

# AP-SDRS5000 RTSP based HD/D1 NVR Storage Server Solution



**AddPac**

**AddPac Technology**

2014, Sales and Marketing

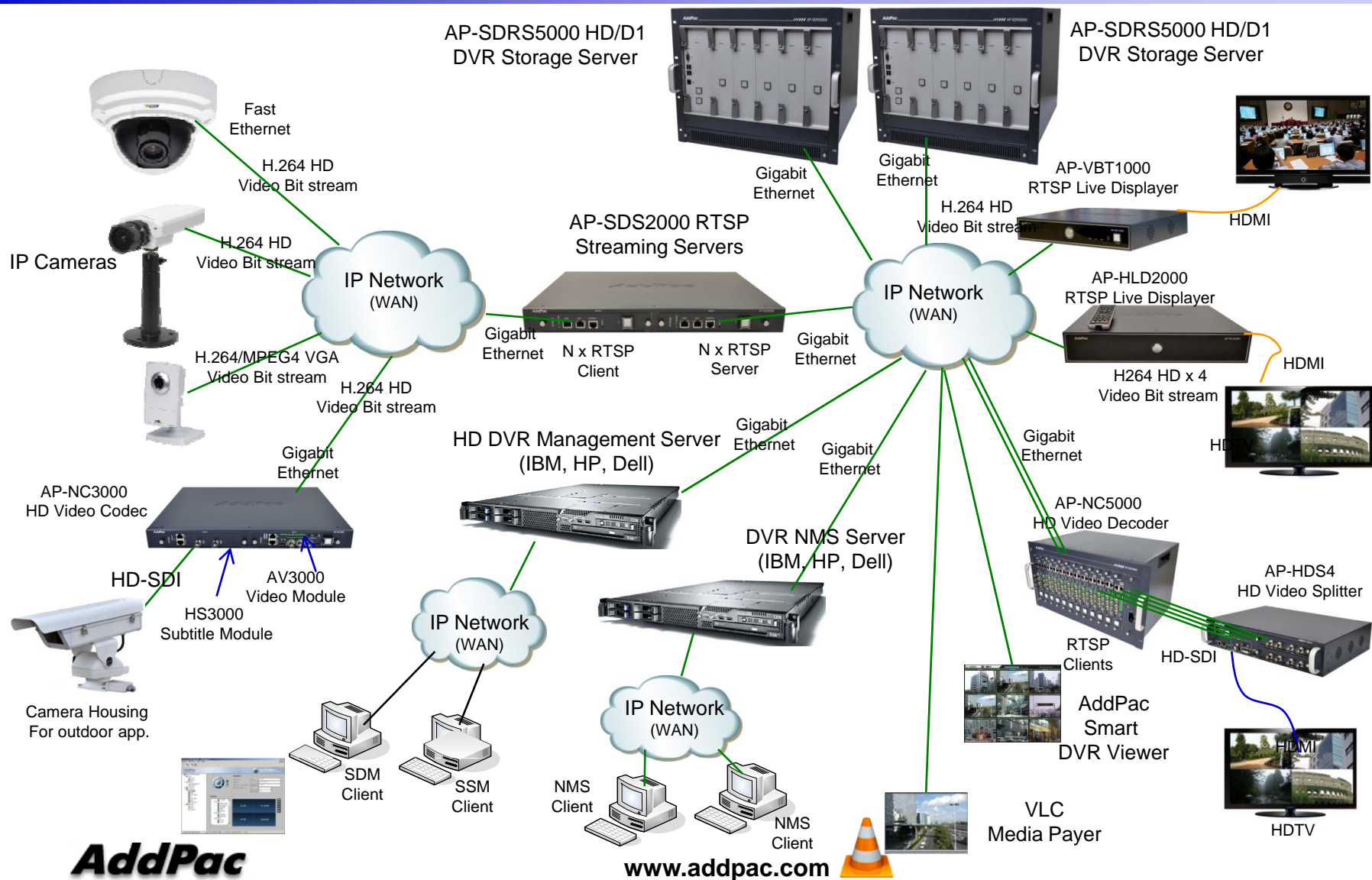
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# HD NVR Storage Server Service Diagram

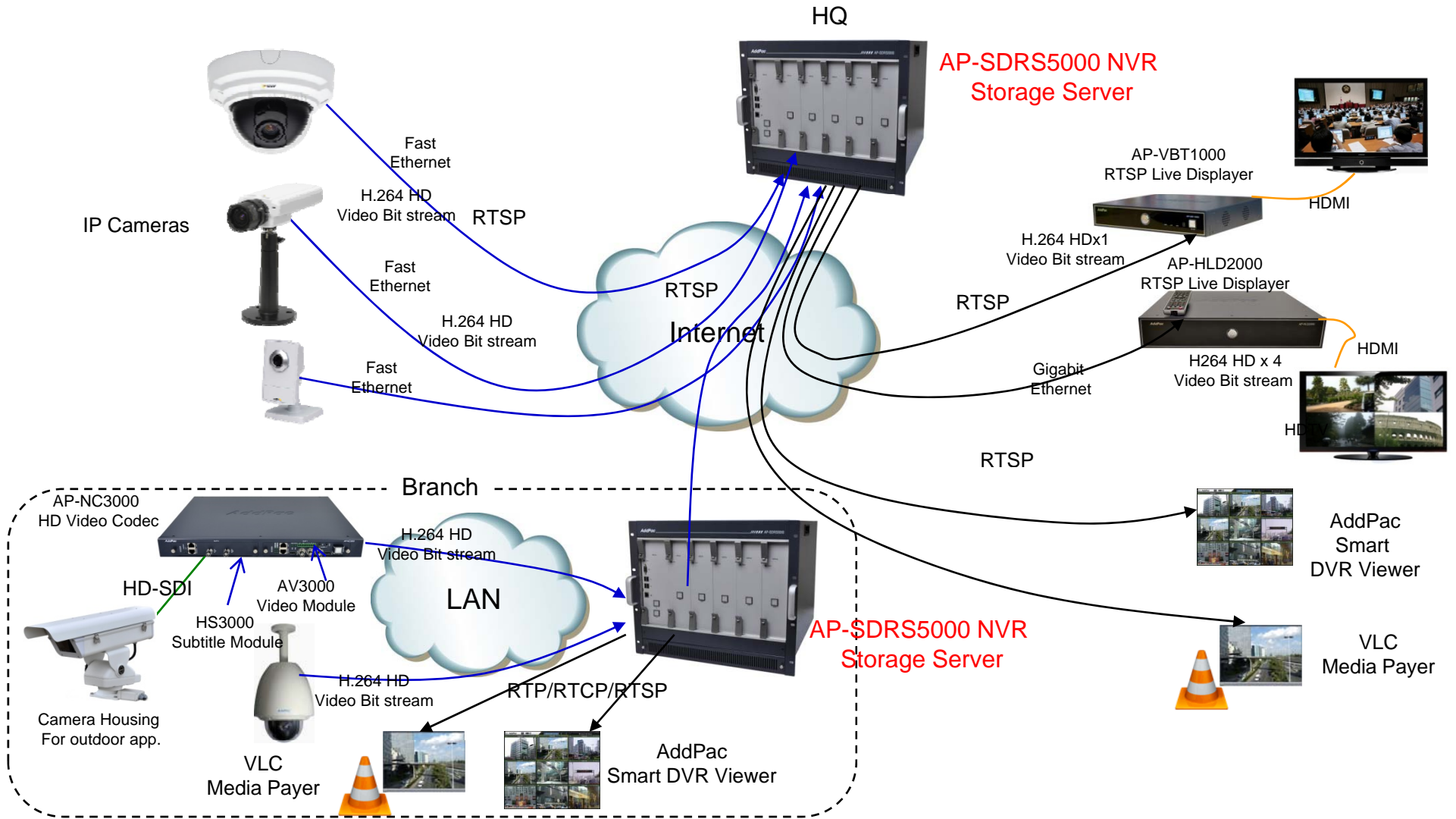
# HD NVR Service Diagram (Large Scale)




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# HD NVR Service Diagram (Small Scale)

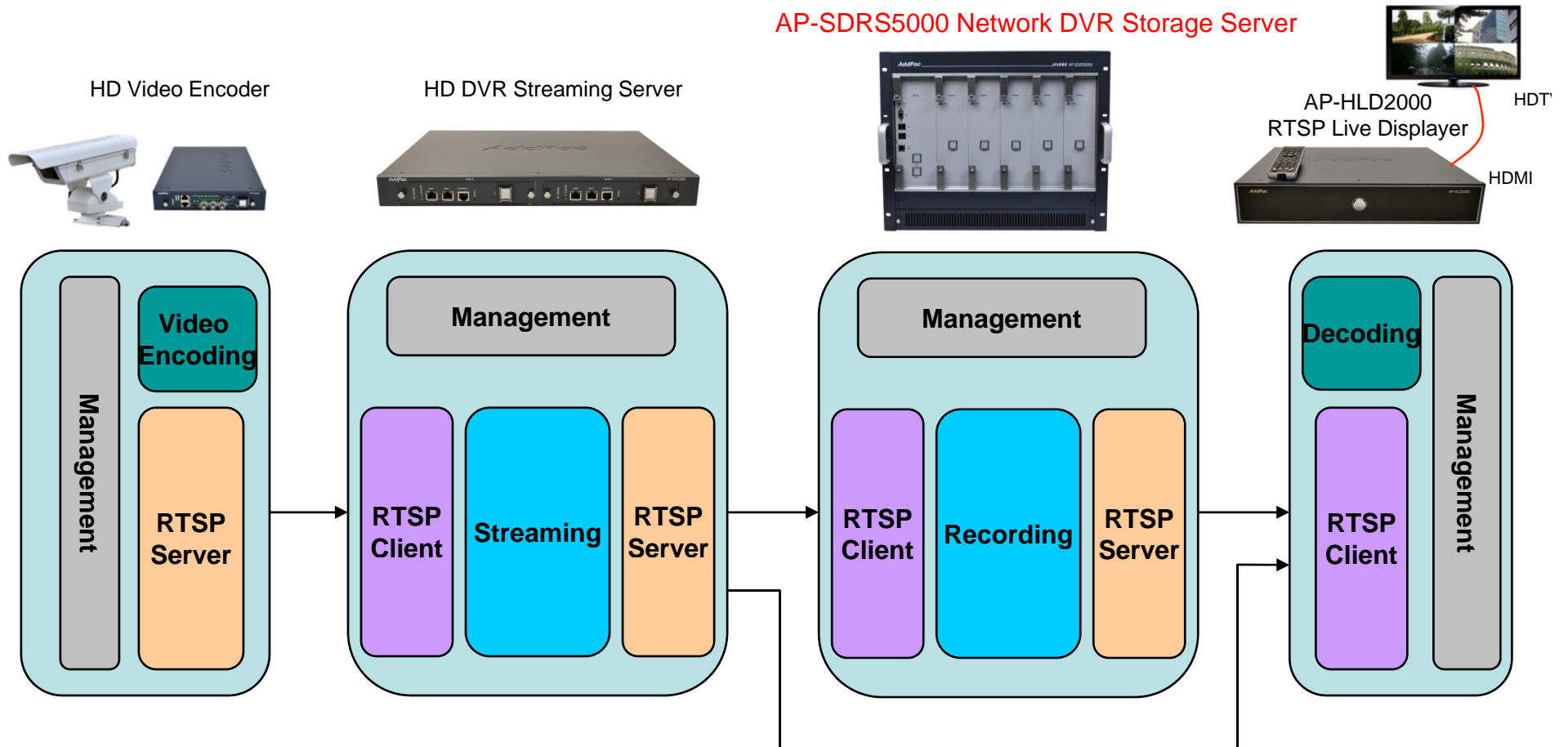




# HD NVR Storage Server Protocol Block Diagram

# NVR Storage Server Protocol Block Diagram

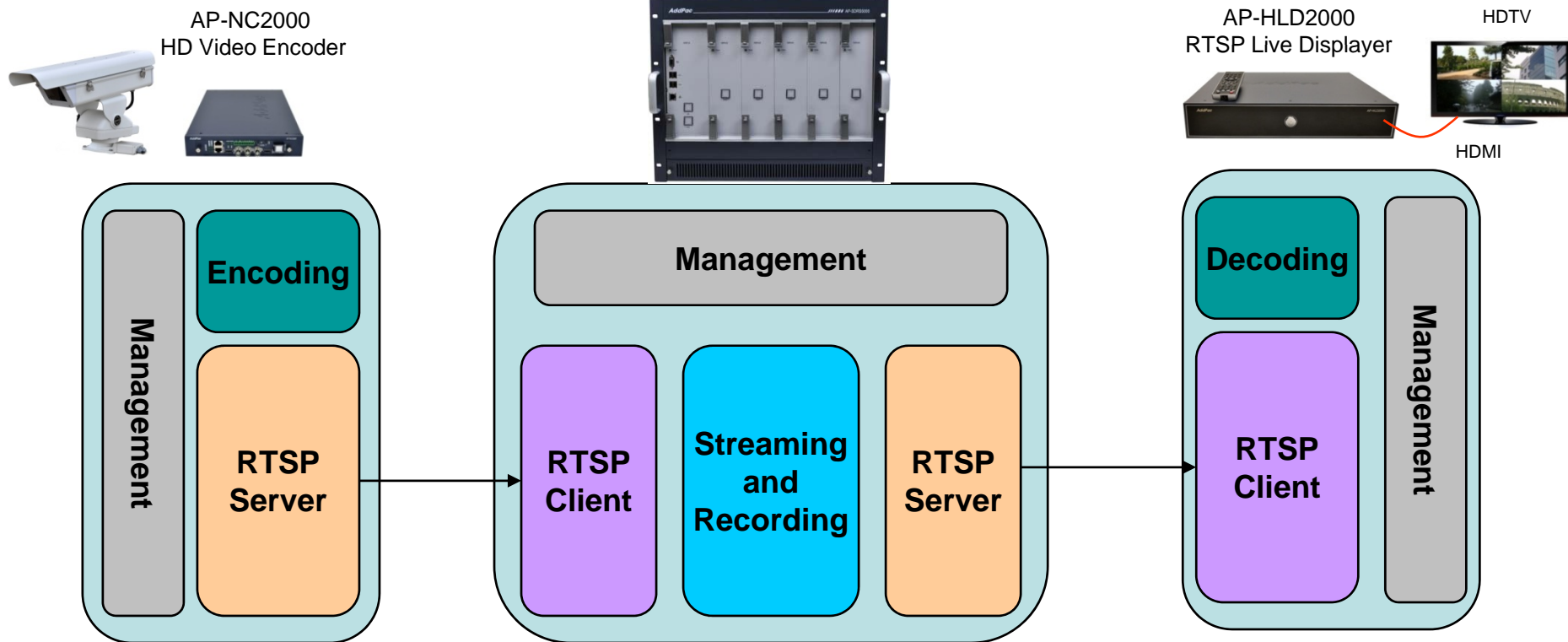
## Medium & Large Scale Network DVR Solution



# NVR Storage Server Protocol Block Diagram

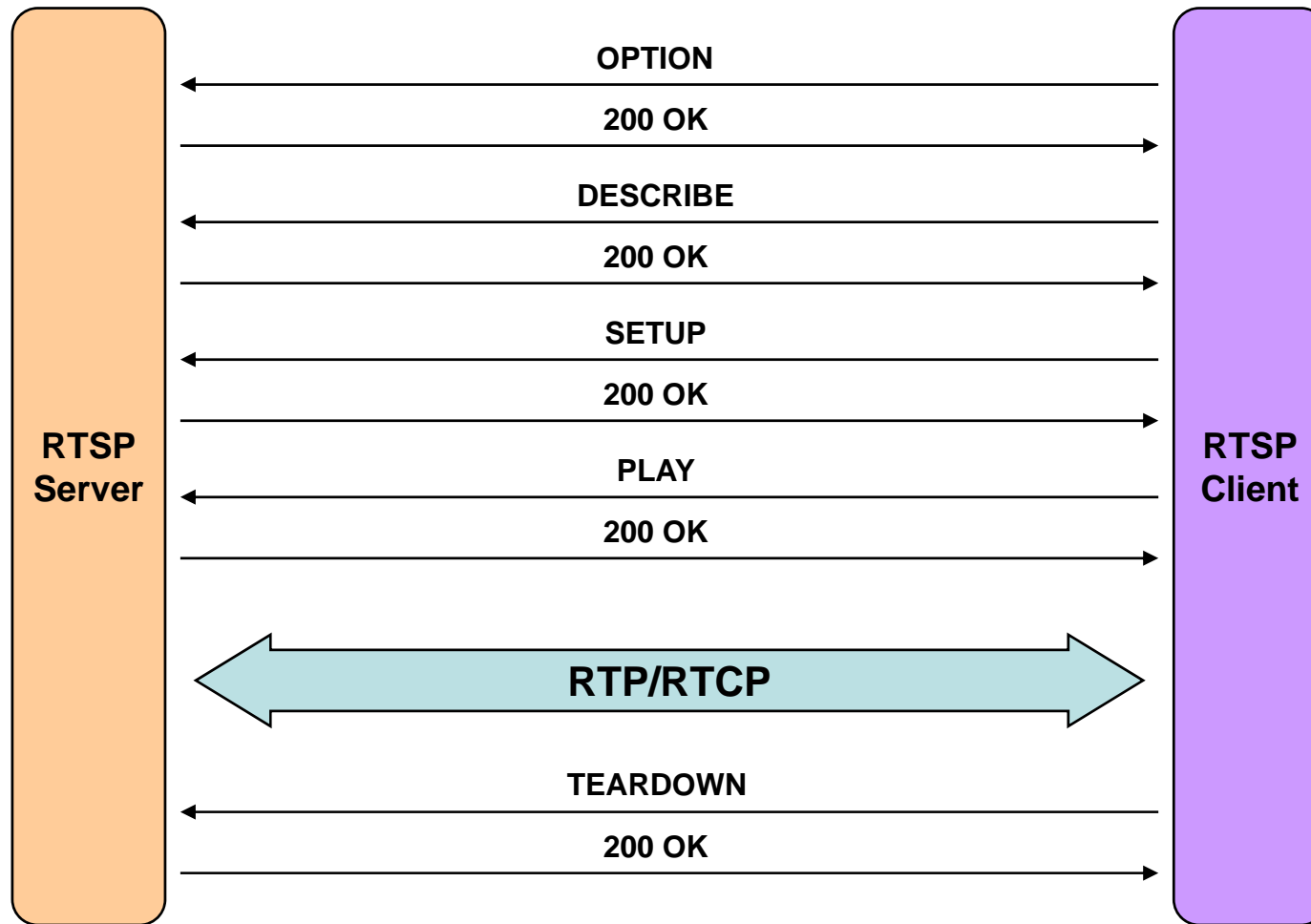
## Small Scale Network DVR Solution (All in One)

AP-SDRS5000 Network DVR Storage Server





# Basic RTSP Message Flow





# HD NVR Storage Solution Component Features



# AP-SDRS5000 HD NVR Storage Server

# Product Overview

## AP-SDRS5000 HD NVR Storage Server

- High-Performance HD/D1 Network DVR Features
- Linux Operating System
- 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
- Module Type High Performance Processor Board Assembly
- Module Type Hard Disk Board Assembly
- Module Type Dual Power Supply for Power Redundancy
- Up to 5 x 3.5Inch Hard Disk (SATA Type, 2Tera or 4Tera Byte Support)
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- USB Interface Support

# Hardware Specification

## AP-SDRS5000 HD NVR Storage Server

High End  
Processor

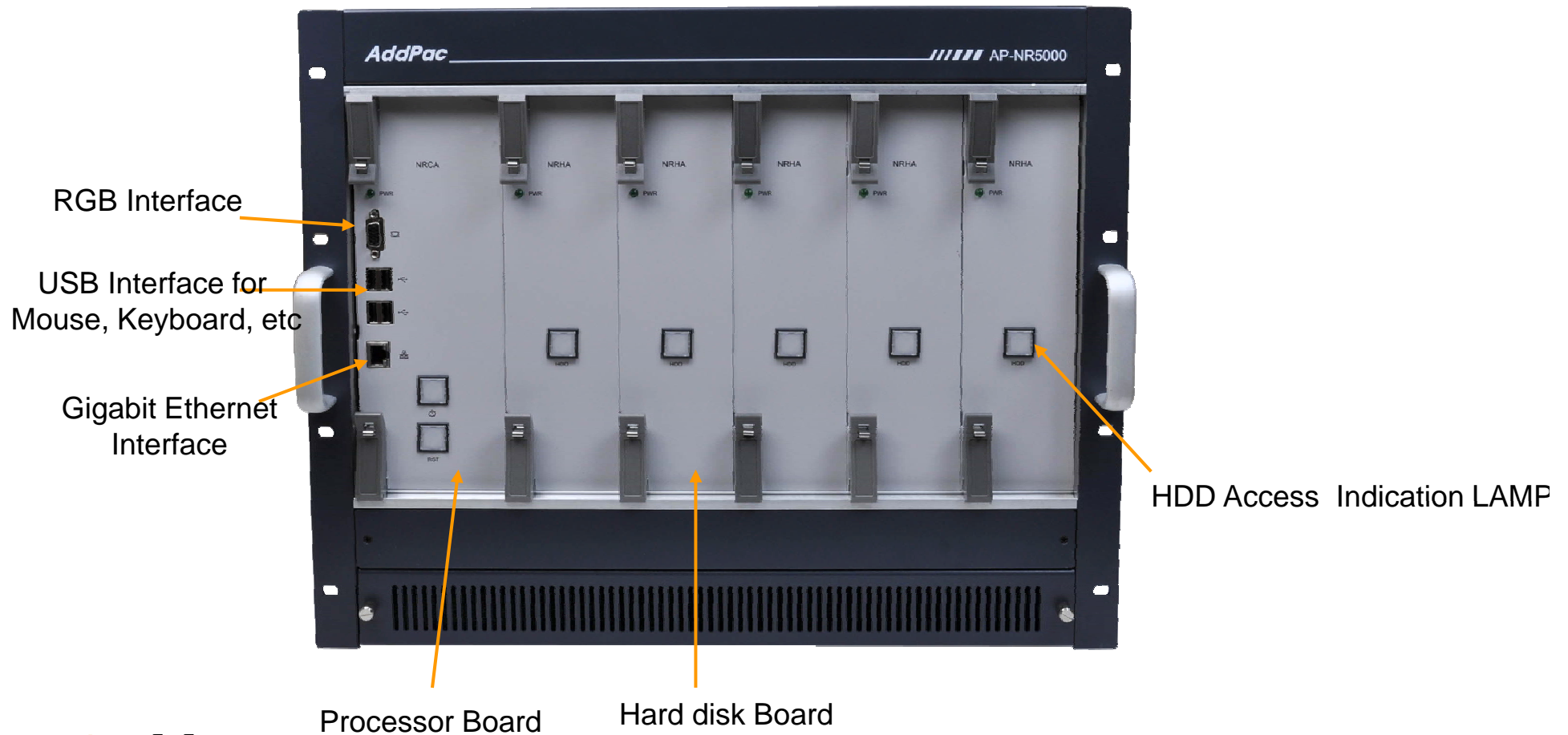
- High Performance Computing Power
- Main Processor Board
  - Network Interface
    - One(1) 10/100/1000Mbps Gigabit Ethernet
  - Video Output Interface
    - RGB Video Output
  - USB 2.0 Interfaces for Mouse, Keyboard, etc
- Hard Disk Board
  - Module Type Design
  - Up Five(5) Hard Disk Slots
  - 10~20 Tera HDD Capacity
- Power Supply
  - Dual Power Supply for Power Redundancy
  - Module Type Power Supply

# Hardware Specification

AP-SDRS5000 HD NVR Storage Server

High End Processor

AP-SDRS5000 Front Side

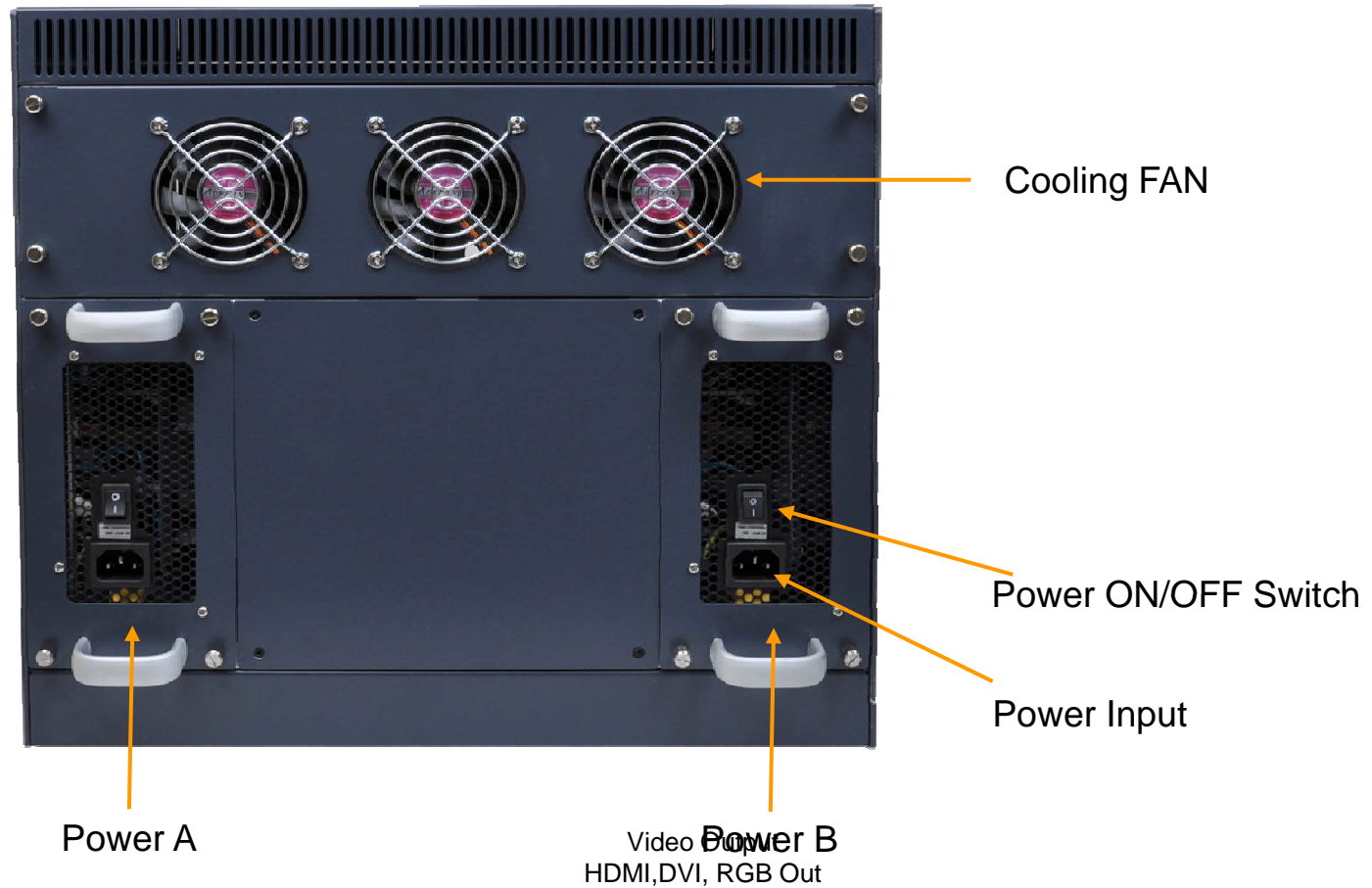


# Hardware Specification

AP-SDRS5000 HD NVR Storage Server

High End Processor

## AP-NR5000 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 web interface. The main layout includes a navigation tree on the left, a central configuration area, and a table for user management. The following components are highlighted:

- Camera Searching**: A search bar at the top of the navigation tree.
- System User configuration**: A text input field for the server port, currently set to 8020.
- Camera List**: A table listing cameras, with two entries: 3층창문\_HD and 옥상\_HD.
- Session Monitoring**: A section for monitoring live, play, record, and sequence sessions.
- Login User Monitoring**: A table showing active users, with three entries: root at 172.16.1.14, root at 172.16.1.14, and root at 172.16.34.2.

User	IP
root	172.16.1.14
root	172.16.1.14
root	172.16.34.2

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 three entries. A yellow box labeled 'Recording File Download' points to a download icon in the toolbar. Another yellow box labeled 'Excel Exporting' points to an Excel icon. A third yellow box labeled 'Recording Media Searching Result' points to the table. A fourth yellow box labeled 'Recording Media Management' points to the 'Record' menu item in the navigation tree. The table contains the following data:

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

At the bottom of the interface, it states 'Total 3 results found.' and shows system information: '2010-03-12 오후 3:44:48', '172.16.14.113 : 8020', 'Version 2.1.3723', 'root', and 'Group : 0 Camera : 2 (Active : 2) Seq : 0'.

# 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 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

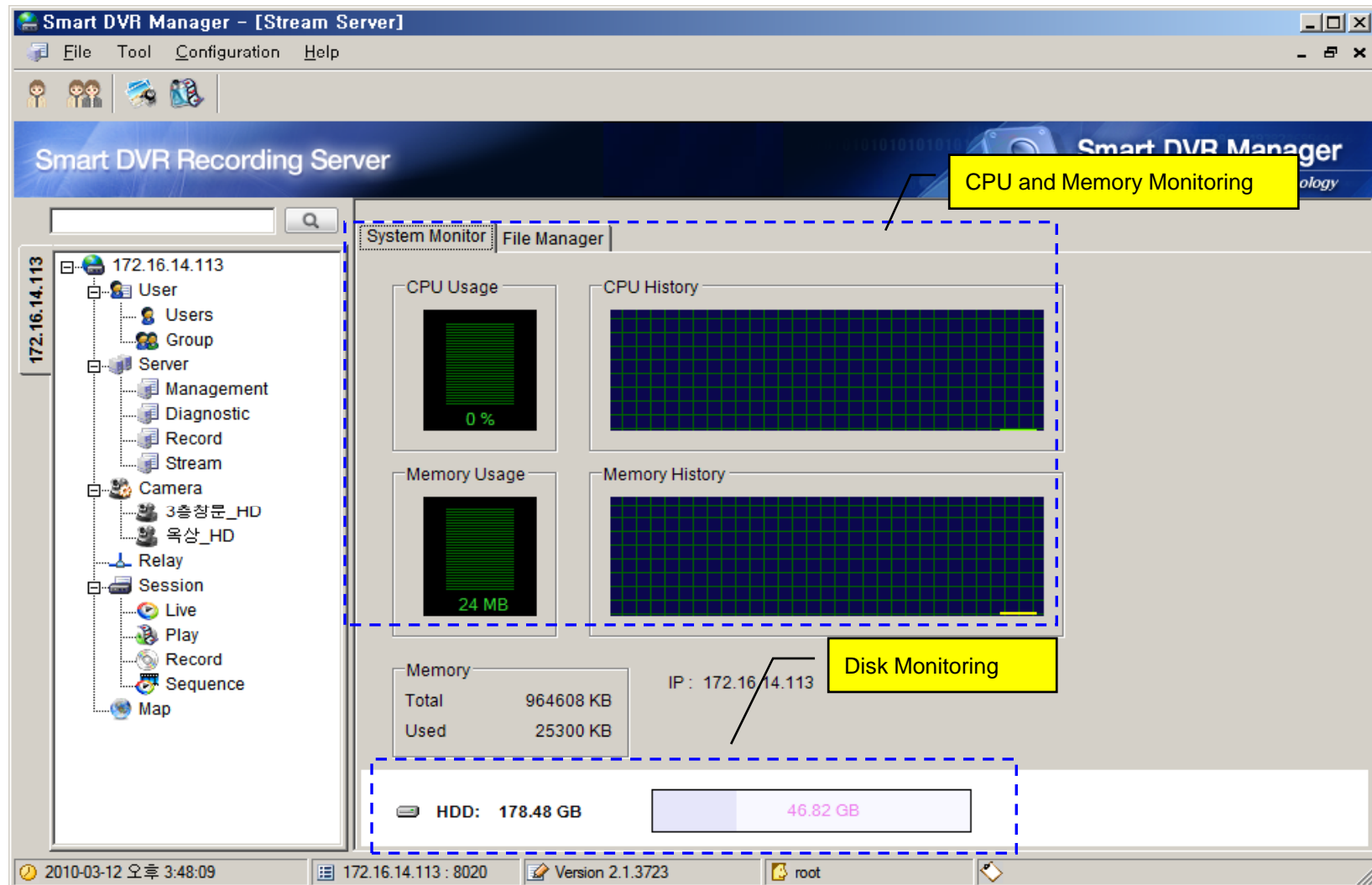
Advanced Searching Rules

Selected Searching Rule Clear

Searching Rule All Clear

Search Cancel

# 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 disk monitoring section, which includes:
  - Memory Summary:** A table showing Total (964608 KB) and Used (25300 KB) memory.
  - IP Address:** 172.16.14.113.
  - HDD:** A progress bar showing 178.48 GB total capacity and 46.82 GB used.
- File Manager:** A tree view on the left side of the interface showing the directory structure for the server (172.16.14.113), including folders for User, Server, Camera, and Session.

The status bar at the bottom of the window 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**

**Add Schedule**

**Delete Schedule**

**Weekly and Daily Time 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' application window. A 'Download' dialog box is open, showing a list of files to be downloaded from a remote database. The dialog includes a progress bar for the file transfer and a section for file conversion options.

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

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...

**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 names like '3층창문\_HD (5)' and '육상\_HD (3)'. 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-SDRS5000 Network Voice Recording Server Hardware**
  - AP-SDRS5000 Main Body
  - 1-port 10/100/1000Mbps Gigabit Ethernet
  - Up to Five(5) SATA Hard Disk
  - Dual Power Supply
  - Including Network Cable Set & Power Supply Cable, etc.
- **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](http://www.addpac.com)



# Thank you!

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