

AP-HIC200™ HD IP Camera

High-performance Network DVR Solution



Preliminary Product Overview

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

AddPac

AddPac Technology

2011, Sales and Marketing

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Product Overview

AP-HIC200 HD IP Camera

- High-End Programmable DSP Hardware Architecture
- High-Performance HD IP Camera Features
- High Quality H.264 High Profile Video Encoder Support
- Speed PAN/TILT Camera Service Features
- Optical 18 x Zoom Camera
- Up to 1280 x 720 Resolution
- RTSP Streaming Service Protocol Support
- Powerful Management and User Friendly Features
- Fault Tolerant and Scalability Architecture
- Firmware Upgradeable Architecture
- Network Interface
 - One(1) 10/100M Fast Ethernet Interface
- MIC In Interface for Audio Recording
- Audio Out Interface for Broadcasting, Announcement
- CVBS Interface for External Video Monitoring

Product Highlights

AP-HIC200 HD IP Camera

Next Generation HD IP Camera

Embedded System for
Stability

High-End Programmable DSP
Hardware Architecture

Up to HD 720P(1280 x 720)
Video Resolution

High Quality H.264 Video
Encoder Features

Firmware Upgradeable
Architecture

Speed PAN/TILT Dome Camera
Service Features

APOS™ Technology
Multimedia Network Protocol

Optical 18 x Zoom Video Camera

MIC In, Audio Out Interface for
Audio Recording ,Broadcasting Service

One(1) 10/100Mbps
Fast Ethernet Interface,
IO Interface (2 Alarm, 1 Relay)

RTSP Streaming
Protocol Support for NVR Service

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www.addpac.com

Hardware Specification

AP-HIC200 HD IP Camera

High-End
RISC+
VP

- RISC + Video Processor Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100Mbps Fast Ethernet
 - One(1)-Port RS232C Port for CLI, Debug
 - Audio Interface
 - One(1) Audio 3.5mm Stereo Input Channel
 - Two(2) Audio RCA Output Channel (Left, Right)
 - Two-Way
 - CVBS Video Out Interface
 - Camera Features
 - 18x Optical Zoom, Up to 720P(1280x720) Resolution
 - 1/3Inch CCD Camera Sensor
 - 1.3 Mega Pixel
 - I/O Interface
 - 2 Alarm Input, 1 Relay
 - Speed PAN/TILT Features
 - PAN : 360 Degree Endless
 - TILT : 90+ Degree



Hardware Specification

AP-HIC200 HD IP Camera



Front Side

Hardware Specification

AP-HIC200 HD IP Camera

Back Side



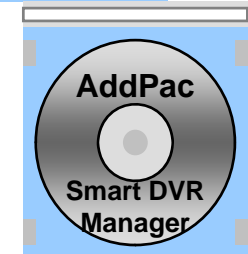
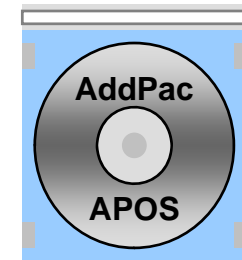
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RS232C Interface
www.addpac.com

Software Service

AP-HIC200 HD IP Camera

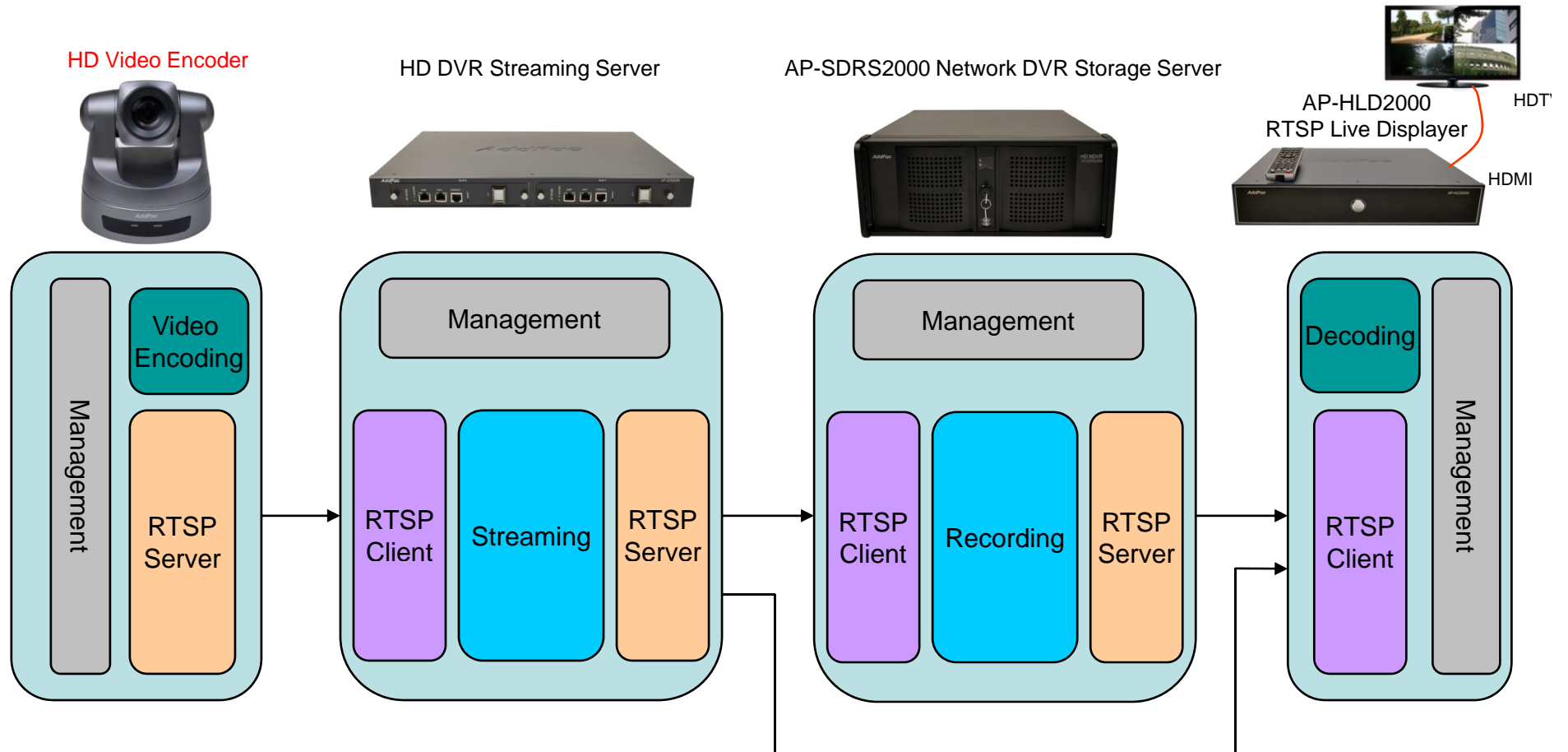
- Built-in AddPac APOS Internetworking Software
 - Scalability, Functionality, and Stability Features
 - Advanced Standalone DVR Recording & Streaming Features
 - QoS Control Features
- Firmware Upgradeable Architecture
- Industry Standard Network Protocol Features
- Highly User Friendly Management Features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



NVR Storage Server Protocol Block Diagram

AP-HIC200 HD IP Camera

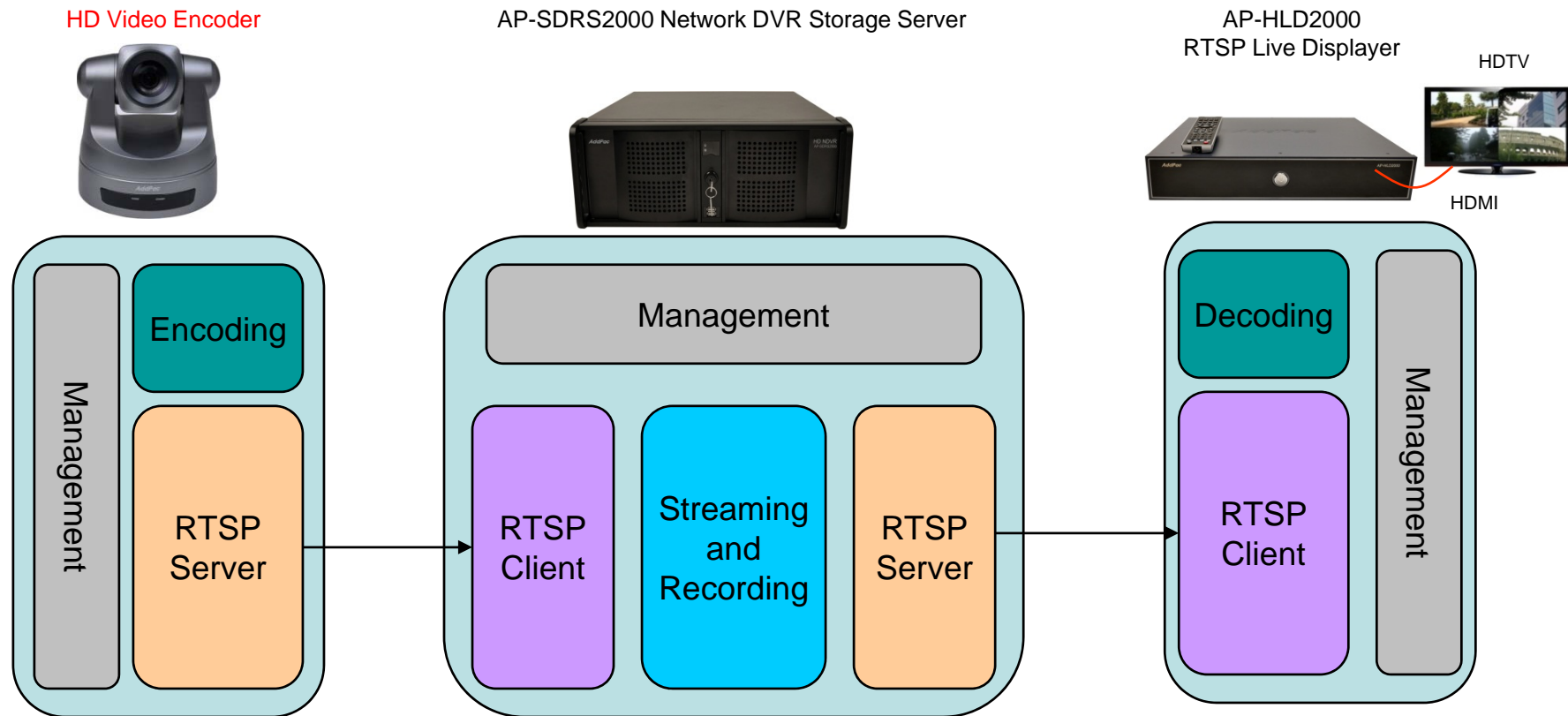
Medium & Large Scale Network DVR Solution



NVR Storage Server Protocol Block Diagram

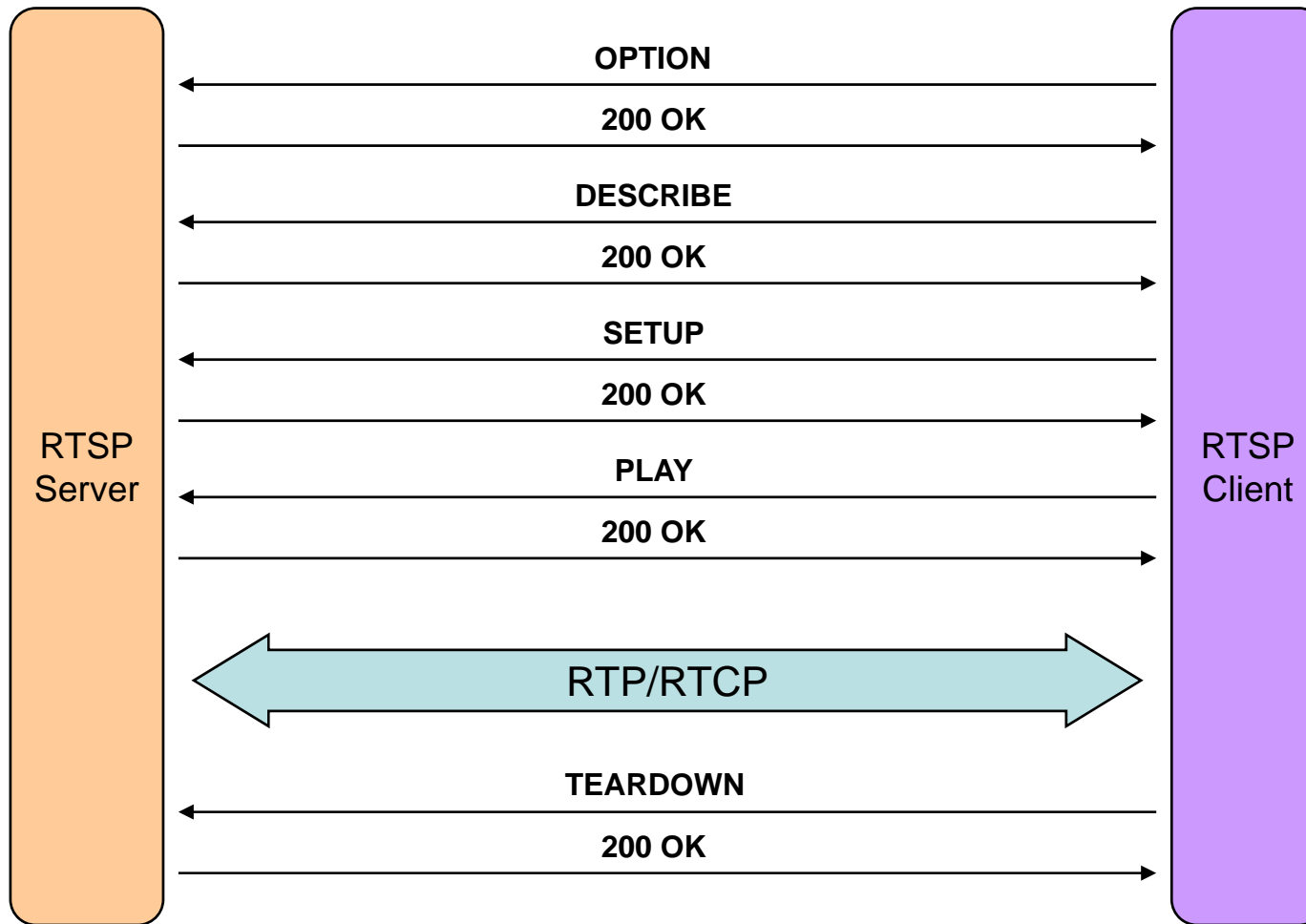
AP-HIC200 HD IP Camera

Small Scale Network DVR Solution (All in One)



Basic RTSP Message Flow

AP-HIC200 HD IP Camera

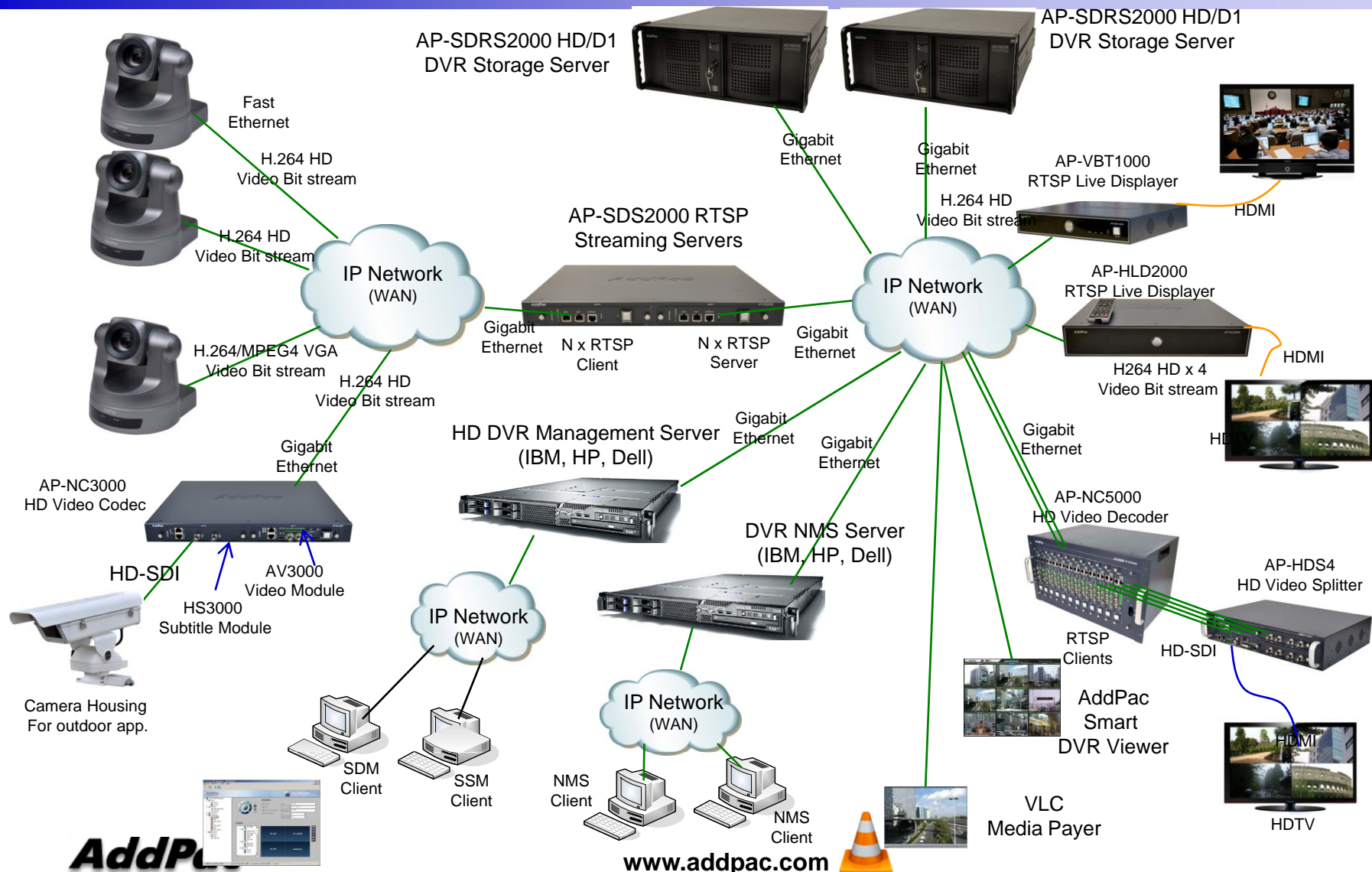




IP Camera Interworking

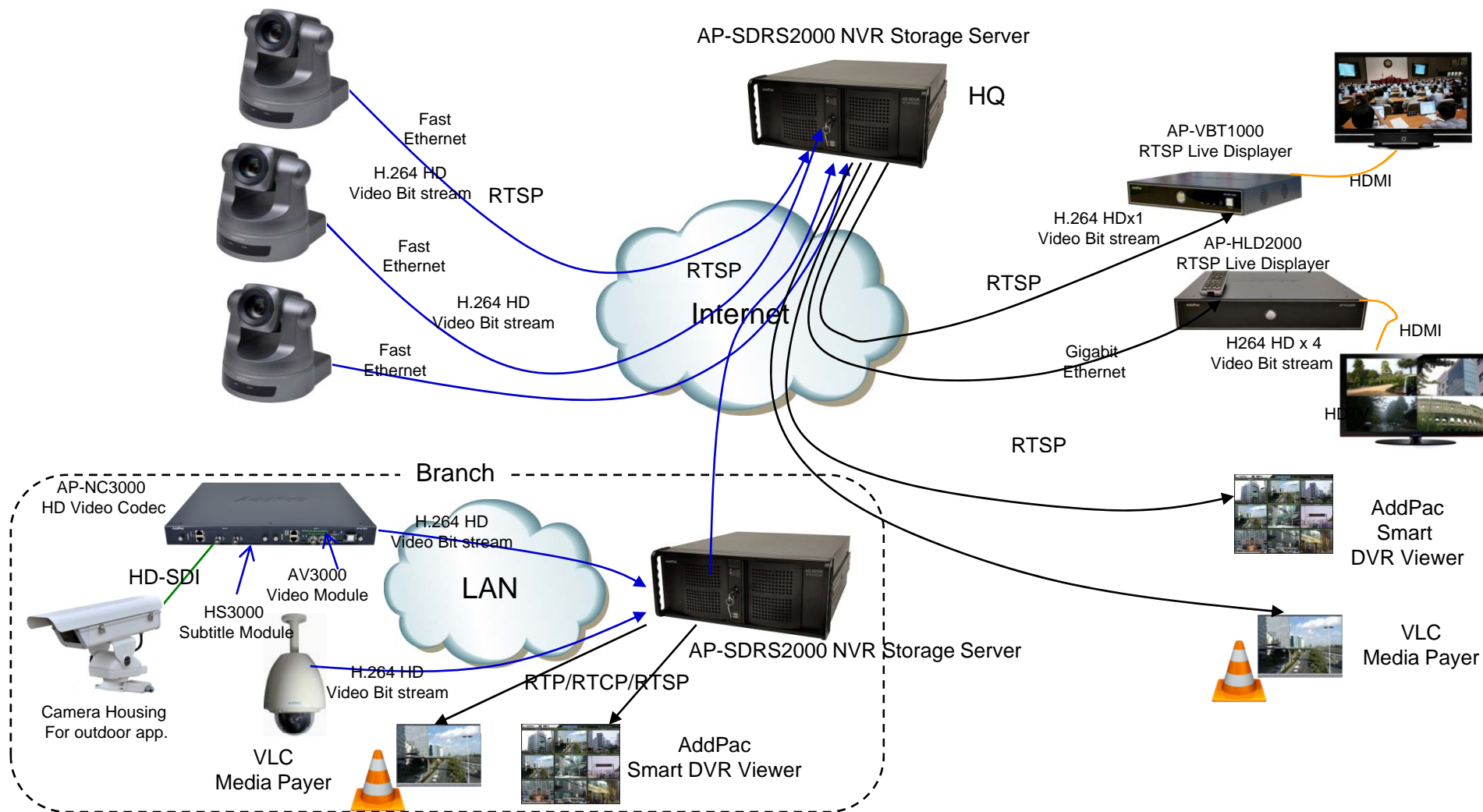
IP Camera Interworking Diagram (Large Scale)

AP-HIC200 HD IP Camera



IP Camera Interworking Diagram(Small Scale)

AP-HIC200 HD IP Camera





HD NVR Storage Solution Component Features



AP-SDRS2000 HD NVR Storage Server

Product Overview

AP-SDRS2000 HD NVR Storage Server

- High-Performance HD/D1 Network DVR Features
- Linux Operating System (Option : Window Version)
- H.264 Video Codec BP/MP/HP
- Full HD, HD, D1 Video Resolution Support
- HD Video Recording and Streaming Service
- Smart DVR Viewer Support (MS-Window S/W)
- Smart DVR Manager Support (MS-Window S/W)
- File Back Manager Support (MS-Window S/W)
- Powerful Management and User Friendly Features
- High-performance Audio and Video Service
- Firmware Upgradeable Architecture
- Up to 4 x 3.5Inch Hard Disk (SATA Type, 2Tera Byte Support)
- One(1) DVD Writer for Video File Backup
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- USB Interface Support (Front Side, Back Side)

Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End
Processor

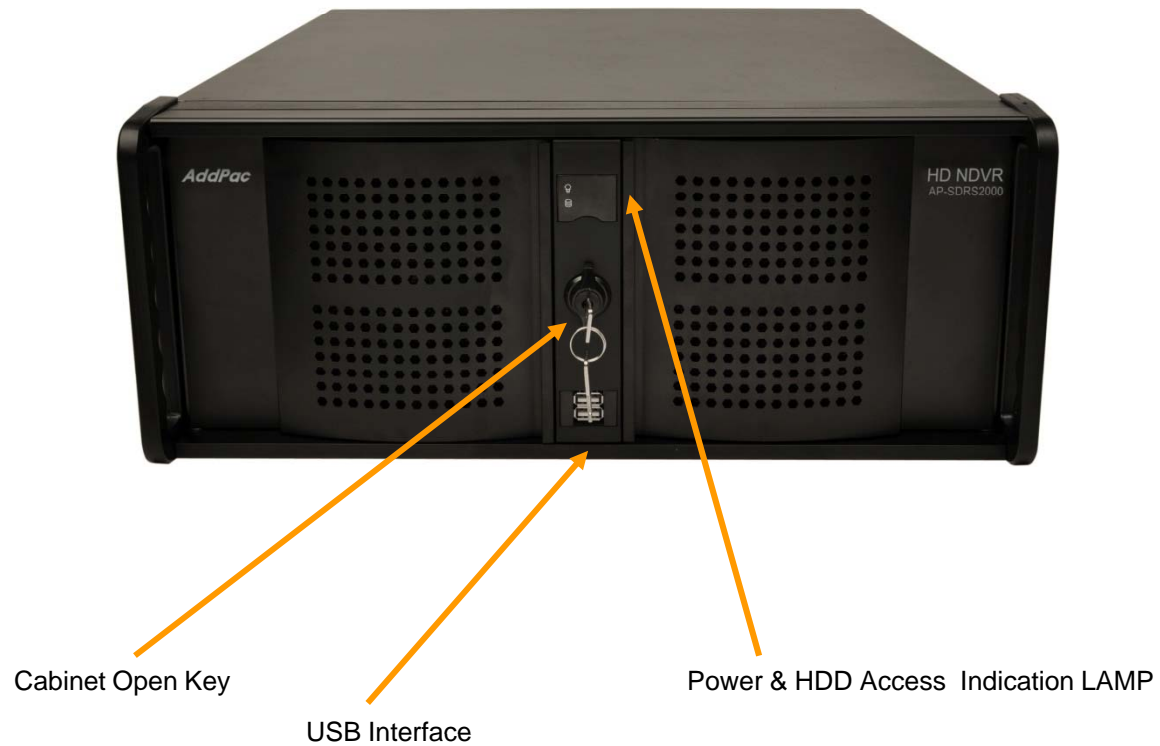
- High Performance Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100/1000Mbps Fast Ethernet
 - Video Output Interface
 - HDMI, DVI,RGB Video Output
 - USB 2.0 Interfaces for Mouse, Keyboard, etc
 - One(1) DVD Writer for Video File Backup
 - Up to Four(4) Hard Disk

Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End
Processor

AP-SDRS2000 Front Side

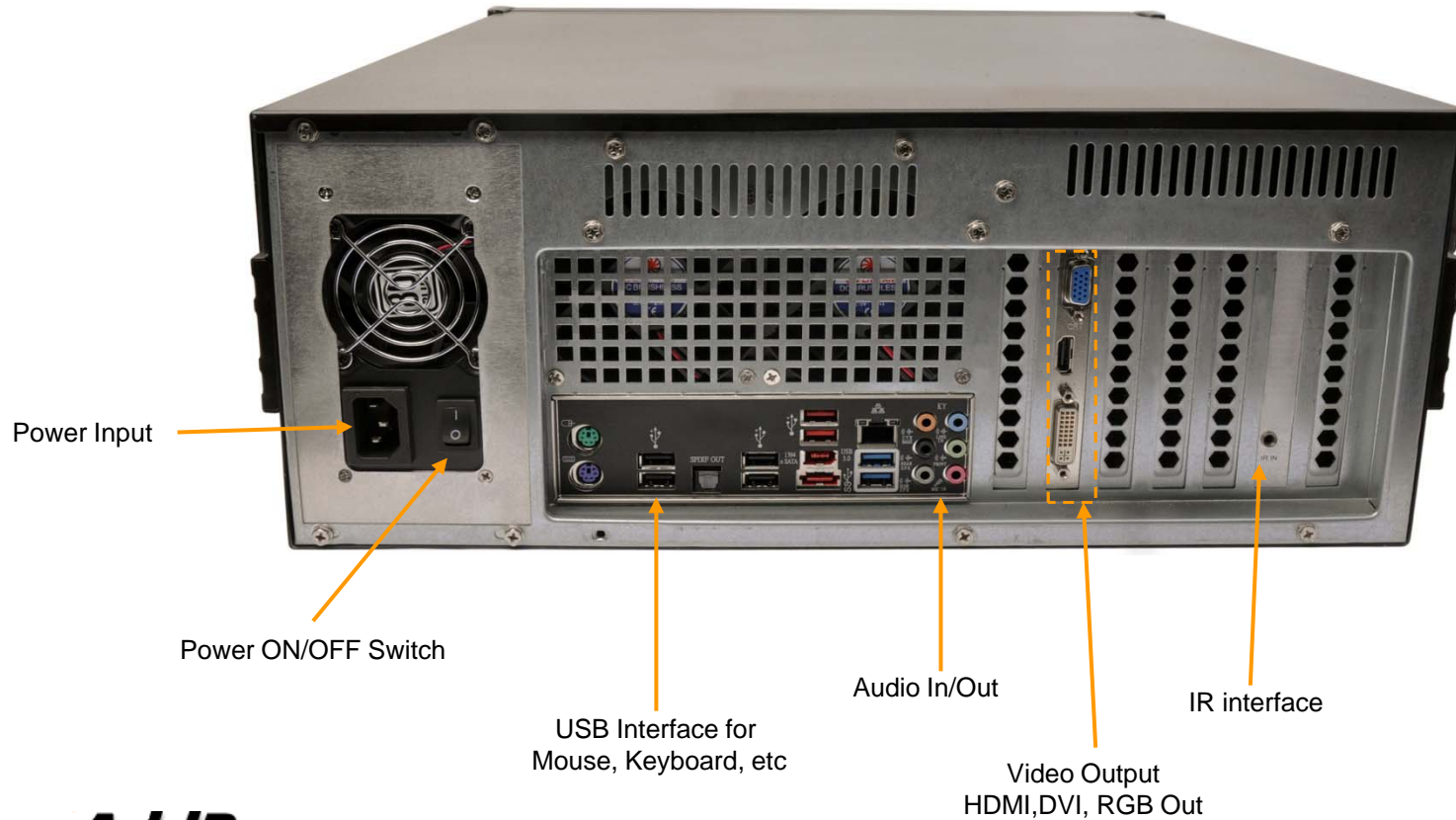


Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End Processor

AP-SDRS2000 Back Side



HD NVR Storage Server Features

- Encoder / Decoder Interface
 - UDP/RTP
 - RTSP (Real Time Streaming Protocol)
- Recording
 - Manual Recording
 - Schedule Based Recording
 - Recording Monitoring
 - Recording Media File Maintenance
- Management
 - Web Based Management
 - Smart DVR Manager (SDM)
 - SNMP (Simple Network Management Protocol)



Smart DVR Manager

Smart DVR Manager Features

- System Management
 - User, Group Management
 - Camera Management
 - Schedule Management
- Recording
 - Recording Start/Stop
 - Recording Media File Searching and Maintenance
 - File Download and Excel Exporting
- Monitoring
 - System Resource Monitoring (CPU, Memory, HDD and etc)
 - Live Session Monitoring
 - Media File Play Session Monitoring

Smart DVR Manager : Main Layout

The screenshot shows the Smart DVR Manager interface. The left sidebar contains a tree view of the system structure. The main area is divided into several sections:

- Camera Searching:** A search bar at the top of the sidebar.
- System User configuration:** A section with tabs for General, Configuration, Schedule, and Holiday. It includes a 'Server Port' field set to 8020.
- Camera List:** A table listing cameras, with '3층창문_HD' and '옥상_HD' visible.
- Session Monitoring:** A section for monitoring sessions, including 'Live', 'Play', 'Record', and 'Sequence' options.
- Login User Monitoring:** A table showing active users and managers.

User	IP
root	172.16.1.14
root	172.16.1.14
root	172.16.34.2

Bottom status bar: 2010-03-12 오후 3:42:59 | 172.16.14.113 : 8020 | Version 2.1.3723 | root | Viewer : 0 Manager : 3

Smart DVR Manager : Recording File Searching

The screenshot displays the Smart DVR Manager web interface. On the left is a navigation tree for IP address 172.16.14.113, with the 'Record' option selected. The main area shows a 'Record History' table with 3 results. A search bar at the top right contains the text 'Recording File Download' and 'Excel Exporting'. A yellow box labeled 'Recording Media Searching Result' points to the table. The status bar at the bottom shows 'Total 3 results found.' and system information including date, IP, version, and user.

CameraNa...	StartTime	EndTime	Duration	URL	Camera Gr...	User ID	Description	Video Size	FPS
옥상_HD	2010-03-1...	2010-03-1...	00:00:00	file/1001v...	/	root	no contents	1280X720	30
옥상_HD	2010-03-1...	2010-03-1...	00:00:10	file/1001v...	/	root	no contents	1280X720	30
옥상_HD	2010-03-1...	2010-03-1...	00:00:39	file/1001v...	/	root	no contents	1280X720	30

Smart DVR Manager : Advanced Recording Searching

Smart DVR Manager

File Tool Configuration Help

Smart DVR Recording Server

Advanced Searching

Record History

CameraNa...	StartTime	EndTime	Duration	URL
목상_HD	2010-03-1...	2010-03-1...	00:00:00	file/100
목상_HD	2010-03-1...	2010-03-1...	00:00:10	file/100
목상_HD	2010-03-1...	2010-03-1...	00:00:39	file/100

Total 3 results found.

2010-03-12 오후 3:44:48 | 172.16.14.113 : 8020 | Version 2.1.3723 | root | Group : 0 Camera : 2 (Active : 2) Seq : 0

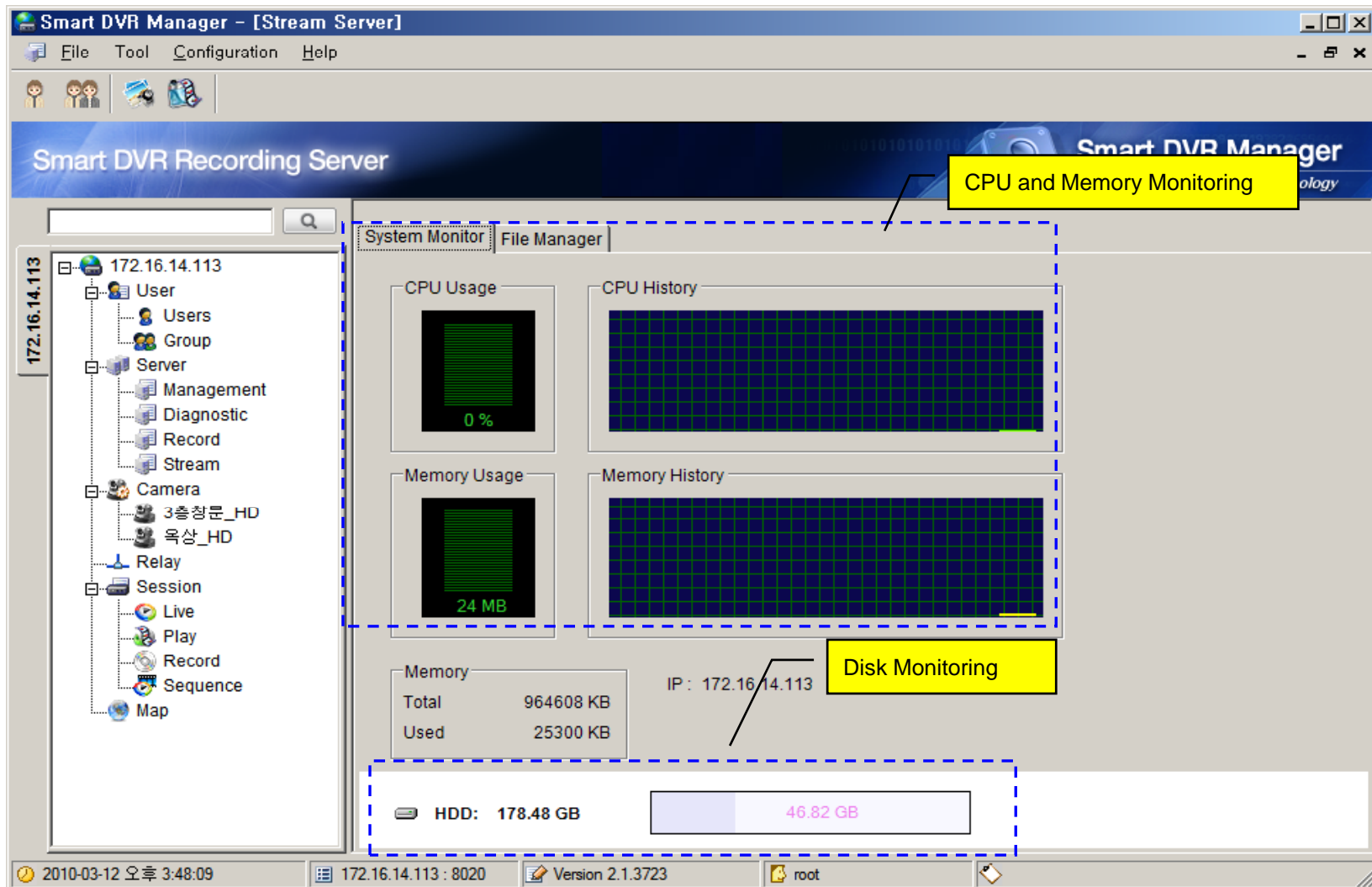
Advanced Searching Menu

Advanced Searching Rules

Selected Searching Rule Clear

Searching Rule All Clear

Smart DVR Manager : System Monitoring



The screenshot displays the 'Smart DVR Manager - [Stream Server]' application window. The interface is divided into several sections:

- System Monitor:** This section is highlighted with a blue dashed box and contains four monitoring panels:
 - CPU Usage:** A gauge showing 0% usage.
 - CPU History:** A line graph showing CPU usage over time.
 - Memory Usage:** A gauge showing 24 MB usage.
 - Memory History:** A line graph showing memory usage over time.
- Disk Monitoring:** A yellow callout box points to the 'Memory' section, which includes a table of memory statistics and an HDD usage bar chart.

Memory	Total	Used
Total	964608 KB	
Used		25300 KB

HDD: 178.48 GB (46.82 GB used)

IP: 172.16.14.113

The interface also features a left-hand navigation tree for the IP address 172.16.14.113, showing categories like User, Server, Camera, and Session. The status bar at the bottom indicates the date and time (2010-03-12 오후 3:48:09), the IP address (172.16.14.113 : 8020), the version (Version 2.1.3723), and the current user (root).

Smart DVR Manager : Schedule

User Defined Schedule Lists

Delete Schedule

Weekly and Daily Time Schedule

Add Schedule

User define Special Day

Set Special Day using calendar

Week	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								
Sun																								
Holiday																								

Special Day	Duration
2010-03-19	00:00-00:00
2010-03-28	00:00-00:00



Smart DVR Media Manager

Smart DVR Media Manager Features

- Recording History Searching
- Recording History Management
- Recording File Upload / Download
- Play Recording Media File
- Schedule Backup
- Event History

Smart DVR Media Manager : Main Layout

***Searching and Download/Upload Function about selected Window : Camera Search, Update, File Searching, Download/Upload, Delete, Replay, etc**

Recorded File Searching at Server using Group and Camera Tree

카메라 이름	IP 주소	그룹	설명	녹화시간	진행시간	파일 이름	파일 크기
3층청문_HD	172.16.23.97	/	(null)	2010-03-12 15:4...	00:00:09	2010031206474...	8,890 KB
3층청문_HD	172.16.23.97	/	(null)	2010-03-12 11:4...	00:00:00	2010031202450...	214,637 KB
3층청문_HD	172.16.23.97	/	(null)	2010-03-12 10:0...	00:24:17	2010031201065...	1,424,769 KB
3층청문_HD	172.16.23.97	/	(null)	2010-03-12 10:0...	00:00:00	2010031201025...	90,190 KB
3층청문_HD	172.16.23.97	/	(null)	2010-03-11 17:3...	00:00:00	2010031108373...	286,144 KB

Recorded File Display at Server

Recorded File Searching at Local PC using Group and Camera Tree

Recorded File Display at Local PC

2010-03-12 오후 5:21:49 version 1.0.3723 172.16.14.113 : 8020 root Scheduler waiting

Smart DVR Media Manager : Recorded File Upload / Download

The screenshot displays the 'Smart DVR Manager' interface with a 'Download' dialog box open. The dialog box contains a table of files to be downloaded and two progress bars for file transfer and conversion.

Download Window Table:

파일 이름	총 시간	파일 크기	녹화시간	상태
20100312064746.pma	00:00:09	8,890 KB	2010-03-12 15:4...	Done
20100312024507.pma	00:00:00	214,637 KB	2010-03-12 11:4...	Downlo...

File Transfer Progress:

980095015124/2010/03/12/20100312024507.pma downloading.. (2/2)

- Progress bar 1: 17%
- Progress bar 2: 20%

받은 크기 : 38,438,428 / 219,787,909 Bytes
전체 크기 : 47,541,688 / 228,891,169 Bytes Transfer Time : 00:00:03

File Conversion Progress:

파일 변환 (*.PMA to *.AVI)

Converting.. D:\work\sdv\sdmm\sdmm\bin\Debug\record\980095015124\2010\03\12\20100312064746.p

- Progress bar: 68%

Converting Time : 00:00:03

다운로드 후 파일 삭제

Buttons: 시작, 취소, 닫기

System tray: 2010-03-12 오후 5:22:47, version 1.0.3723, 172.16.14.113 : 8020, root, Scheduler waiting

Recorded File List for File Backup
: File Name, Recording Duration Time, File Size, File Backup Status

Display the File Transfer Progress Status for Backup (Server to Local PC)

Display File Conversion Progress Status : PMA to AVI format (Option), etc

Smart DVR Media Manager : Media Replay

The screenshot displays the AddPac Smart DVR Media Manager software interface. A yellow callout box points to the VLC media player window, which is playing a recorded video file. The VLC window title is "rtsp://172.16.14.113:554/file/1001/video1/20100311054337.pma - VLC 미디어 플레이어". The video content shows a busy street scene with cars and buildings, with Korean text overlaid: "경인선 도화-3 (전환중)".

Recorded File Replay
- Recorded File Replay at Server or Local PC using media Player

카메라 이름	IP 주소	그룹	설명	녹화시간	진행시간	파일 이름	파일 크기
옥상_HD	172.17.120.99	/	(null)	2010-03-11 14:4...	00:00:39	2010031105433...	39,052 KB
옥상_HD	172.17.120.99	/	(null)	2010-03-11 14:2...	00:00:10	2010031105252...	10,298 KB
옥상_HD	172.17.120.99	/	(null)	2010-03-11 14:0...	00:00:00	2010031105015...	436 Byte

Smart DVR Media Manager : Media File Attribute

The screenshot displays the Smart DVR Manager interface. A central dialog box titled '녹화파일 속성' (Recorded File Attribute) is open, showing the following details:

속성 이름	값
Record ID	3
Comment	No Comment
Camera GUID	745430054867
Camera Name	육상_HD
Camera Group	/
Camera URL	rtsp://172.16.14.113/1001/video1
Camera IP Address	172.17.120.99
Description	(null)
Video Codec	H264
Video Bandwidth	8192
Resolution	1280*720
FPS	30
Audio Codec	G711A
Audio Bandwidth	8192
SDP	
Start Time	2010-03-11 14:43:37
End Time	2010-03-11 14:44:16
Duration	00:00:39
File Directory	745430054867/2010/03/11/
File Name	20100311054337.pma
File Size	39,052 KB
File URL	file://1001/video1/20100311054337.p...
User	AddPac (root)

A yellow callout box with the text 'Recorded File Attribute Display' points to the dialog box. The background interface shows a tree view of 'Remote Database' and 'Local Database' with camera folders like '3층창문_HD'. A table on the right lists recorded files with columns for '진행시간', '파일 이름', and '파일 크기'.

Smart DVR Media Manager : Schedule

Schedule Backup Configuration :
Scheduled Backup Configuration for Automatic File Backup
- Start Time, Repetition (Daily, Weekly, Monthly)

Schedule Backup Option
-Backup Duration, File Delete, File Conversion, Camera Setting, etc

Ordering Information

- **AP-HIC200 HD IP Camera Hardware**
 - AP-HIC200 Main Body
 - Including Network Cable Set & Power Supply Cable, etc.
- **Built-in APOS Internetworking Software for AP-HIC200**
- **Including 1 Year Hardware Warranty**
- **Product Documents**
 - Install and Operation Guide (PDF)
- **Pricing**
 - AddPac Technology Regional Sales Manager
 - Authorized Sales and Marketing Representatives
 - Please Contact www.addpac.com



Thank you!

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