

AP-HIC350™

Full HD IP Camera

High-performance Network DVR Solution



Preliminary Product Overview

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

AddPac

AddPac Technology

2012, Sales and Marketing

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Product Overview

AP-HIC350 Full 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 20 x Zoom Camera
- Up to 1920 x 1080 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-HIC350 Full HD IP Camera

**Next Generation
Full HD IP Camera**

**Embedded System for
Stability**

**High-End Programmable DSP
Hardware Architecture**

**Up to Full HD(1920x1080)
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 20 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-HIC350 Full HD IP Camera

High-End
RISC+
VP

- RISC + Video Processor Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100 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
 - I/O Interface
 - 2 Alarm Input, 1 Relay
 - Speed PAN/TILT Features
 - PAN : 360 Degree Endless
 - TILT : 90+ Degree



Hardware Specification

AP-HIC350 Full HD IP Camera

High-End
RISC+
VP

- Camera Specification
 - High-end 1/2.8-type “Exmor” CMOS Camera Sensor
 - 3.27 Mega Pixels
 - HD : 1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, etc
 - Auto Focus 20 x Optical Zoom, 12 x Digital Zoom
 - Auto ICR Function
 - Noise Reduction

Hardware Specification

AP-HIC350 Full HD IP Camera



Front Side

Hardware Specification

AP-HIC350 Full HD IP Camera

Back Side



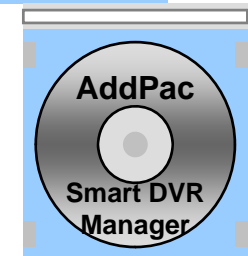
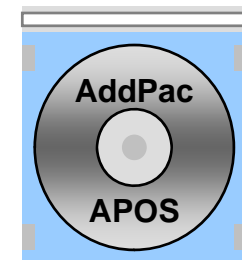
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RS232C Interface
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Software Service

AP-HIC350 Full HD IP Camera

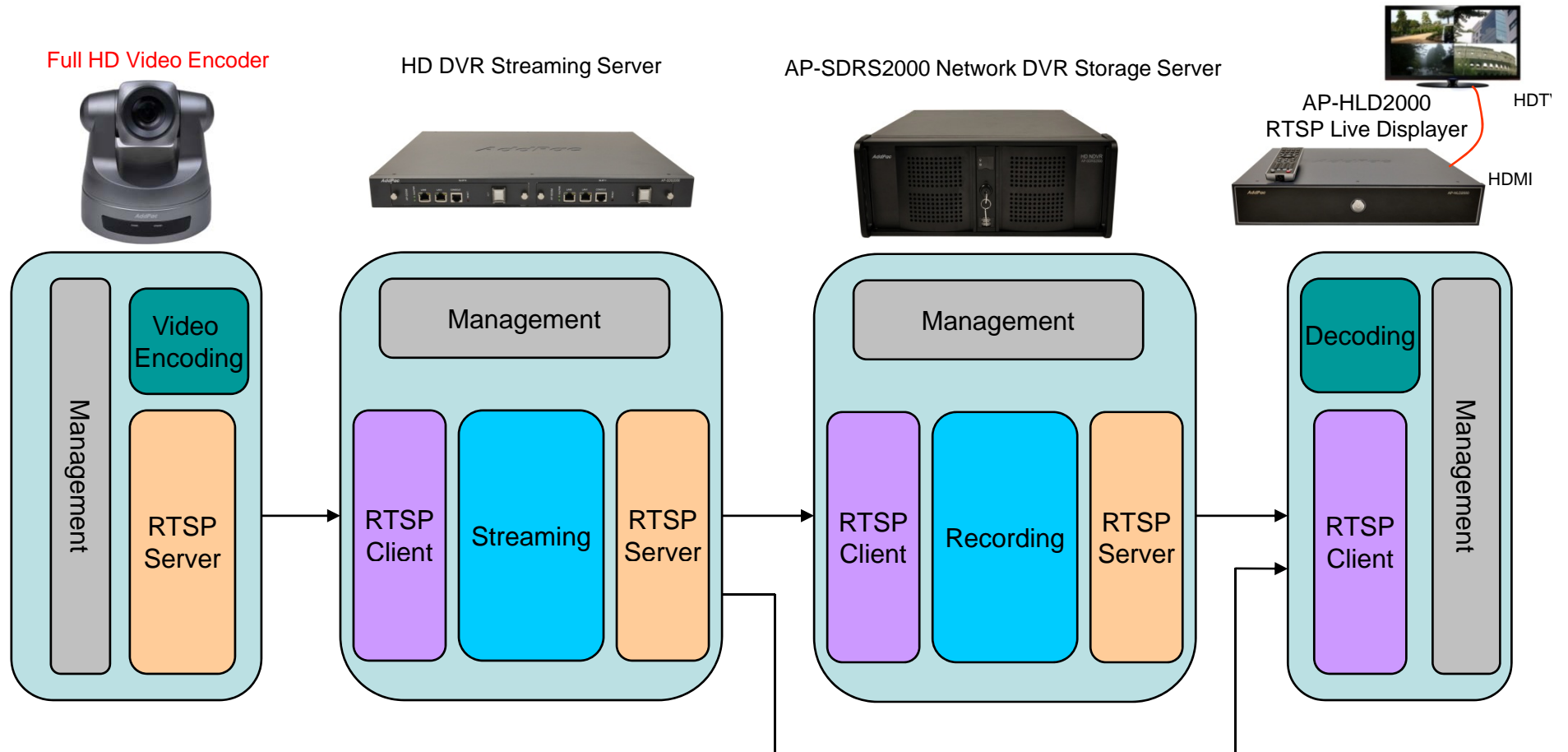
- Built-in AddPac APOS Internetworking Software
 - Scalability, Functionality, and Stability Features
 - Advanced Standalone DVR Recording & Streaming Features
 - QoS Control Features
- Firmware Upgradeable Architecture
- Industry Standard Network Protocol Features
- Highly User Friendly Management Features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



NVR Storage Server Protocol Block Diagram

AP-HIC350 Full HD IP Camera

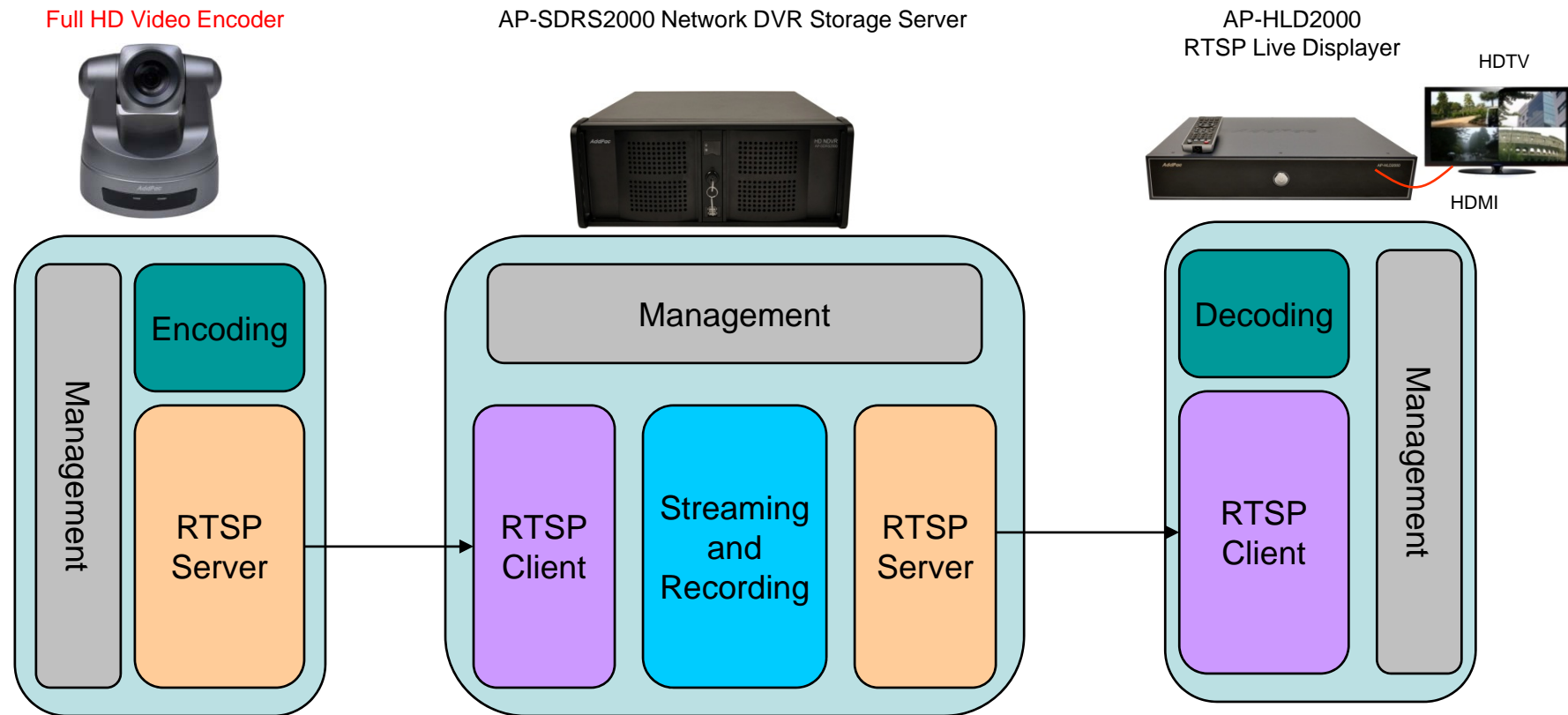
Medium & Large Scale Network DVR Solution



NVR Storage Server Protocol Block Diagram

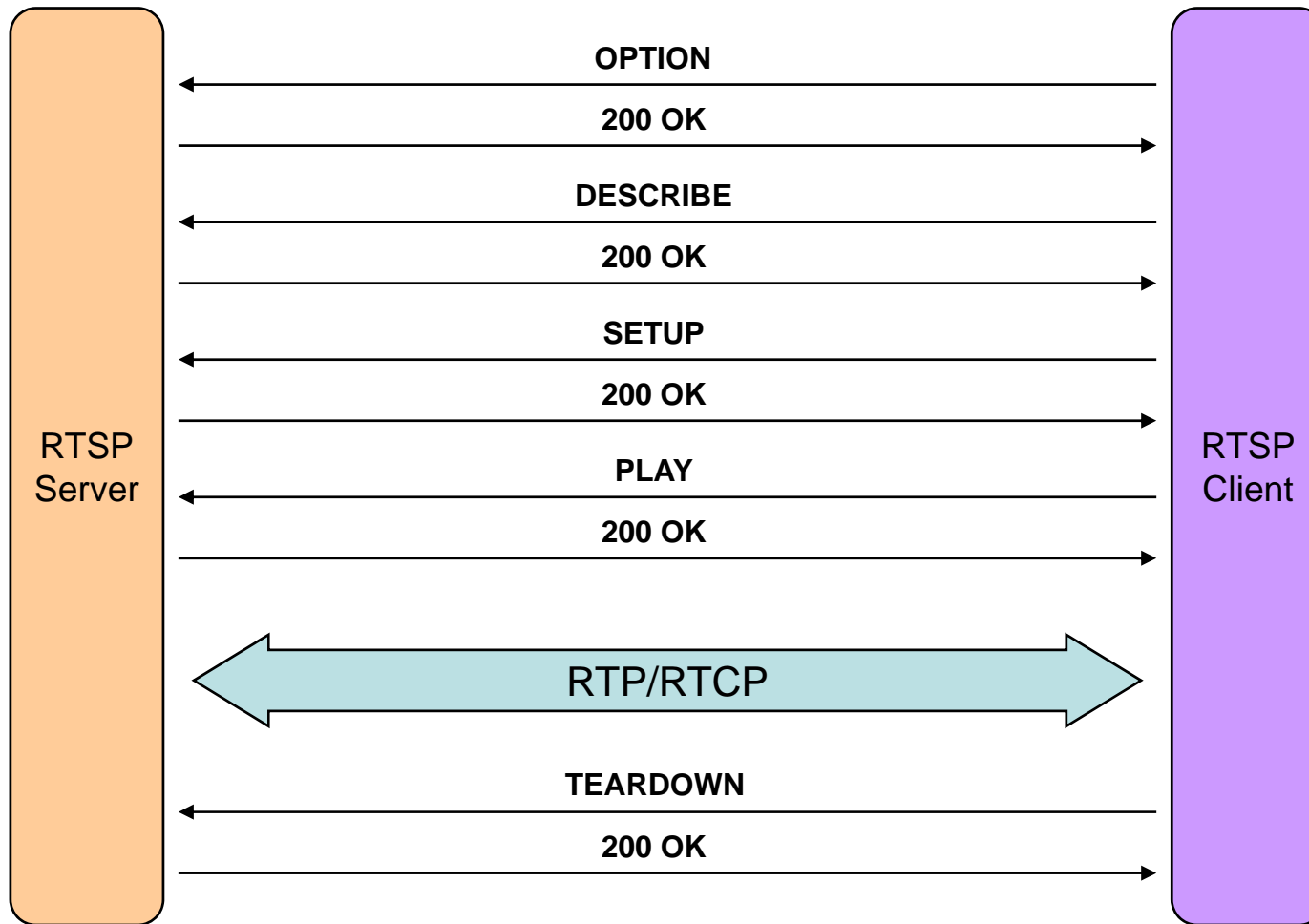
AP-HIC350 Full HD IP Camera

Small Scale Network DVR Solution (All in One)



Basic RTSP Message Flow

AP-HIC350 HD IP Camera

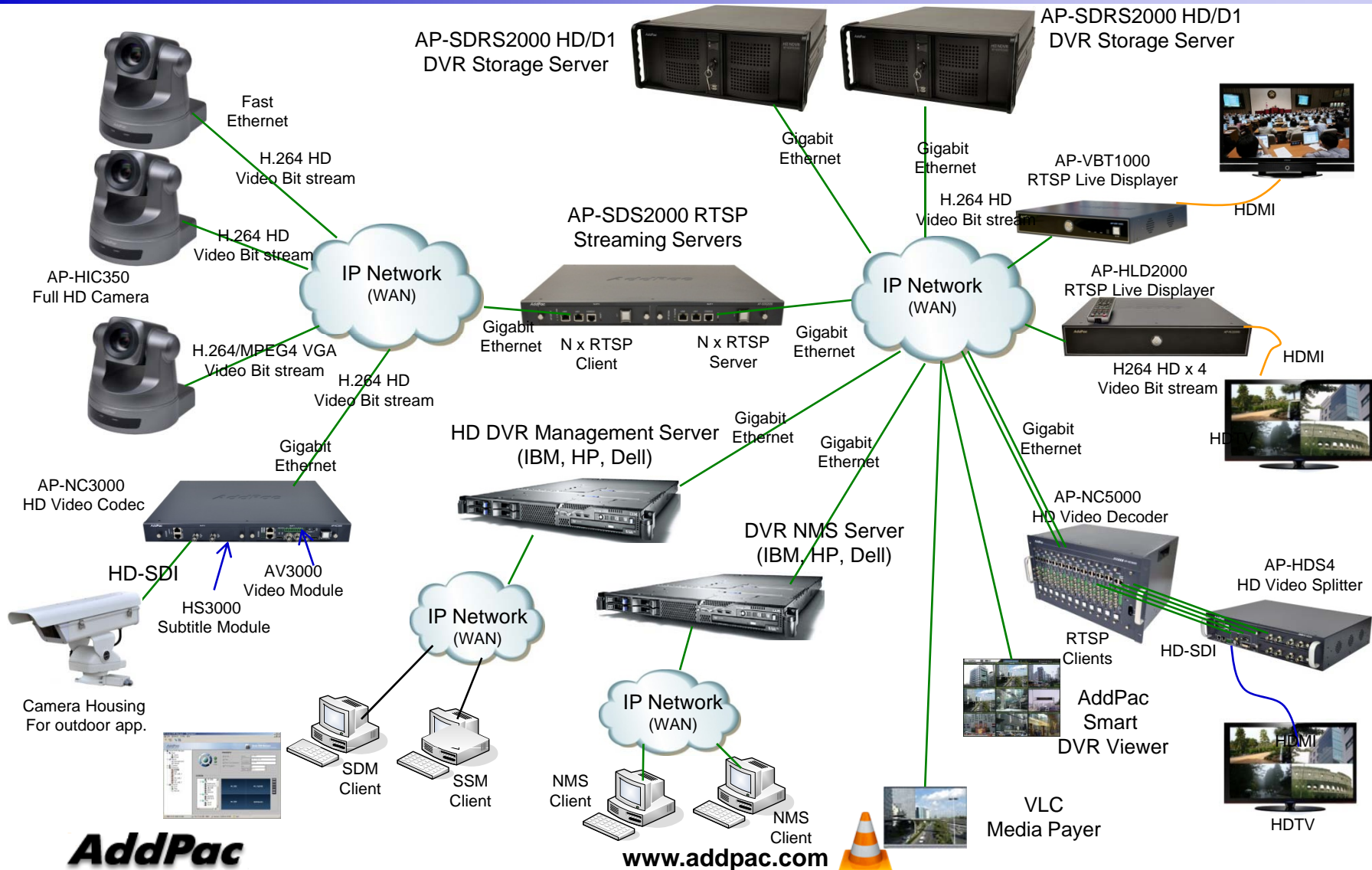




IP Camera Interworking

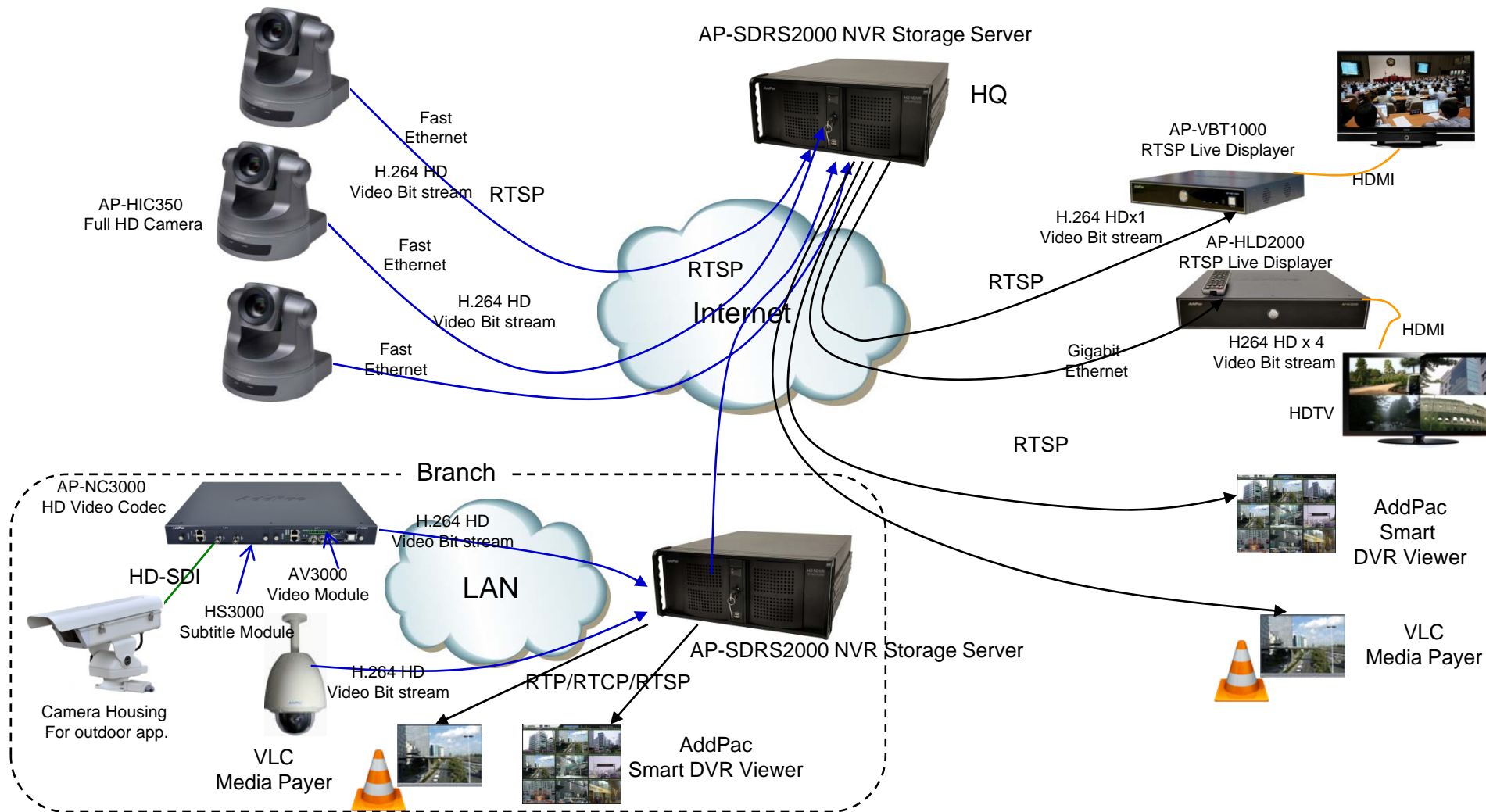
IP Camera Interworking Diagram (Large Scale)

AP-HIC350 HD IP Camera



IP Camera Interworking Diagram(Small Scale)

AP-HIC350 Full 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

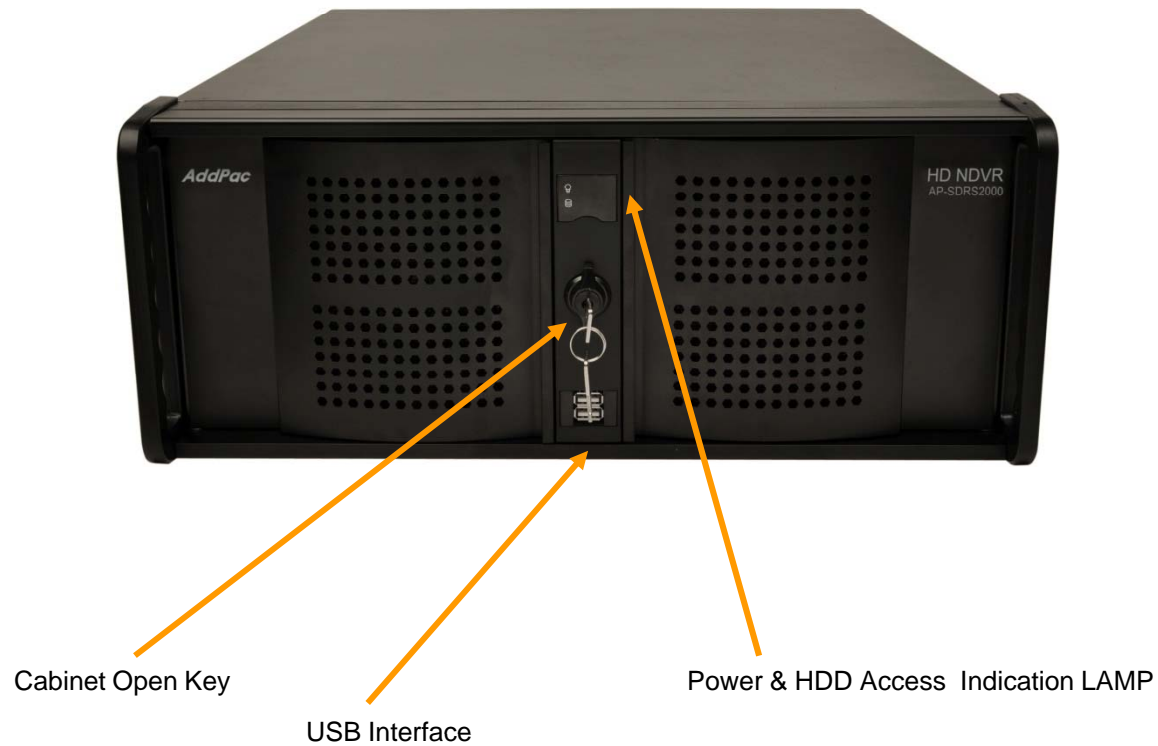
- High Performance Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100/1000Mbps Fast Ethernet
 - Video Output Interface
 - HDMI, DVI, RGB Video Output
 - USB 2.0 Interfaces for Mouse, Keyboard, etc
 - One(1) DVD Writer for Video File Backup
 - Up to Four(4) Hard Disk

Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End
Processor

AP-SDRS2000 Front Side

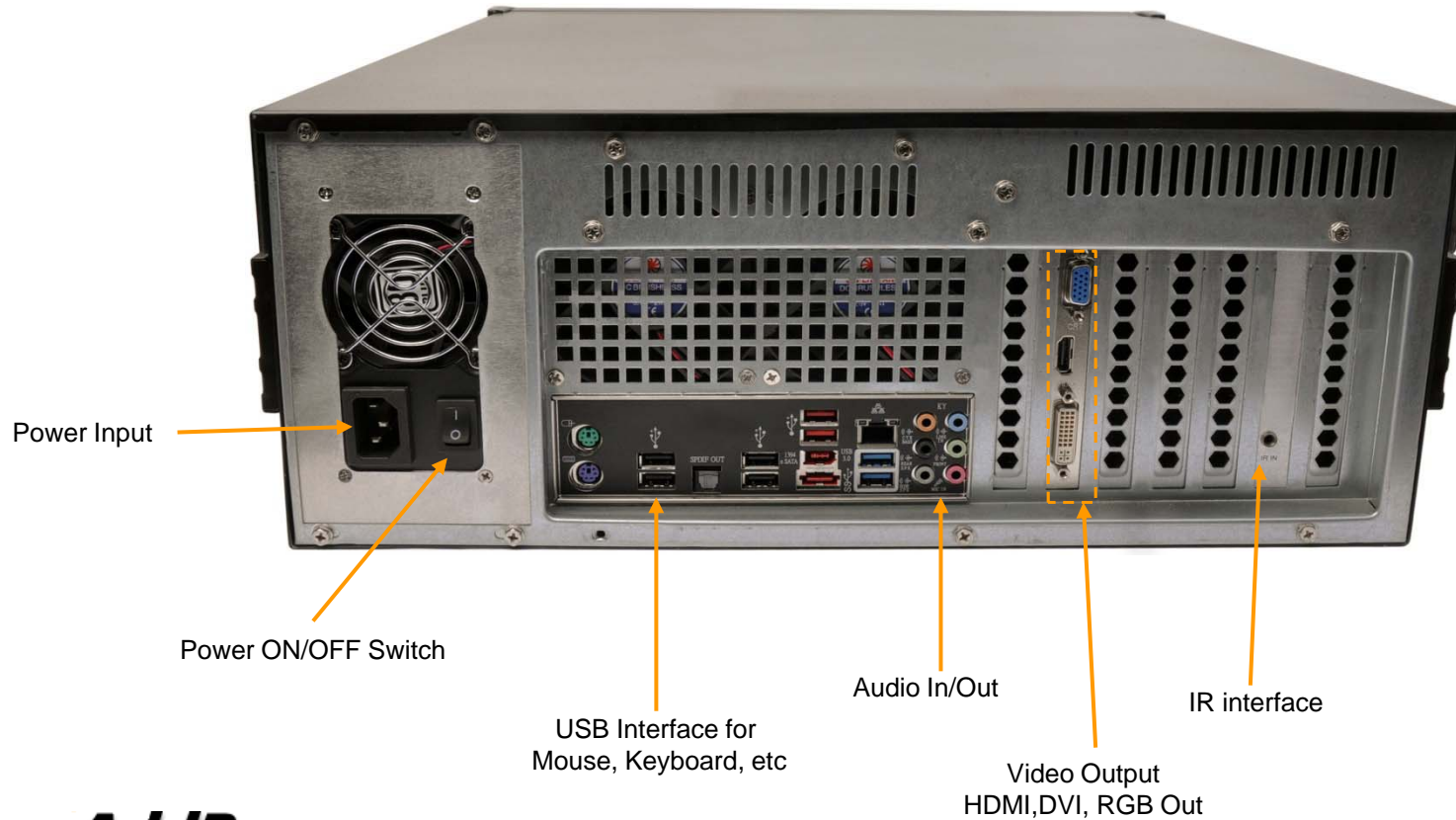


Hardware Specification

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

Advanced Search

Record Time FROM 2010-03-12 오전 12:00:00 TO 2010-03-12 오후 11:59:59

Content Relation

Camera Name like 3	AND
Time 2010-03-12 오전 12:00:00 ~ 2010-03-12 오후 11:59:59	NONE

Advanced Searching Rules

Selected Searching Rule Clear

Searching Rule All Clear

Search Cancel

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

Smart DVR Manager : System Monitoring

The screenshot displays the Smart DVR Manager interface for a Stream Server. The main window is titled "Smart DVR Manager - [Stream Server]" and includes a menu bar with "File", "Tool", "Configuration", and "Help". The interface is divided into several sections:

- System Monitor:** This section is highlighted with a blue dashed box and contains four monitoring graphs:
 - 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:** This section is highlighted with a yellow box and shows a table of memory usage and a disk usage bar chart.

Memory	Value
Total	964608 KB
Used	25300 KB

IP: 172.16.14.113

HDD: 178.48 GB (46.82 GB used)
- File Manager:** A tree view on the left side of the interface shows the directory structure for the server, including folders for "User", "Server", "Camera", "Relay", "Session", and "Map".

At the bottom of the window, the status bar displays 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

Recorded File Display at Server

Recorded File Searching at Local PC using Group and Camera Tree

Recorded File Display at Local PC

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

Smart DVR Media Manager : Recorded File Upload / Download

The screenshot displays the 'Smart DVR Media 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 interface. A yellow callout box points to the VLC media player window, which is playing a recorded 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 street scene with cars and buildings, with Korean text "경인선 도화-3 (전환중)" overlaid. The VLC interface includes a progress bar, playback controls, and a volume slider.

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 shows the 'Smart DVR Manager' interface with a '녹화파일 속성' (Record File Attribute) dialog box open. The dialog lists the following attributes:

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)

The background interface shows a tree view of 'Remote Database' and 'Local Database' with camera folders like '3층창문_HD'. A table on the right displays recorded files with columns for '진행시간' (Progress Time), '파일 이름' (File Name), and '파일 크기' (File Size).

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-HIC350 HD IP Camera Hardware**
 - AP-HIC350 Main Body
 - Including Network Cable Set & Power Supply Cable, etc.
- **Built-in APOS Internetworking Software for AP-HIC350**
- **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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