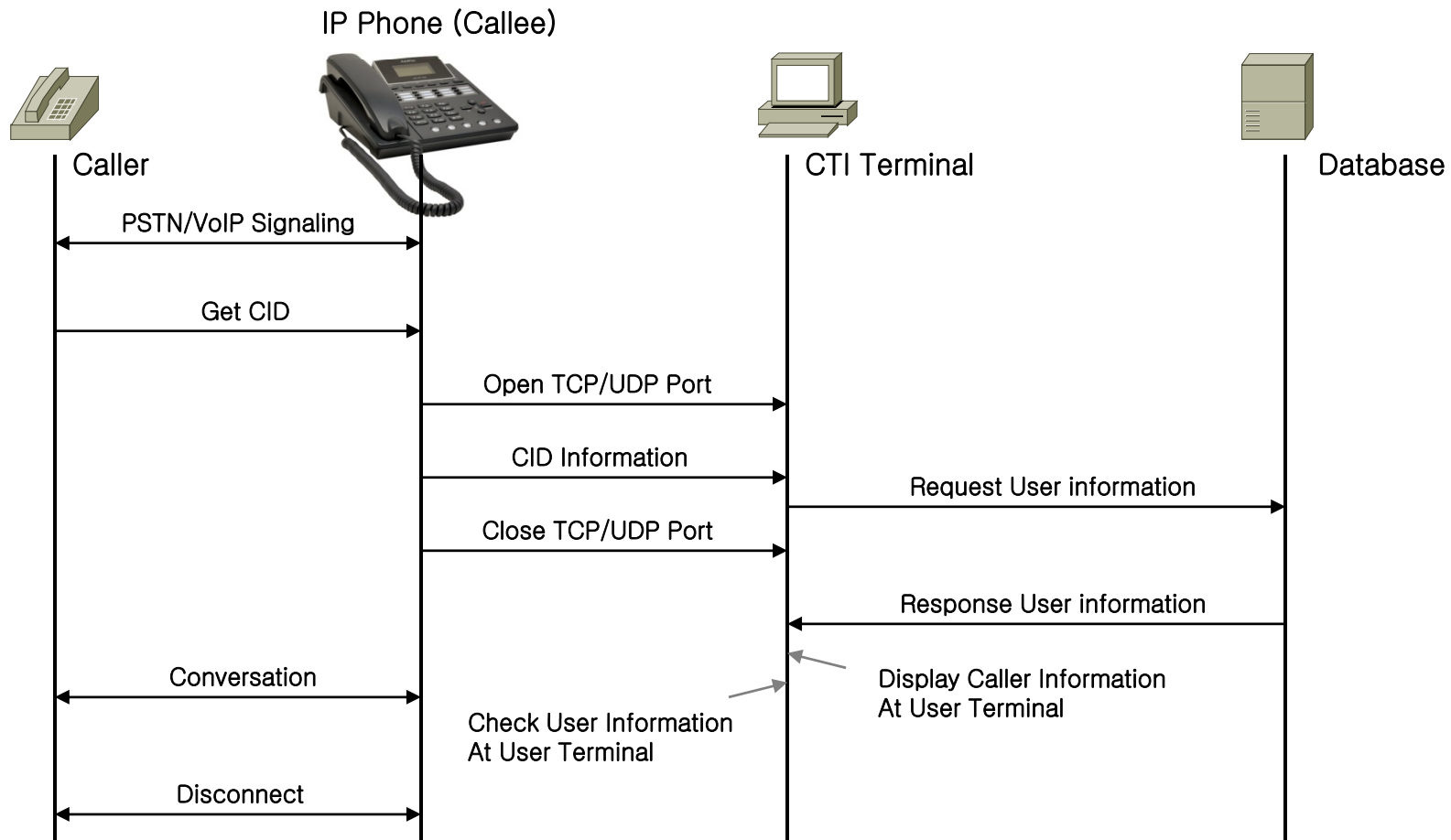
- Simple CTI (Computer and Telephony Integration) Application
- AddPac IP-Phone or VoIP Gateway send CID information to CTI application via TCP/UDP socket
- CTI application get caller information using HTTP or custom specific protocol



# Basic Network Diagram



# Message Flow





# ACD (Automatic Call Distribution) and Call Hunt Group

# ACD (Automatic Call Distribution) on Attendant Queue

- The Attendant Queue is used for attendants of an organization or a call center
- When a call is inbound to the Attendant Queue, the call will be queued and distributed to one of queue member
- ACD policies
  - Longest Idle Time: Call will be distributed to longest idle queue member
  - Preference: Call will be distributed by preference order of queue member
  - Sequential: Call will be distributed to next queue member sequentially

# Add an Attendant Queue Web UI



## User Extension

A user extension is an IP Phone (SIP / SSCP phone) or a soft phone for end user. (The SSCP is enhanced SIP with XML based feature control protocol.)



## Batch Job for User Extensions

Gives you simple and automated way to add, modify or delete one or more extensions through CSV ( Comma Separated Values) file. Each CSV file can be created with your favorite text editor or Microsoft Excel.



## Hunt Group

A hunt group has members of user extensions. Within a hunt group, an available member (user extension) can receive a call to the hunt group extension. A hunt group has one of simultaneous, sequential or random call hunting mode.



## Pickup Group

A pickup group has members of user extensions who can pick up a ringing call within the group. The pickup group extension number is used for picking up a call by other group member.



## Park Pool

A park pool is a set of extensions for parking calls. When a user parked an active call, an extension in this pool will be assigned. Other user can pick up the parked call using the parked extension number.



## Conference Room

A conference room extension is used for making a conference room. The conference room can be open by WSMM or User Portal web page or by call to conference room number by privileged user (chair or operator) or by schedule. In case of dial-out participants, they receive call when conference is opening. In case of dial-in participants, they have to make a call to conference extension to join to opened conference.



## IVR Extension

An IVR (Interactive Voice Response) extension has a role of auto attendant for incoming calls from trunks. If incoming calls from trunk are routed to an IVR extension by incoming call rule, the interactive scenario will be proceed to transfer the call to a proper user extension.



## Push-to-Talk Group

A PTT (Push to Talk) group has members of user extensions who will receive broadcasting announcement with auto answering and also can be a floor (speaker role) by pushing the talk button. This is half-duplex two-way broadcasting.



## Paging Group

A paging group has members of user extensions who will receive broadcasting announcement with auto answering by speaker phone. This is half-duplex one-way broadcasting.



## Attendant Queue

The Attendant Queue is used for attendants of organization or call center. When a call is inbound from trunk or extensions to this queue number, the call will be queued and picked up or distributed to one of queue member and handled by them. Currently, the queue member needs **Smart Attendant Console** software running on PC.

# Attendant Queue Web UI

Status Add an Extension Attendant Queue

### Add an Attendant Queue

Add Cancel Advanced Options

**Attendant Queue**

Extension \*  (2~12 digits) [Check Extension](#)

Name \*

**Attendant Members**

Extensions	
Extension	<input type="text"/>
Name	Extension

Allowed Attendant Members	
Name	Extension

**Description**

The Attendant Queue is used for attendants of organization or call center. When a call is inbound from trunk or extensions to this queue number, the call will be queued and picked up or distributed to one of queue member and handled by them. Currently, the queue member needs **Smart Attendant Console** software running on PC.

**Related Links**

- User Extension
- Address Pool
- Partitions

# Attendant Queue Web UI

Advanced Options		
General Settings	Partition	internal
	Address Pool	default
Queue Policy	Queue Size	1024
	Queue Filled Mode	Announcement
	Redirection Target Number	
Hold Time Policy	Max Hold Time	100
	Hold Time Expired Mode	Announcement
	Redirection Target Number	
Call Distribution	Enable Call Distribution	<input type="checkbox"/>
	Automatic Call Distribution	Longest Idle Time

# Call Hunt Group

- A hunt group has members of user extensions. Within a hunt group, an available member can receive a call
- Call Hunting Mode
  - Preference
  - Simultaneous
  - Random
- Call Hunting by Chained Hunting Group



# Hunt Group Web UI

### Add a Hunt Group

Hunt Group	Extension *	<input type="text"/> (2~12 digits)	<input type="button" value="Check Extension"/>			
	Name *	<input type="text"/>				
	Hunting Mode	Sequential	<input type="button" value="v"/>			
	No Answer Timeout	10	sec			
Group Members	<b>Extensions</b>		<b>Hunt Group Members</b>			
	<table><thead><tr><th>Name</th><th>Extension</th></tr></thead><tbody></tbody></table>	Name	Extension	<table><thead><tr><th>Name</th><th>Extension</th></tr></thead><tbody></tbody></table>	Name	Extension
Name	Extension					
Name	Extension					
<b>Advanced Options</b>						
General Settings	Partition	internal	<input type="button" value="edit"/>			
	Address Pool	default	<input type="button" value="edit"/>			
	Hunt Group Chain	N/A	<input type="button" value="v"/>			
	Apply Call Forwarding Setting of Members	<input type="checkbox"/>				

**Description**

A hunt group has members of user extensions. Within a hunt group, an available member (user extension) can receive a call to the hunt group extension. A hunt group has one of simultaneous, sequential or random call hunting mode.

**Related Links**

- User Extension
- Partitions
- Address Pool

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# Difference between Attendant Queue and Hunt Group

- The Attendant Queue is similar to the Hunt Group
- The Attendant Queue accepts an incoming call even if all attendant members are busy. The queued call will be distributed to a member when the member is available
- The Hunt Group rejects an incoming call when all members in the group are busy



# Thank you!

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