

AP-SDRS2000 RTSP based HD/D1 NVR Storage Server Solution



AddPac

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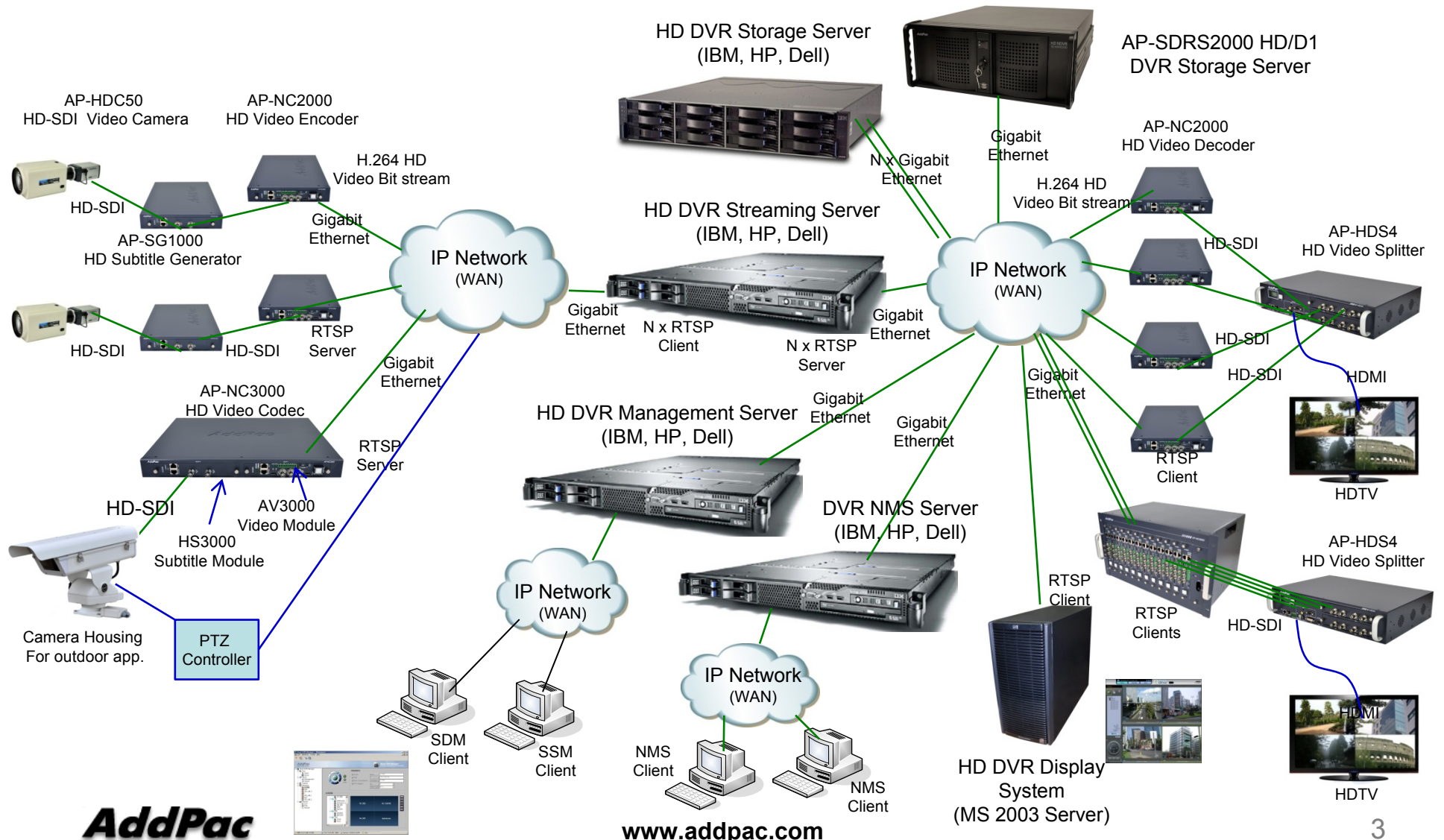
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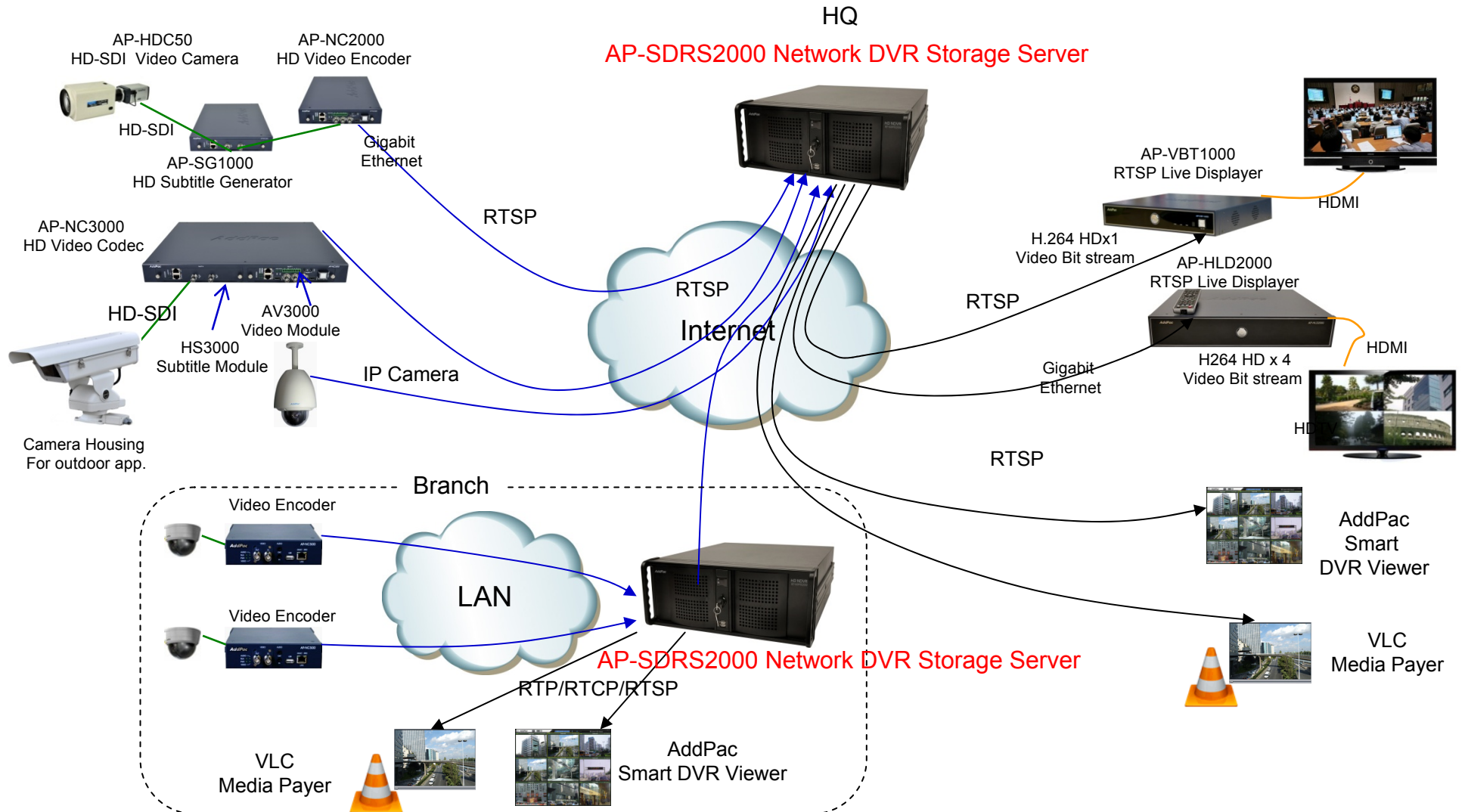
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HD NVR Service Diagram

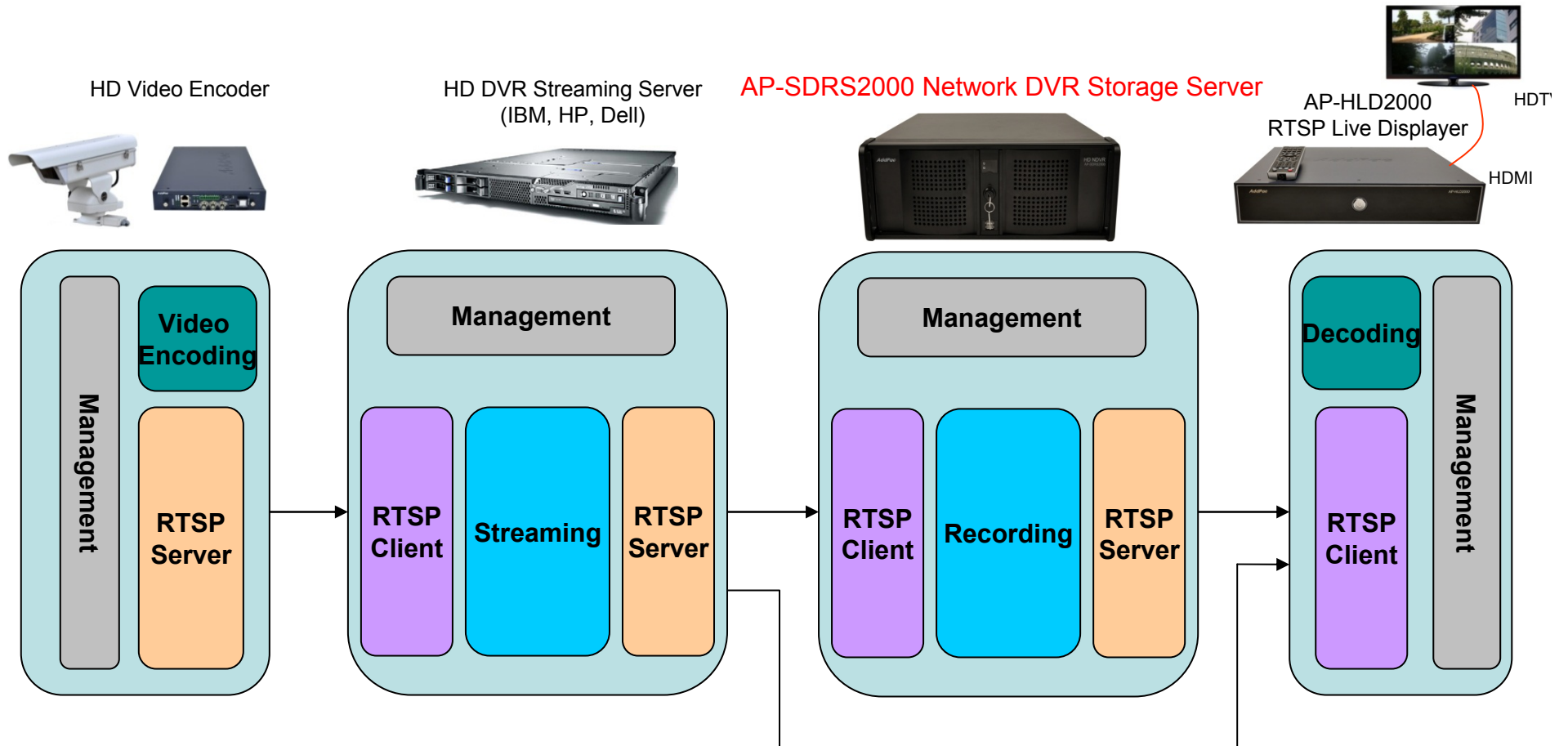


HD NVR Storage Server Service Diagram



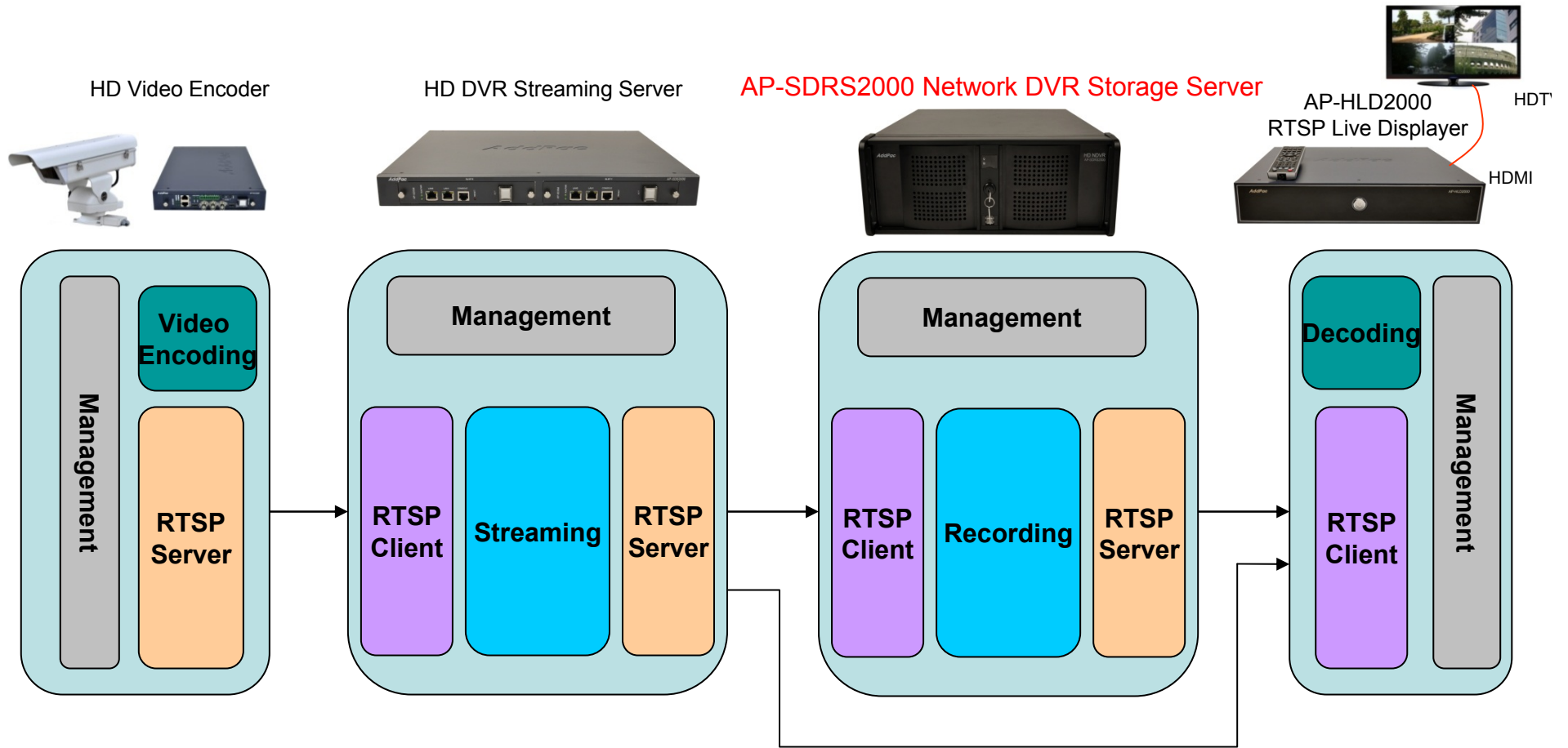
NVR Storage Server Protocol Block Diagram

Large Scale Network DVR Solution



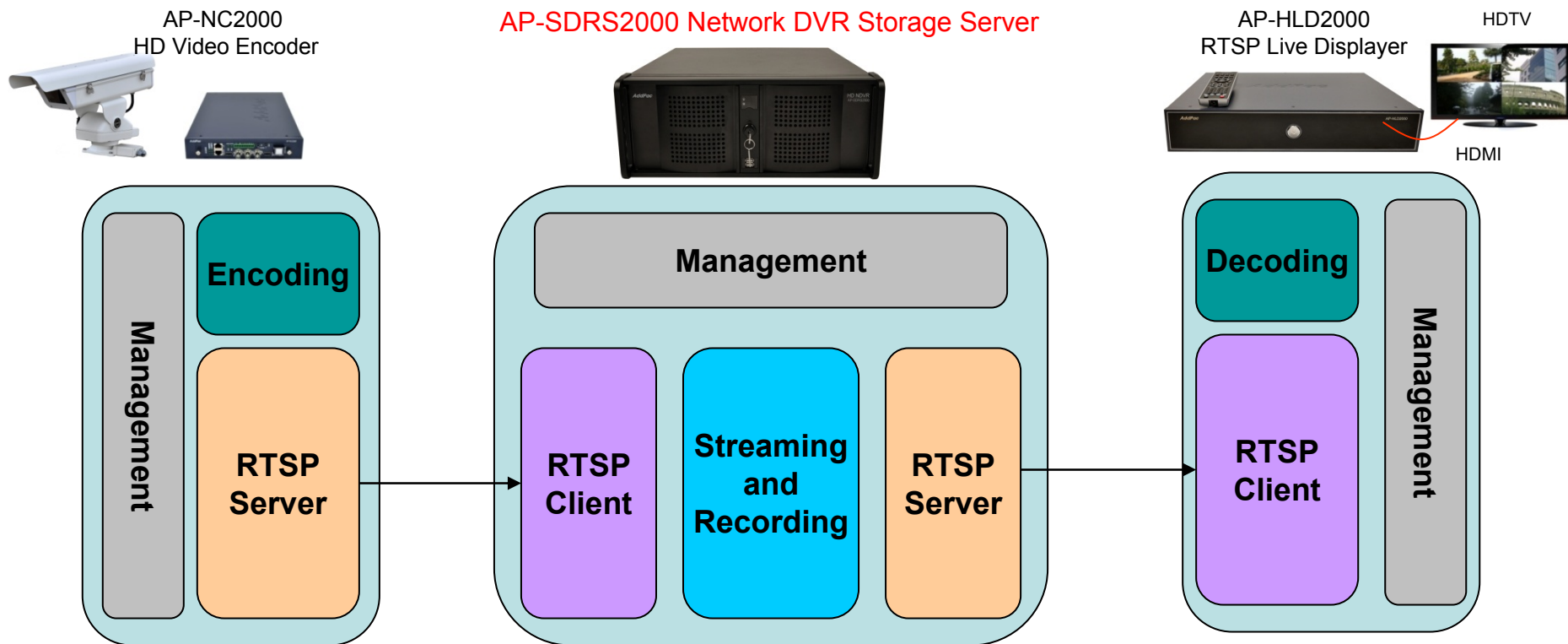
NVR Storage Server Protocol Block Diagram

Medium Scale Network DVR Solution

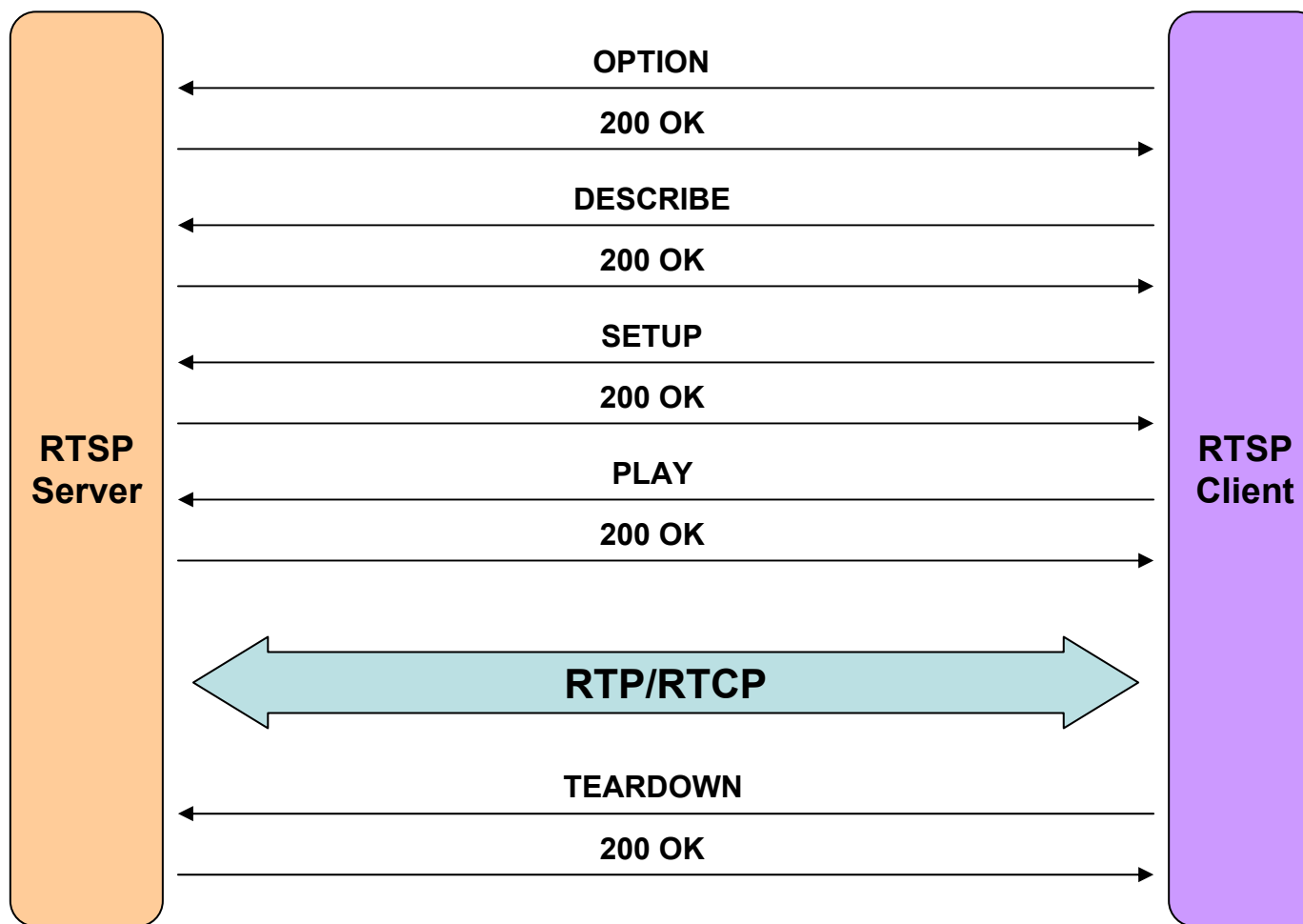


NVR Storage Server Protocol Block Diagram

Small Scale Network DVR Solution (All in One)



Basic RTSP Message Flow





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

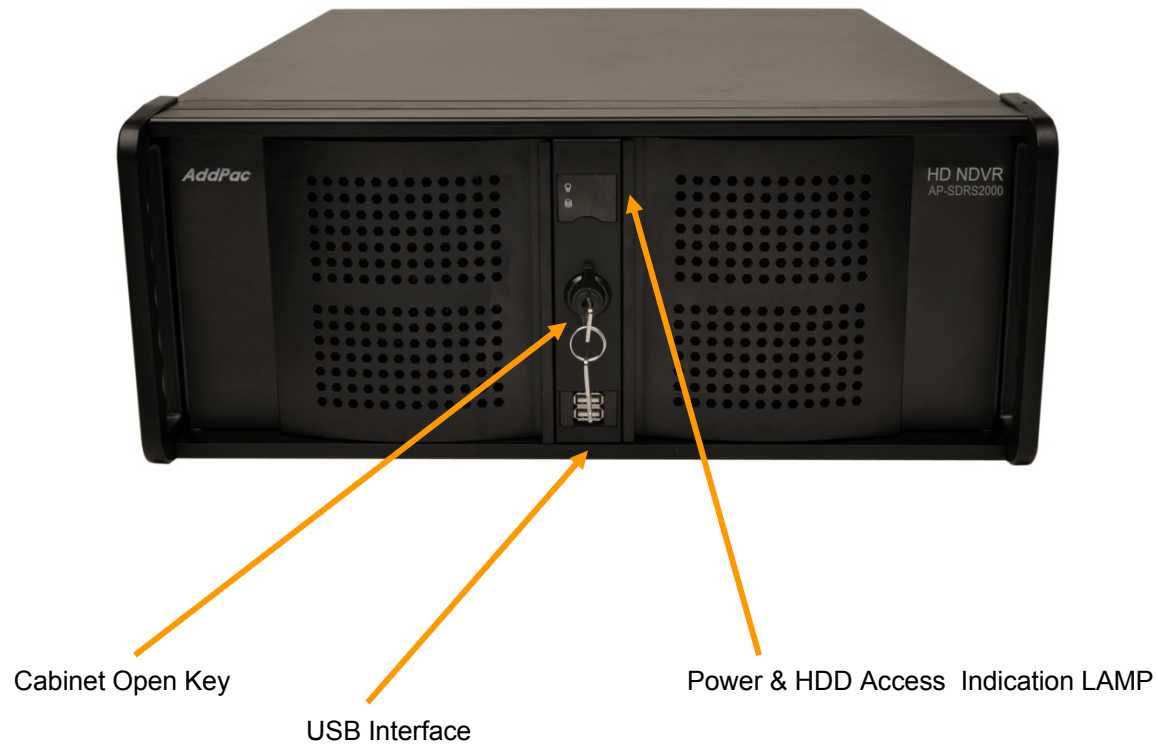
- High Performance Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100/1000Mbps Fast Ethernet
 - Video Output Interface
 - HDMI, DVI,RGB Video Output
 - USB 2.0 Interfaces for Mouse, Keyboard, etc
 - One(1) DVD Writer for Video File Backup
 - Up to Four(4) Hard Disk

Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End
Processor

AP-SDRS2000 Front Side

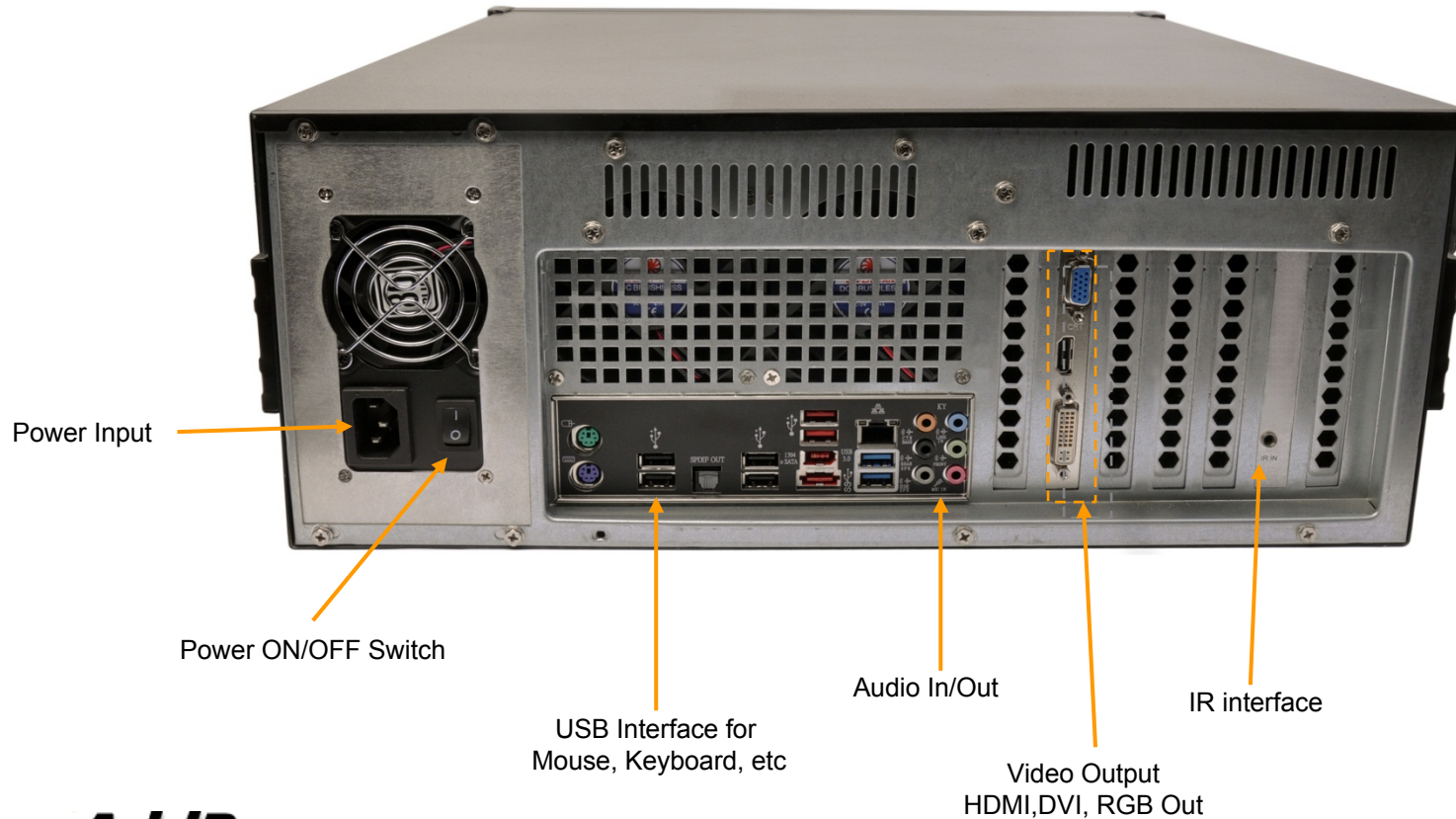


Hardware Specification

AP-SDRS2000 HD NVR Storage Server

High End Processor

AP-SDRS2000 Front 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 displays the Smart DVR Manager web interface. The left sidebar shows a tree view of the system structure, including sections for User, Server, Management, Diagnostic, Record, Stream, Camera, Relay, and Session. The main content area is divided into several sections:

- Camera Searching:** A search bar at the top left of the main area.
- System User configuration:** A section containing a 'Server Port' field set to 8020.
- Client Session:** A section with two tables: 'Viewer List' (showing 10 User Licensed) and 'Manager List' (showing 5 User Licensed).
- 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 listing active users and their IP addresses.

User	IP
root	172.16.1.14
root	172.16.1.14
root	172.16.34.2

The status bar at the bottom shows the date and time (2010-03-12 오후 3:42:59), the server address (172.16.14.113 : 8020), the version (Version 2.1.3723), the current user (root), and the number of active viewers and managers (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 search filters and a table of results. Three yellow callout boxes highlight key features: 'Recording File Download' (pointing to a download icon), 'Excel Exporting' (pointing to an Excel icon), and 'Recording Media Searching Result' (pointing to the table). A fourth box, 'Recording Media Management', points to the 'Record' menu item in the navigation tree.

CameraNa...	StartTime	EndTime	Duration	URL	Camera Gr...	User ID	Description	Video Size	FPS
3층창문_HD	2010-03-1...	2010-03-1...	00:00:00	file/1001v...	/	root	no contents	1280X720	30
3층창문_HD	2010-03-1...	2010-03-1...	00:00:10	file/1001v...	/	root	no contents	1280X720	30
3층창문_HD	2010-03-1...	2010-03-1...	00:00:39	file/1001v...	/	root	no contents	1280X720	30

Total 3 results found.

Smart DVR Manager : Advanced Recording Searching

Advanced Searching Menu

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 Camera Name like 3 Relation AND

Time 2010-03-12 오전 12:00:00 ~ 2010-03-12 오후 11:59:59 Relation NONE

Advanced Searching Rules

Selected Searching Rule Clear

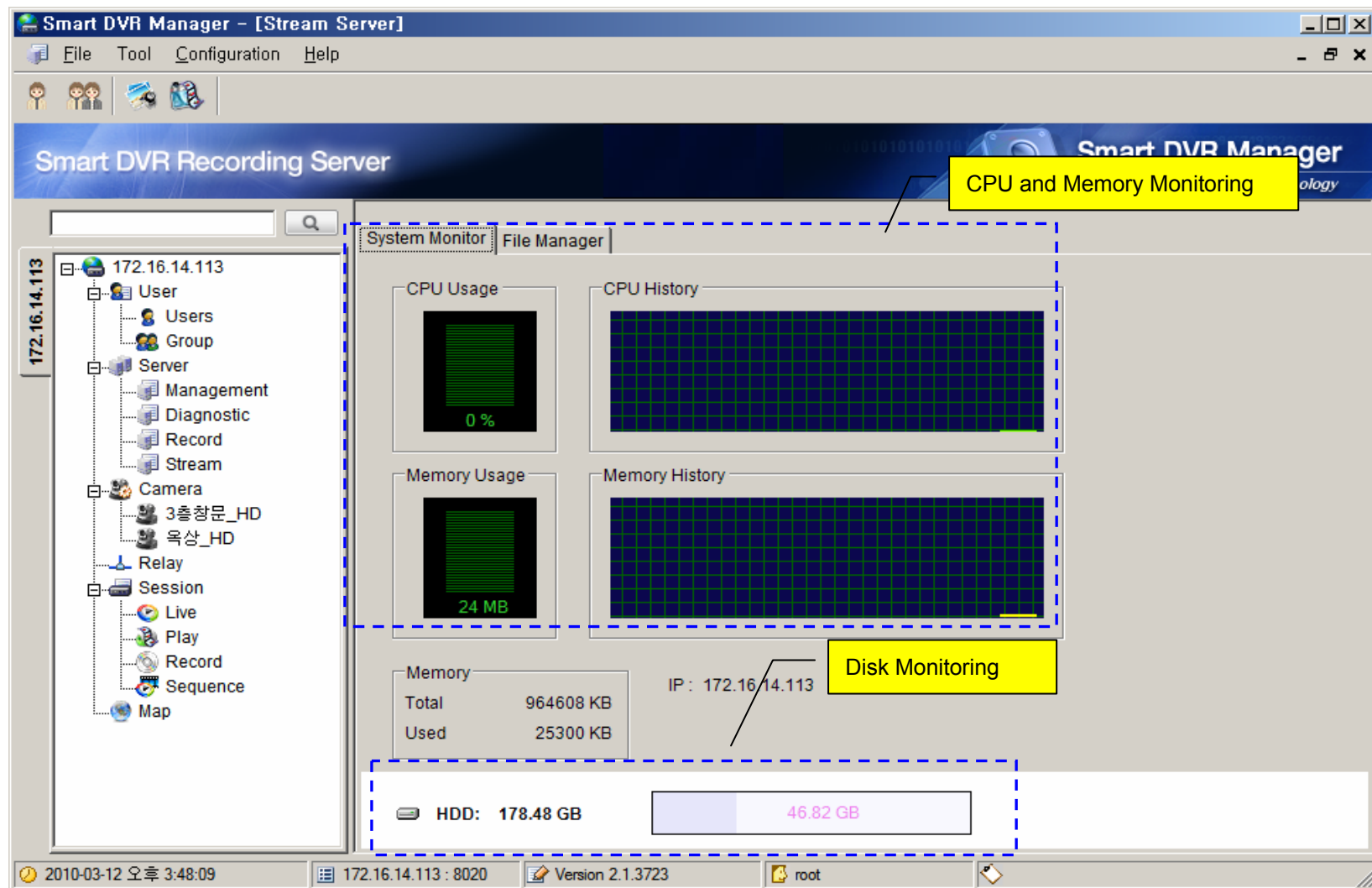
Searching Rule All Clear

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 - [Stream Server]' application window. The interface is divided into several sections:

- System Monitor:** A central area containing 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:** A section at the bottom showing a bar chart for HDD usage. The total capacity is 178.48 GB, and the current usage is 46.82 GB.
- System Information:** A table showing memory statistics:

Memory	Value
Total	964608 KB
Used	25300 KB
- Navigation:** A left sidebar with a tree view for the server '172.16.14.113', including categories like User, Server, Camera, and Session.

Yellow callout boxes highlight 'CPU and Memory Monitoring' (pointing to the graphs) and 'Disk Monitoring' (pointing to the HDD bar chart). The status bar at the bottom shows the date '2010-03-12 오후 3:48:09', IP '172.16.14.113 : 8020', version 'Version 2.1.3723', and user 'root'.

Smart DVR Manager : Schedule

The screenshot displays the 'Smart DVR Manager' interface with the 'Schedule' configuration window open. The window is divided into several sections:

- Schedule List:** A table with columns for 'Name' and 'Camera1 Schedule'. A yellow callout 'Add Schedule' points to the '+' icon, and 'Delete Schedule' points to the '-' icon.
- General Schedule:** A grid showing recording schedules for each day of the week (Mon-Sun) across 24 hours. A yellow callout 'Weekly and Daily Time Schedule' points to this grid.
- Special Day:** A table for defining special days with columns for 'Day', 'Special Day', and 'Duration'. A yellow callout 'User define Special Day' points to this table. A calendar is shown below it, with a yellow callout 'Set Special Day using calendar' pointing to the date 2010-03-12.

The interface also shows a tree view on the left with 'Camera1 Schedule' selected, and a status bar at the bottom with system information.



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 table with columns for file name, total time, file size, recording time, and status. Below the table, there are progress bars for file transfer and conversion, along with checkboxes for options like 'file conversion' and 'delete files after download'.

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 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 busy 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 displays the Smart DVR Manager interface with a 'Recorded File Attribute Display' dialog box open. The dialog lists the following attributes:

속성 이름	값
Record ID	3
Comment	No Comment
Camera GUID	745430054867
Camera Name	옥상_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 lists recorded files with columns for '진행시간', '파일 이름', and '파일 크기'. A yellow callout box with the text 'Recorded File Attribute Display' points to the dialog box.

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

스마트 DVR 미디어 관리 프로그램
파일 관리 도움말
AddPac Smart DVR Series
11010101010
Smart DVR Manager
AddPac Technology
서버 > 새로 고침
Remote Database (172.16.14.113:6) 카메라 이
3층청문_HD (5) 옥상_HD
옥상_HD (3) 옥상_HD
Local Database
3층청문_HD (2) 카메라 이
옥상_HD (3)
Records
Records: 0 Search Constraints :
2010-03-12 오후 5:28:00 version 1.0.3723 172.16.14.113 : 8020 root Scheduler waiting



Thank you!

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