

# AddPac IP Video Door Phone Solution

***AddPac***

**AddPac Technology**

2015, Sales and Marketing

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




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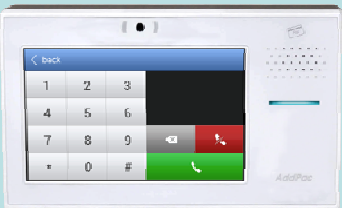


# WiFi supporting IP Video Door Phones

# 7 Inch LCD IP Video Door Phone Comparison Table

Model	AP-VAC350	AP-VAC300	AP-VAC280
Service Features			
Duplex (Voice)	Full Duplex	Full Duplex	Full Duplex
Key Pad	Touch Screen based Key	Touch Screen based Key	Touch Screen based Key
LCD	7 Inch LCD	7 inch LCD	7 inch LCD
RF Card	Support	Support	Support
Fingerprint	Support	N/A	N/A
ZWave Sensor Hub	Option	Option	N/A
Video Camera	SD (CMOS Sensor)	SD (CMOS Sensor)	SD (CMOS Sensor)
Video Codec	H.264/MPEG4/H.263	H.264/MPEG4/H.263	H.264/MPEG4/H.263
Voice Codec	G.711	G.711	G.711
Signaling	H.323/SIP	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support	Support
LAN Port	1	1	1
WiFi (Option)	USB based WiFi Module	USB based WiFi Module	USB based WiFi Module
PoE(Optional)	Support	Support	Support

# 5 Inch LCD IP Video Door Phone Comparison Table

Model	AP-VAC150	AP-VAC80
Service Features		
Duplex (Voice)	Full Duplex	Full Duplex
Key Pad	Touch Screen based Key	Touch Screen based Key
LCD	5 Inch LCD	5 inch LCD
RF Card	Support	Support
Fingerprint	Support	N/A
Video Camera	SD (CMOS Sensor)	SD (CMOS Sensor)
Video Codec	H.264/MPEG4	H.264/MPEG4
Voice Codec	G.711	G.711
Signaling	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support
LAN Port	1	1
WiFi (Option)	USB based WiFi Module	USB based WiFi Module
PoE(Option)	Support	Support

# Hardware Specification

7 Inch LCD IP Video Door Phone

RISC  
CPU

High-end  
DSP

## Front Side

Video Camera

7" TFT LCD Display  
& Touch Screen

Touch Key Menu

RF Card Sensor

Fingerprint  
Recognition  
Detection LED

Fingerprint  
Recognition  
Sensor



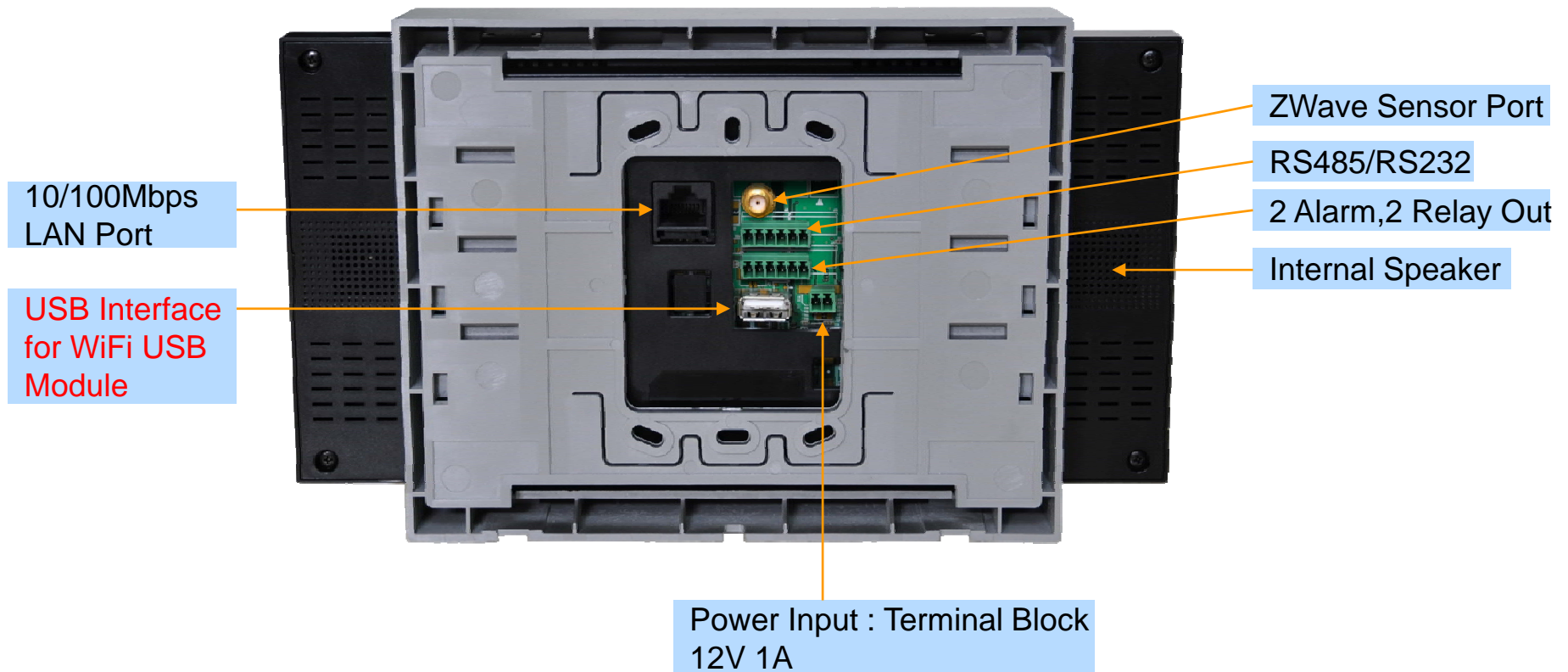
# Hardware Specification

7 Inch LCD IP Video Door Phone

RISC  
CPU

High-end  
DSP

## Back Side



# Hardware Specification

5 inch LCD IP Video Door Phone

RISC  
CPU

High-end  
DSP

## Front Side





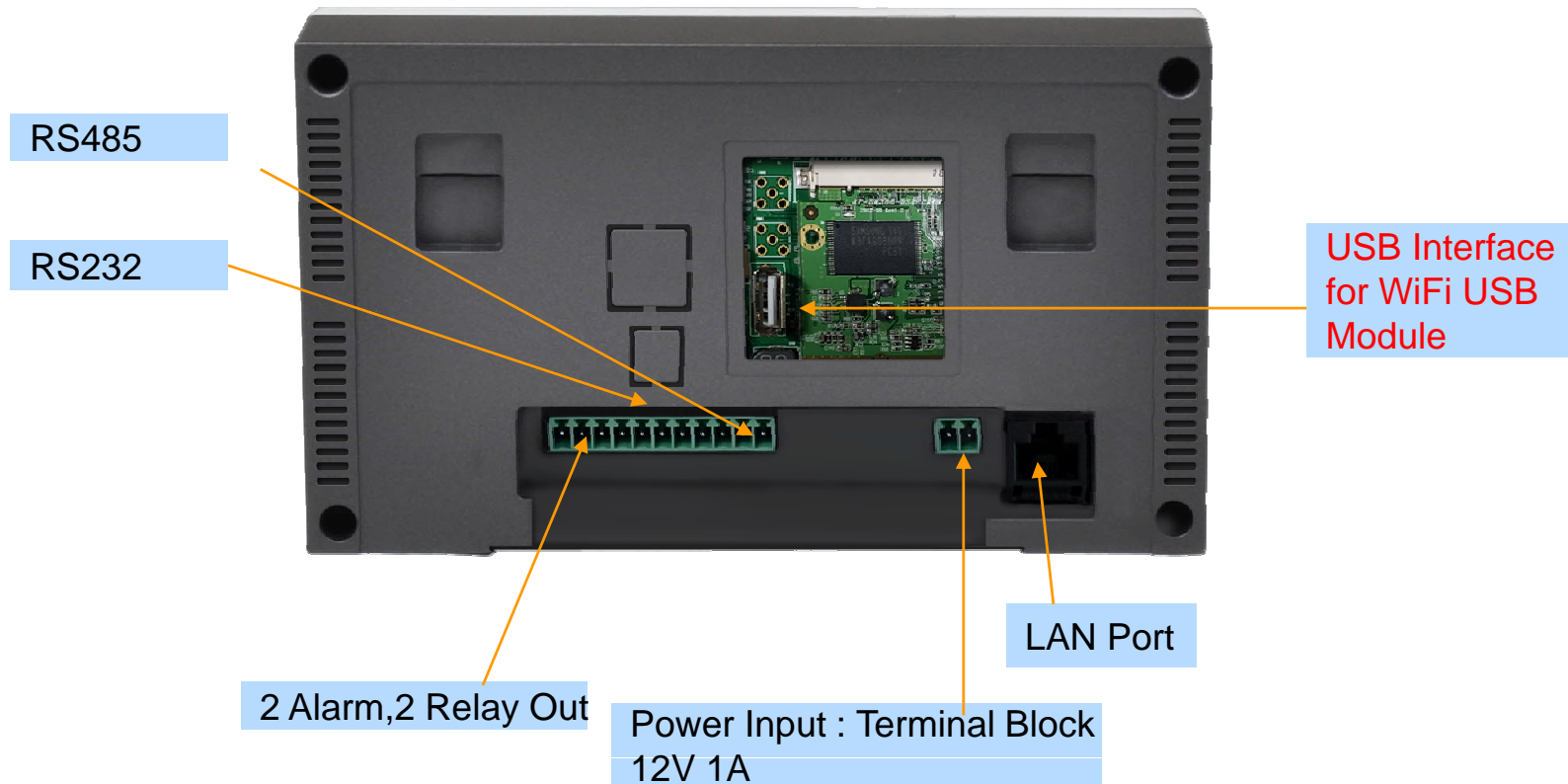
# Hardware Specification

5 Inch LCD IP Video Door Phone

RISC  
CPU

High-end  
DSP

## Back Side



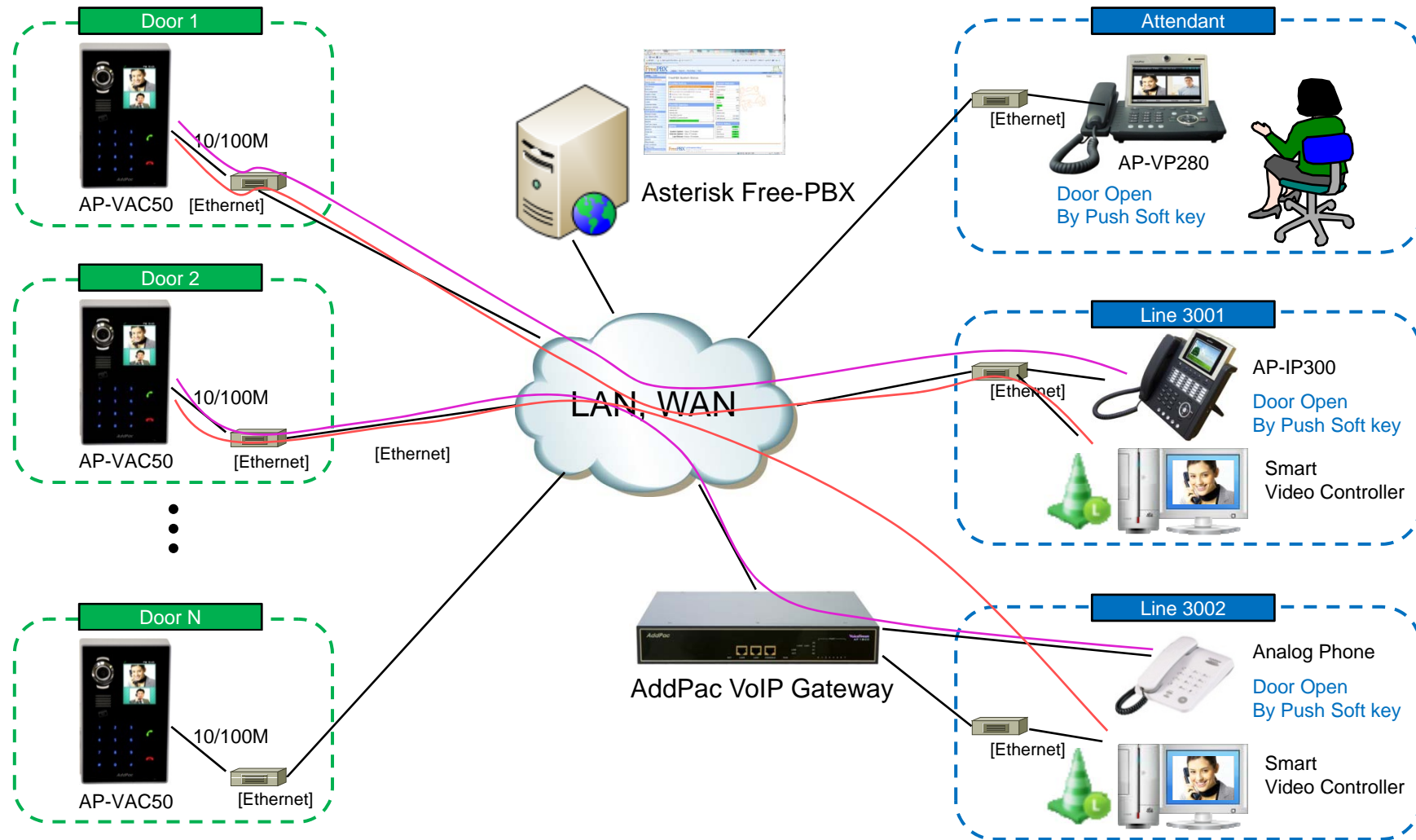


# Standard SIP Protocol Interworking



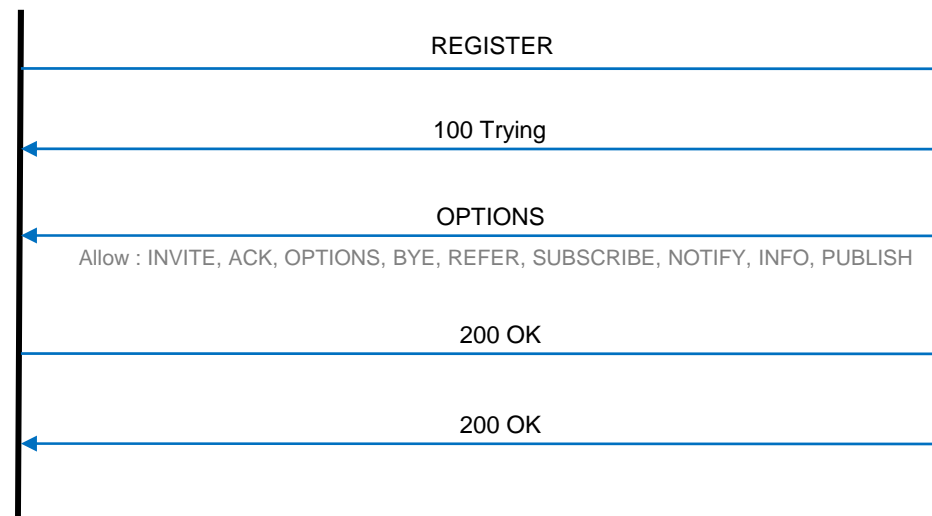
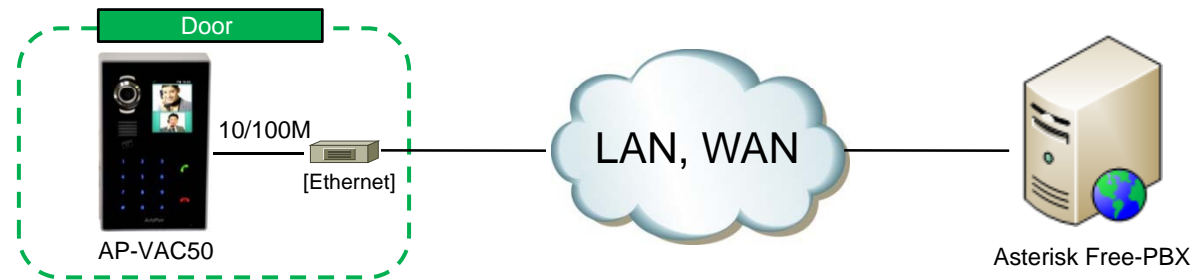
# Asterisk IP-PBX Interworking

# Network Diagram



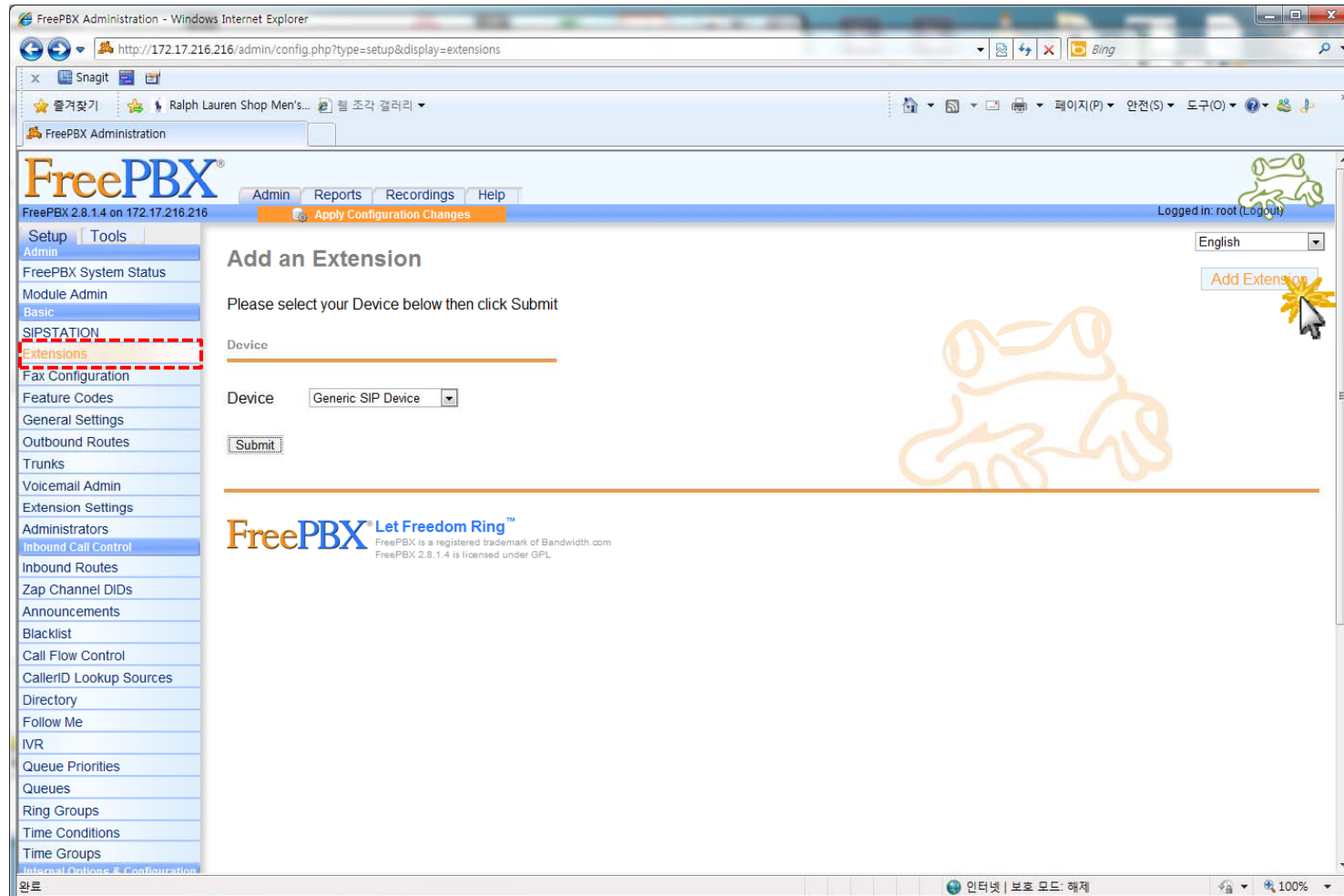
# SIP Register

AP-VAC50 Register to Asterisk Free-PBX



# SIP Register

AP-VAC50 Register to Asterisk Free-PBX



# SIP Register

AP-VAC50 Register to Asterisk Free-PBX

The screenshot displays the FreePBX Administration web interface in a Windows Internet Explorer browser window. The address bar shows the URL `http://172.17.216.216/admin/config.php`. The page title is "FreePBX Administration" and the version is "FreePBX 2.8.1.4 on 172.17.216.216". The user is logged in as "root".

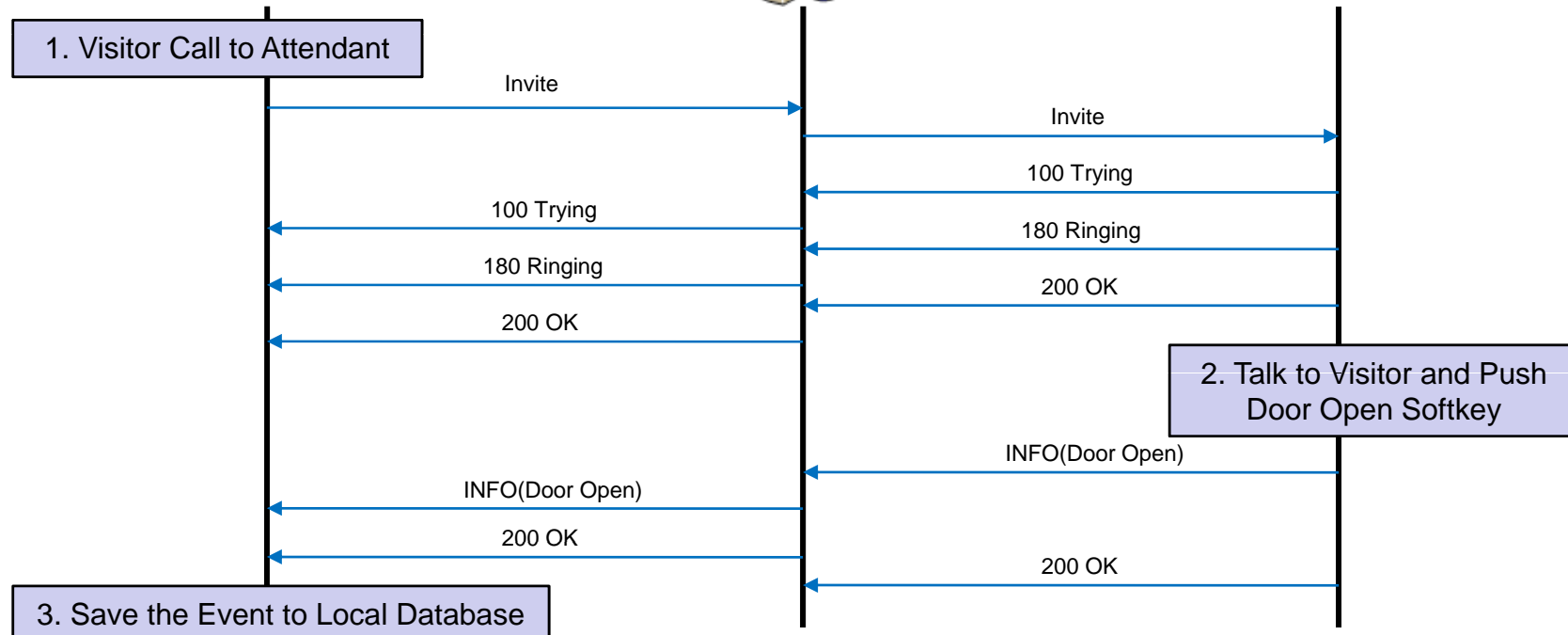
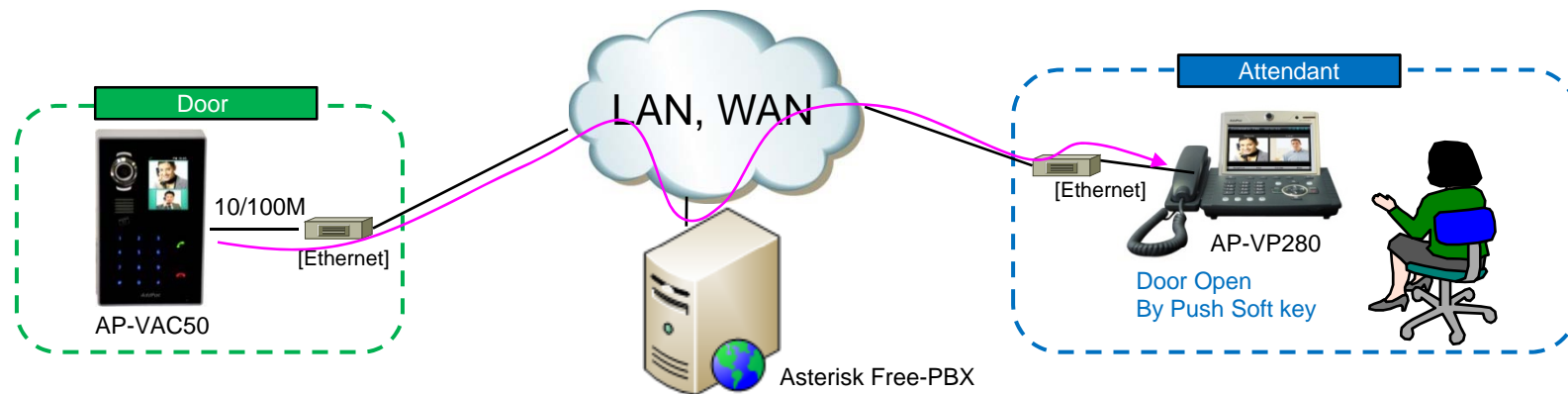
The main content area is titled "Add SIP Extension" and contains the following fields and options:

- Add Extension:**
  - User Extension:
  - Display Name:
  - CID Num Alias:
  - SIP Alias:
- Extension Options:**
  - Outbound CID:
  - Ring Time:
  - Call Forward Ring Time:
  - Outbound Concurrency Limit:
  - Call Waiting:
  - Internal Auto Answer:
  - Call Screening:
  - Pinless Dialing:
  - Emergency CID:
  - Queue State Detection:
- Assigned DID/CID:**
  - DID Description:

On the right side of the page, there is a language dropdown menu set to "English" and two buttons: "Add Extension" and "1000 <1000>".

# SIP Message Flow

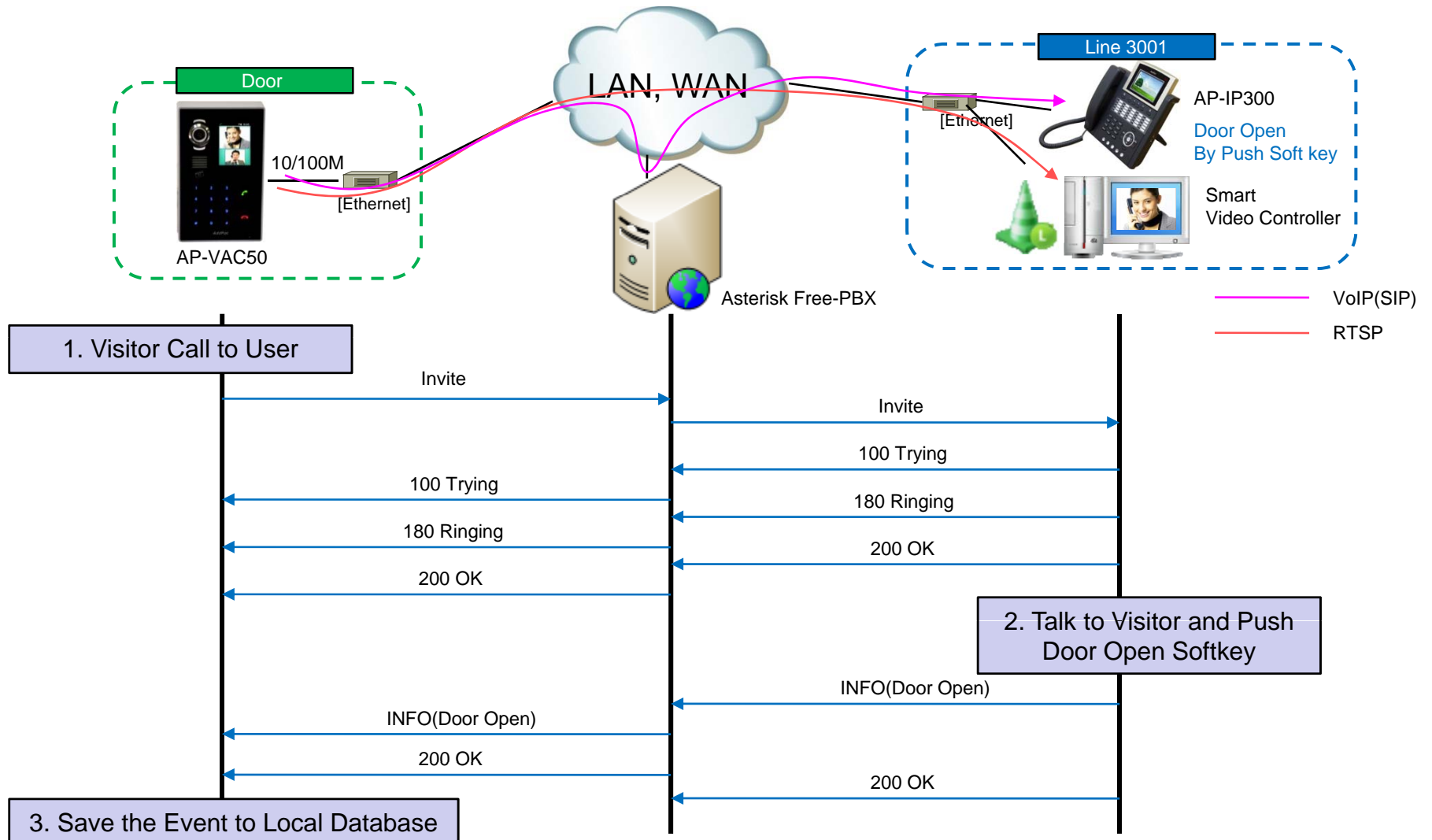
## Door Open by Other Terminal - Attendant





# SIP Message Flow

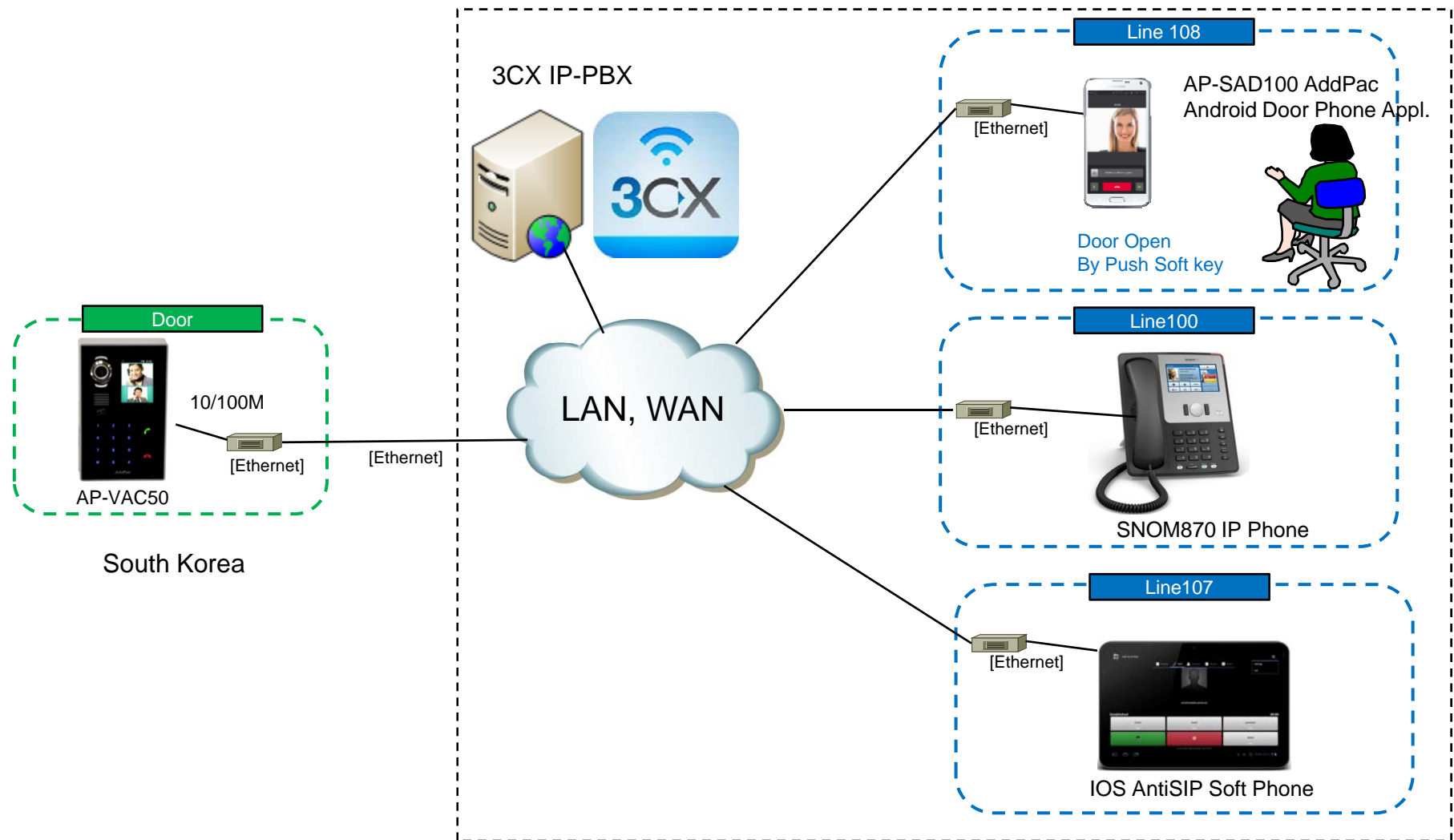
## Door Open by Other Terminal - User





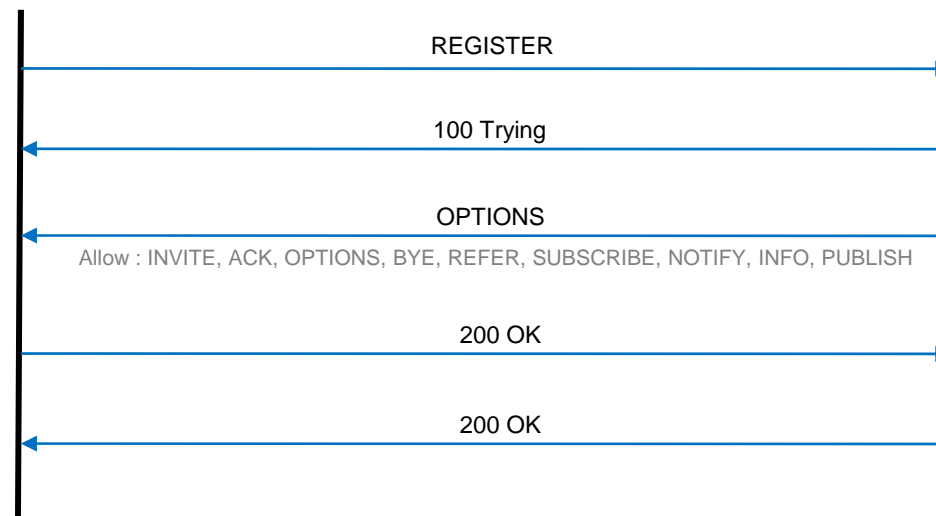
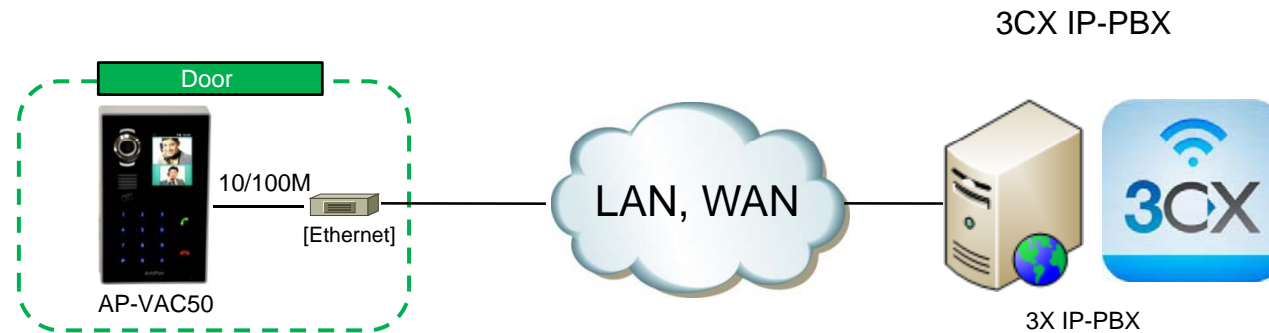
# 3CX IP-PBX Interworking

# Network Diagram (Interworking Environment)



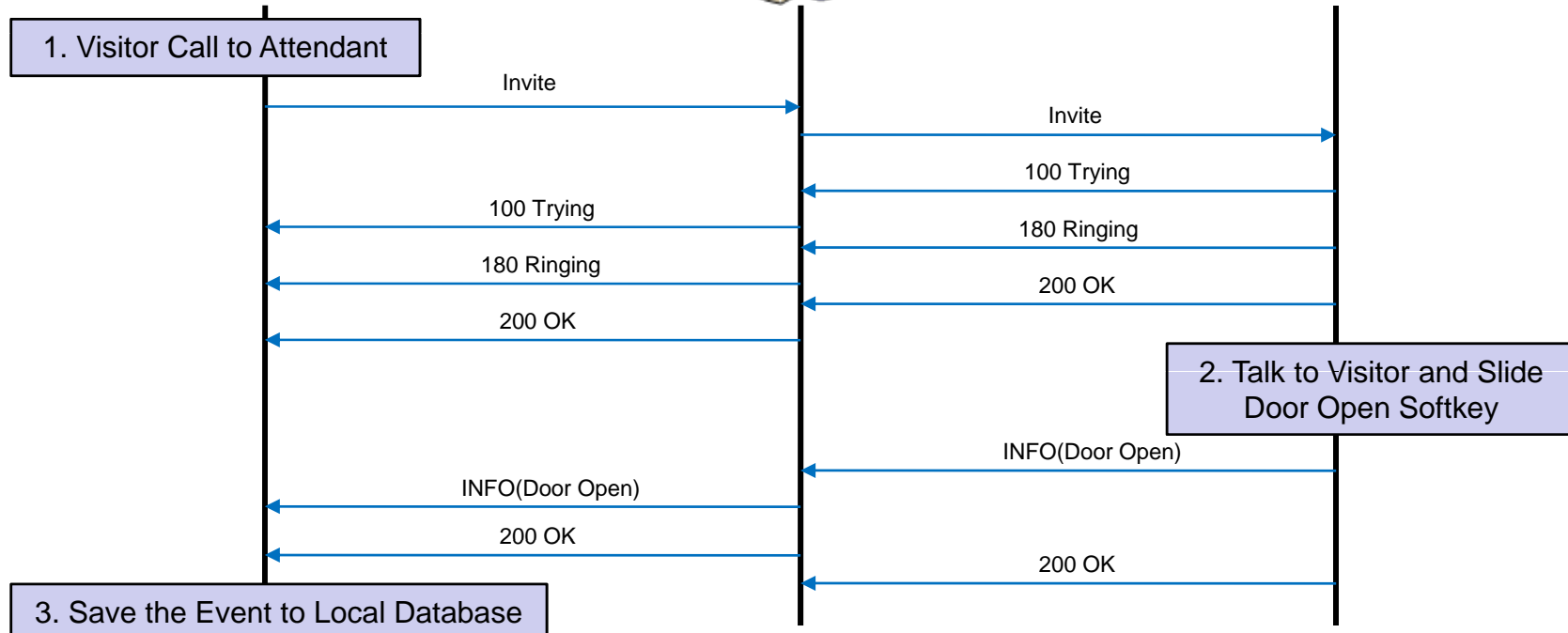
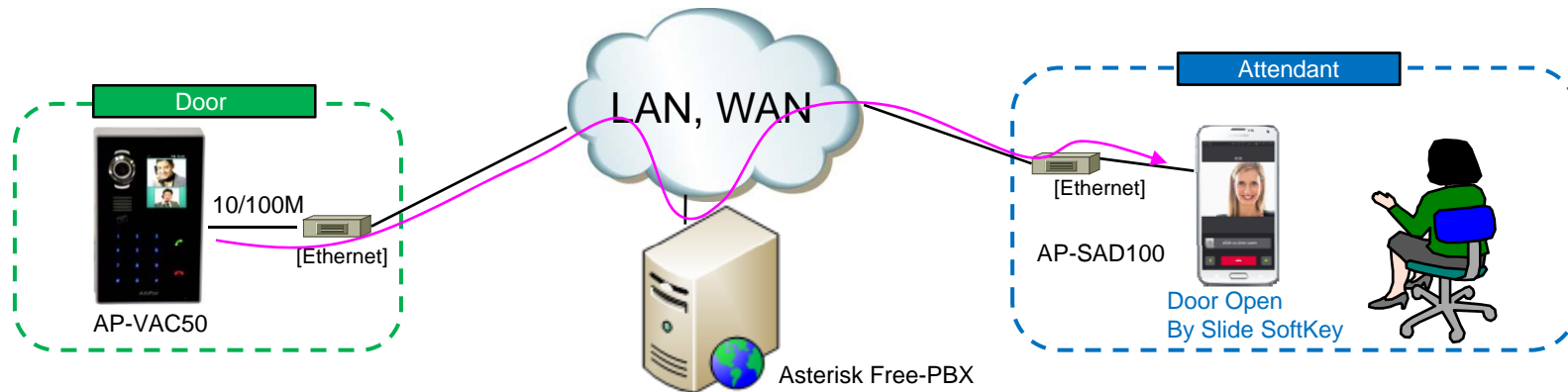
# SIP Register

AP-VAC50 Register to 3CX IP-PBX



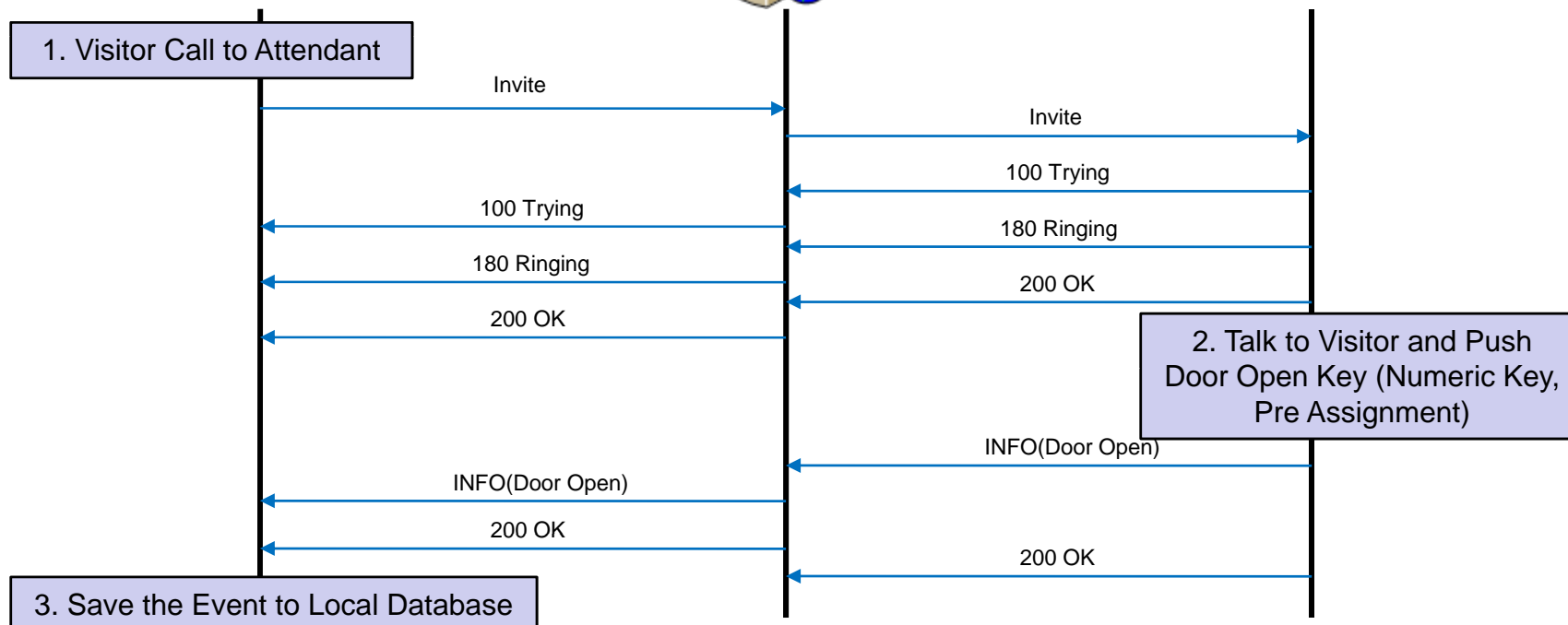
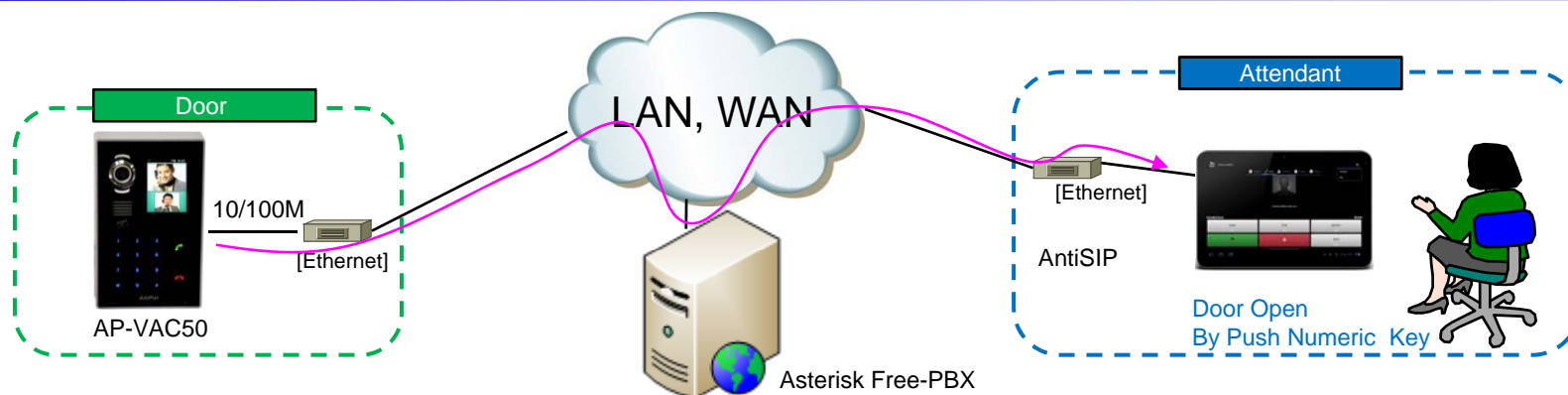
# SIP Message Flow (Video)

Door Open by Terminal – AP-SAD100 (AddPac Android Door Phone Appl.)



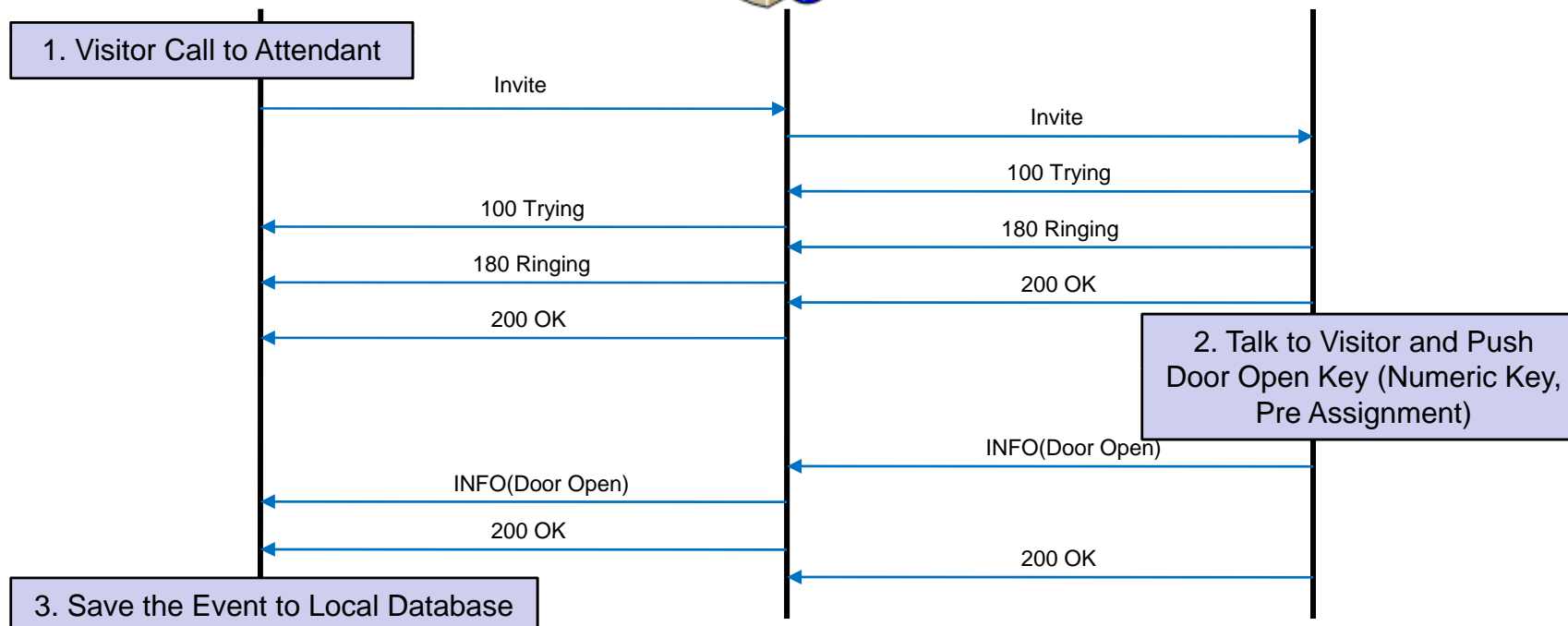
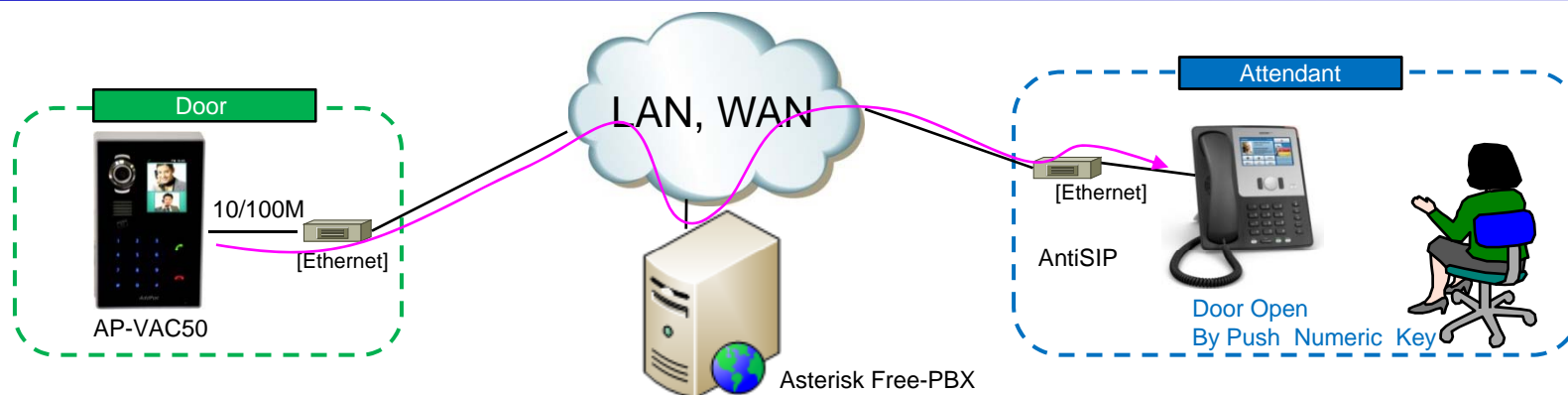
# SIP Message Flow (Video)

Door Open by Terminal – AntiSIP IOS SoftPhone



# SIP Message Flow (Voice)

## Door Open by Terminal – SNOM IP Phone

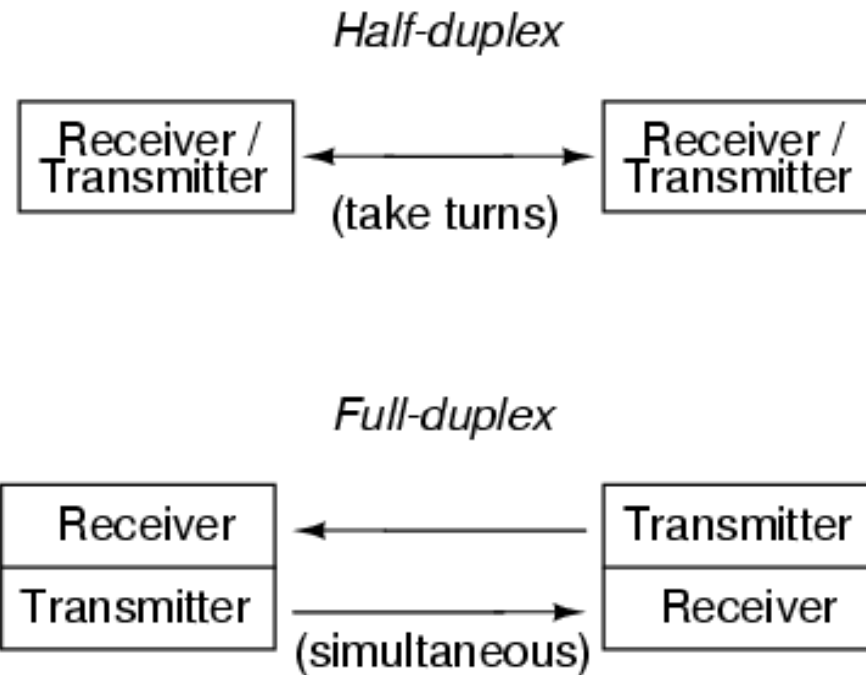




Full Duplex Two-Way Communication  
by using AEC (acoustic echo canceller)



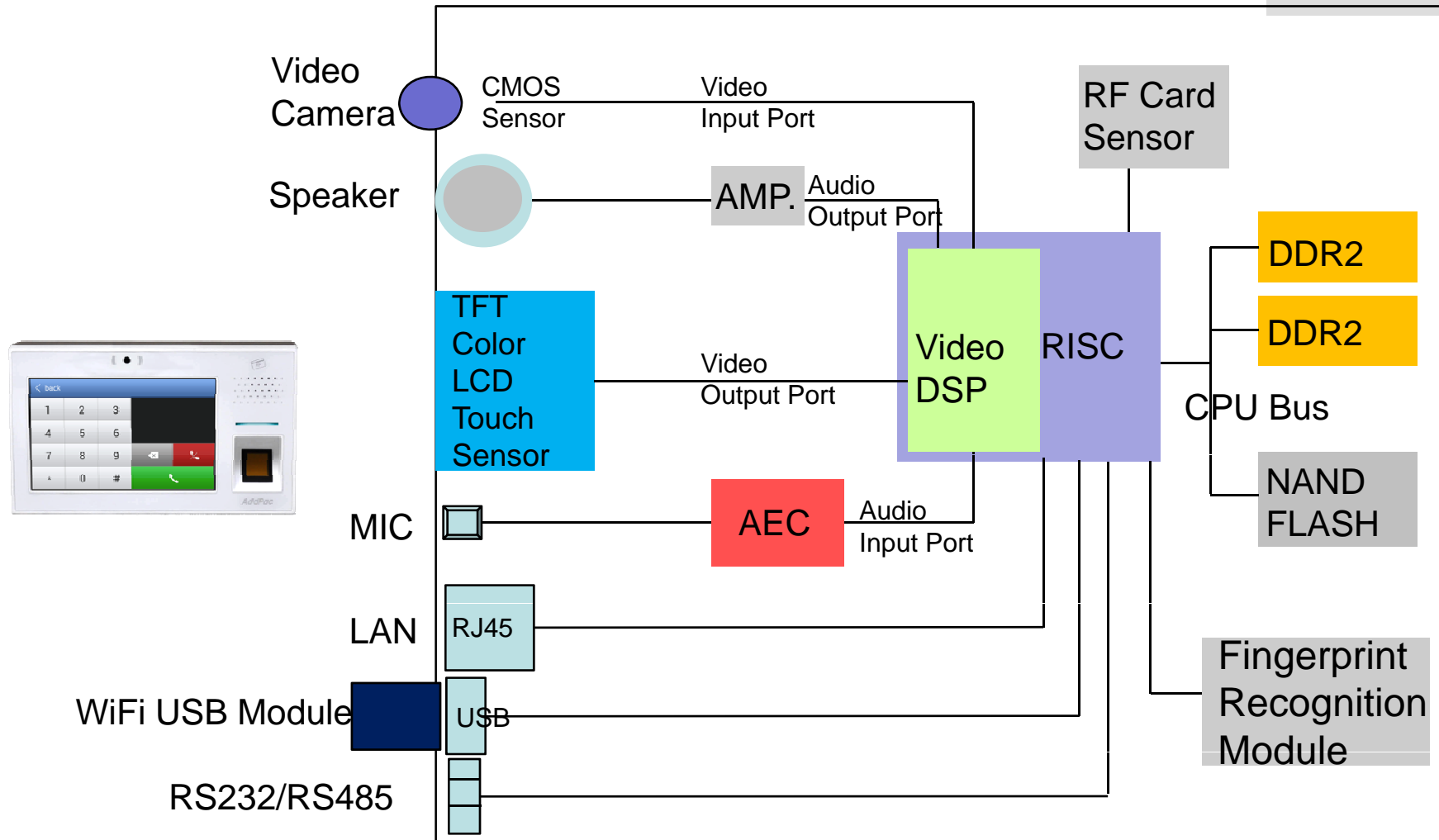
# Difference between Half Duplex and Full Duplex



# Hardware Block Diagram

RISC  
CPU

High-end  
DSP



# Hardware Specification

RISC  
CPU

High-end  
DSP

- **Acoustic Echo Canceller**
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)



# Thank you!

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Tech. Solution

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