

# AP-AC20

## IP Door Phone

High Performance IP Door Phone Solution



### Preliminary Product Overview

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

**AddPac**

**AddPac Technology**

2015, Sales and Marketing

[www.addpac.com](http://www.addpac.com)

# Contents

- Product Overview
- Product Highlights
- Hardware Specification
- Software Service
- Audio & Voice Service and Features
- OSD Software Features
- Smart Web Manager
- Application Area
- Ordering Information



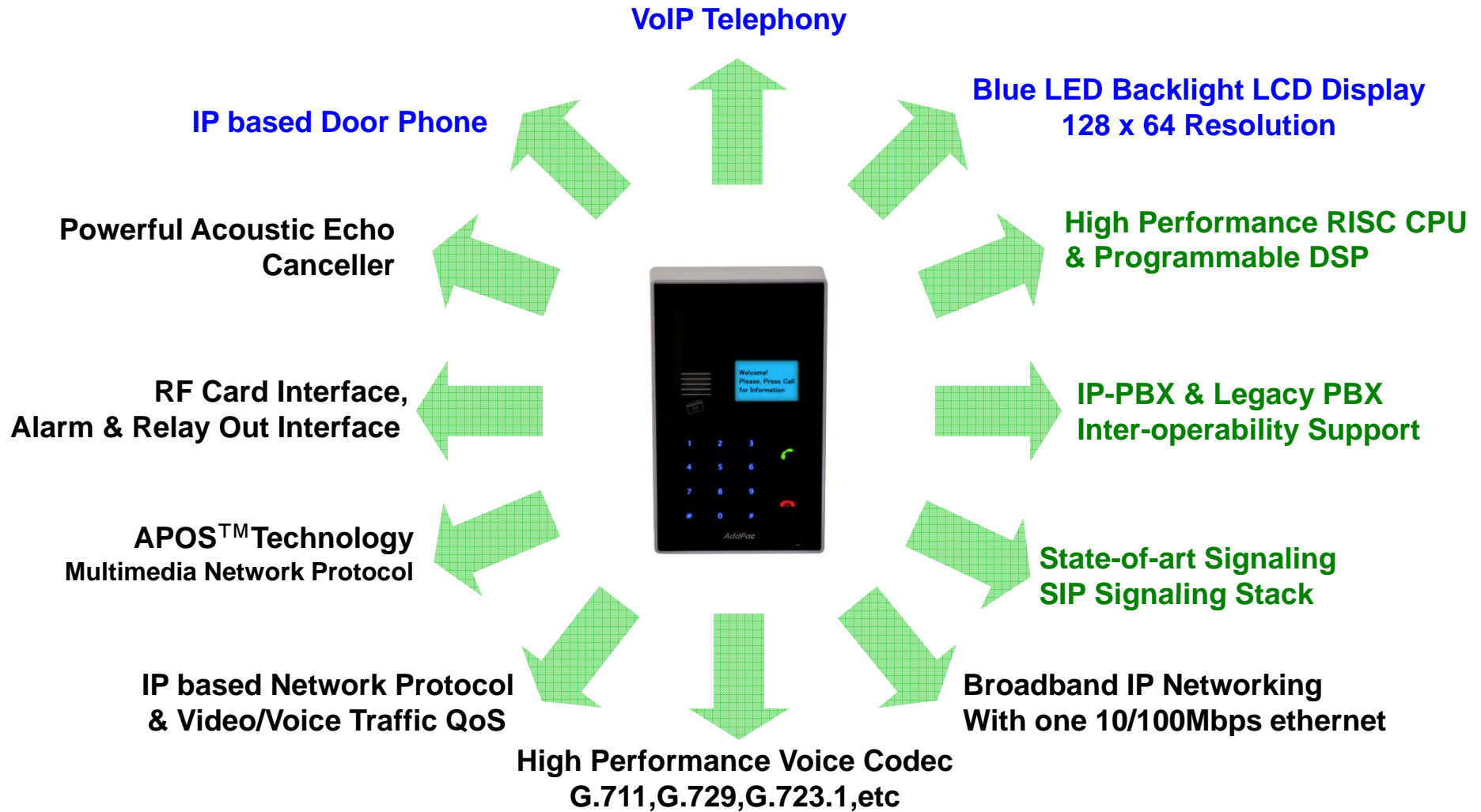
# Product Overview

## AP-AC20 IP Door Phone

- High Performance IP Door Phone Solution
- 3x4 Key, Internal MIC & Speaker
- Blue LED Backlight LCD, 128 x 64 Display Resolution
- SIP VoIP Signaling Stack Embedded
- High-performance Voice Codec Support
  - G.711, G.729, G.723.1, etc
- One(1) 10/100Mbps Fast Ethernet
- Option : One(1)-Port FXO or FXS Interface for Analog PSTN connection
- Option : PoE(Power over Ethernet) Support
- Option : RF Card Interface
- High Quality Speaker Phone Features
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

# Product Highlights

AP-AC20 IP Door Phone



**AddPac**

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# Multimedia Service

AP-AC20 IP Door Phone



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

# Hardware Specification

## AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
  - 3 x 4 key PAD
- Blue LED Backlight LCD Interface
  - 128 x 64 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Option : FXO Interface (back side)
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

# Hardware Specification

## AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

- **Speaker**
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- **Audio Amplifier**
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- **PoE(Power over Ethernet)**
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection
- **LCD Controller**
  - Display Type : FSTN, Positive
  - Built-in Controller : ST7567
  - Blue LED Backlight
  - Active Area : 35.48(W) x 22.38(H)
  - Number of Dots : 128 x 64

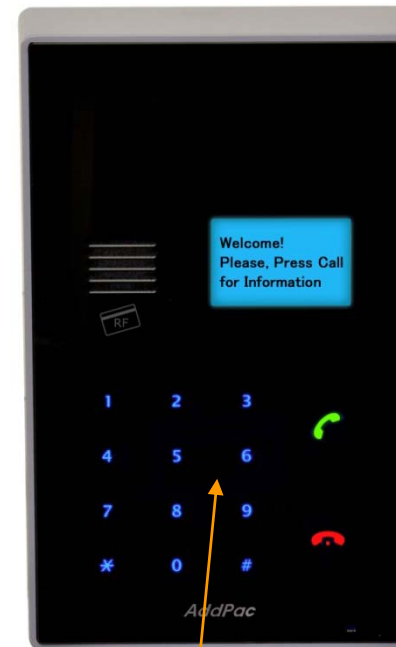
# Hardware Specification

## AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

- RF Card Sensor
  - Protocol Supported
    - ISO14443A/B all bit rates
      - > 106,212,424 and 848 kbps
    - Compatible to MiFare Classic
    - ISO15693 all modes
      - > 1.65/6.6 & 26.5 kbps
      - > Uplink 1 & 2 sub-carrier
  - Receiver
    - Rx Sensitivity down to 1mVrms
    - Rx Automatic Gain Control
    - Accept external baseband signal from external circuitry for frame level processing
    - Integrated signal strength indicator (SSI)
    - On-Chip Framing handler for supported standard
  - Transmitter
    - Typical proximity operating distance up to 100mm.
    - Software configurable modulation index
    - Maximum driving current up to 200 mA/PIN @ 5V
    - Accept external baseband signal for RF modulation
    - Wide Transmitter driver supply range from 2.7~7.0V



RF Card Sensor



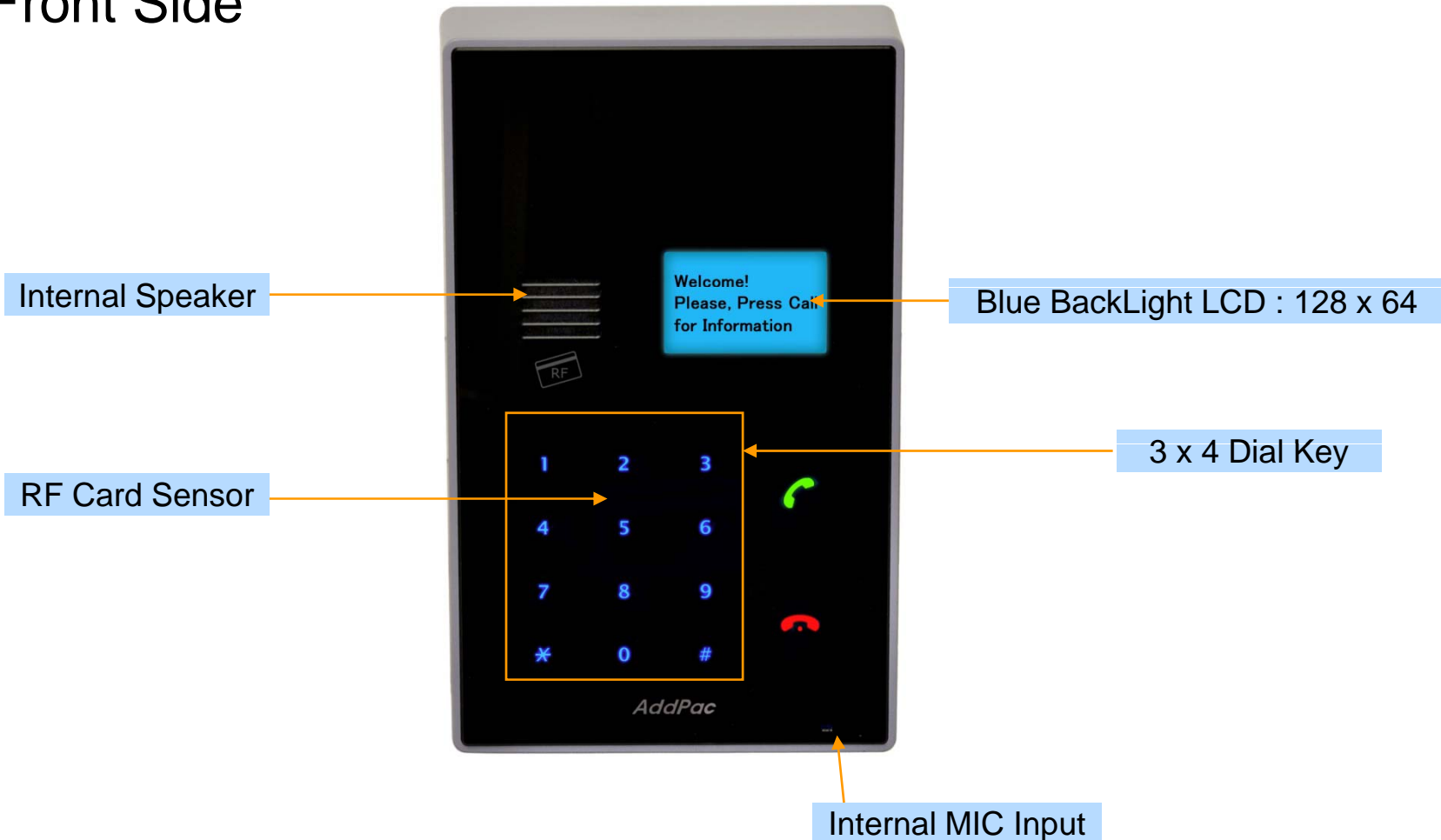
# Hardware Specification

AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

## Front Side



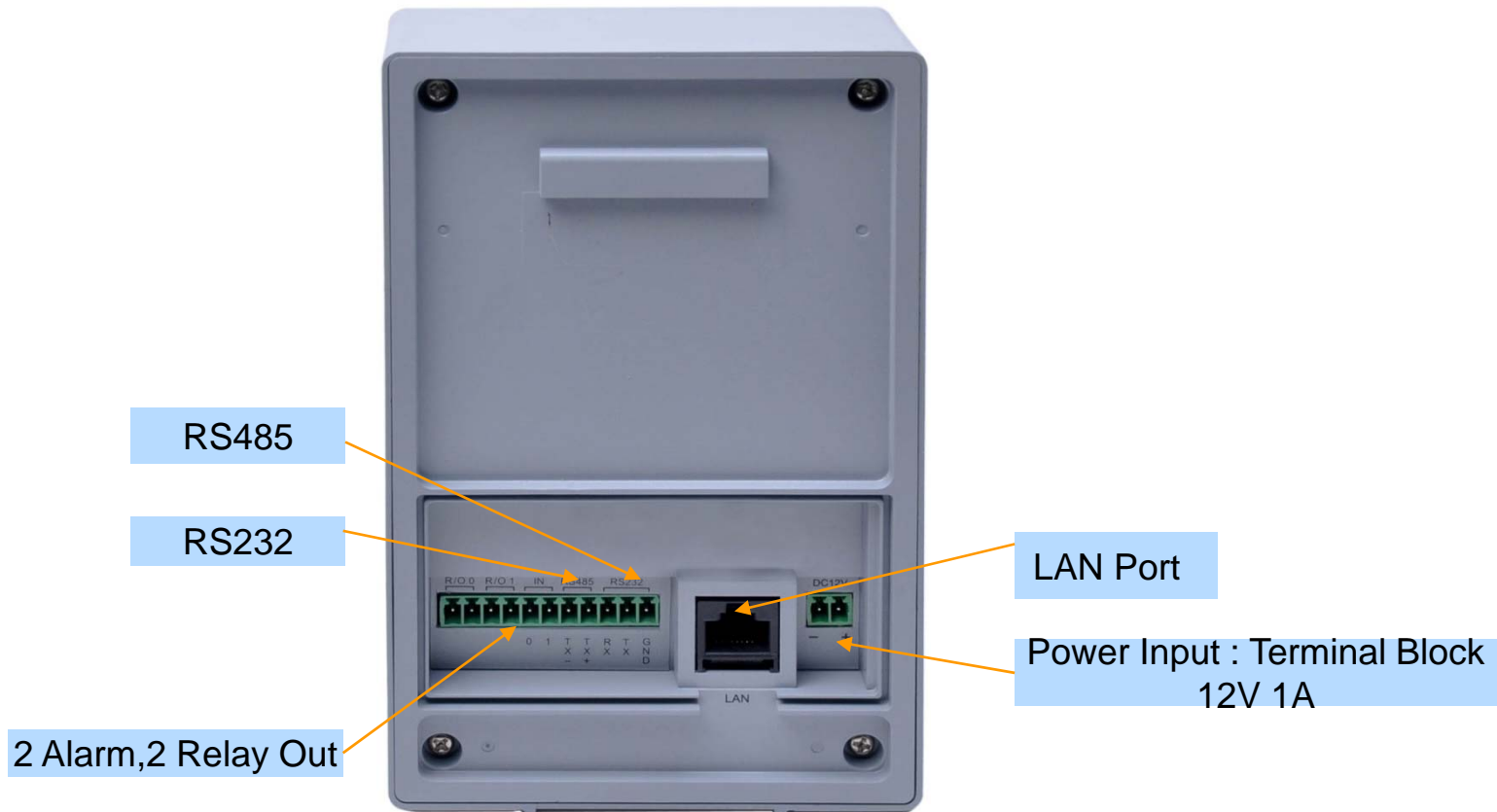
# Hardware Specification

AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

## Back Side (WithOut FXO)



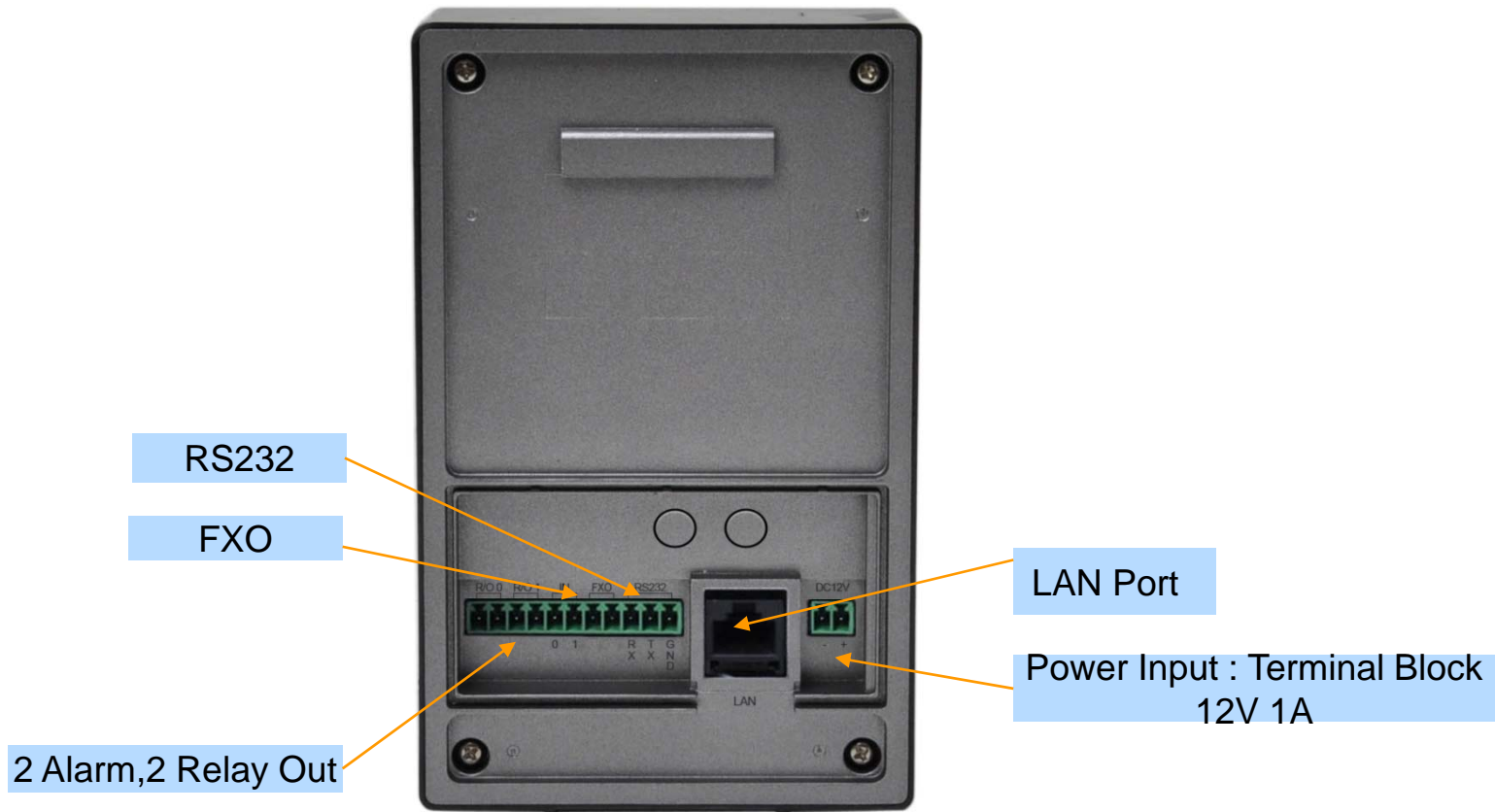
# Hardware Specification

AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

## Back Side (With FXO)



# Hardware Specification

AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

Back Side



Wall Mount Bracket

Rubber Cover for light waterproof

# Hardware Specification

AP-AC20 IP Door Phone

RISC  
CPU

High-end  
DSP

## Power Supply

Terminal Block



12V 1A Power Adaptor

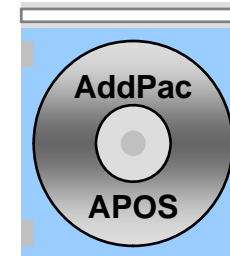
Example



# Software Service

AP-AC20 IP Door Phone

- **Built-in AddPac APOS Internetworking Software**
  - Scalability, Functionality, and Stability Features
  - Video Traffic QoS Control
- **Programmable Audio, and Voice Services**
  - Audio, and Voice Codec
- **Firmware Upgradeable DSP Architecture**
- **OSD (On-screen Display) Function Support**
- **Industry Standard IP based Network Protocol Features**



# Audio & Voice Service and Features

## AP-AC20 IP Door Phone

- **VoIP based Signaling Protocol Support**
  - H.323, SIP Signaling Protocol Stack
- **High-performance Audio & Voice Codec Support**
  - G.711, G.729, G.726,G.723.1 Audio Codec
- **Enhanced QoS Management Features for Voice Traffics**

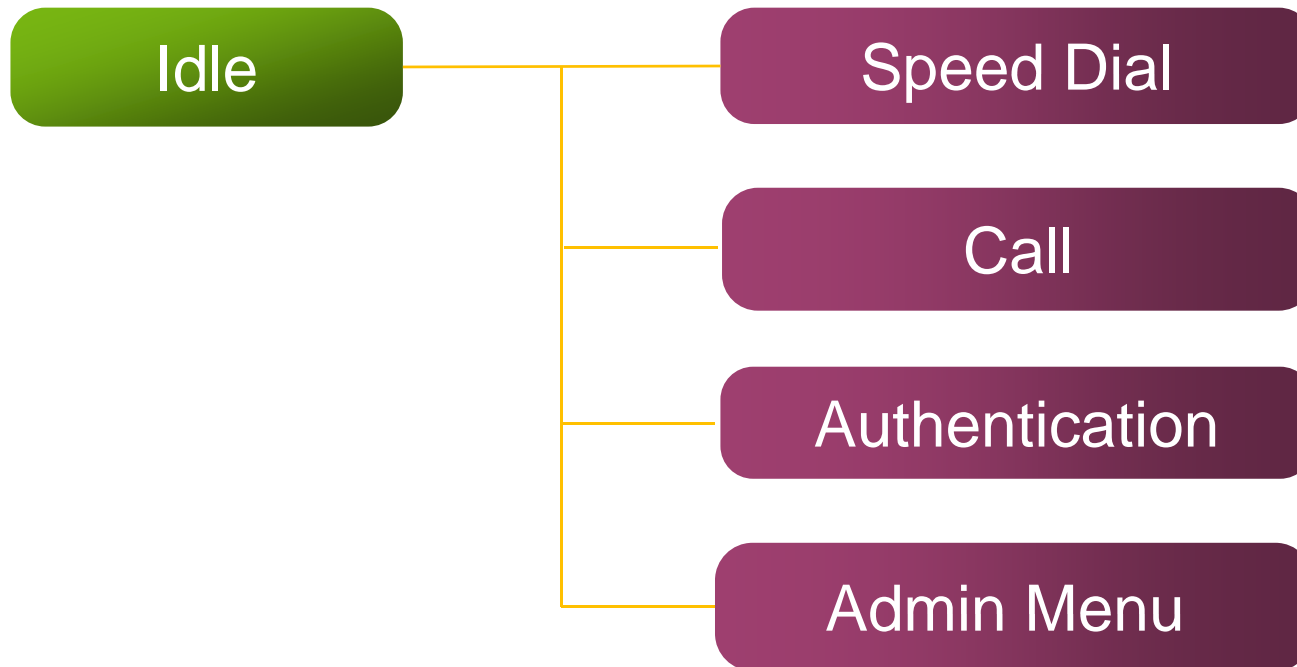


# OSD Software Feature



# OSD Software Features

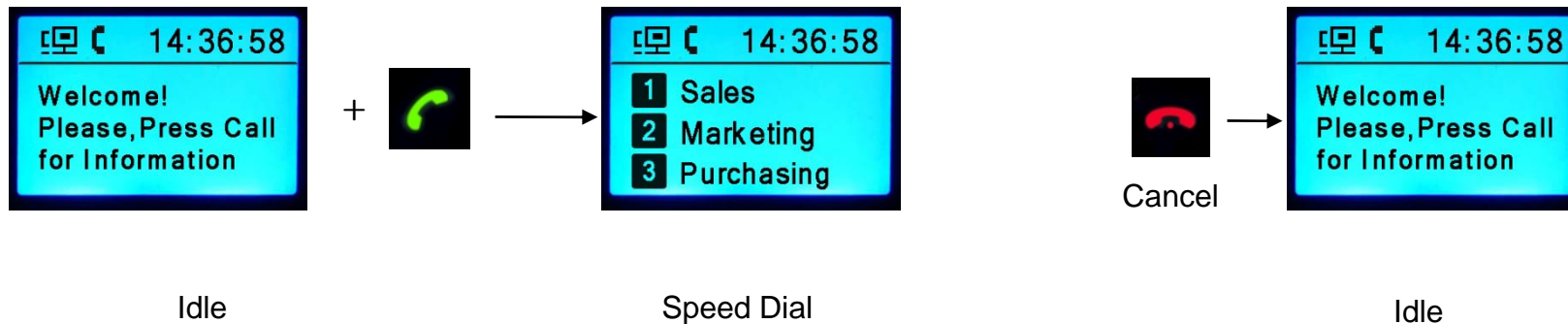
AP-AC20 IP Door Phone



# OSD Software Features

AP-AC20 IP Door Phone

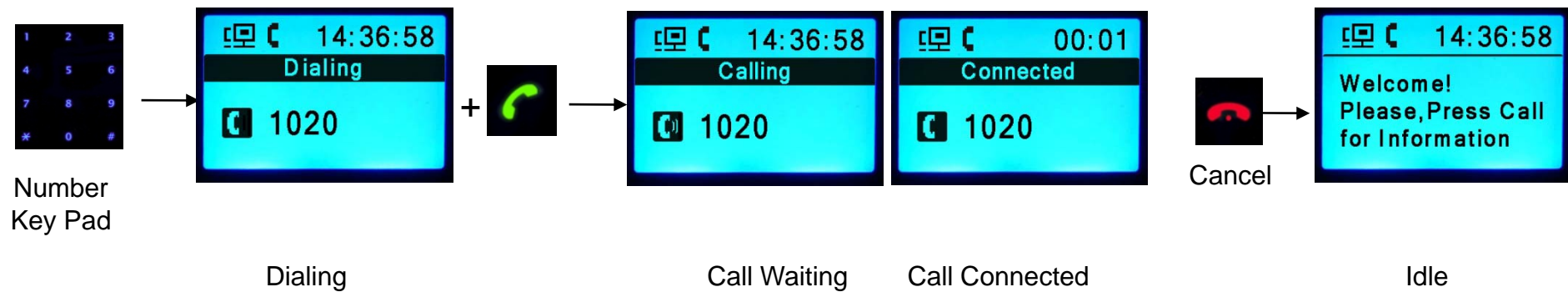
## Speed Dial



# OSD Software Features

AP-AC20 IP Door Phone

## Call



# OSD Software Features

AP-AC20 IP Door Phone

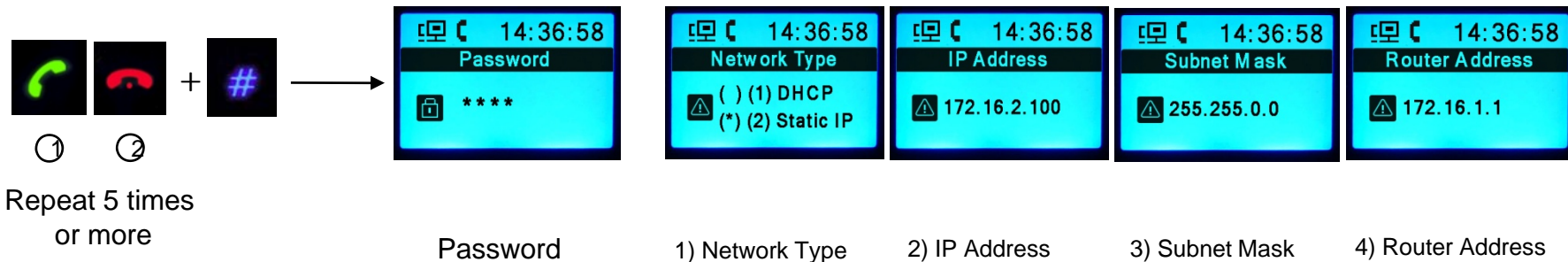
## Authentication



# OSD Software Features

AP-AC20 IP Door Phone

## Admin. Menu





# Smart Web Manager (Example)

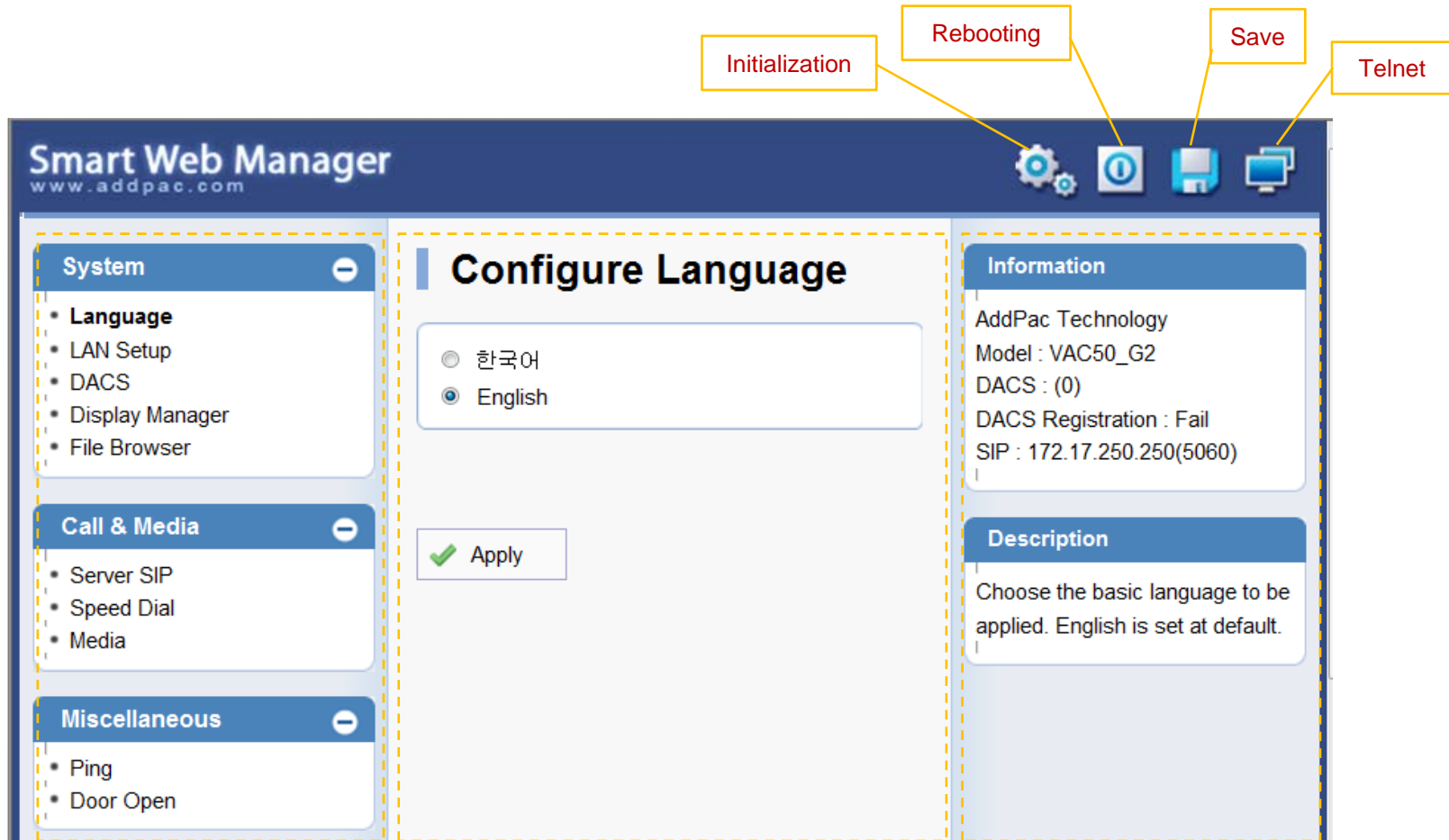
# Smart Web Manager

AP-AC20 IP Door Phone

- Main Screen
- System
  - Language
  - LAN Setup
  - DACS
  - Display
  - File Browser
- SIP Call & Media
  - SIP (Session Initiation Protocol)
  - Speed Dial
  - Media
- Miscellaneous
  - Door Control and Test
  - Network Test

# Smart Web Manager : Main Screen

AP-AC20 IP Door Phone



Menu Tree

Output Screen after  
Menu Select

System Information and  
Help Message



# Smart Web Manager : SIP configuration

AP-AC20 IP Door Phone

## SIP (Session Initiation Protocol)

SIP server check if exist.

SIP Basic Information Display

Telephone Line Number and Password Configuration  
Same Information is used when DACS is connected

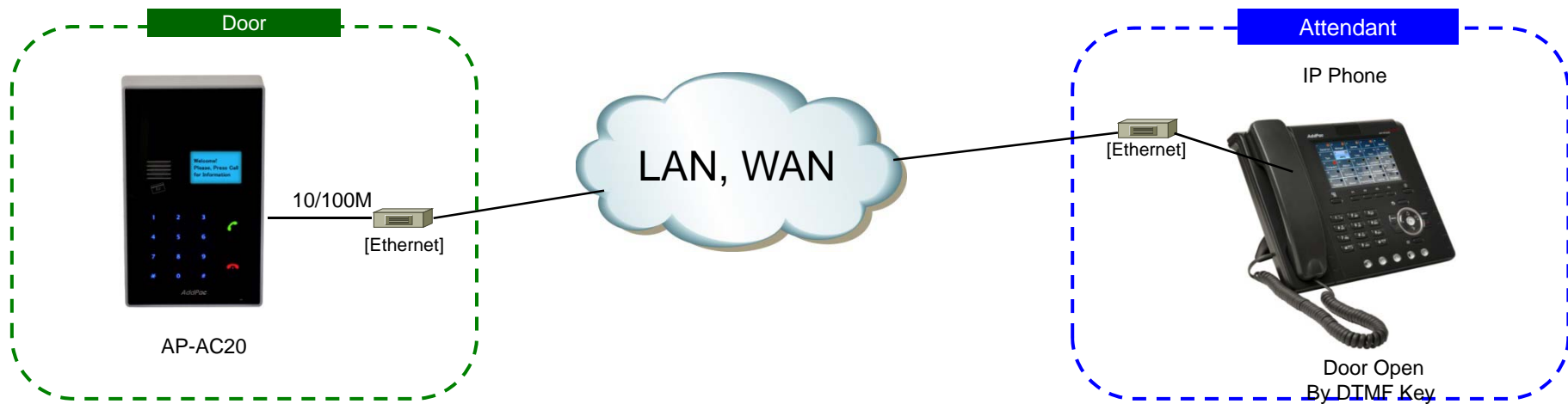
<b>Use SIP Server</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<b>Primary SIP Server</b>	<input type="text" value="172.17.250.250"/> <input type="text" value="5060"/> Server address and Port (default 5060)
<b>Secondary SIP Server</b>	<input type="text"/> <input type="text" value="5060"/> Server address and Port (default 5060)
<b>Local Domain Name</b>	<input type="text"/> (SIP userpart of authentication)
<b>SIP Signaling Port</b>	<input type="text" value="5060"/> (default 5060, between 1 to 65535)
<b>Register Expiration</b>	<input type="text" value="60"/> (in seconds, default 60, between 10 to 86400)
<b>Session Re-Fresh</b>	<input checked="" type="radio"/> INVITE <input type="radio"/> UPDATE
<b>Session Expire Time</b>	<input type="text" value="1800"/> (in seconds, default 1800, between 30 to 86400, 0 = disable)
<b>Min-SE</b>	<input type="text" value="1800"/> (in seconds, default 1800, between 30 to 86400)
<b>Extension</b>	<input type="text" value="1020"/> <input type="text"/> Extension Number, Password

# AP-AC20 IP Door Phone

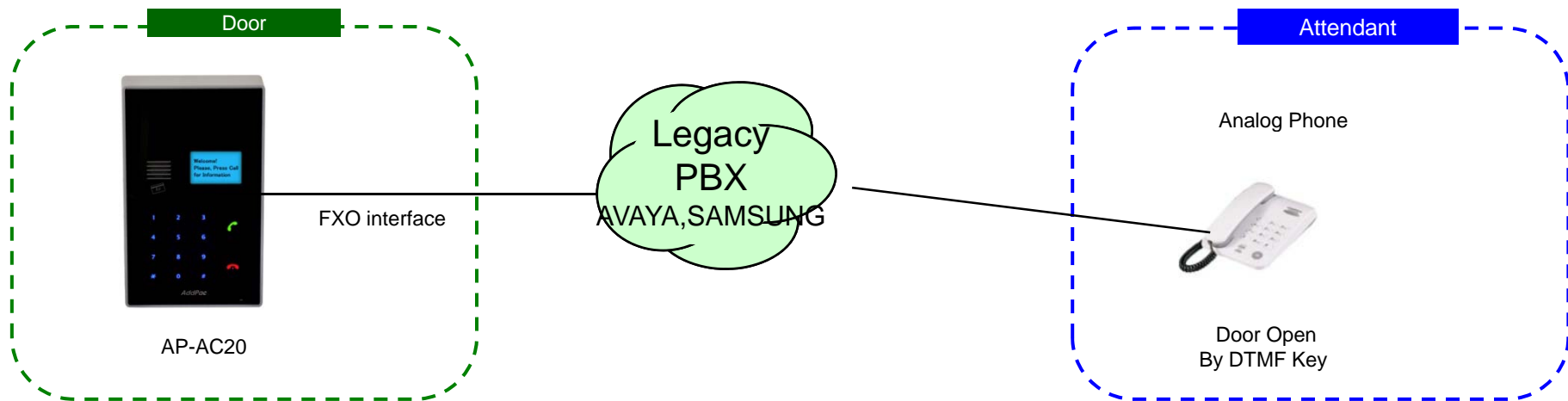
## Application Area

- Point-to-Point Application (Simple Application)
  - All IP Environment
  - Legacy PBX Environment (FXO Interface)
  - Hot-Line (FXS Interface)
- Point-to-Multipoint Application
  - All AddPac Solution  
(Call Manager + Door Access Control Server)
  - Legacy PBX Environment
  - Legacy IP-PBX Environment
  - Analog Line Service Environment (FXO, VoIP Gateway, IP-PBX, etc)

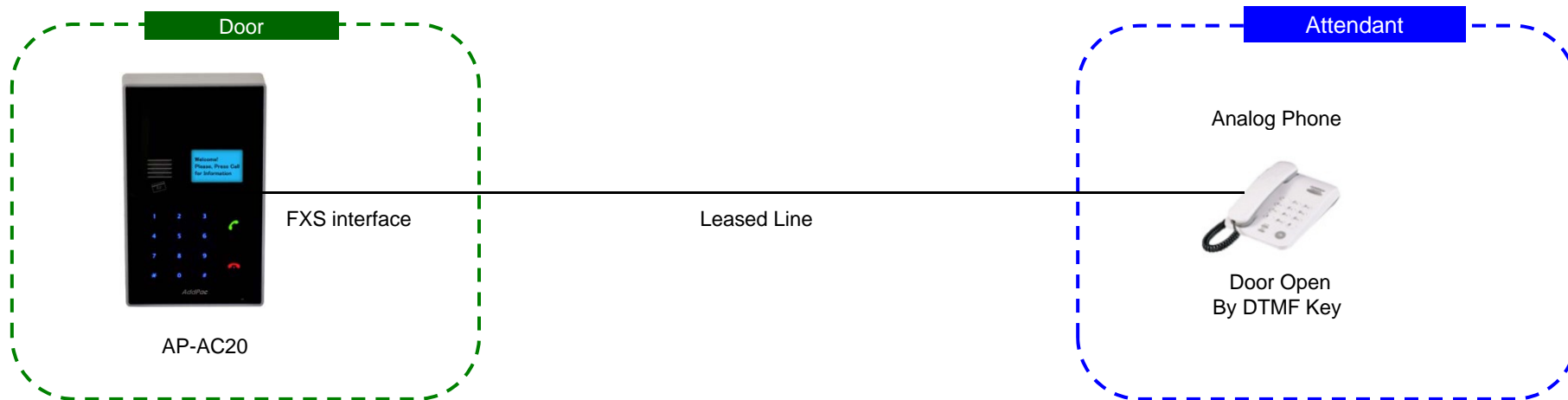
# Point-to-Point Connection (Simple Appl.)



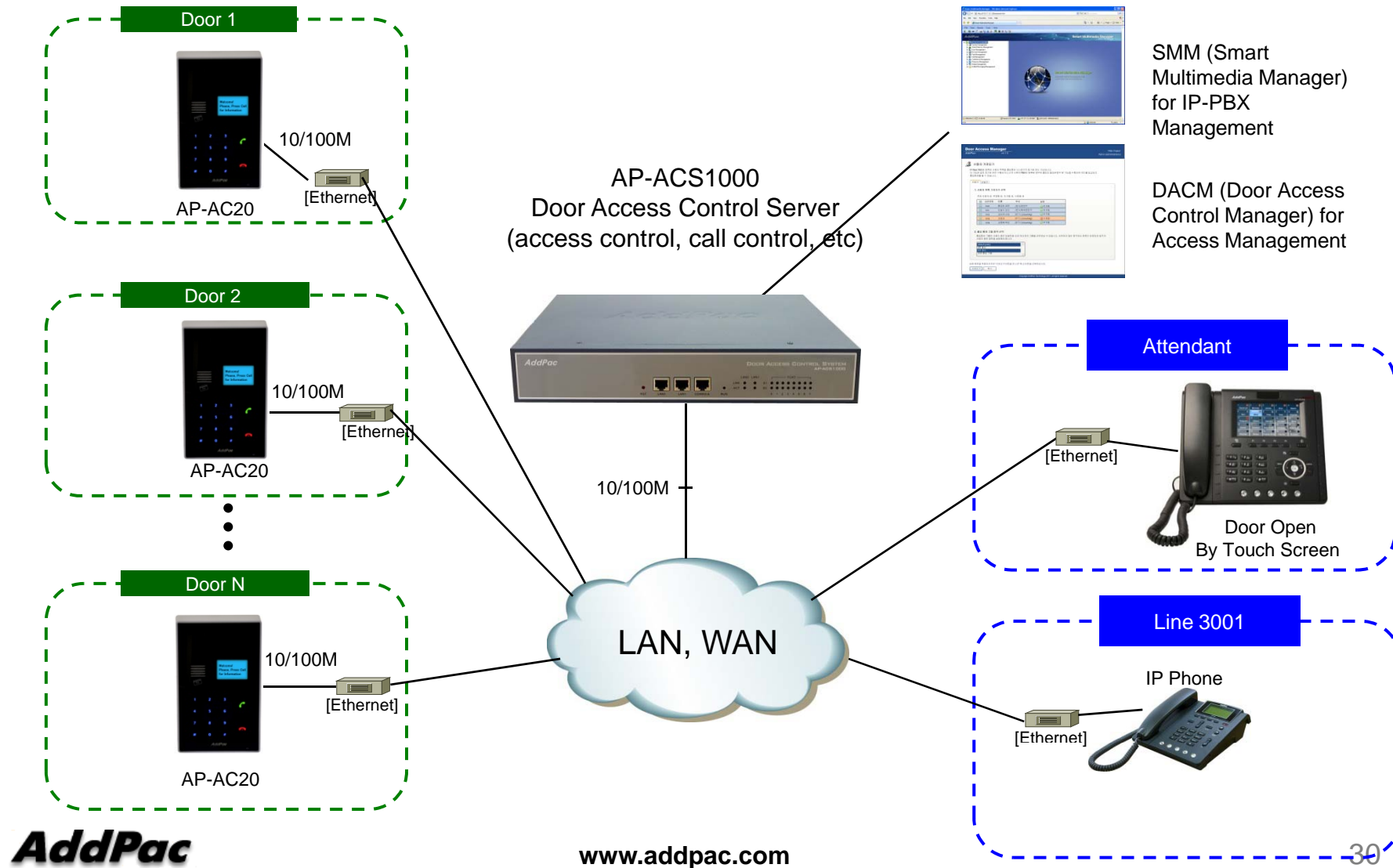
# Point-to-Point Connection (Simple Appl.)



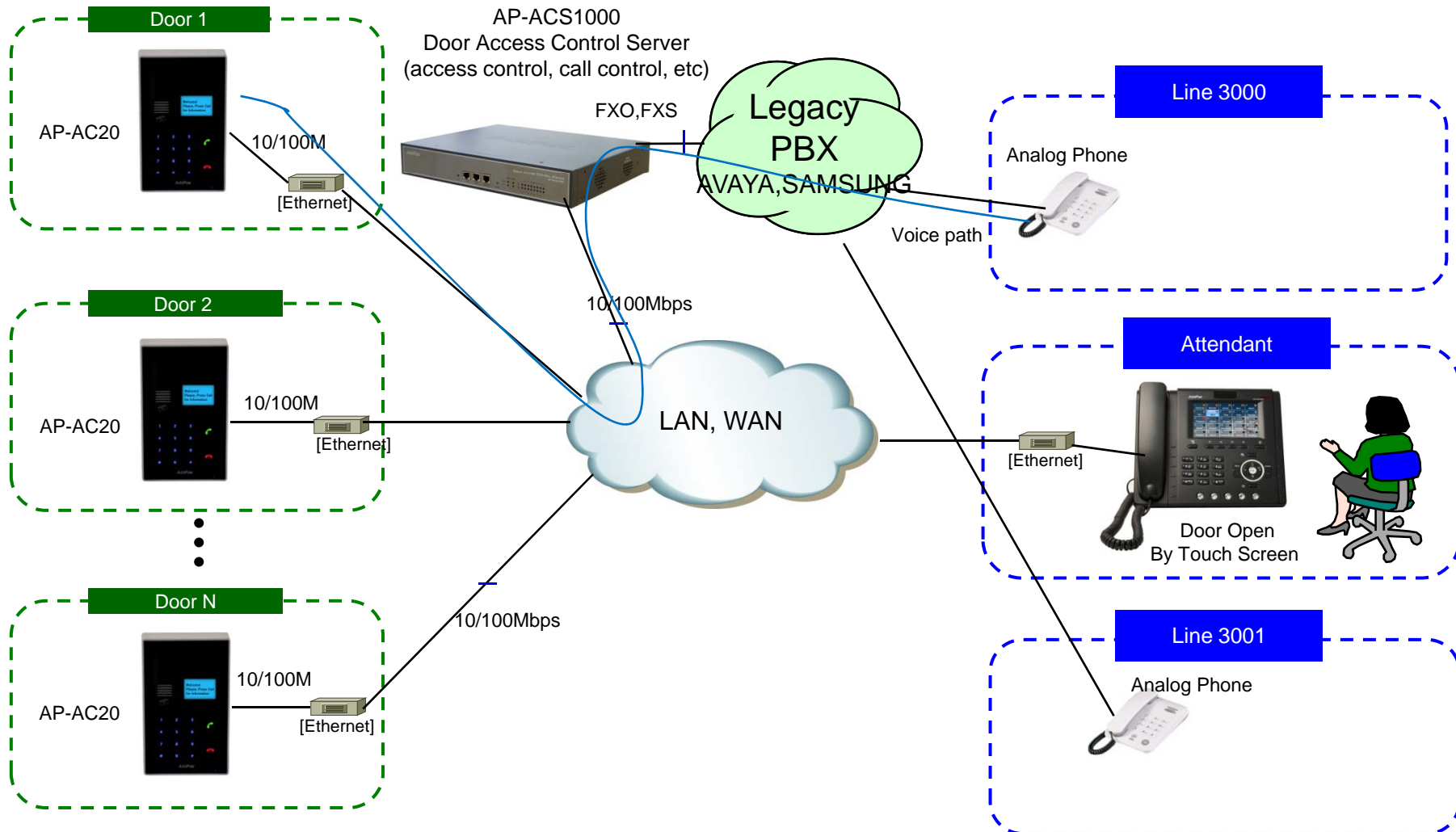
# Point-to-Point Connection (Simple Appl.)



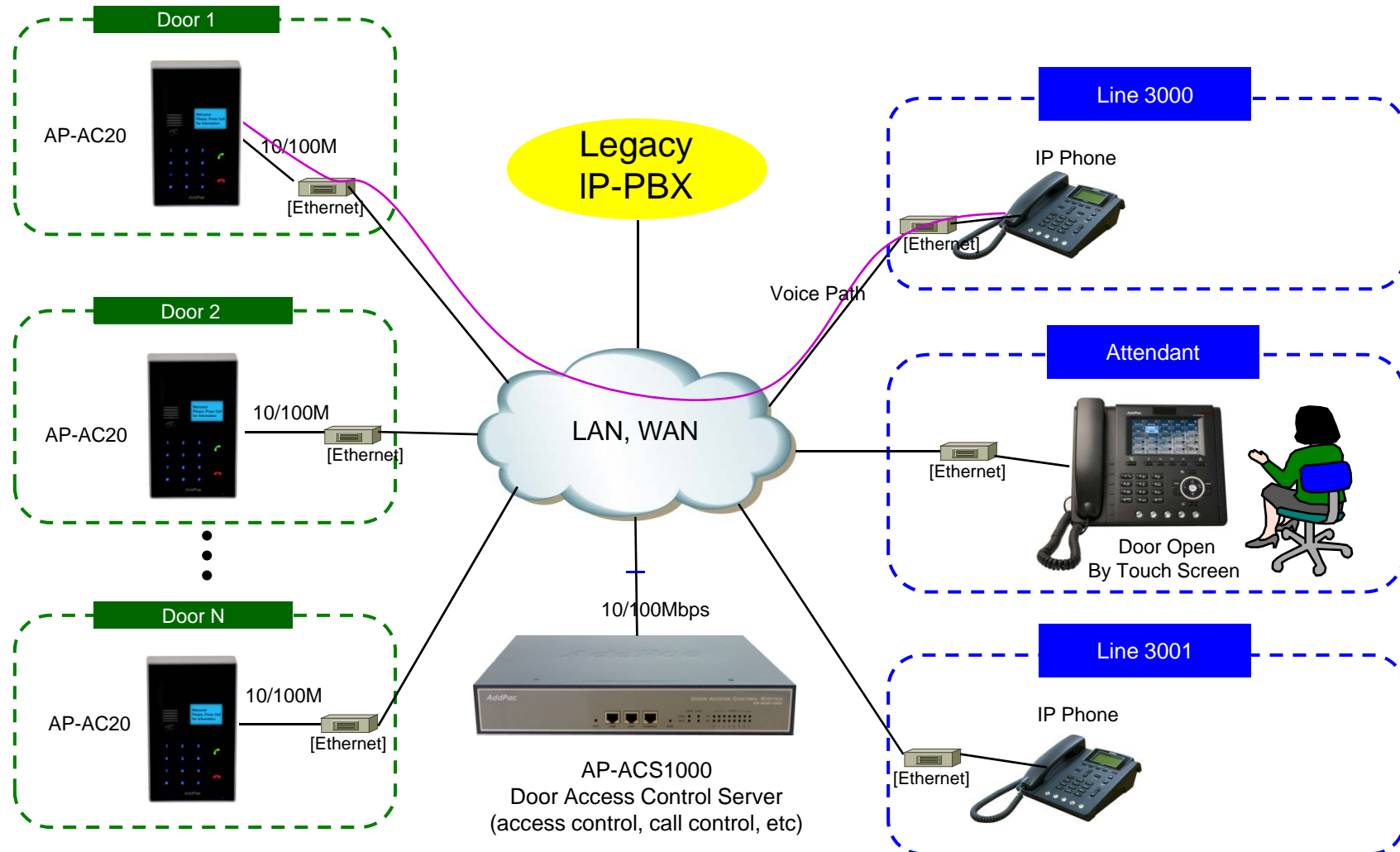
# Integrated Door Access Control and Call Control (All AddPac Solution)



# Legacy PBX Environment

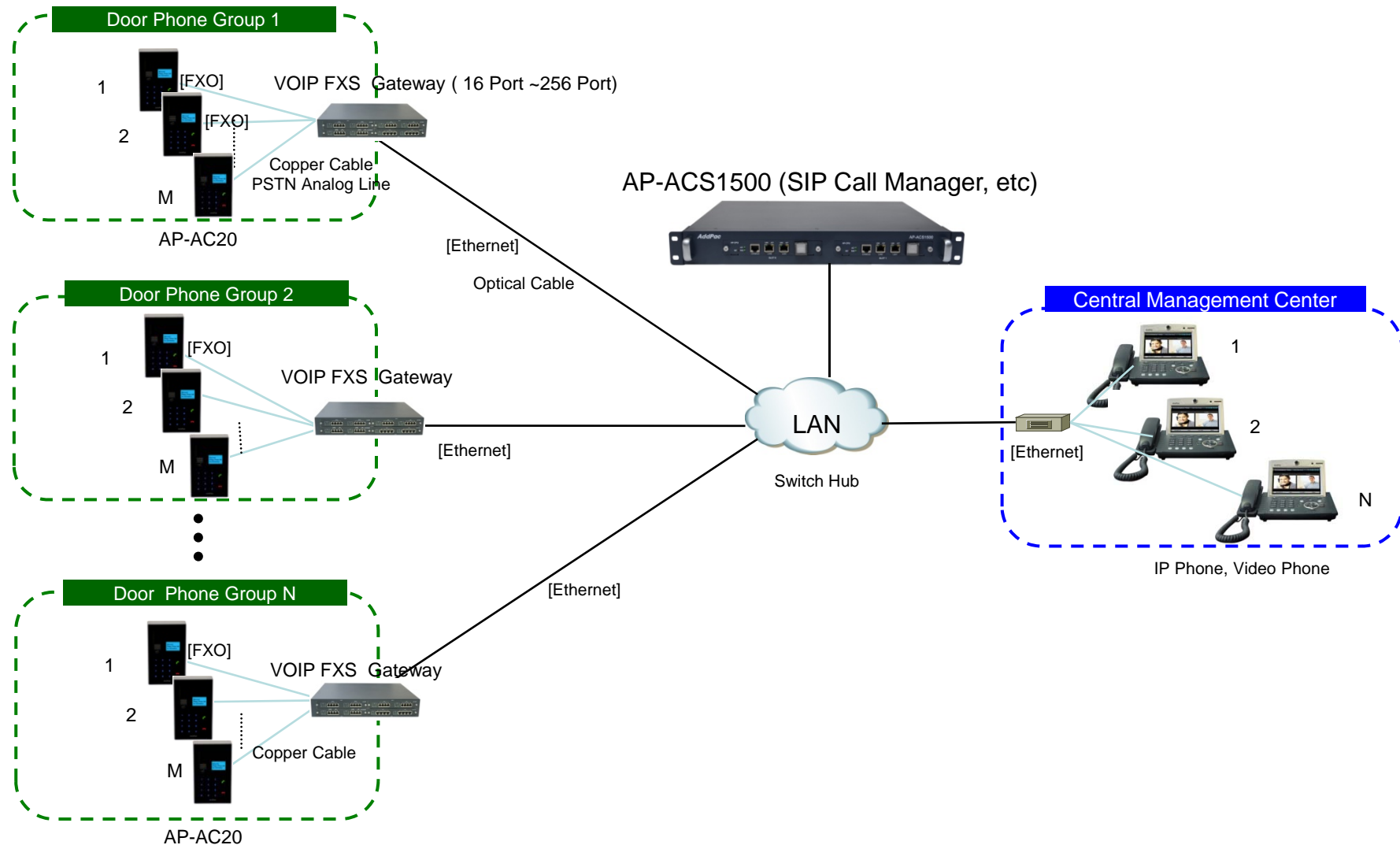


# Legacy IP-PBX Environment





# Analog Line Service Environment



# Ordering Information

- **AP-AC20 IP Door Phone Hardware**
  - AP-AC20 IP Door Phone Main Body
  - RISC Microprocessor with High-end Programmable DSP Architecture
  - Blue LCD, Internal MIC, Internal Speaker
  - 1-ports 10/100Mbps Fast Ethernet
  - Option : PoE Interface
  - Option : RF Card
  - Option : FXO Port, FXS Port
  - Including Network Cable Set & Ext. Power Supply, etc.
- **Built-in APOS Internetworking Software for AP-AC20**
- **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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