

Large Scale HD Network DVR Solution



AddPac

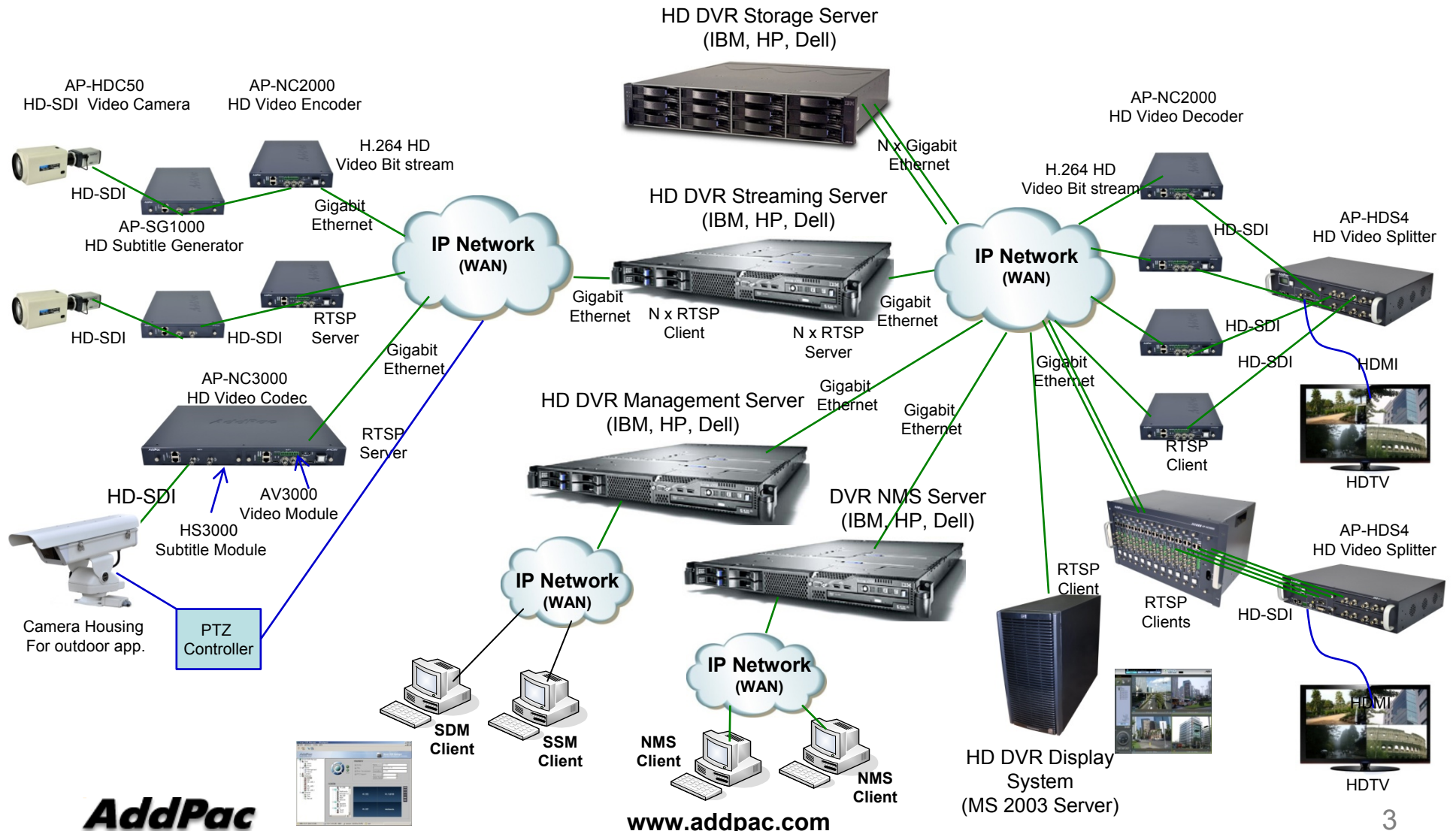
AddPac Technology

2009, Sales and Marketing

Contents

- HD Network DVR Service Diagram
- HD Network DVR Solution Components
 - HD Camera (HD-SDI)
 - HD Camera Housing with PTZ Controller (outsourcing)
 - HD Video Codecs (H.264, RTSP)
 - HD Subtitle Generator (HD-SDI)
 - HD Video Splitter (4 Ch HD-SDI Input)
 - HD DVR Streaming Server
 - HD DVR Storage Server
 - HD DVR Display System : MS-Window based HD Viewer
 - HD DVR Management Server
 - NMS (Network Management System) for DVR Systems

HD Network DVR Service Diagram





HD Network DVR Solution Components



HD Camera (HD-SDI)

HD Camera (HD-SDI)

AP-HDC50 HD Camera

Main Features

- High-End HD Video Camera Features
- 1/3" Progressive Scan CCD Image Sensor
- 1.3 Mega Pixel Camera
- 720P(1280x720)/30frame Video Resolution Support
- External PAN/TILT/Zoom Housing Features
- C/CS Mount Support for High-End External Zoom Lens
- HD-SDI Digital Video Output Interface



HD Camera (HD-SDI)

AP-HDC50 HD Camera

Hardware Specification



C/CS Mount Available



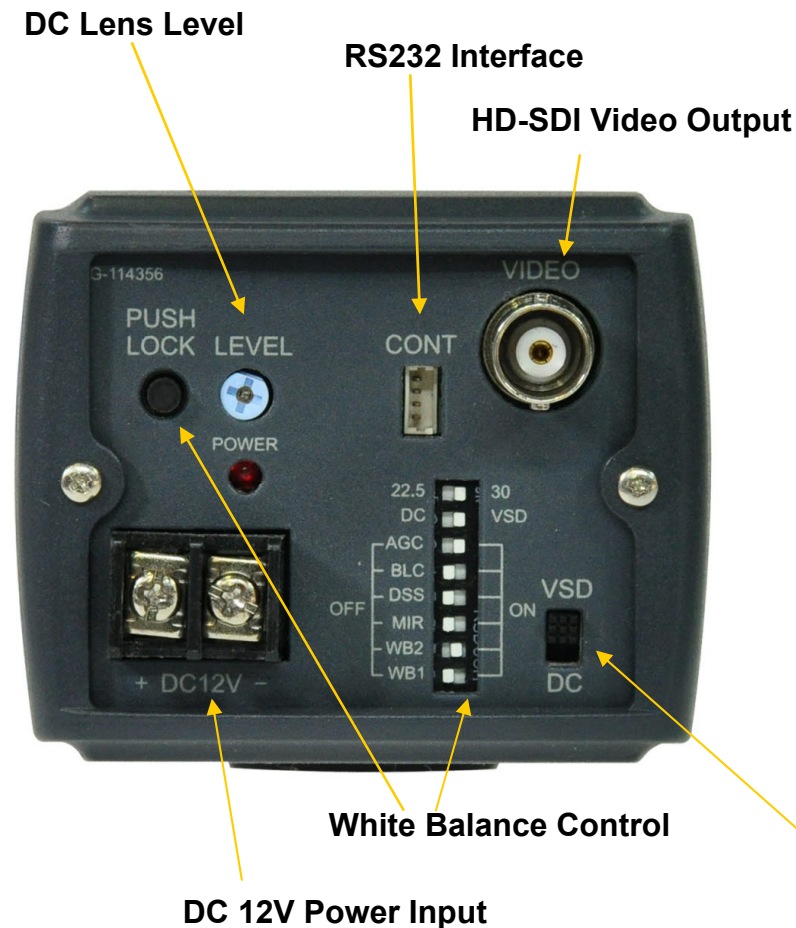
External Zoom Lens



HD Camera (HD-SDI)

AP-HDC50 HD Camera

Hardware Specification



CCD	1/3" Progressive Scan CCD Image Sensor
Pixel	1.3 Mega Pixel
Scanning	Progressive Scan
S/N Ratio	More than 50dB
Min. illumination	DSS off : 1.0 lx(F1.2, 30 IRE, AGC On) DSS on : 0.1 lx
AGC	On/Off
BLC	On/Off
DSS	On/Off
H-Mirror	On/Off
White Balance	Support ATW, AWC, One-Push
Lens Mount	C/CS Mount Available
Lens Control	Supports VSD and DC lens

HD Camera (HD-SDI)

AP-HDC100 HD Camera

Main Features

- High-End HD Video Camera Features
- CMOS Sensor, 2Mega Pixel Camera
- Various Video Format Support (ex; 1080i/59.94)
- External PAN/TILT/Zoom Housing Features
- Optical 10 x Zoom, Digital 12 x Zoom Camera
- HD-SDI Digital Video Output Interface



HD Camera (HD-SDI)

AP-HDC100 HD Camera

Hardware Specification

- **Image Sensor**
 - CMOS, 2Mega Pixel
- **Video Format : 8 Format**
 - HD : 1080i/59.94, 1080i/50, 720p/59.94, 720p/50
 - SD :
- **Video Output**
 - HD-SDI
- **Lens**
 - Auto Focus 10 x Optical Zoom, 12 x Digital Zoom
- **Communication Protocol**
 - VISCA
- **Position Preset**

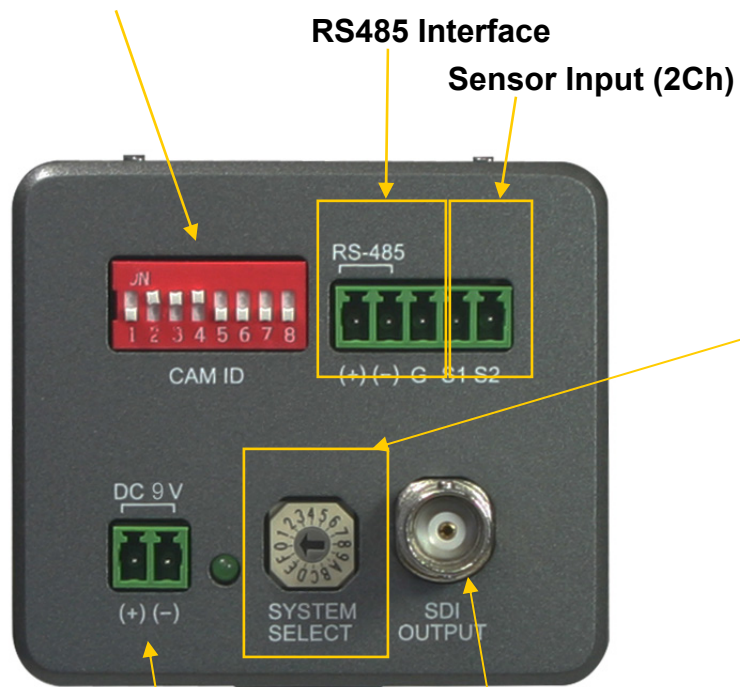


HD Camera (HD-SDI)

AP-HDC100 HD Camera

Hardware Specification

Camera ID for RS485 communication



DC 9V Power Input

HD-SDI Video Output

System Select Switch

Video Signal	70	01	1080i/59.94 (Initial Setting)
		02	720p/59.94
		03	NTSC(CROP)
		04	NTSC(SQ)
		11	1080i/50
		12	720p/50
		13	PAL(CROP)
		14	PAL(SQ)



HD Camera Housing with PTZ Controller(outsourcing)





HD Video Codecs

H.264 Dual Encoding (720P, D1)

HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

Main Features

- IP based Audio/Video Encoding/Decoding Solution
- Single Slot for HD Video Modules
- Various HD Video Codec Modules Support
- H.264 HD Video Codec
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection
- External DC Power Supply Adaptor
- Compact Chassis

HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

Hardware Specification



AV3000 HD Video Module

AP-NC2000D Front View



Power On/Off Switch
www.addpac.com

DC Power Supply

HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

High-end
DSP

AP-NC2000D Video Codec Modules

AV5000E HD Video Encoder Module
(H.264 720P, D1 Dual Encoding)



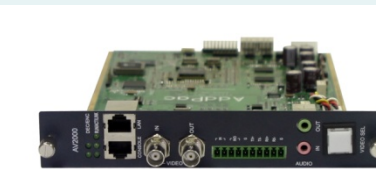
AV5000D HD Video Decoder Module



AV3000 HD Video Encoder/Decoder Module
(H.264 720P, D1 Dual Encoding)



AV2000 D1 Video Encoder/Decoder Module
(H.264 D1, CIF Dual Encoding)



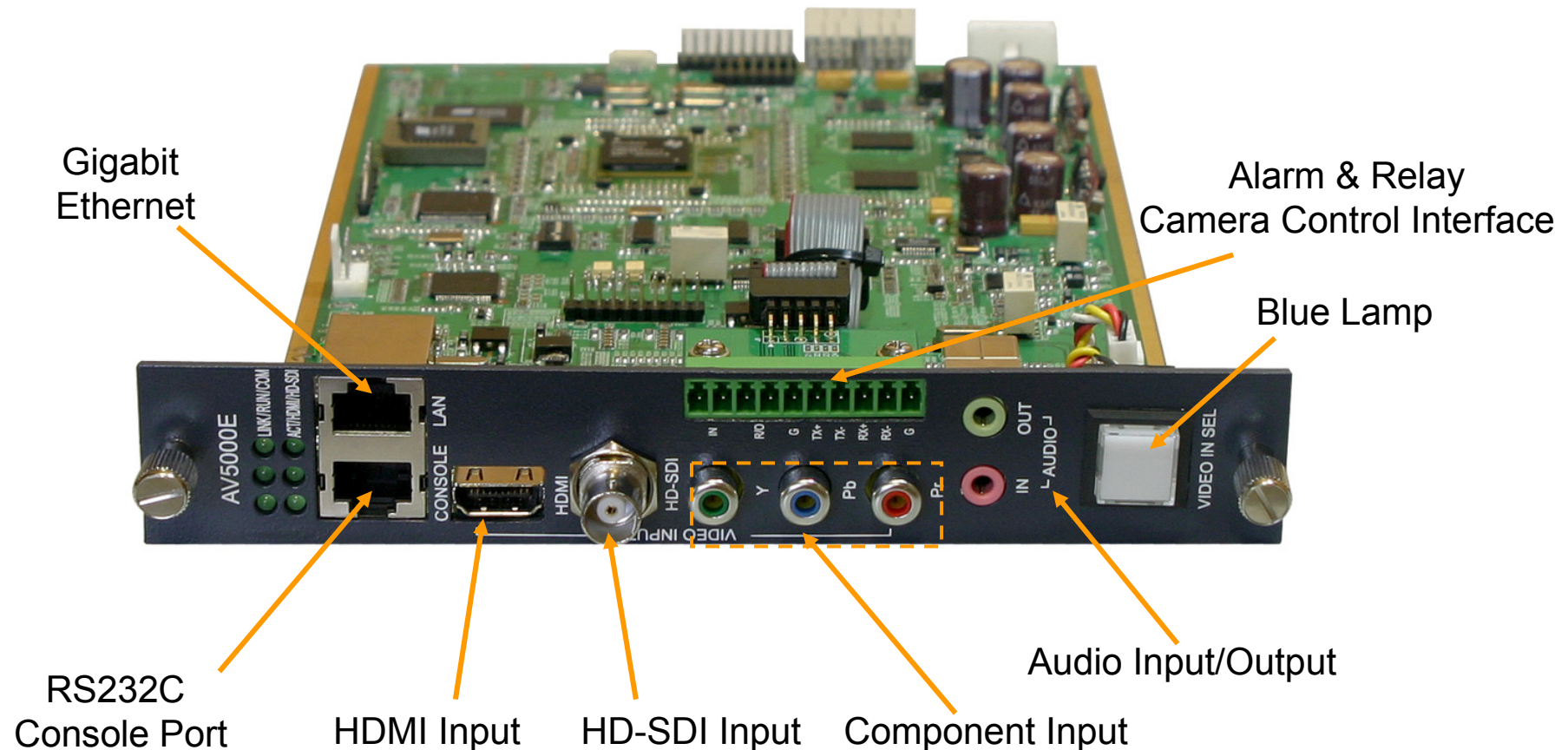
HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

High-end
DSP

Hardware Module Specification

AV5000E HD Video Encoder Module (H.264)



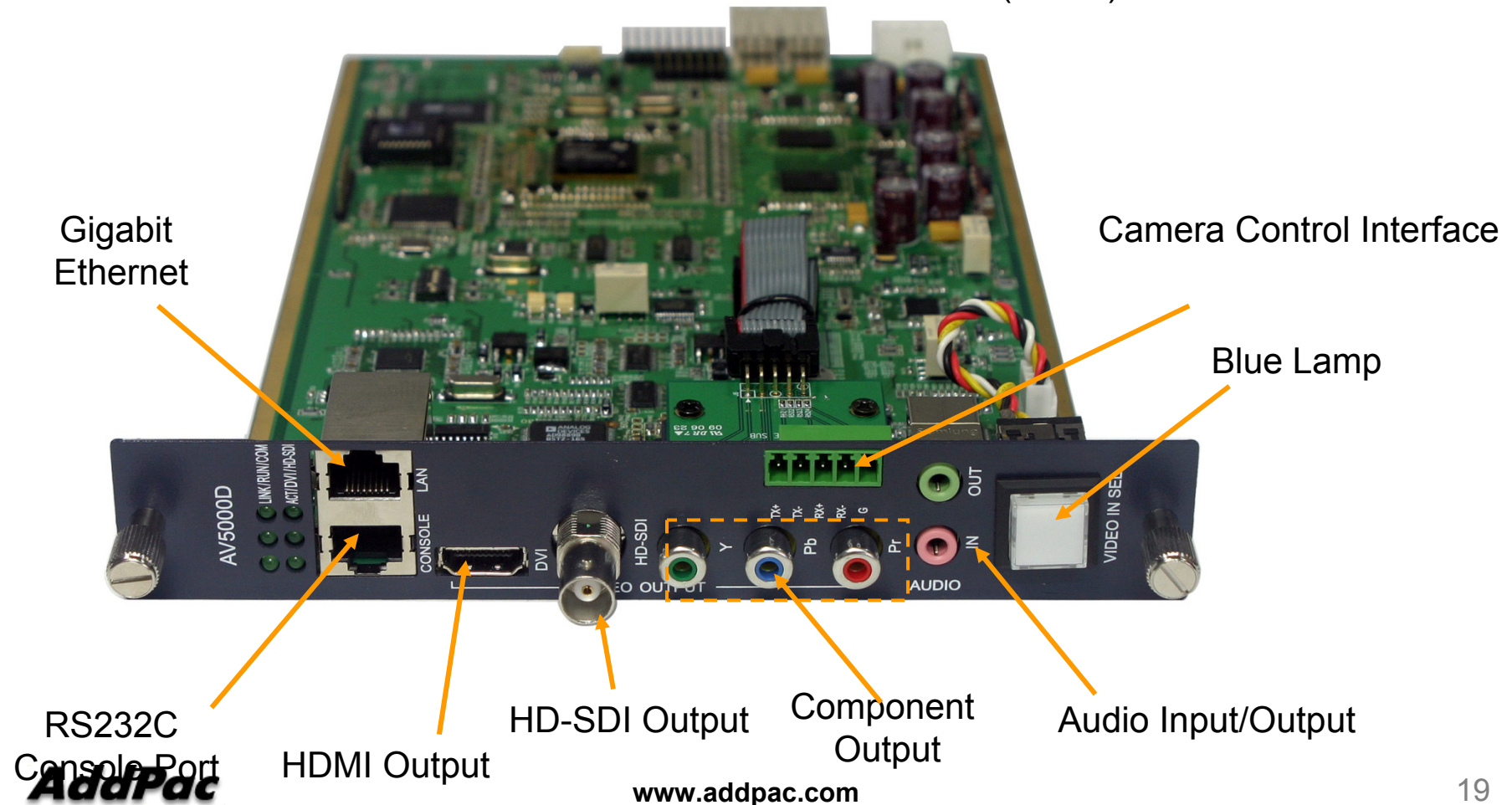
HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

High-end
DSP

Hardware Module Specification

AV5000D HD Video Decoder Module (H.264)



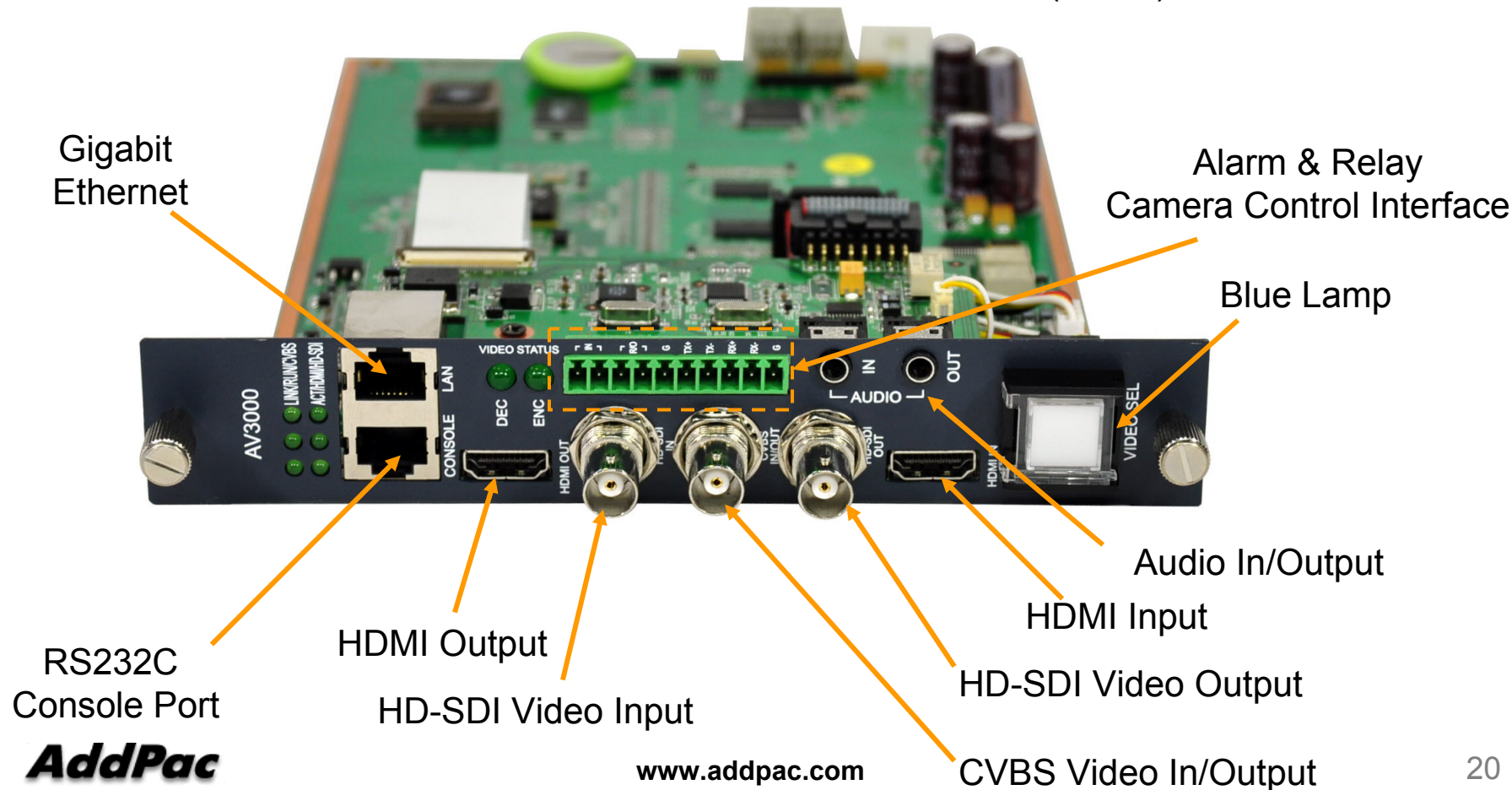
HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec



Hardware Module Specification

AV3000 HD Video Encoder/Decoder Module(H.264)



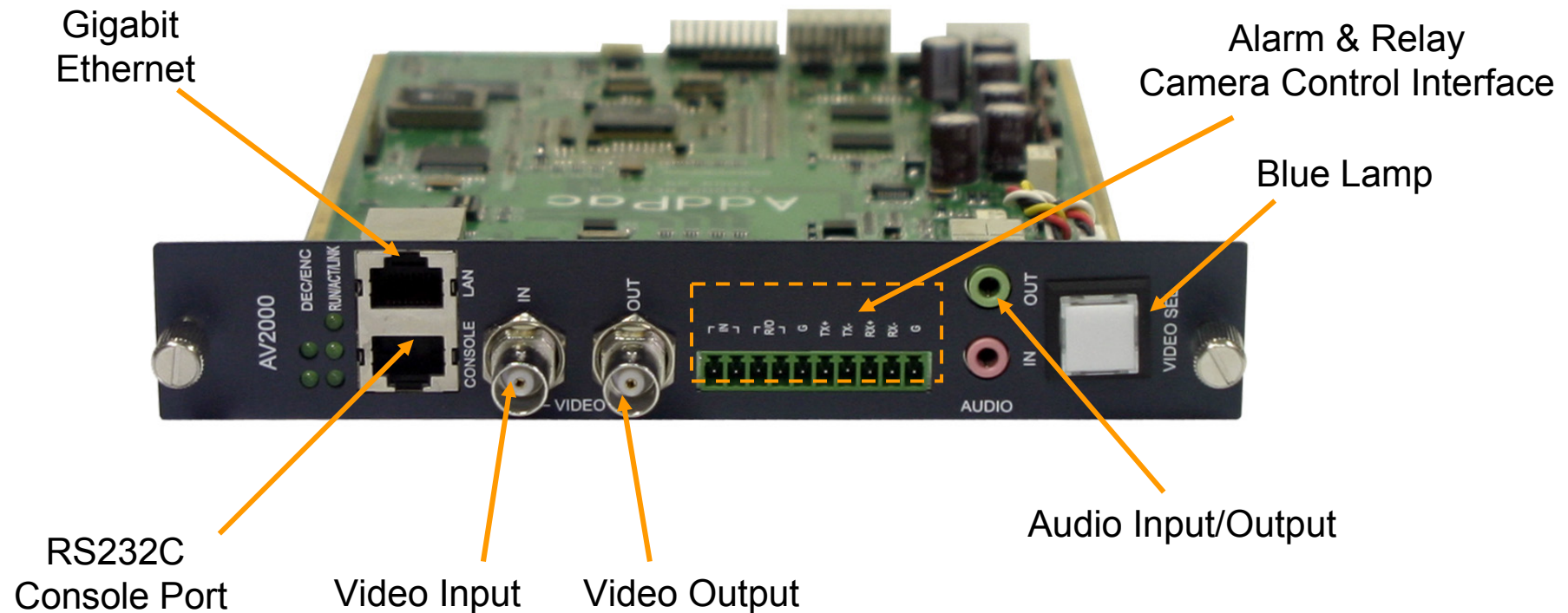
HD Video Codec (HD-SDI)

AP-NC2000D HD Video Codec

High-end
DSP

Hardware Module Specification

AV2000 D1 Video Encoder/Decoder Module (H.264)



HD Video Codec (HD-SDI)

AP-NC2000 HD Video Codec

Main Features

- IP based Audio/Video Encoding/Decoding Solution
- Single Slot for HD Video Modules
- Various HD Video Codec Modules Support
- H.264 HD Video Codec
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection
- Internal Power Supply
- Compact Chassis

HD Video Codec (HD-SDI)

AP-NC2000 HD Video Codec

Hardware Specification

AP-NC2000 Front View



AV3000 HD Video Module



Power On/Off Switch

AC Power Supply

HD Video Codec (HD-SDI)

AP-NC3000 HD Video Codec

Main Features

- IP based Audio/Video Encoding/Decoding Solution
- Two(2) Slot for HD Video Modules
- Various HD Video Codec Modules Support
- H.264 HD Video Codec
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection
- Internal Power Supply

HD Video Codec (HD-SDI)

AP-NC3000 HD Video Codec

Hardware Specification

AP-NC3000 Front View



AV3000 HD Video Module

HS3000 HD Subtitle Generator Module



AC Power Supply

Power On/Off Switch

AddPac

www.addpac.com

HD Video Codec (HD-SDI)

AP-NC3000 HD Video Codec

AP-NC3000 Video Codec Modules

AV5000E HD Video Encoder Module
(H.264 720P, D1 Dual Encoding)



AV5000D HD Video Decoder Module



AV3000 HD Video Encoder/Decoder Module
(H.264 720P, D1 Dual Encoding)



AV2000 D1 Video Encoder/Decoder Module
(H.264 D1, CIF Dual Encoding)



HD Video Codec (HD-SDI)

AP-NC3000 HD Video Codec

AP-NC3000 HD-SDI Subtitle Generator Modules

HS3000 HD-SDI Subtitle Generator Module



HD Video Codec (HD-SDI)

AP-NC5000 HD Video Codec

Main Features

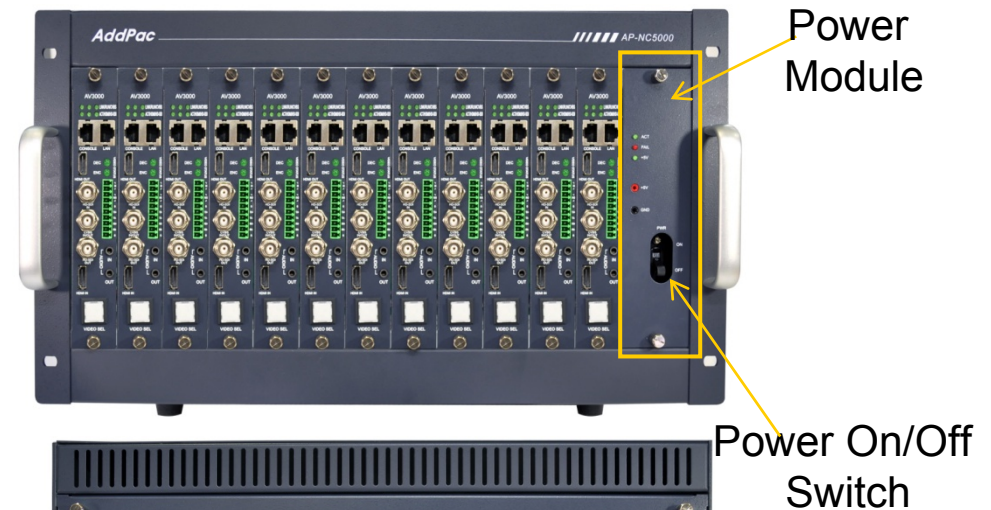
- IP based Audio/Video Encoding/Decoding Solution
- Twelve(12) Slot for HD Video Modules
- Various HD Video Codec Modules Support
- H.264 HD Video Codec
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection
- Module Type Power Supply

HD Video Codec (HD-SDI)

AP-NC5000 HD Video Codec

Hardware Specification

AP-NC5000 Front View



AV3000 HD Video Module



AC Power Inlet

AP-NC5000 Back Side



HD Subtitle Generator

HD Subtitle Generator

AP-SG1000 HD Subtitle Generator

Main Features

- HD-SDI Subtitle Generation Service Features
- PC based Subtitle Controller Software
- Single Slot for HD-SDI Subtitle Modules
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection
- External Power Supply Adaptor (DC Power Supply)
- Compact Chassis

HD Subtitle Generator

AP-SG1000 HD Subtitle Generator

HD Subtitle Generator Service Features

- Display Object at specific position(Character, Figure, Diagram, Bitmap)
- Character Object : Color, Font Size, Font, Boundary Color, Box, Box Color, Position, etc
- Character Scrolling Service
- Variable Subtitle Service by PTZ Position Information
- Erase Object within specific area
- Erase All Object
- Status Information Service (S/W Version, Flash Size, etc)
- Network Configuration

HD Subtitle Generator

AP-SG1000 HD Subtitle Generator

Hardware Specification



HS3000 HD-SDI Subtitle Module

AP-SG1000 Front View



Power On/Off Switch

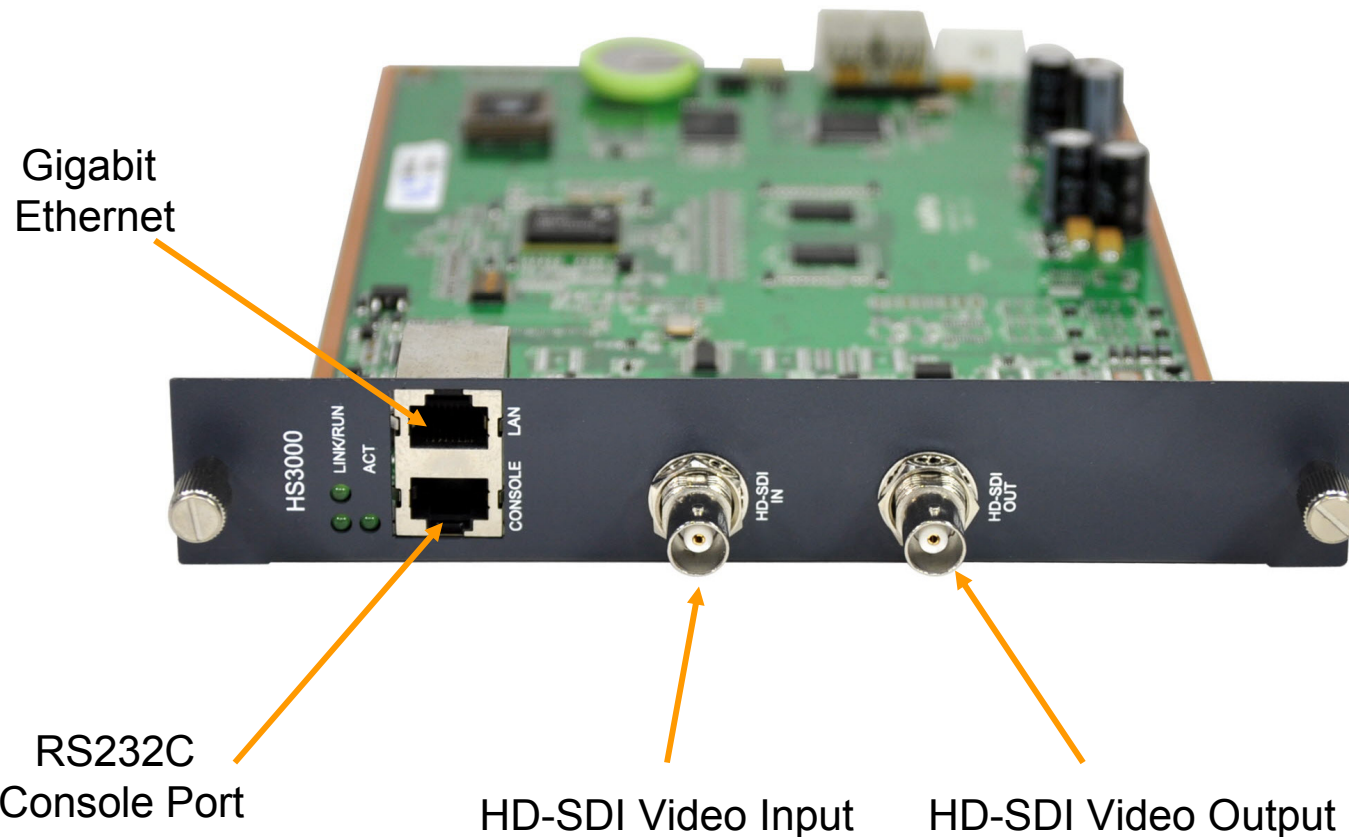
AC Power Supply

HS3000 Module (HD-SDI)

AP-SG1000 HD Subtitle Generator

High-end
DSP

HS3000 HD-SDI Subtitle Generation Module Specification





HD Video Splitter

HD Video Splitter

AP-HDS4 HD-SDI 4 Layout Video Splitter

Main Features

- HD-SDI Video Splitter Service Features
- Four(4) Channel HD-SDI Video Input (720P)
- One(1) Channel HDMI or DVI Video Output for HDTV Display
- HD-SDI Two(2)-Port Input Module
- IP based Network Surveillance Solution
- High-performance Video, Audio, and Voice Service
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Internal Power Supply Adaptor

HD Video Splitter

AP-HDS4 HD-SDI 4 Layout Video Splitter

Hardware Specification

AP-HDS4 Front View



Two(2) Channel HD-SDI Video Input Module

Power On/Off Switch



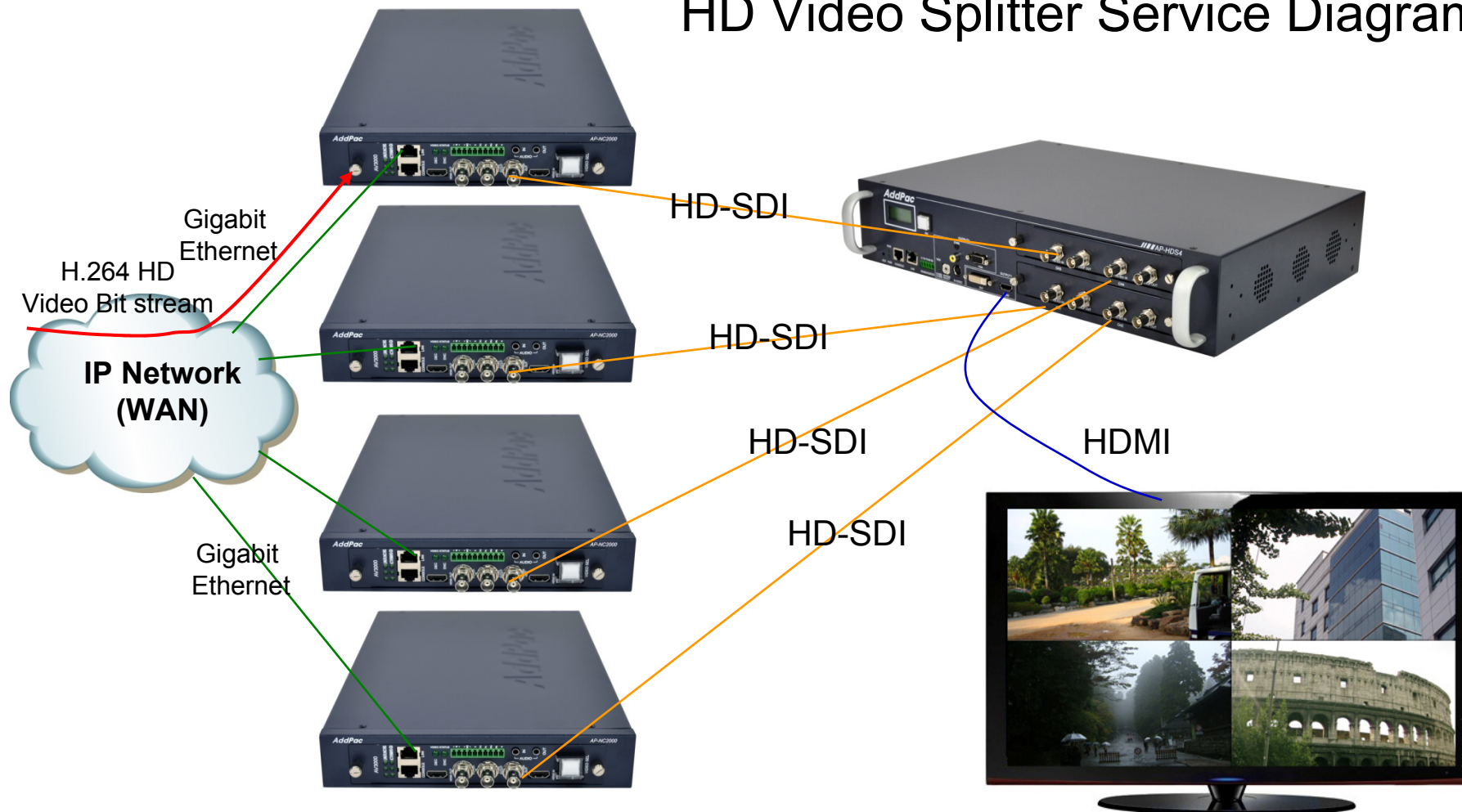
AP-HDS4 Back Side

AC Power Supply

HD Video Splitter

AP-HDS4 HD-SDI 4 Layout Video Splitter

HD Video Splitter Service Diagram





HD DVR Streaming Server (AP-SDSS)

HD DVR Streaming Server

AP-SDSS Smart DVR Streaming Server

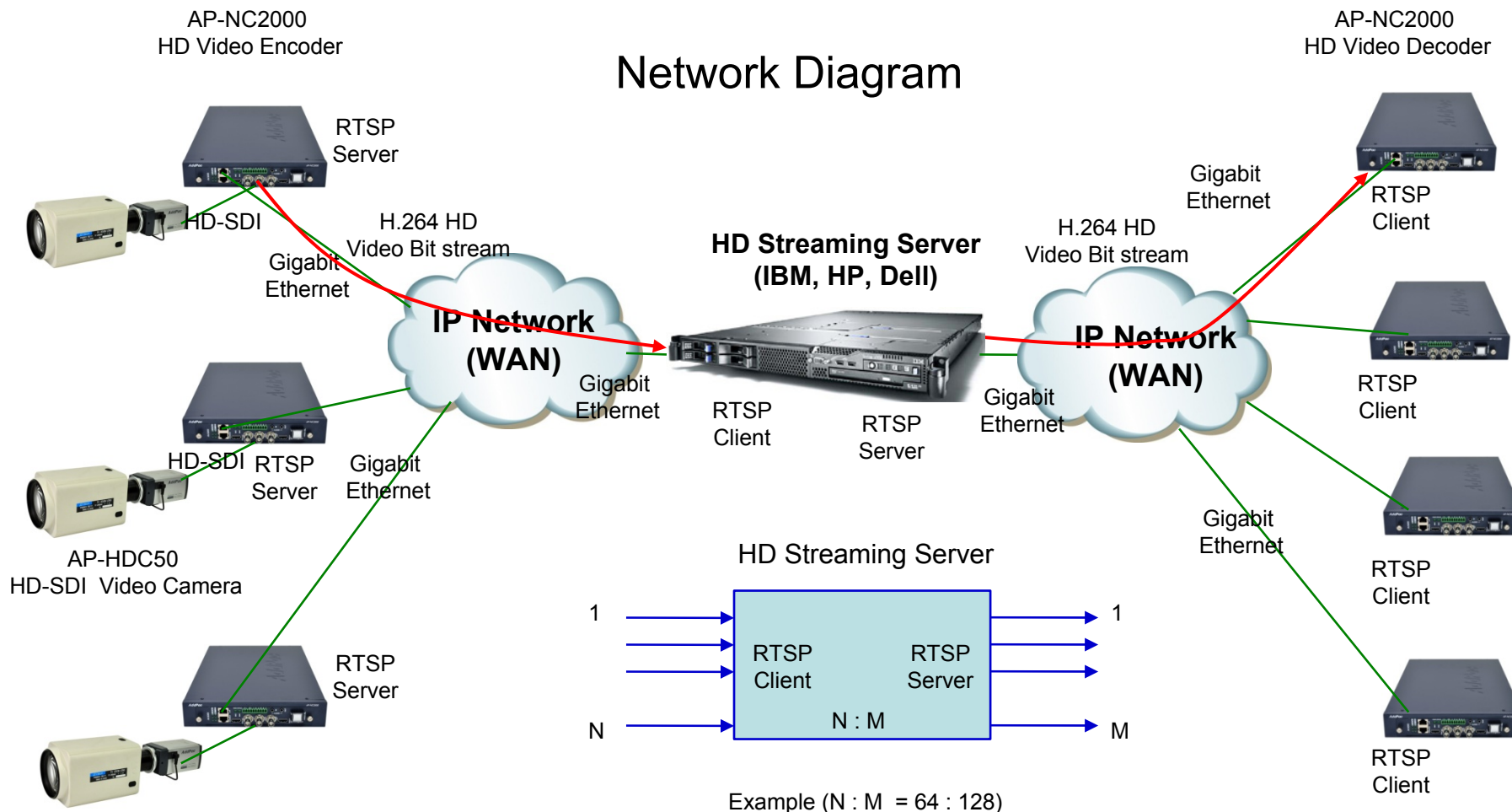
Main Features

- RTSP based HD Streaming Server
- Linux based Commercial Server Platform
- RTSP Server & Client Architecture
- HD Video Encoder, HD Video Decoder, HD Storage Server, HD Display Server Interworking
- Maximum 64 Channel HD Video Bit-Stream Input (~8 Mbps/ch)
- Maximum 128 Channel HD Video Bit-Stream Output
- Server Function for Web based Smart DVR Manager
- Video Solution with Outstanding Network Service Capability

HD DVR Streaming Server

AP-SDSS Smart DVR Streaming Server

Network Diagram





HD DVR Streaming Relay Server (AP-SDSRS)

HD DVR Streaming Relay Server

AP-SDSRS Smart DVR Streaming Relay Server

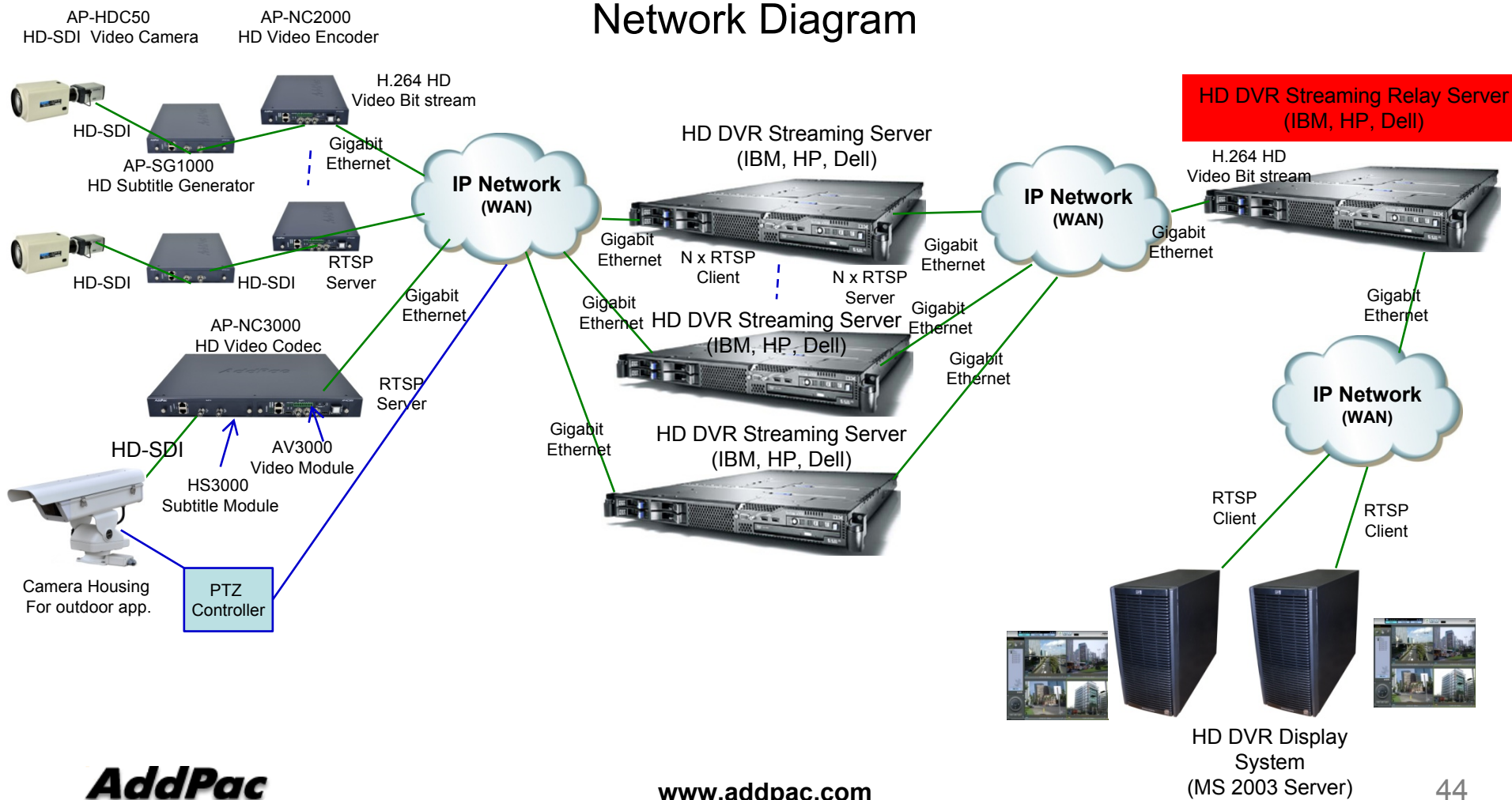
Main Features

- RTSP based HD Streaming Relay Server
- Linux based Commercial Server Platform
- RTSP Server & Client Architecture
- HD Streaming Server, HD Display Server Interworking
- Maximum 64 Channel HD Video Bit-Stream Input (~8 Mbps/ch)
- Maximum 128 Channel HD Video Bit-Stream Output
- Maximum 128 Input, 256 Output Channel (D1)
- Camera Database Information Support
- Smart DVR Viewer Support
- Video Solution with Outstanding Network Service Capability

HD DVR Streaming Relay Server

AP-SDSRS Smart DVR Streaming Relay Server

Network Diagram





HD DVR Storage Server (AP-SDRS)

HD DVR Storage Server

AP-SDRS Smart DVR Recording Server

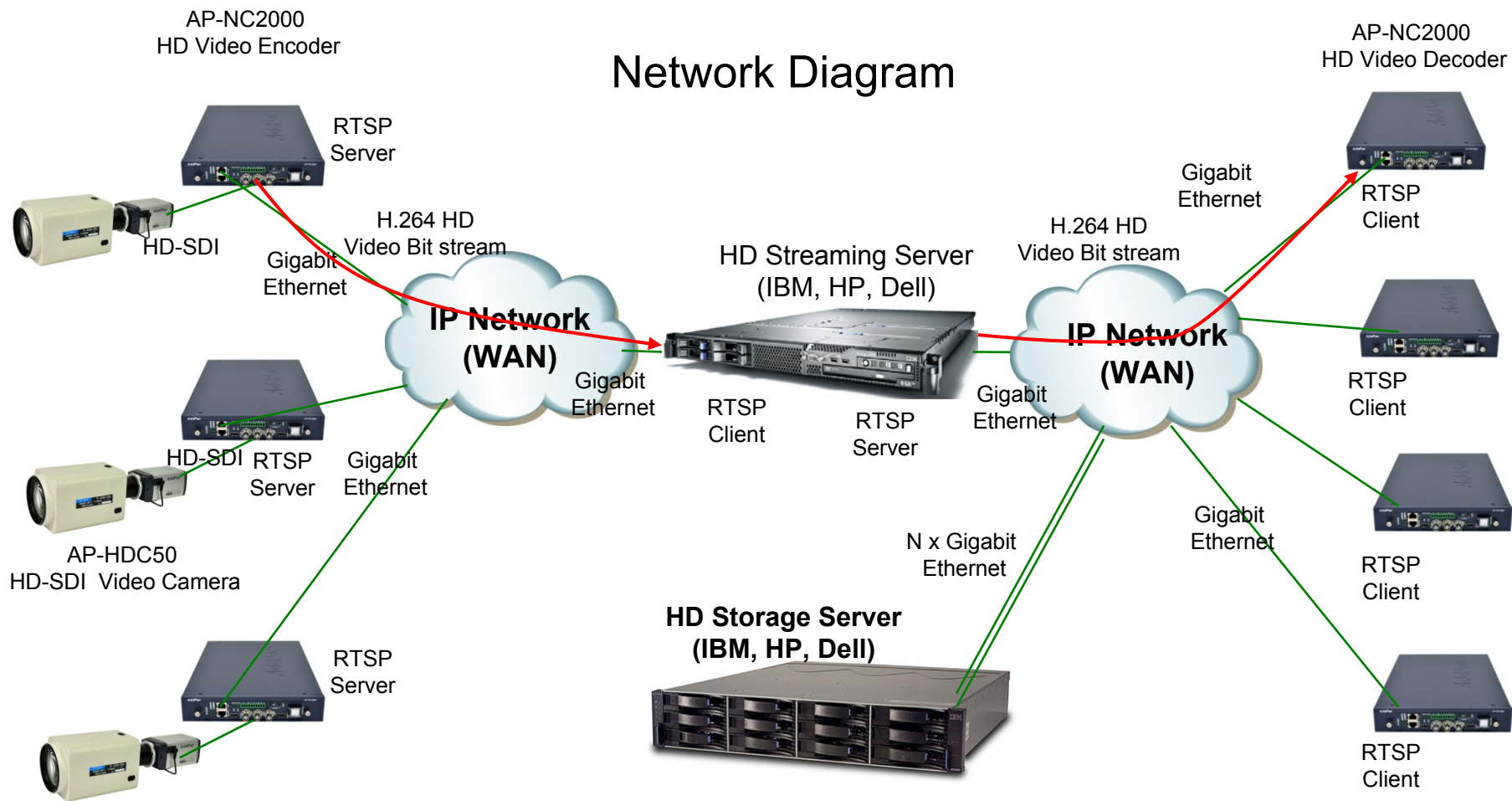
Main Features

- RTSP based HD Storage Server
- Linux based Commercial Server Platform
- RTSP Server & Client Architecture
- HD Display System Interworking
- HDD Capacity : User Requirement
- Server Function for Web based Smart DVR Manager
- Video Solution with Outstanding Network Service Capability

HD DVR Storage Server

AP-SDRS Smart DVR Recording Server

Network Diagram





HD DVR Management Server (AP-SDMS)

HD DVR Management Server

AP-SDMS Smart DVR Management Server

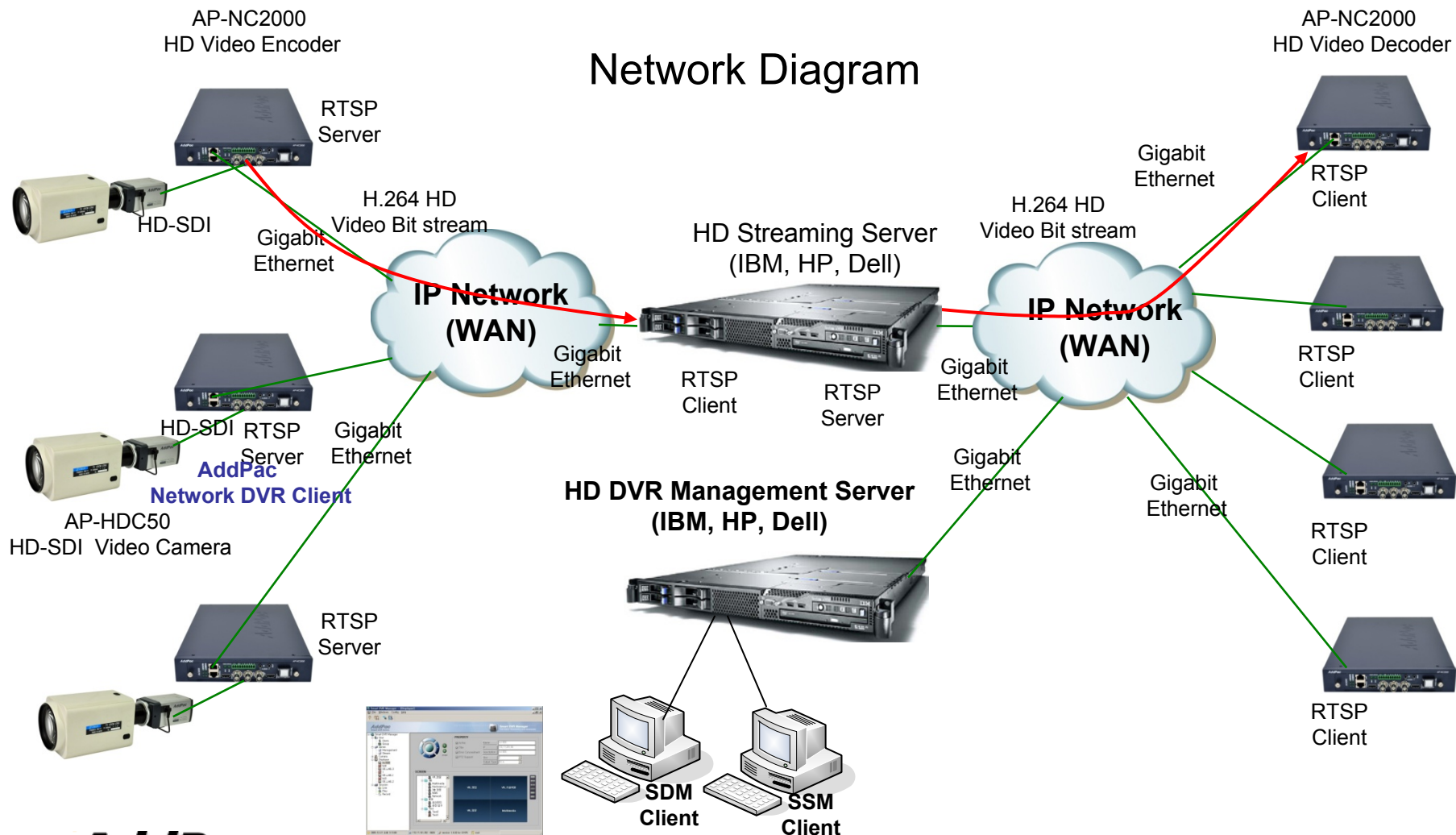
Main Features

- Linux based Commercial Server Platform
- SDM(Smart DVR Manager) Web Server
- SSM(Smart Subtitle Manager) Web Server
- Smart DVR Streaming Server Interworking
- AP-SG1000(HS3000) HD Subtitle Generator Interworking
- PTZ Controller Interworking
- Video Solution with Outstanding Network Service Capability

HD DVR Management Server

AP-SDMS Smart DVR Management Server

Network Diagram



AddPac

www.addpac.com

HD DVR Management Server

AP-SDMS Smart DVR Management Server

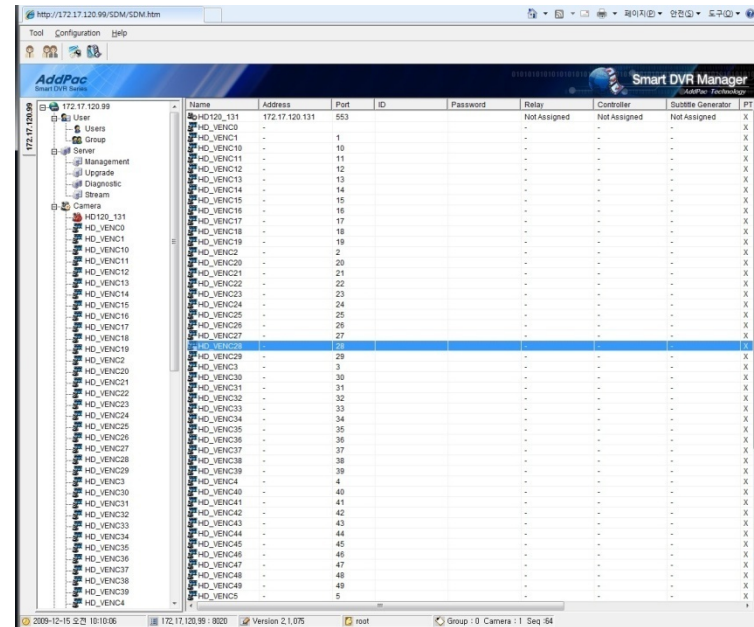
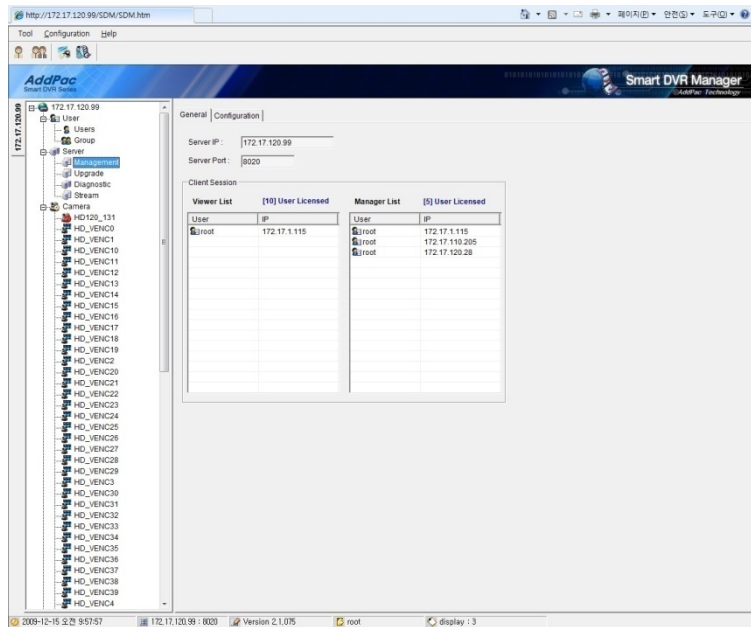
Web based SDM Feature

- Login Management
- User and Group Management
- Management Server
 - CPU, Memory Utilization
 - Server IP address, Port , etc
- Network Camera Management
 - Registration, Model, IP address, PTZ Support, Video Encoder Control, etc

HD DVR Management Server

AP-SDMS Smart DVR Management Server

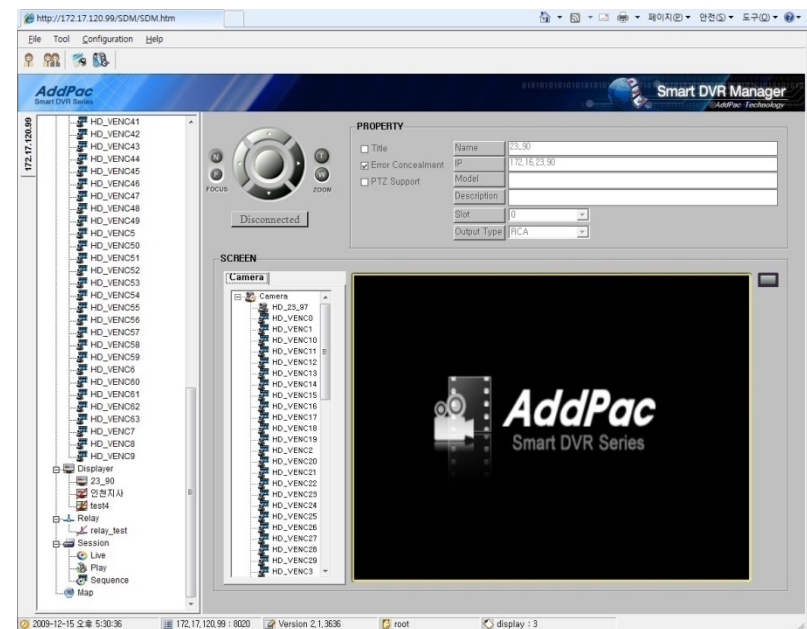
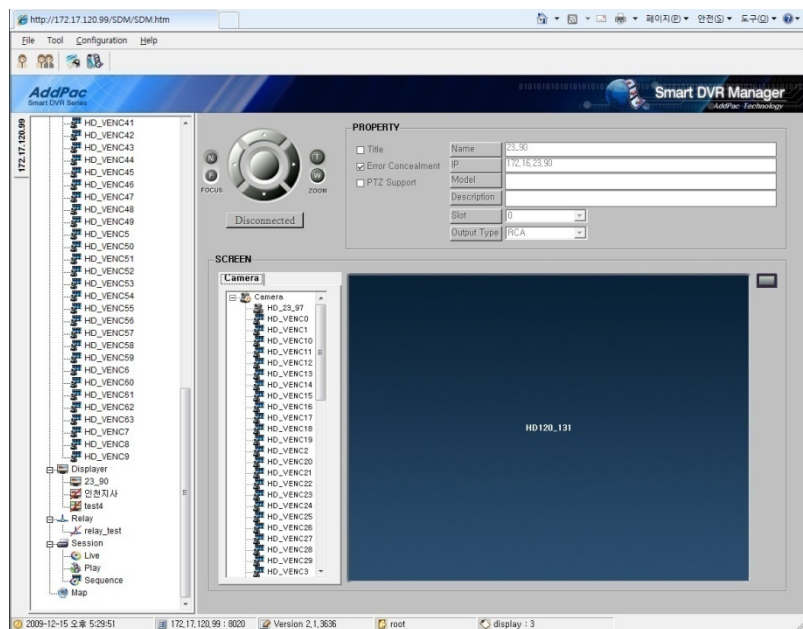
Web based SDM (screen capture)



HD DVR Management Server

AP-SDMS Smart DVR Management Server

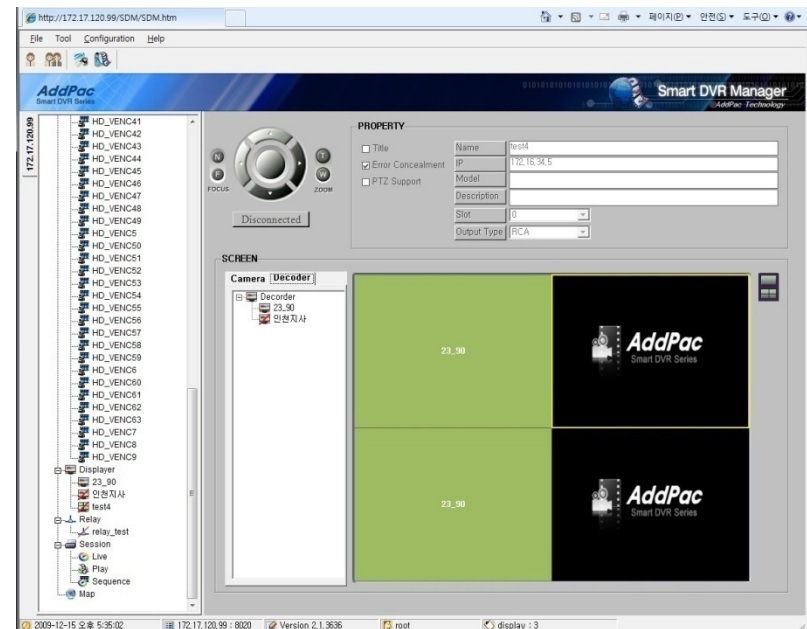
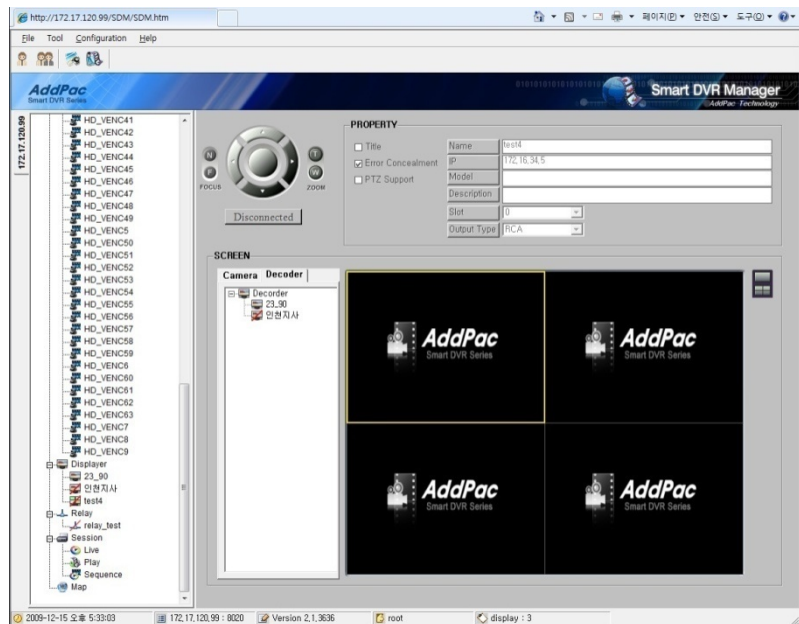
Web based SDM (screen capture)



HD DVR Management Server

AP-SDMS Smart DVR Management Server

Web based SDM (screen capture)





HD DVR Display System (AP-SDDS)

HD DVR Display System

AP-SDMS Smart DVR Display System

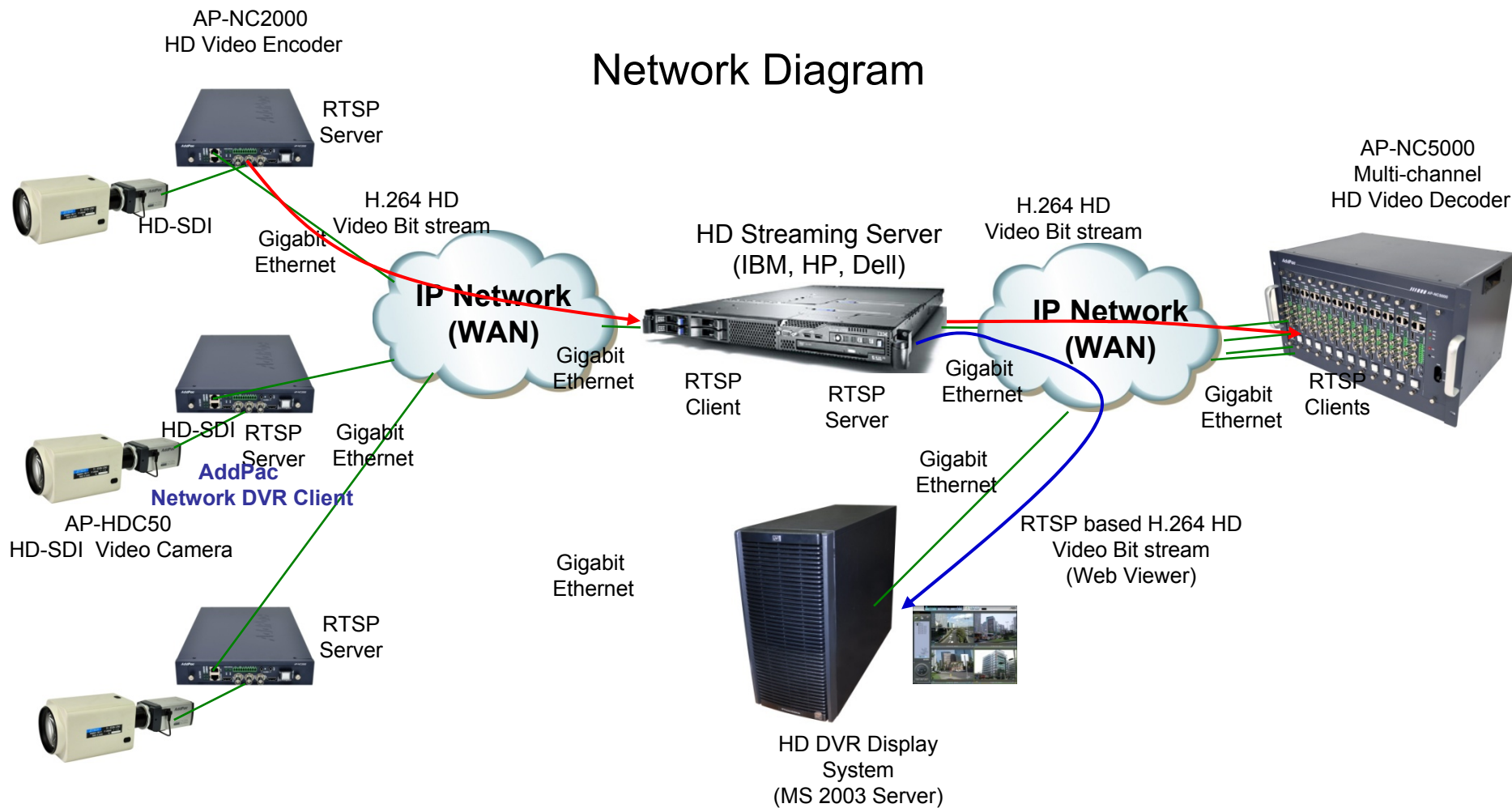
Main Features

- MS 2003 Window Server High Performance H/W Platform
- Web based SDV(Smart DVR Viewer) Support (RTSP & Web Client)
- H.264 HD (720P) Video Decoding
- RTSP Streaming Protocol support
- Smart DVR Streaming Server Interworking (RTSP & Web Server)
- Smart DVR Management Server Interworking for PTZ Controller
- Video Solution with Outstanding Network Service Capability

HD DVR Display System

AP-SDMS Smart DVR Display System

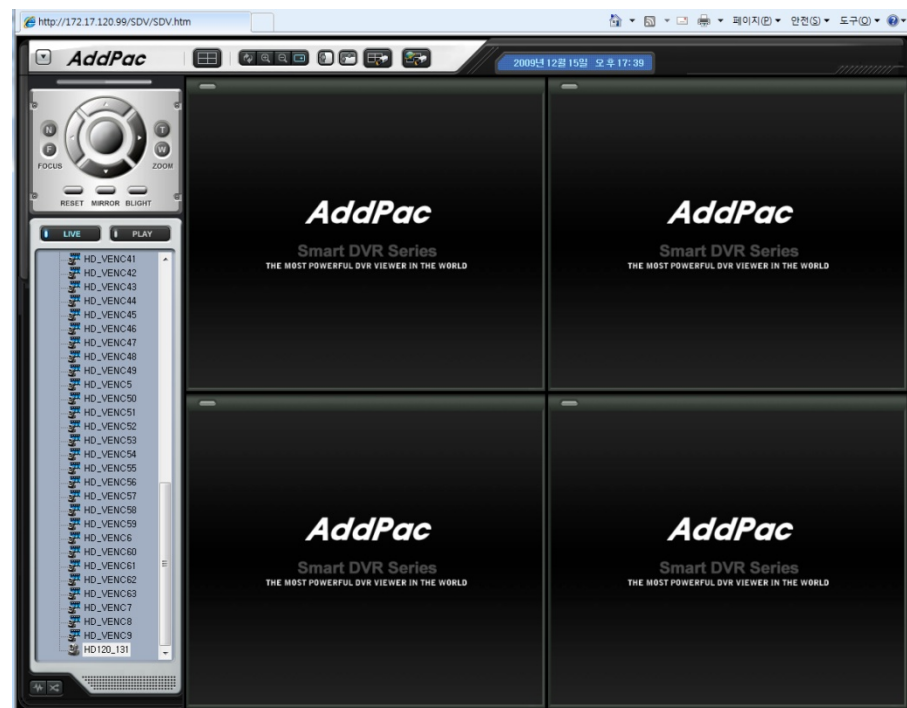
Network Diagram



HD DVR Display System

AP-SDMS Smart DVR Display System

Web based SDM (screen capture)



Ordering Information

- **Large Scale HD Network DVR Solution**
- **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!

AddPac Technology Co., Ltd.
Sales and Marketing

Phone +82.2.568.3848 (KOREA)

FAX +82.2.568.3847 (KOREA)

E-mail sales@addpac.com