

AP-DIBC100™

D1 IP Box 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 Highlight
- Hardware Specification
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- RTSP Message Flow Diagram
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Product Overview

AP-DIBC100 D1 IP Box Camera

- High-End Programmable DSP Hardware Architecture
- High-Performance D1 IP Camera Features
- High Quality H.264 High Profile Video Encoder Support
- Sony 1/3" Super HAD II CCD Sensor
- Up to D1(720x480) Resolution, Various Video Resolution Support
- CS Mount Interface
- RTSP Streaming Service Protocol Support
- Dual Video Encoding (ex : D1, CIF) Support
- Powerful Management and User Friendly Features
- Smart Web Manager Support
- 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-DIBC100 D1 IP Box Camera

Next Generation D1 IP Box Camera

Embedded System for
Stability

High-End Programmable DSP
Hardware Architecture

Up to D1 (720x480) Video
Resolution

High Quality H.264 Video
Encoder Features

Firmware Upgradeable
Architecture

Sony 1/3" Super HAD II CCD
Camera Sensor

APOS™ Technology
Multimedia Network Protocol

CS Mount

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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Hardware Specification

AP-DIBC100 D1 IP Box Camera

High-End
RISC+
VP

- RISC + Video Processor Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100Mbps Fast Ethernet
 - One(1)-Port RS485 Interface
 - Audio Interface
 - One(1) Audio 3.5mm Input/Output Channel
 - Two-Way
 - CVBS Video Out Interface
 - Camera Features
 - Up to D1 (720 x 480) Video Resolution
 - CCD Camera Sensor
 - CS Mount Lens
 - I/O Interface
 - 2 Alarm Input, 1 Relay
 - Power
 - External DC12V Power Supply
 - PoE(Power over Ethernet) Support



Hardware Specification

AP-DIBC100 D1 IP Box Camera

High-End
RISC+
VP

- Camera Features
 - CS Mount Lens
 - Sony 1/3" Super HAD II CCD Sensor
 - 650TVL (Color)
 - 0.15 Lux (Color) / 0.01 Lux (B/W)
 - True Day & Night
 - Digital WDR
 - 3.5~8.5mm CS Mount Type Lens

Hardware Specification

AP-DIBC100 D1 IP Box Camera

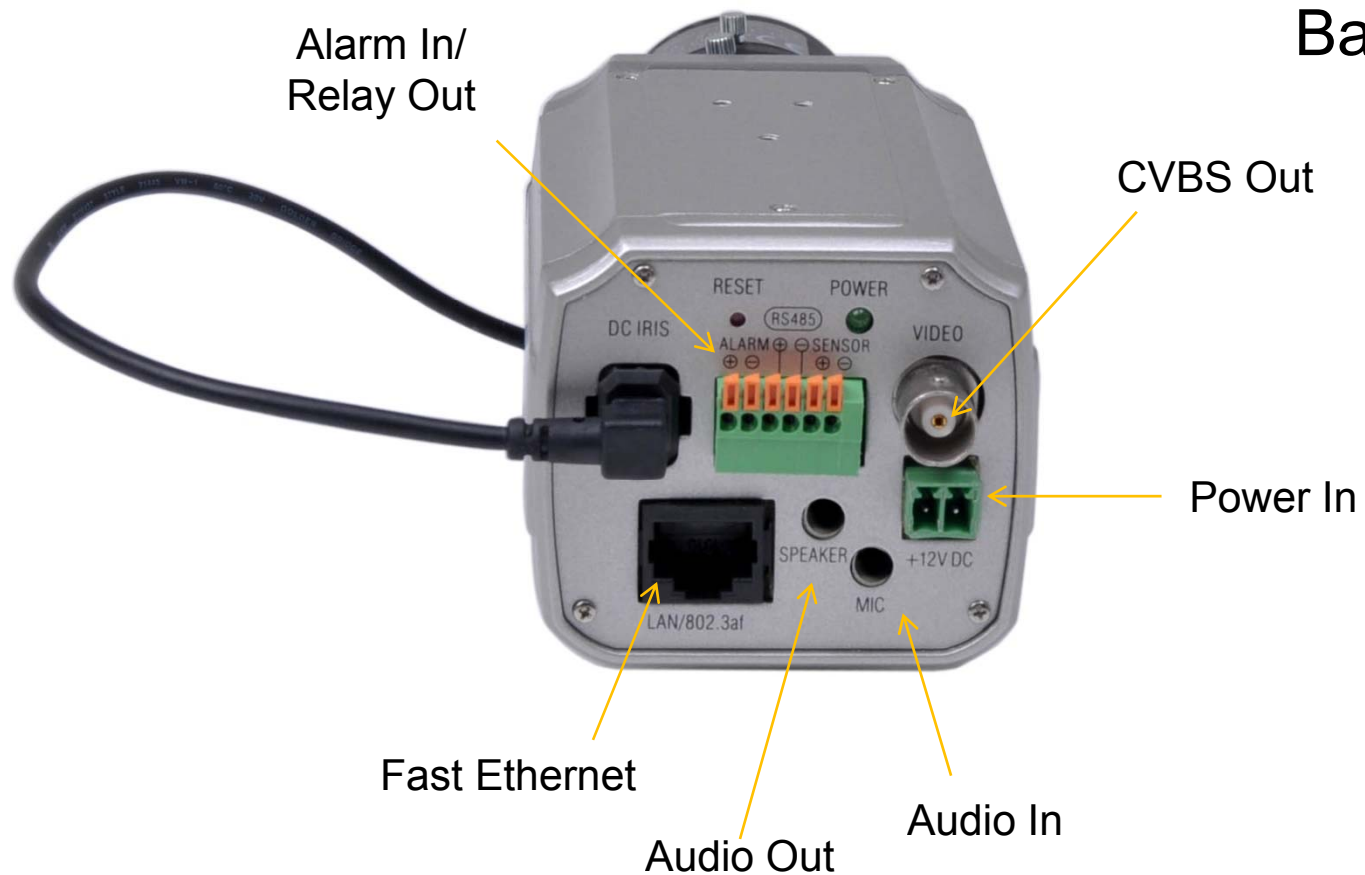
Front Side



Hardware Specification

AP-DIBC100 D1 IP Box Camera

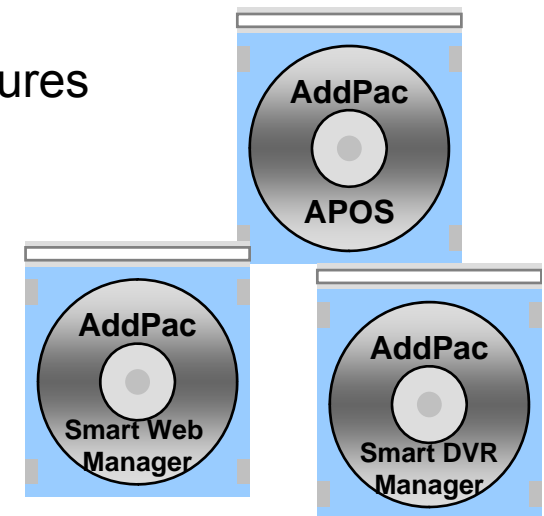
Back Side



Software Service

AP-DIBC100 D1 IP Box Camera

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



NVR Storage Server Protocol Block Diagram

AP-DIBC100 D1 IP Box Camera

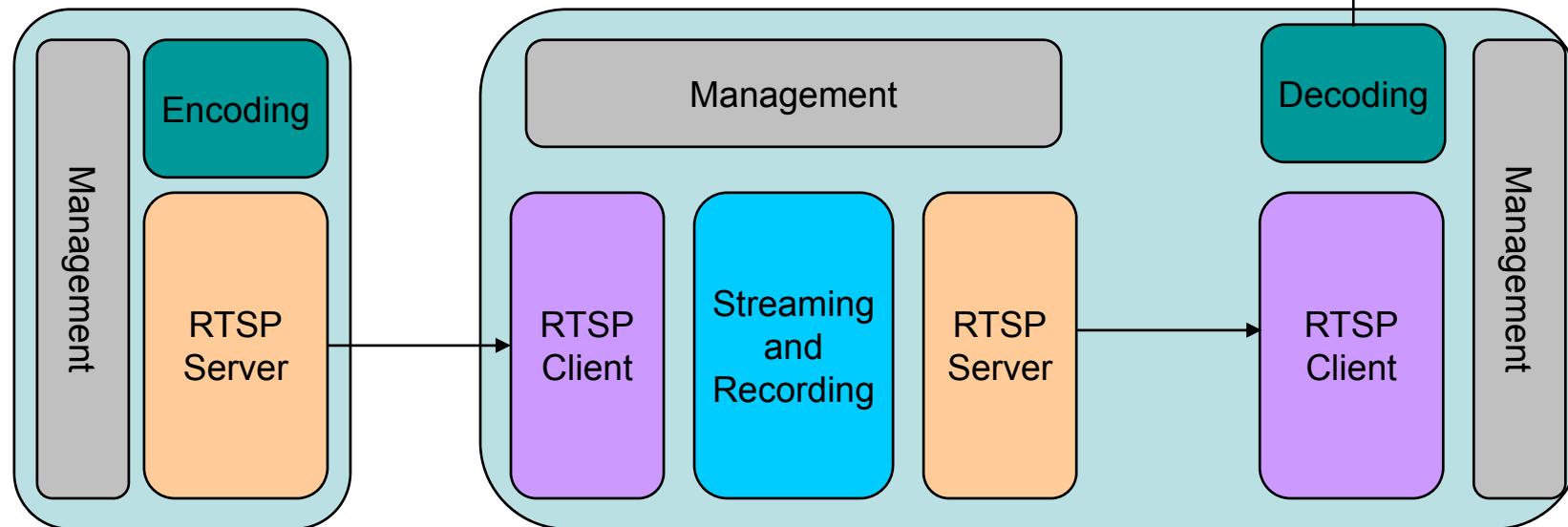
Small Scale Network DVR Solution (All in One)

AP-HNR104 Network DVR Storage Server

D1 IP Video Encoder



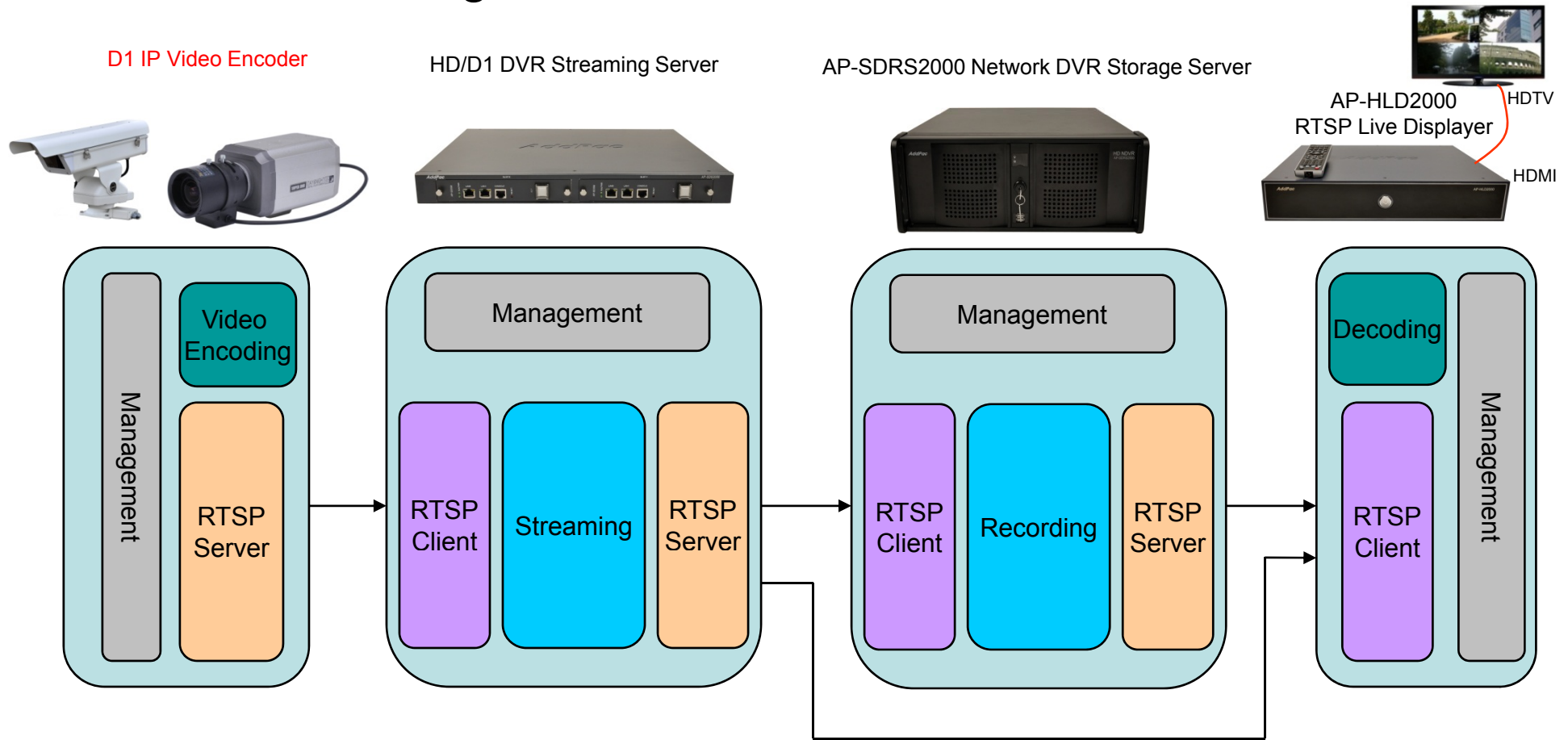
HDMI Video Output



NVR Storage Server Protocol Block Diagram

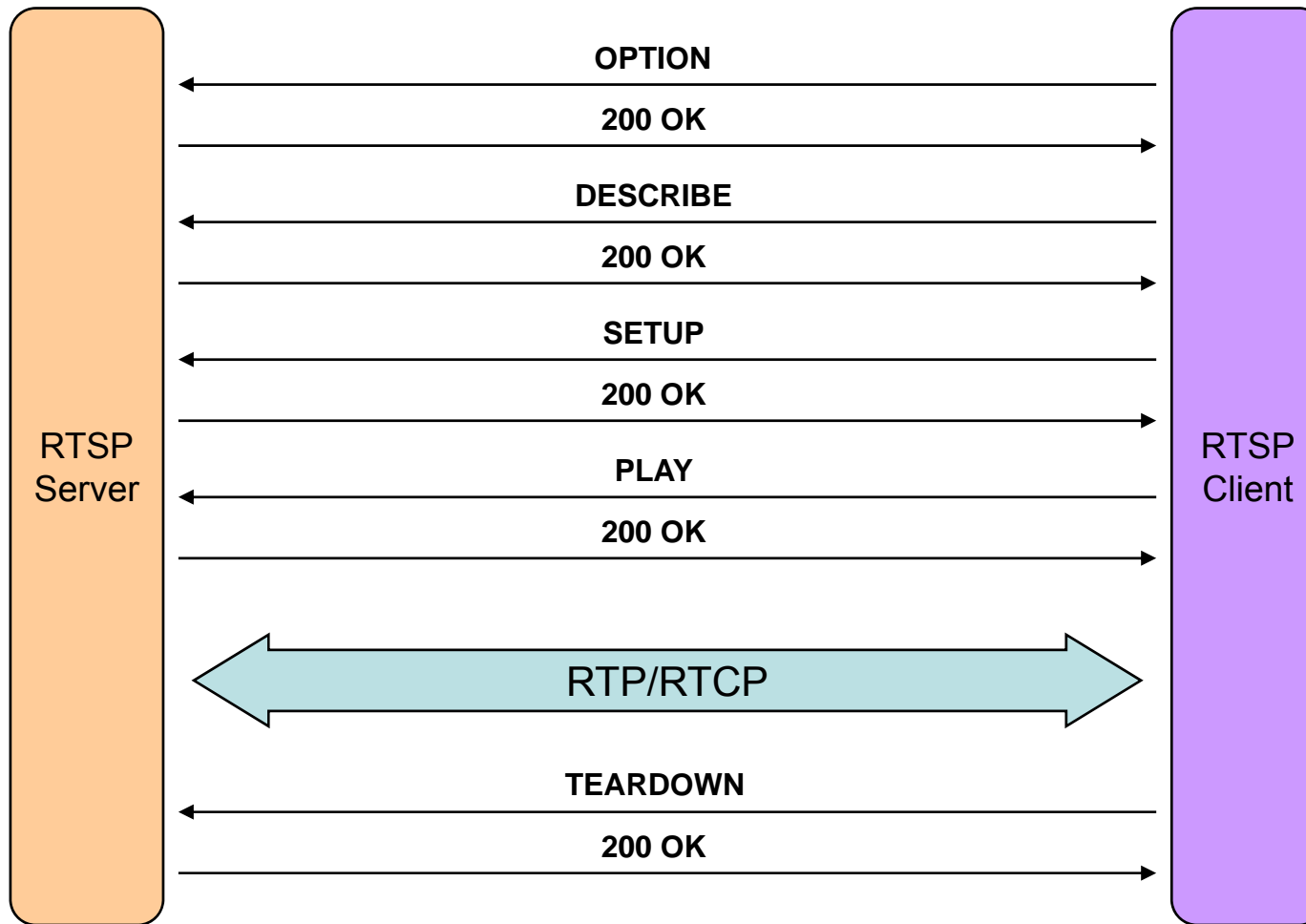
AP-DIBC100 D1 IP Box Camera

Medium & Large Scale Network DVR Solution



Basic RTSP Message Flow

AP-DIBC100 D1 IP Box Camera

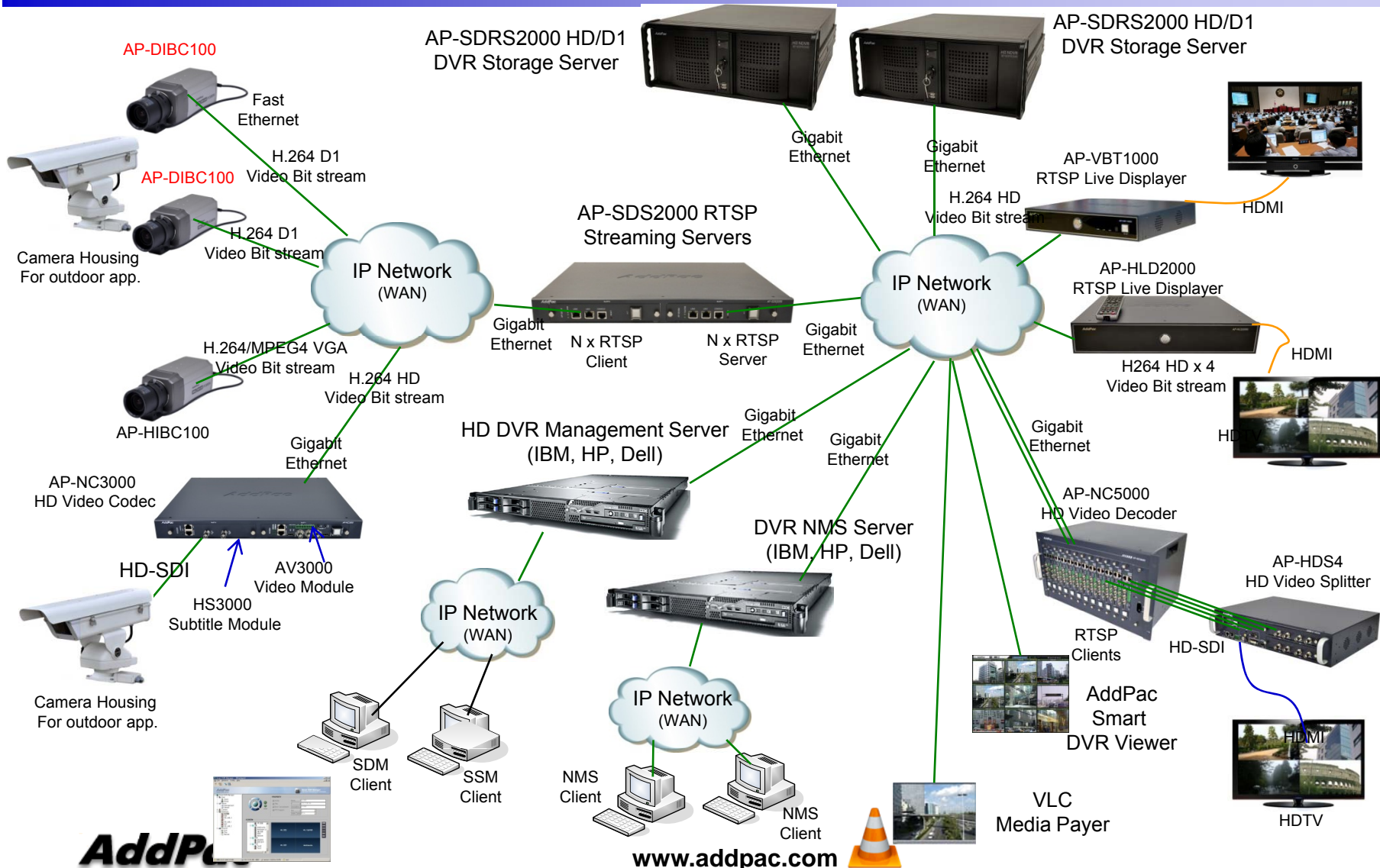




IP Camera Interworking

IP Camera Interworking Diagram (Large Scale)

AP-DIBC100 D1 IP Box Camera

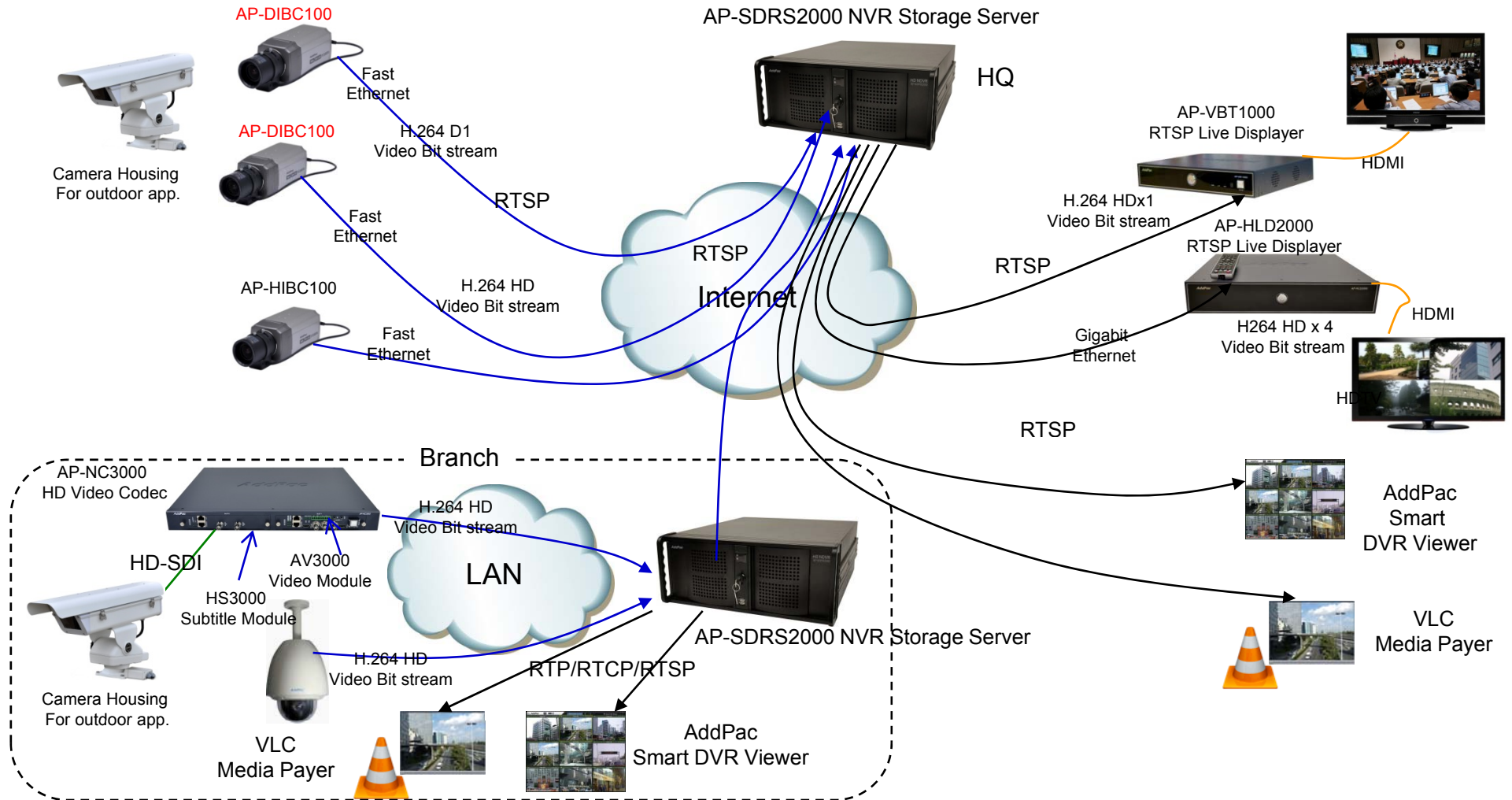


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IP Camera Interworking Diagram (Small Scale)

AP-DIBC100 D1 IP Box Camera





D1 NVR Storage Solution Component Features



AP-HNR1004

HD/D1 Standalone Network DVR

Product Overview

AP-HNR1004 HD/D1 Standalone Network DVR

- High-Performance HD/D1 Standalone Network DVR Features
- H.264 Video Codec BP/MP/HP
- HD, D1 Video Resolution Support
- Video Out : HDMI, DVI, RGB Interface
- 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)
- 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-HNR1004 HD/D1 Standalone Network DVR

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
 - IR Input port for Remote Control
 - Up to Four(4) Hard Disk

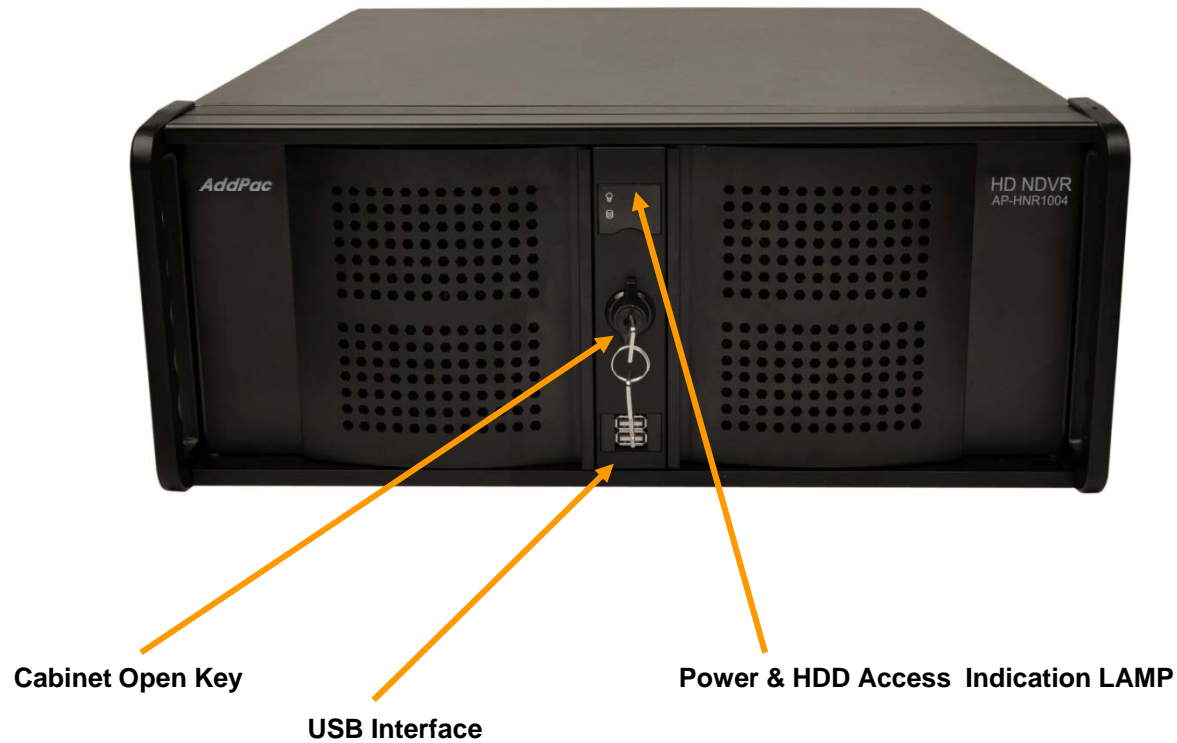


Hardware Specification

AP-HNR1004 HD/D1 Standalone Network DVR

High End Processor

AP-HNR1004 Front Side

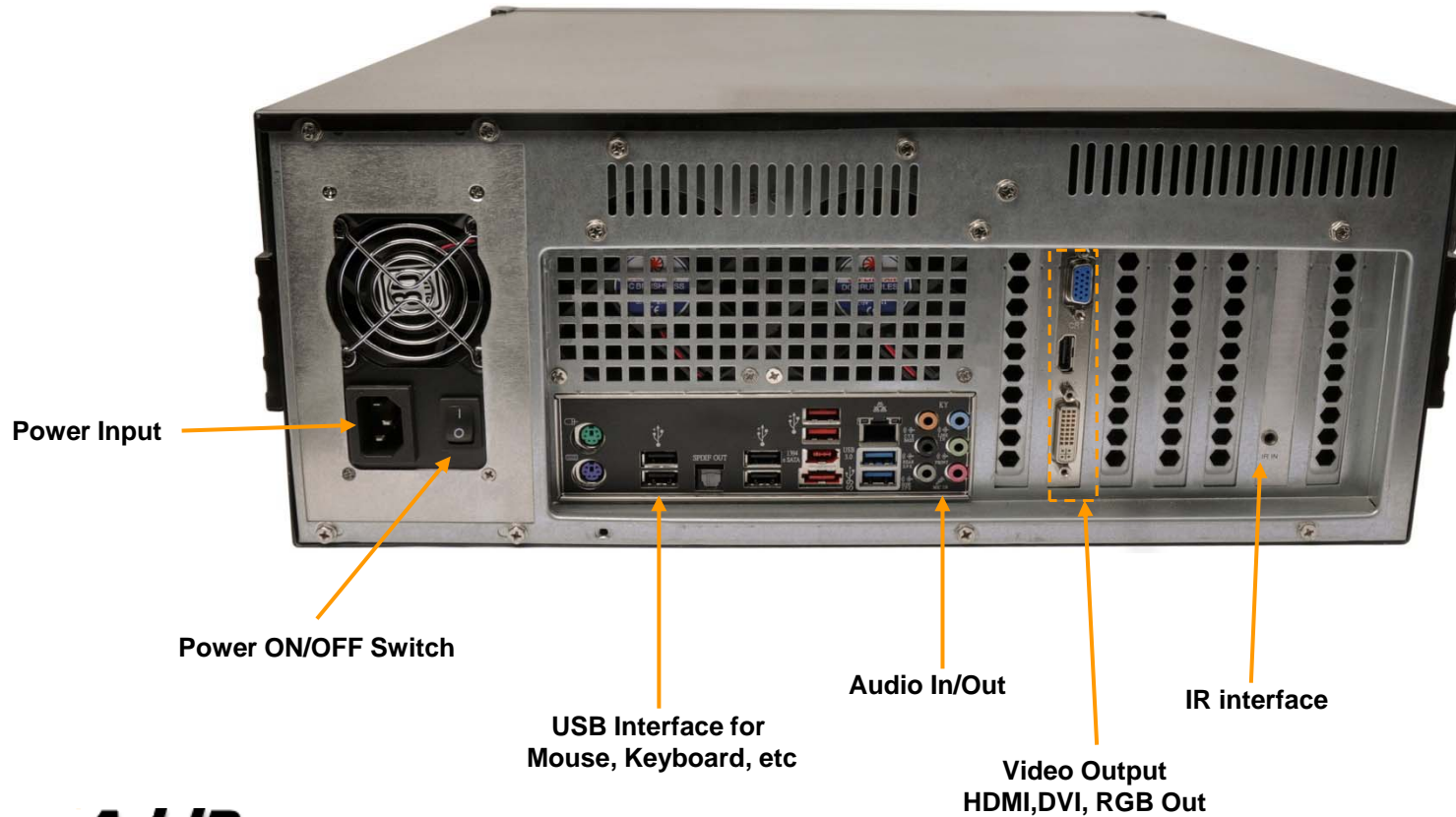


Hardware Specification

AP-HNR1004 HD/D1 Standalone Network DVR

High End Processor

AP-HNR1004 Back Side





AP-SDRS2000 HD/D1 NVR Storage Server

Product Overview

AP-SDRS2000 HD/D1 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/D1 NVR Storage Server

High End
Processor

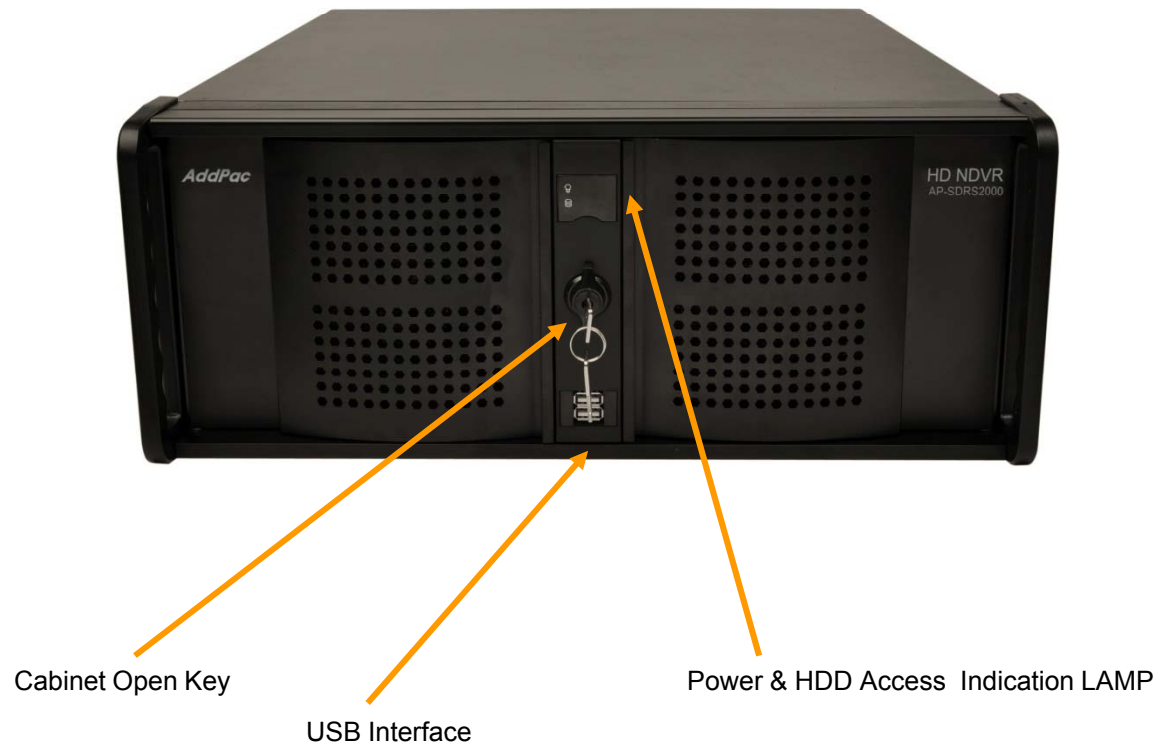
- High Performance Computing Power
- Main Chassis
 - Network Interface
 - One(1) 10/100/1000Mbps Fast Ethernet
 - Video Output Interface
 - HDMI, DVI, RGB Video Output
 - USB 2.0 Interfaces for Mouse, Keyboard, etc
 - One(1) DVD Writer for Video File Backup
 - Up to Four(4) Hard Disk

Hardware Specification

AP-SDRS2000 HD/D1 NVR Storage Server

High End
Processor

AP-SDRS2000 Front Side

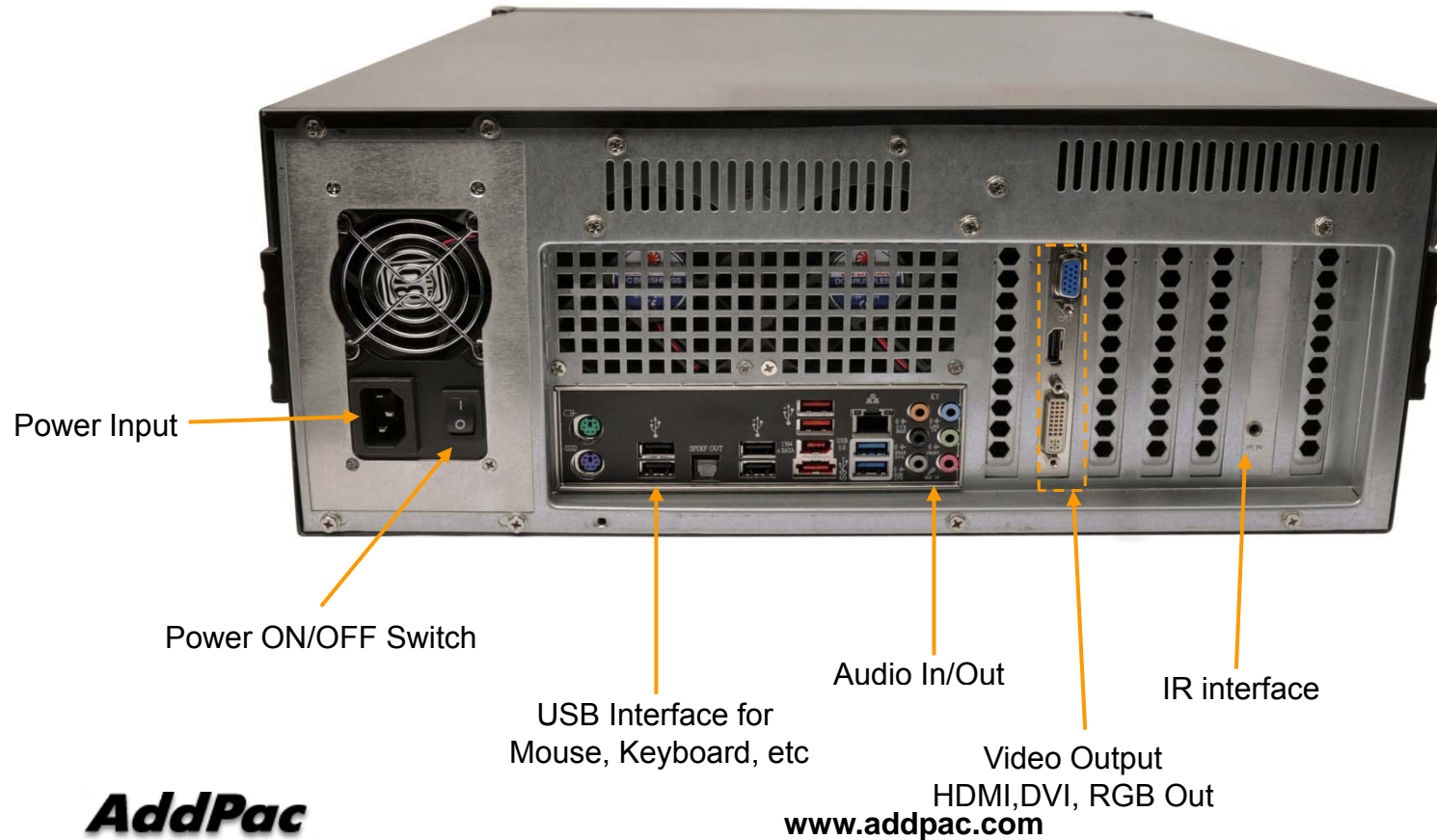


Hardware Specification

AP-SDRS2000 HD/D1 NVR Storage Server

High End Processor

AP-SDRS2000 Back Side



HD/D1 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 with the following components highlighted:

- Camera Searching**: A yellow box pointing to the search bar in the top navigation area.
- System User configuration**: A yellow box pointing to the 'User' folder in the left sidebar tree.
- Camera List**: A yellow box pointing to the 'Camera' folder in the left sidebar tree.
- Session Monitoring**: A yellow box pointing to the 'Session' folder in the left sidebar tree.
- Login User Monitoring**: A yellow box pointing to the 'Manager List' table.

The 'Manager List' table contains the following data:

User	IP
root	172.16.1.14
root	172.16.1.14
root	172.16.34.2

The interface also shows a 'Viewer List' with 10 user licenses and a 'Client Session' section. The status bar at the bottom indicates the date and time (2010-03-12 오후 3:42:59), server address (172.16.14.113 : 8020), version (2.1.3723), and user (root). The viewer and manager counts are 0 and 3 respectively.

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 the date '2010-03-12 오후 3:44:48', IP '172.16.14.113 : 8020', and version 'Version 2.1.3723'.

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 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]' interface. The main window is titled 'Smart DVR Recording Server' and features a menu bar with 'File', 'Tool', 'Configuration', and 'Help'. A search bar is located at the top left. The left sidebar shows a tree view of the system structure for IP 172.16.14.113, including sections for User, Server, Camera, Relay, and Session.

The central area is divided into two tabs: 'System Monitor' (selected) and 'File Manager'. The 'System Monitor' tab contains four monitoring widgets:

- 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.

Below these widgets, a 'Memory' summary box displays:

Total	964608 KB
Used	25300 KB

The IP address 172.16.14.113 is also displayed next to the memory summary.

At the bottom, a 'Disk Monitoring' section shows:

HDD:	178.48 GB	46.82 GB
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The status bar at the bottom of the window shows the date and time (2010-03-12 오후 3:48:09), the IP and port (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

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																								

User define Special Day

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

Set Special Day using calendar

2010-03-12 오후 3:54:03 | 172.16.14.113 : 8020 | Version 2.1.3723 | root | Viewer : 0 Manager : 3



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

카메라 이름	IP 주소	그룹	설명	녹화 시간	진행시간	파일 이름	파일 크기
--------	-------	----	----	-------	------	-------	-------

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 Media Manager' interface with a 'Download' dialog box open. The dialog box contains a table of files to be downloaded and a progress section for the current file.

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)

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
Converting Time : 00:00:03

Callout Box 1 (Yellow): Recorded File List for File Backup : File Name, Recording Duration Time, File Size, File Backup Status

Callout Box 2 (Yellow): Display the File Transfer Progress Status for Backup (Server to Local PC)

Callout Box 3 (Yellow): 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 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

스마트 DVR 미디어 관리 프로그램

파일 관리 도움말

AddPac Smart DVR Series

Smart DVR Manager AddPac Technology

서버 Remote Database (172.16.14.113:6) 3층창문_HD (5) 옥상_HD (3) 옥상_HD (3)

카메라 이름 옥상_HD 옥상_HD 옥상_HD

Records: 3

Local Database 3층창문_HD (2) 옥상_HD (3)

카메라 이름

Records: 0 Search Constraints :

2010-03-12 오후 5:26:28 version 1.0.3723 172.16.14.113 : 8020 root Scheduler waiting

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)

Recorded File Attribute Display

진행시간	파일 이름	파일 크기	
14:4...	00:00:39	2010031105433...	39,052 KB
14:2...	00:00:10	2010031105252...	10,298 KB
14:0...	00:00:00	2010031105015...	436 Byte

진행시간	파일 이름	파일 크기
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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-HIBC100 HD IP Box Camera Hardware
 - AP-HIBC100 Main Body
 - Including Network Cable Set & Power Supply Cable, etc.
- Built-in APOS Internetworking Software for AP-HIBC100
- 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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