

AP-HVC2000

MCU Built-in Two(2)-Channel Full HD Video Conference Equipment

High Performance Full HD Video Conference Solution



Product Overview

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

AddPac

AddPac Technology

Sales and Marketing

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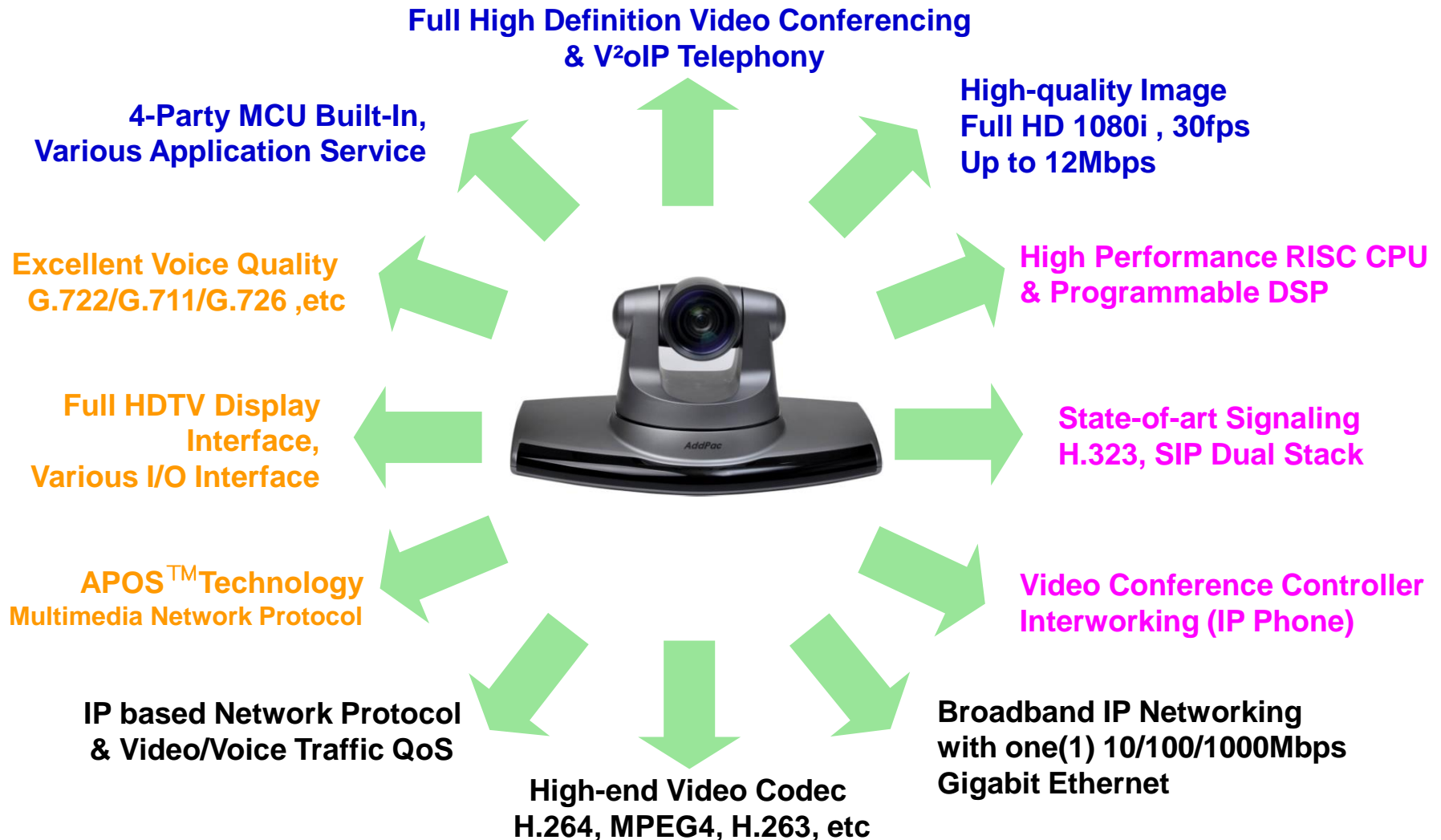
Product Overview

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- IP based Video Conference Solution
- High-End Full HD Video Camera Features
- CMOS Sensor, 2Mega Pixel Camera
- Various Video Format Support (ex;1080i/59.94)
- PAN/TILT/Zoom Housing Features
- Optical 10 x Zoom, Digital 12 x Zoom Camera
- Built-in Wide Angle Lens for Video Conference
- Two(2) Channel Video Interface
- 4-Party Full HD MCU Built-in
- Second Video Interface for Document Sharing, Camera, etc
- External Acoustic Echo Canceller Microphone (AP-MP100)
- High-performance Video, Audio, and Voice Service
- Flexible Videoconferencing Deployment
- Firmware Upgradeable Architecture
- Video Solution with Outstanding Network Service Capability
- Audio/Video Privacy Protection

Product Highlights

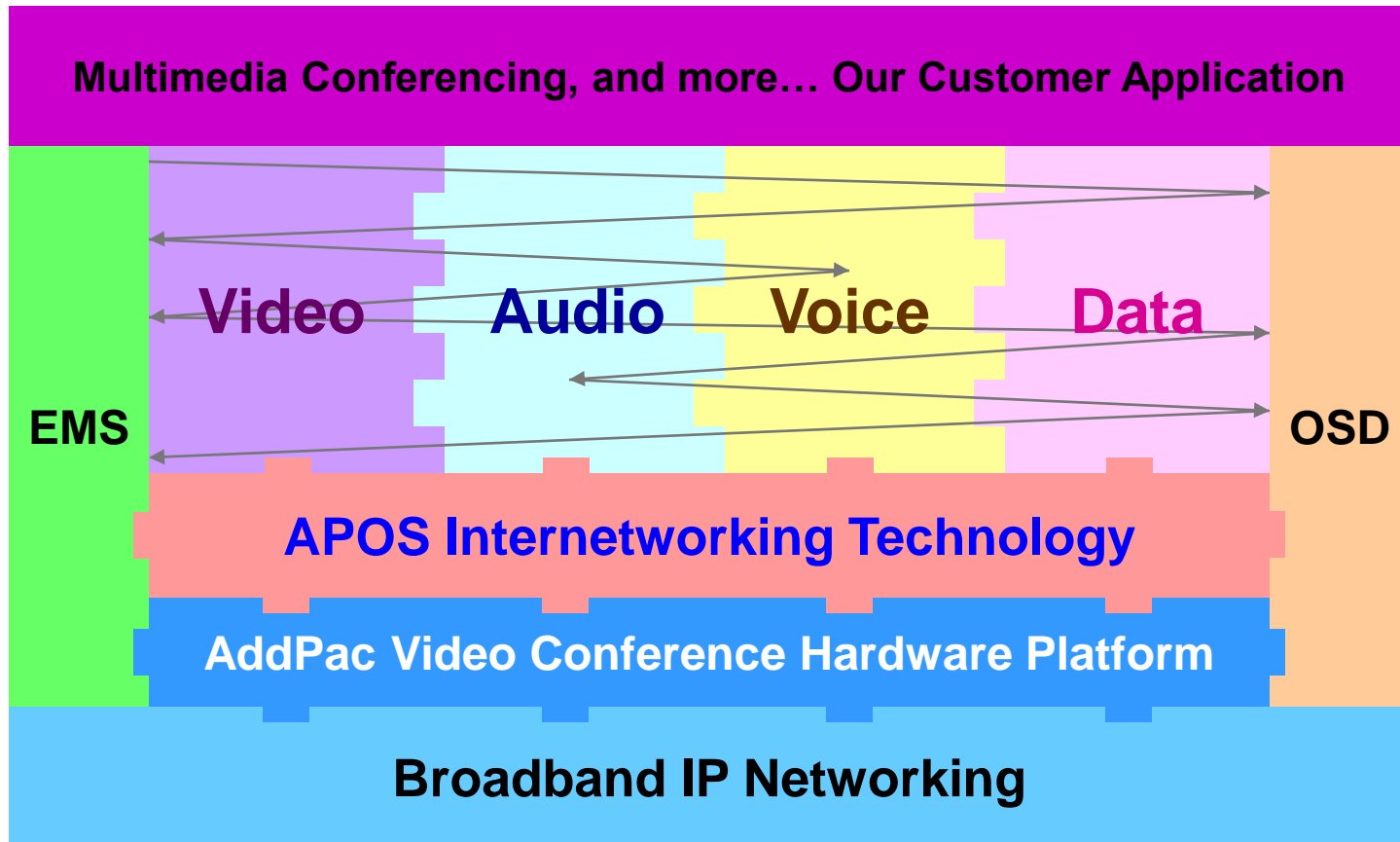
AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec



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Multimedia Service

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec



- APOS : AddPac Internetworking Operating System
- OSD : On- Screen Display
- EMS : Element Management System

Benefits and Features

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- Various Video Input/Output Interface
 - Composite (RCA) , Component (Y, Pb, Pr), HDMI
- High-performance Video Codec Support
 - H.264, MPEG4, H.263, etc
- Powerful Image Resolution Support
 - CIF(352x288), QVGA(320x240), HVGA(640x240), VGA(640x480), 4CIF(704x576), 720P(1280x720), 1080i(1920x1080)
- Up to 30fps with Full HD-Resolution(H.264)
- 4-Party Full HD MCU Built-In
- SIP, H.323 Signaling Support
- Rate Control for Video Traffic QoS
 - Ensuring Optimized Quality
 - Frame Rate with Limited Bandwidth
- High-end Error Resilient Against Various Packet Error

Hardware Specification (AP-HVC2000 Full HD Codec)

Hardware Specification

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- High Performance RISC Computing Power
- High-end Programmable DSP Hardware Architecture
- CH#1 I/O Interface

Video Input	Built-in Full HD Camera
Video Output	Composite RCA, Component , HDMI
Audio Input	Stereo RCA Type Audio Input
Audio Output	RCA Type Audio Output (Left, Right)

- CH#2 I/O Interface

Video Input	Composite RCA, HD-SDI, RGB, HDMI
Video Output	Composite RCA, Component , HDMI
Audio Input	Stereo RCA Type Audio Input
Audio Output	RCA Type Audio Output (Left, Right)
PTZ Control	RS-232C Pan/Tilt/Zoom Control Interface

Hardware Specification

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- High-end Programmable DSP Hardware Architecture
- Network Interface
 - One(1) 10/100/1000Mbps Gigabit Ethernet(RJ45)
 - One(1) RS-232C Interface (RJ45) for Console
- USB Interface
 - USB 2.0 Interface for Mouse, etc
- Voice Interface
 - FXS Interface for Analog Phone, Analog Conference Phone, etc
- External Power Input Connector
- Power On/Off Switch

Hardware Specification

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- **Full HD Camera Specification**
 - High-end CMOS Camera Sensor
 - 2Mega Pixel
 - HD : 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, etc
 - Auto Focus 10 x Optical Zoom, 12 x Digital Zoom
 - Wide Angle Lens for Video Conference Application
 - PELCO-D Control Protocol
 - Position Preset

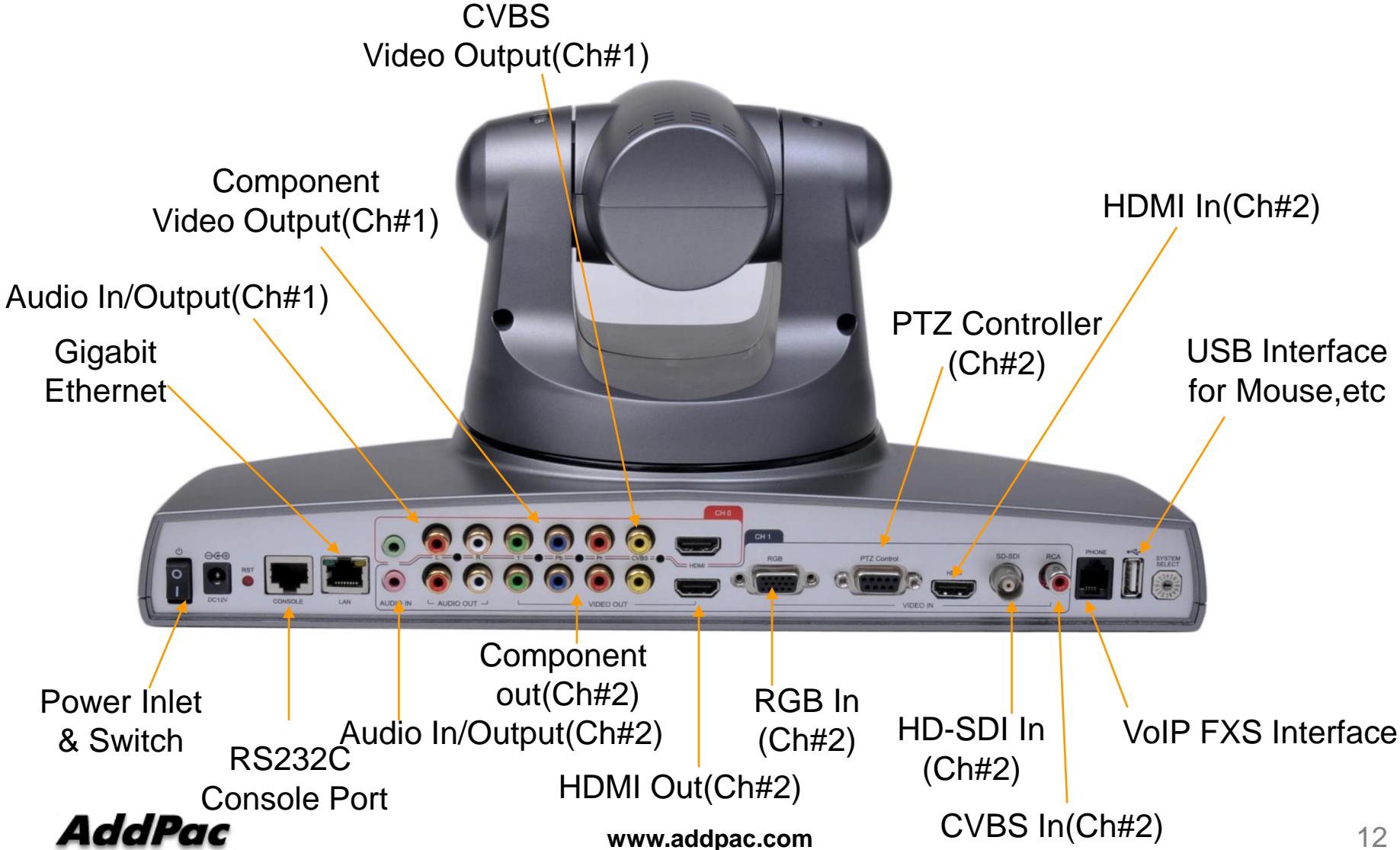
Hardware Specification

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec



Hardware Specification

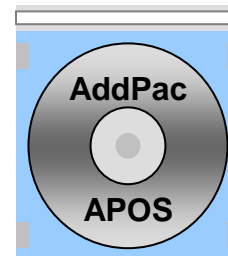
AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec



Software Service

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- Built-in APOS Internetworking Software
 - Scalability, Functionality, and Stability Features
 - Video Traffic QoS Control
- Programmable Video, Audio, and Voice Services
 - Video Codes, Audio, and Voice Codec
- High Performance VoIP Signaling
 - SIP, H.323 VoIP Signaling
- 4-Party Full HD MCU Signaling
- Firmware Upgradeable Architecture
- OSD (On-screen Display) Function Support
- Industry Standard IP based Network Protocol Features

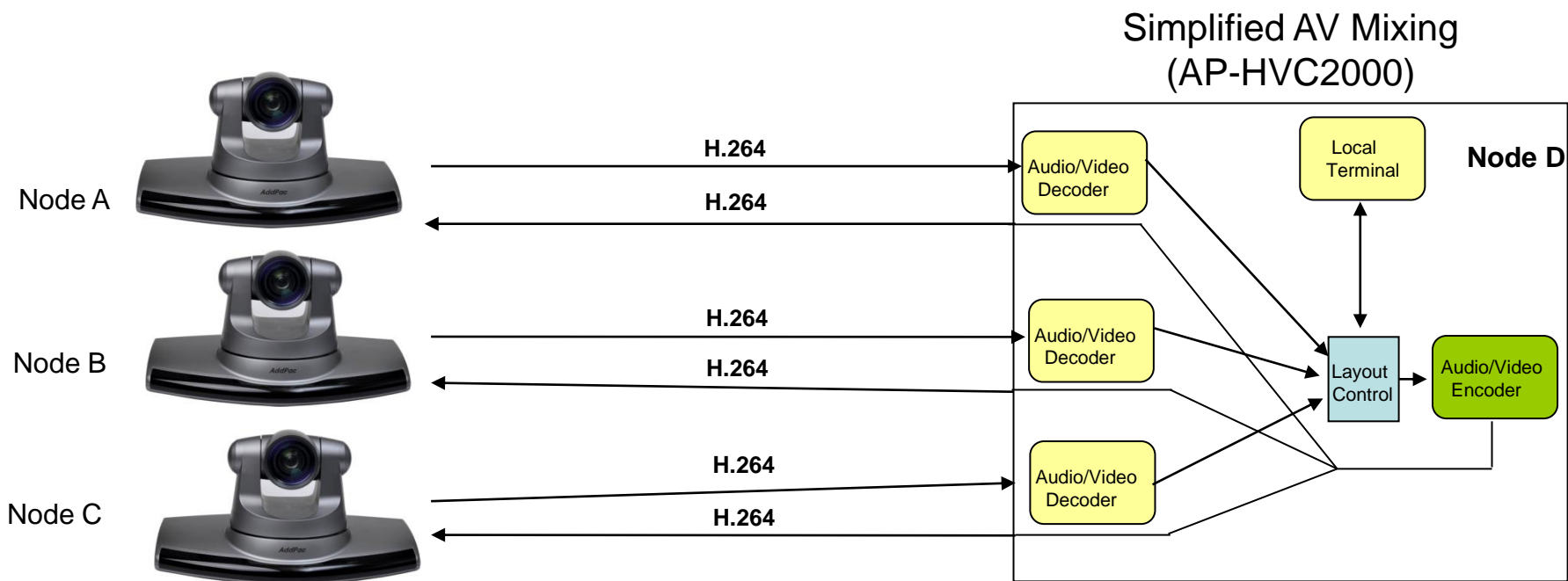


4-Party MCU Features (AP-HVC2000 Full HD Codec)

MCU Service and Features (cont..)

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

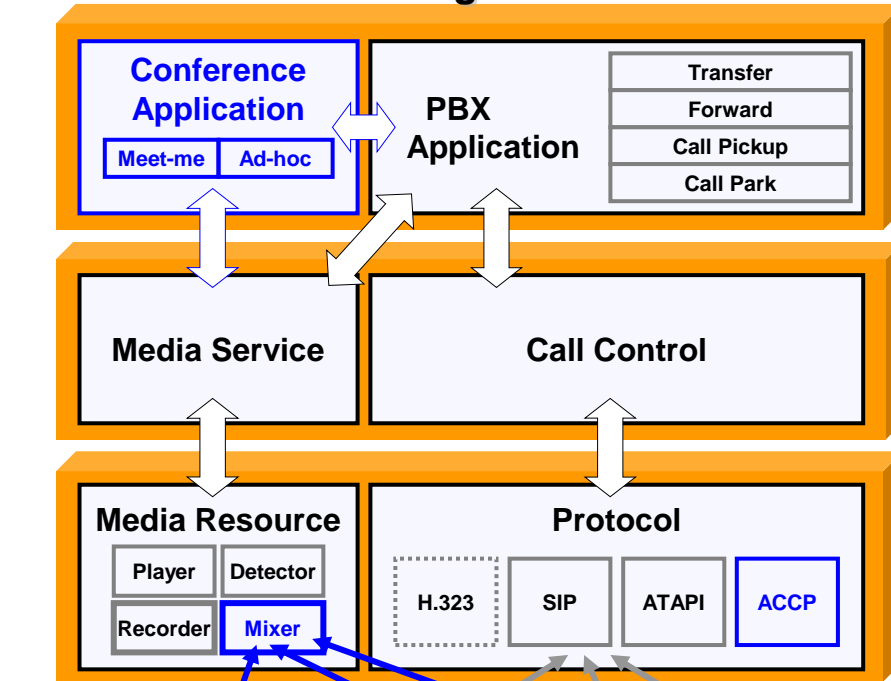
- Simplified AV Mixing Model
- Video Codec : H.264, MPEG4, H.263, etc
- Voice Codec : G.722, G.711, G.729, etc
- Asymmetric Rate Control between Encoder & Decoder
- Same Conference Layout for All Party



MCU Service and Features (cont..)

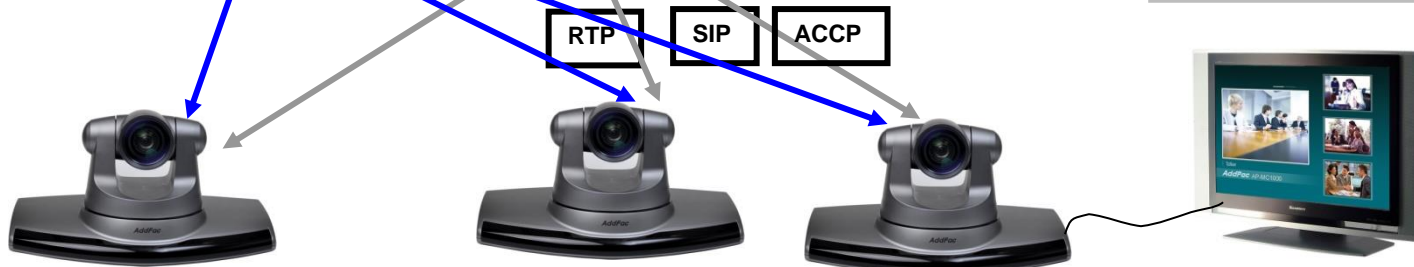
AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

Call Manager + MCU



MCU Integrated Model

- * ATAPI - AddPac Telephony API
- * ACCP - AddPac Client Control Protocol



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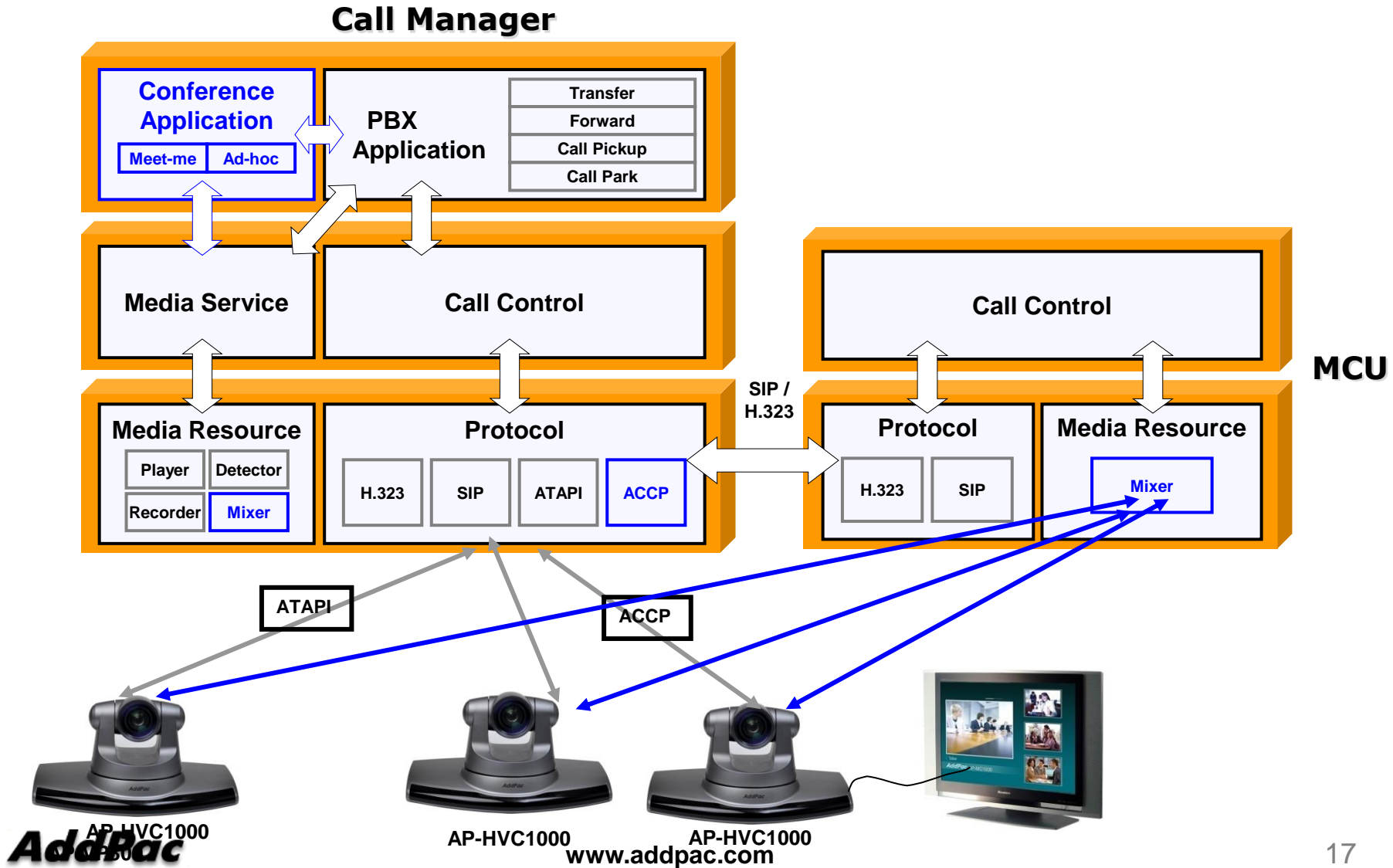
AP-HVC1000

AP-HVC1000

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MCU Service and Features (cont..)

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec



MCU Service and Features (cont..)

AP-HCC2000 Two(2)-Channel Full HD Video Conference Codec

- Type of Conference
 - Meet-Me (Dial-In) Conference
 - Require that a *range of directory numbers* be allocated for exclusive use of the conference
 - Ad Hoc (On-Demand) Conference
 - using Conference and Join soft key
 - Dial-Out Conference
- View Mode Configuration

Network Service and Features

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- **Basic Routing**
 - Static Routing (IPv4)
 - Static / DHCP / PPPoE
 - VRRP (Virtual Redundancy Routing Protocol)
- **Network Management**
 - SNMPv2/SNMPv3 Support
 - Standard & Enterprise SNMP MIB Support
 - Web Based Management using HTTP/HTTPS
 - Console / Telnet / Rlogin / SSH Interface
- **Security Function**
 - Standard & Extended IP Access List
 - HTTPS / SSH Interface
 - Auto-disconnect Telnet/Console Session
 - Access Control for Local Service (FTP/Telnet/HTTP.)
 - Enable/Disable Network Services
 - Multi-Level User Account Management

Network Service and Features

AP-HVC2000 MCU Built-in Two(2)-Channel Full HD Video Conference Codec

- Operation & Management
 - Configuration Backup & Restore for APOS Managements
 - Use Multiple APOS™ and Configuration
 - Auto Upgrade via HTTP/HTTPS
 - Debugging, System Auditing, and Diagnostics Support
 - FTP/TFTP/Telnet/SSH Server and Client
 - HTTP Server
 - Remote logging using Syslog
 - Local System Logging (Local HDD model)
 - RADIUS Authentication / Account
- Other Scalability Features
 - Network time Protocol (NTP) Support
 - Cisco Style Command Line Interface (CLI)
 - DHCP Server & Relay Functions
 - [DNS Server](#)

OSD Software Overview

Contents

- Menu Control Mode
- Dial Mode
- Conversation View Mode
- Display Layout Call Mode
- Key Pad Mode for Dialing Number
- Phone Book OSD
- Phone Book : New Contact
- Recent Call OSD
- Tools OSD Mode
- Codec Configuration : IP address, etc
- Status Bars OSD
- PTZ Control OSD

Menu Control Mode

Keypad, Phonebook, Recent Call, PTZ Control, Tools, Layout, Configuration



Menu Bar Indication
ICON

Function Key List
for Soft-key

Dialing OSD



Conversation View Mode



Remote Site View

PIP : Local Site View

Conversation View Mode



Remote Site Full Screen View

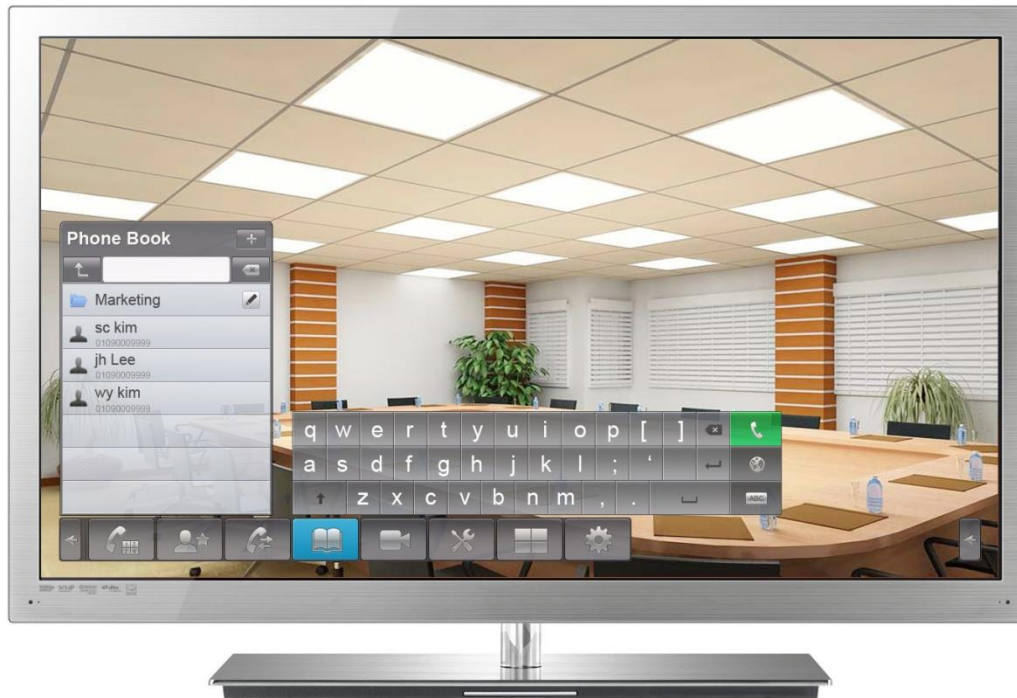
Display Layout Control Mode



Keypad Menu for Dialing Number



Phone Book OSD Menu



Phone Book OSD Menu : New Contact



Recent Call OSD Menu



Tools OSD Menu



Codec Configuration



Status Indication Bars OSD

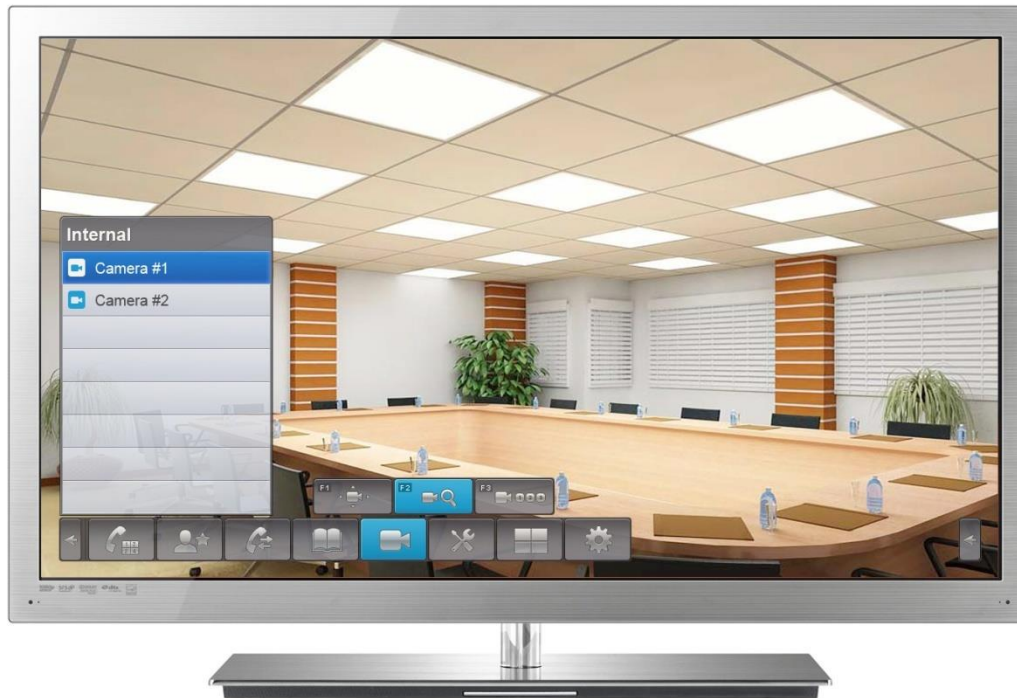
Status Bars



PTZ Control : Camera #1



PTZ Control : Camera Select



PTZ Control : Preset Setting



AP-HVC2000 Full HD Video Conference Equipment

Application Area

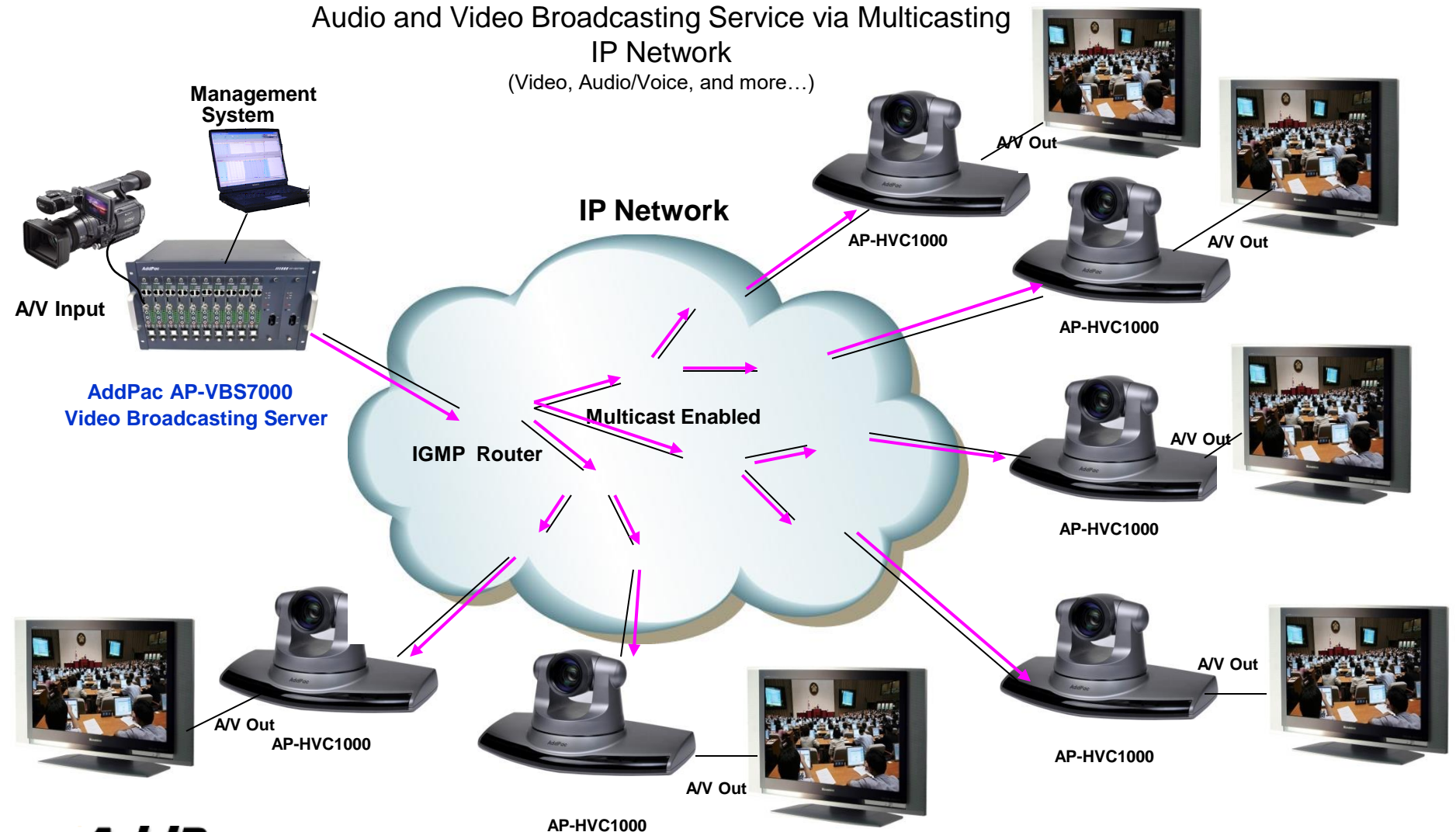
- Audio/Video Real-time Broadcasting
- Video Telephony
- Video Telephony + Document Broadcasting
- Video Telephony + Video Broadcasting
- Video Conference



Audio/Video Real-time Broadcasting

AP-HVC1000 Two(2)-Channel Full HD Video Conference Equipment

Audio and Video Broadcasting Service via Multicasting
IP Network
(Video, Audio/Voice, and more...)



Video Telephony Application

H.264, 1080i, 30frame

H.264, 1080i, 30frame



Point-to-Point Video Service
(symmetric video quality)

AV Out

AV Out

30fps, Full HD

30fps, Full HD

IP Network

Multimedia Service

(Video, Audio/Voice, and more...)

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LAN [Router] WAN

WAN [Router] LAN

VoIP Service
(H.323, SIP)

VoIP Service
(H.323, SIP)

AP-HVC2000

AP-HVC2000

AP-MP100

AP-MP100

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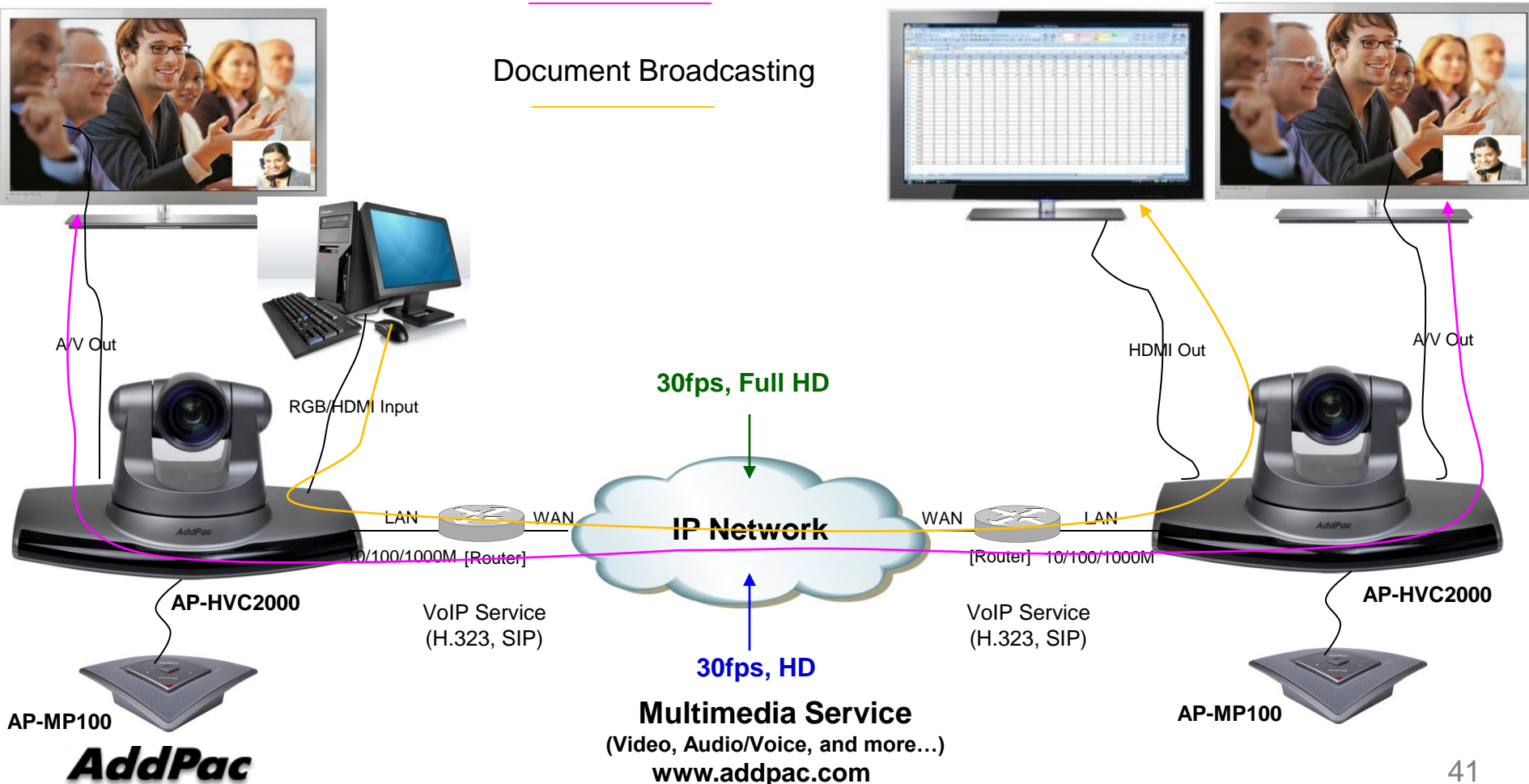
Video Telephony + Document Broadcasting

Point-to-Point Video Service
(symmetric video quality)

Document Broadcasting

H.264, 1080i, 30frame

H.264, 1080i, 30frame



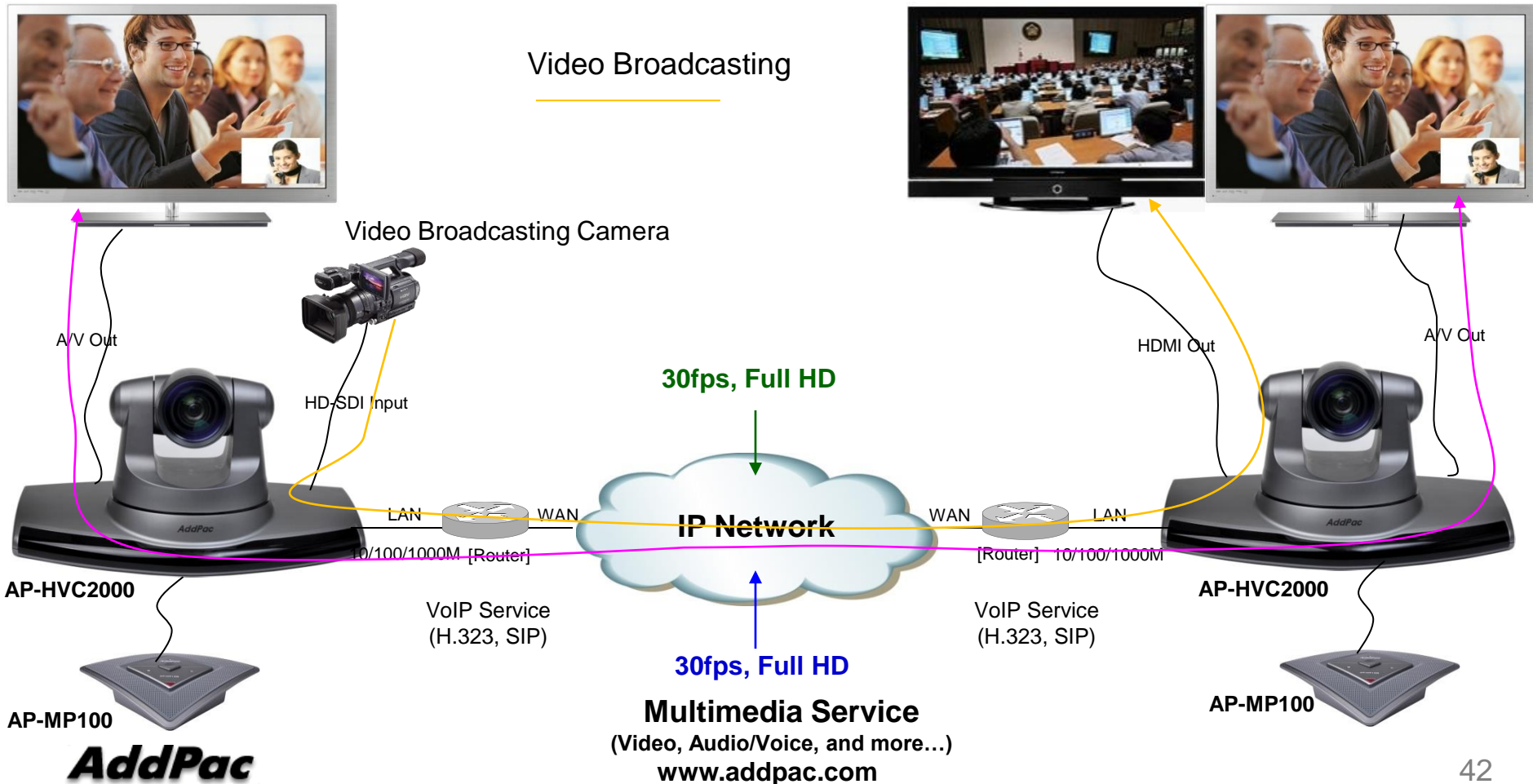
Video Telephony + Video Broadcasting

Point-to-Point Video Service
(symmetric video quality)

H.264, 1080i, 30frame

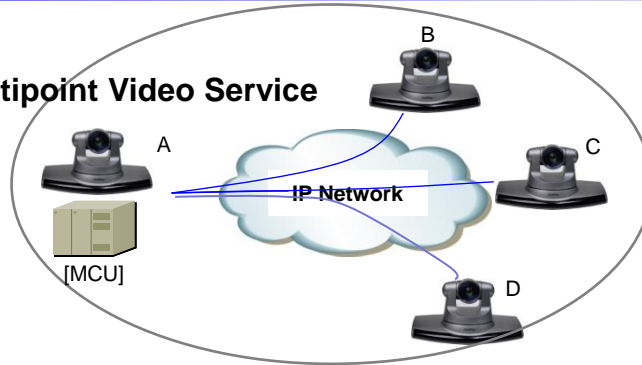
H.264, 1080i, 30frame

Video Broadcasting

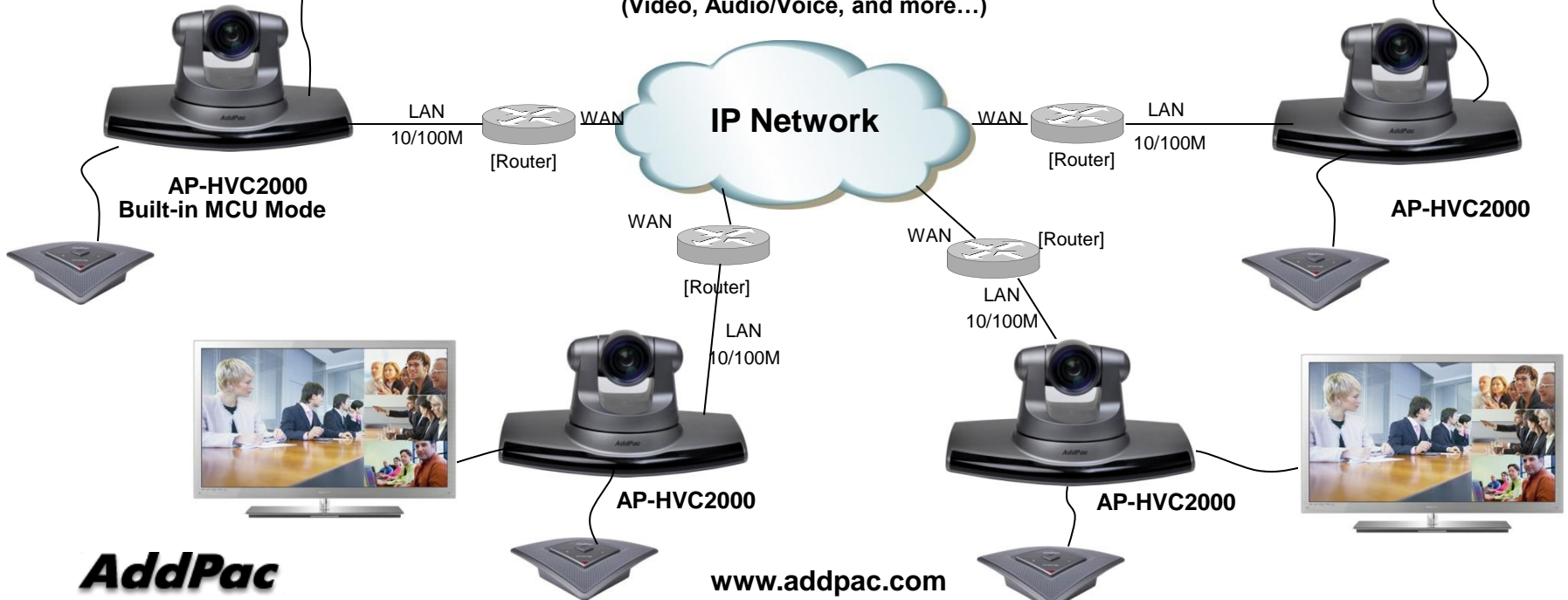


Video Conference

Multipoint Video Service



Multipoint Video Service (Video, Audio/Voice, and more...)



Ordering Information

- AP-HVC2000 Two(2) Channel Full HD Video Conference Equipment
 - AP-HVC2000 MCU Built-In Full HD Video Conference Equipment
 - Including Network Cable Set & Power Supply Cable, etc.
 - Option : Microphone
- Built-in APOS Internetworking Software for AP-HVC2000
- 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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Sales and Marketing

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