

# AP-NRC20

## IP RFID Controller

High Performance Network RFID Controller Solution



Product Overview

***AddPac***

**AddPac Technology**

Sales and Marketing

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

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# Product Overview

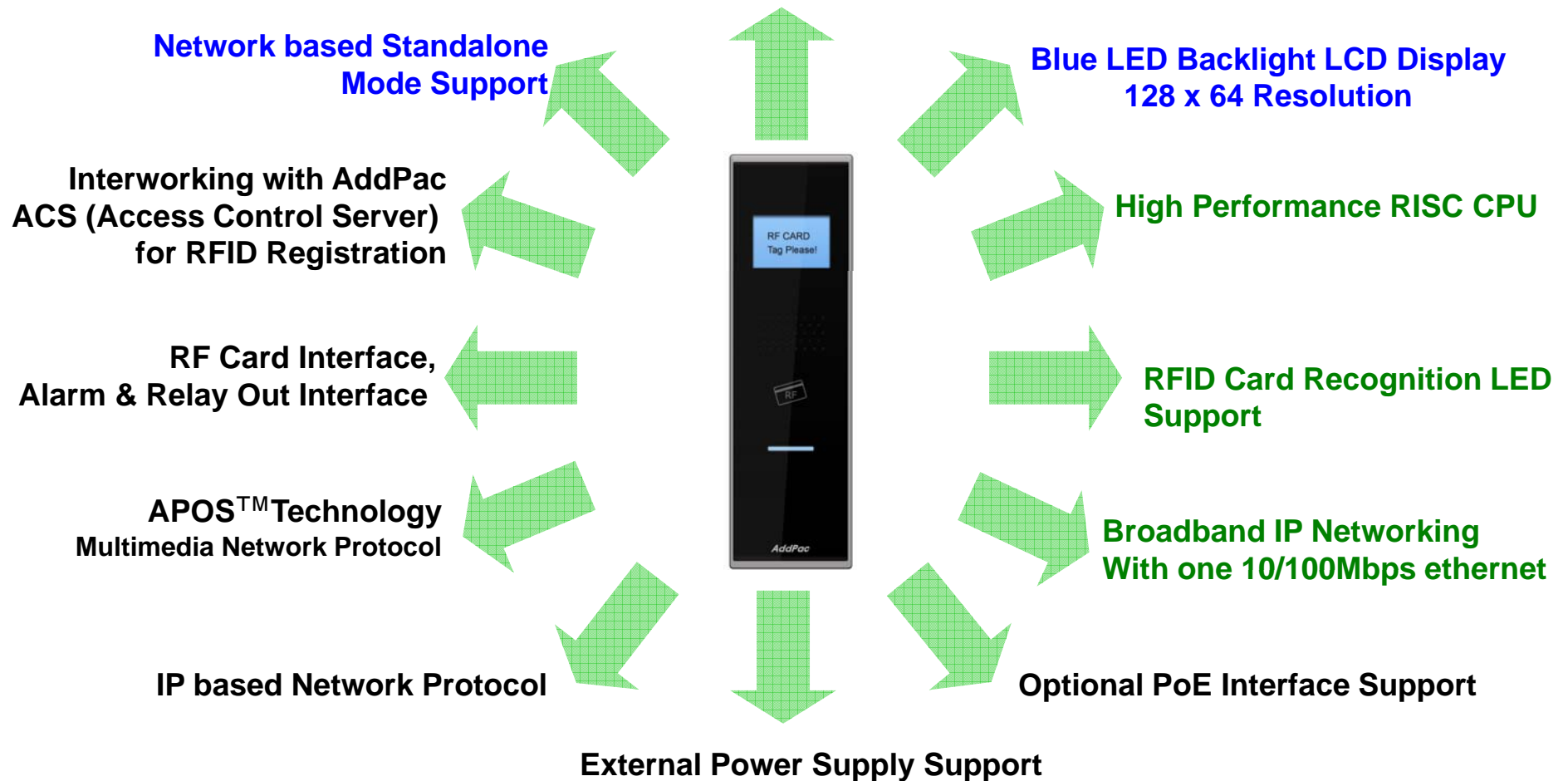
## AP-NRC20 IP RFID Controller

- High Performance Network RFID Controller
- Interworking with AddPac ACS(Access Control Server) for RFID Registration
- Internal Speaker
- Blue LED Backlight LCD, 128 x 64 Display Resolution
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- Alarm Input & Relay Output Port
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Compact Chassis Design
- RFID Card Detection LED & Sound
- External Power Supply

# Product Highlights

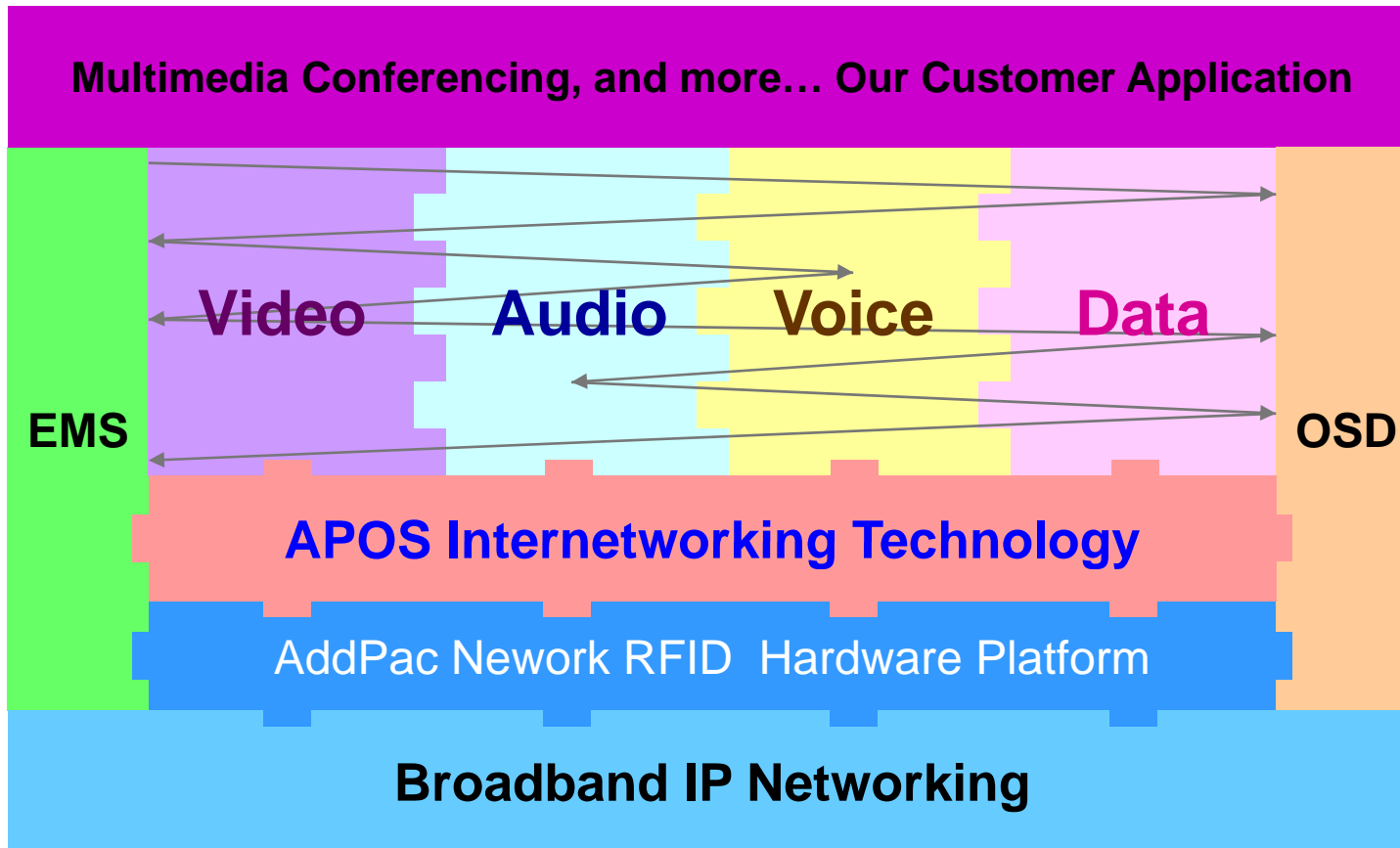
AP-NRC20 IP RFID Controller

## Network based RFID System



# Multimedia Service

AP-NRC20 IP RFID Controller



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

# Hardware Specification

## AP-NRC20 IP RFID Controller

RISC  
CPU

- RISC Microprocessor Computing Power
- Audio and Voice Interface
  - Internal Speaker
- Blue LED Backlight LCD Interface
  - 128 x 64 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- RFID Card Interface
- RFID Card Recognition LED
- Alarm & Relay Out Interface (door open, etc)
- Power Supply
  - Power over Ethernet (Option)
  - External Power Supply

# Hardware Specification

AP-NRC20 IP RFID Controller

RISC  
CPU

- **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
- **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
- **PoE(Power over Ethernet)**
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

# Hardware Specification

## AP-NRC20 IP RFID Controller

RISC  
CPU

- 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

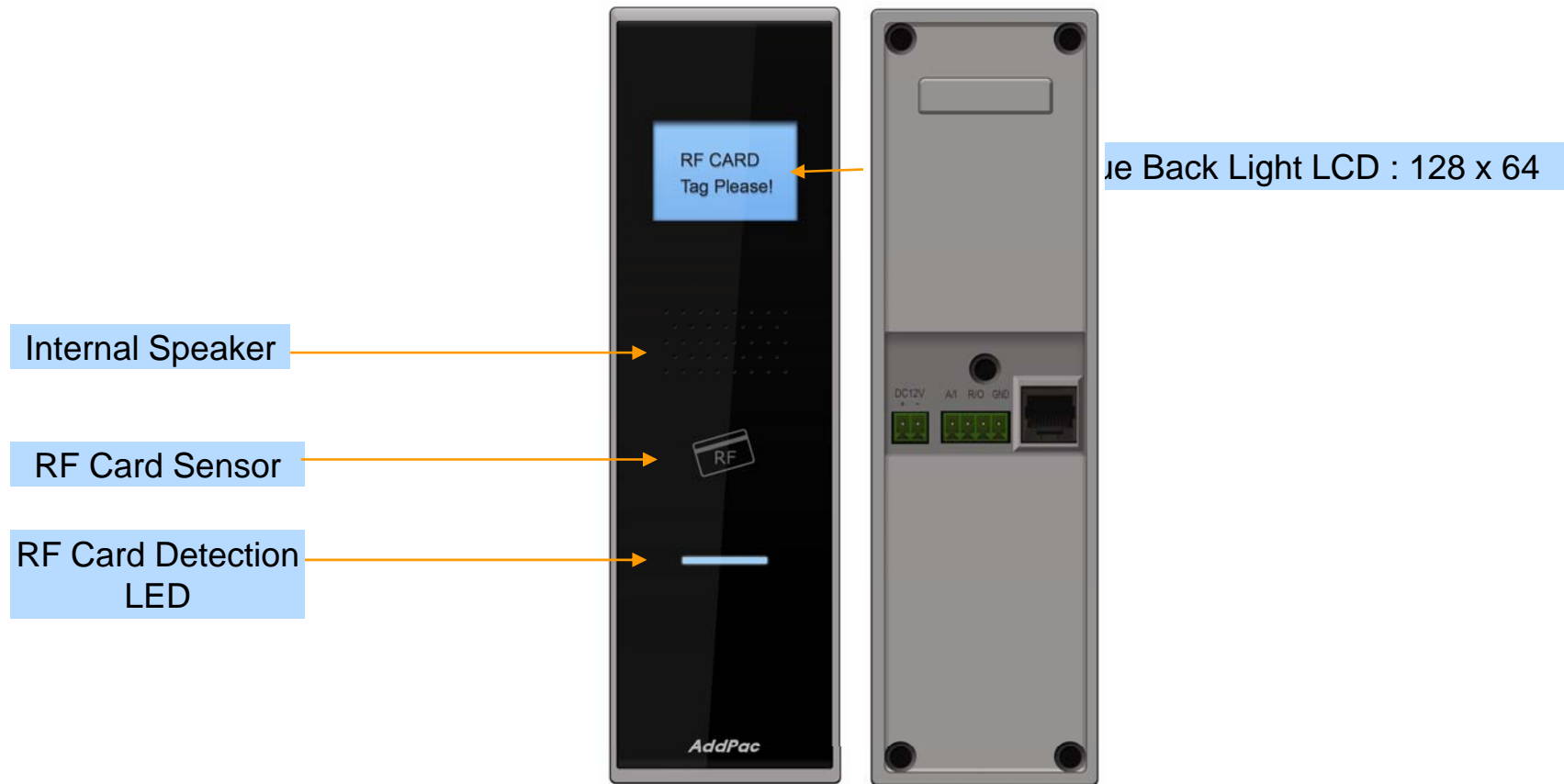


# Hardware Specification

AP-NRC20 IP RFID Controller



## Front Side

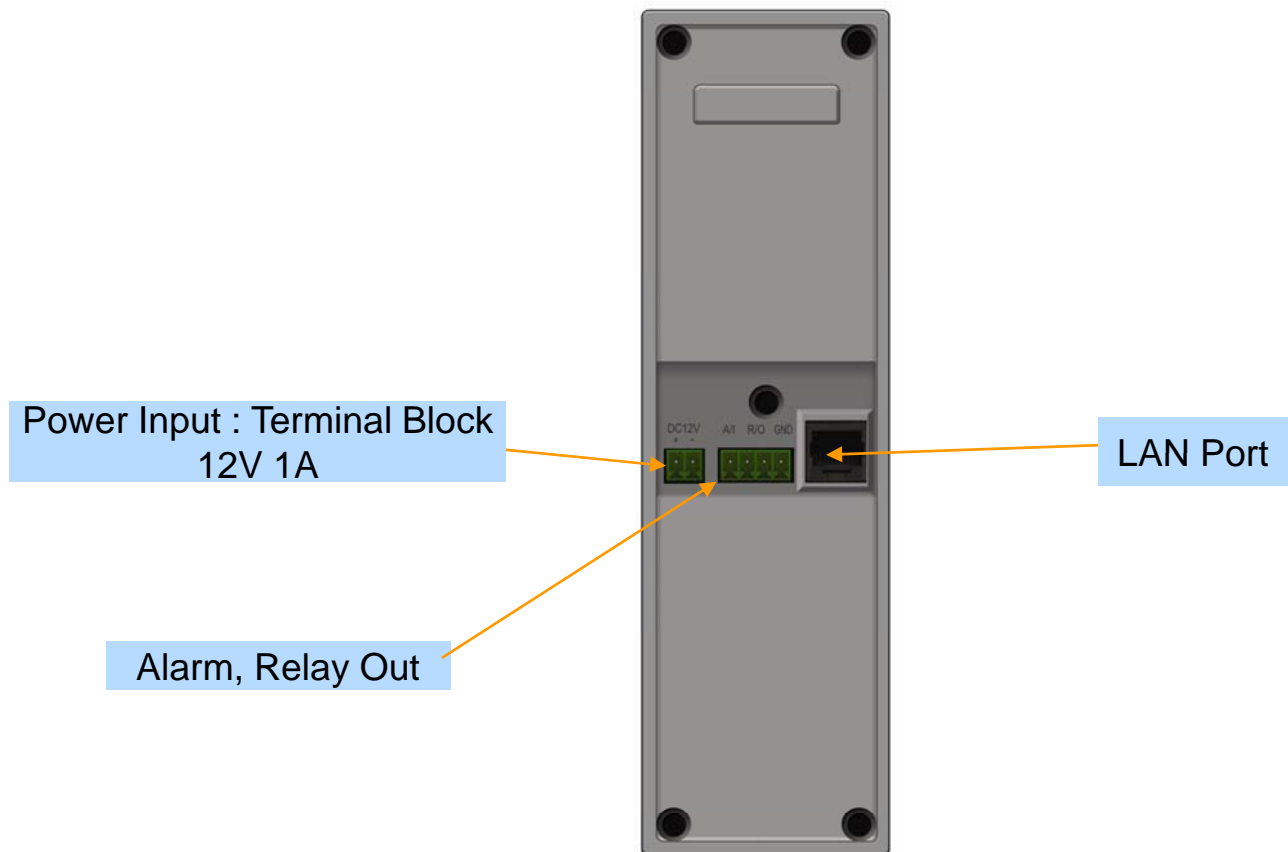


# Hardware Specification

AP-NRC20 IP RFID Controller

RISC  
CPU

## Back Side



# Hardware Specification

AP-NRC20 IP RFID Controller

RISC  
CPU

High-end  
DSP

## Power Supply

Terminal Block



12V 1A Power Adaptor

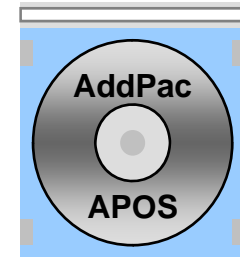
Example



# Software Service

## AP-NRC20 IP RFID Controller

- Built-in AddPac APOS Internetworking Software
  - Scalability, Functionality, and Stability Features
- Firmware Upgradeable DSP Architecture
- Network RFID Control Function Support
- Industry Standard IP based Network Protocol Features





# Smart Web Manager (Example)

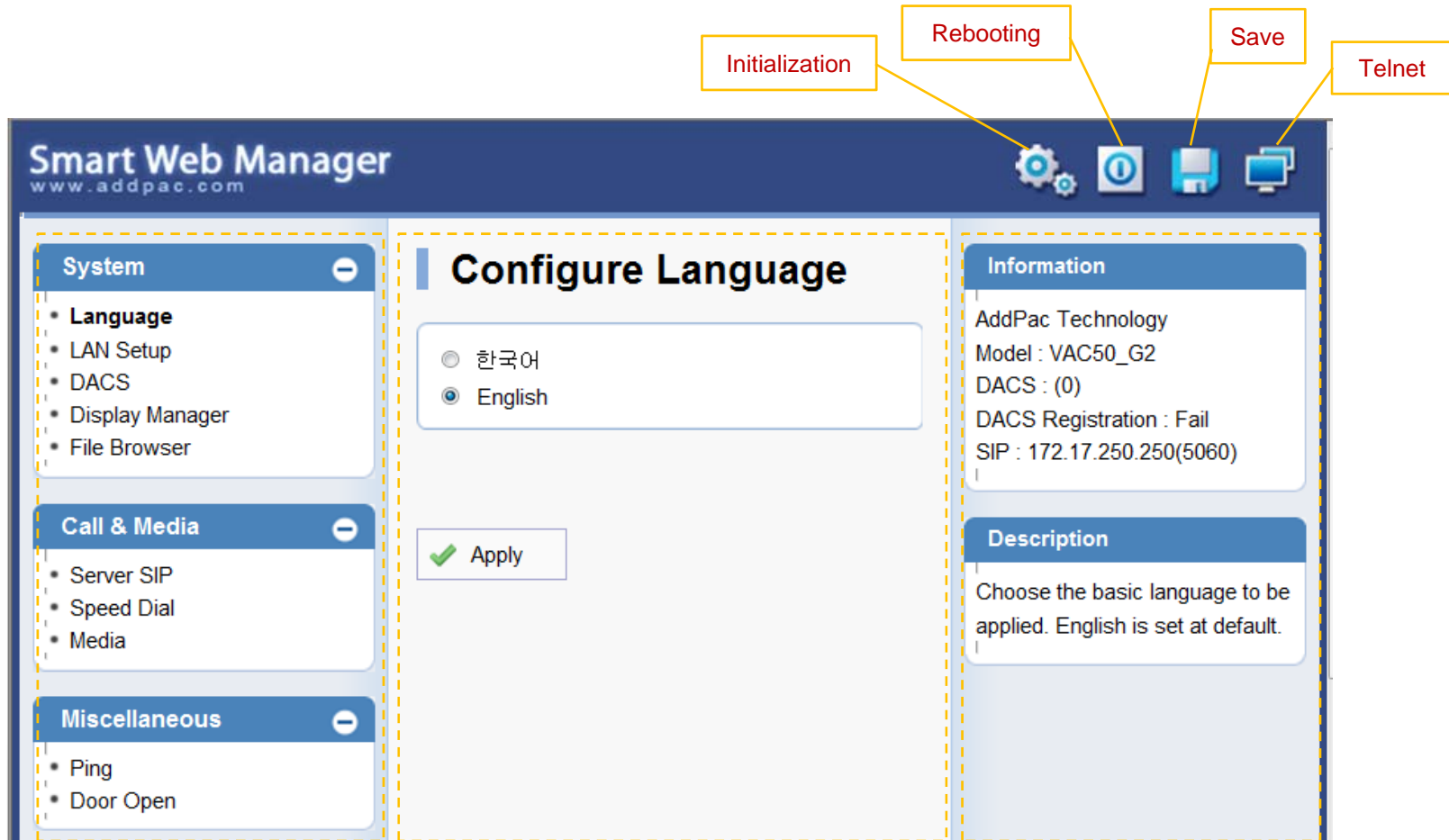
# Smart Web Manager

AP-NRC20 IP RFID Controller

- Main Screen
- System
  - Language
  - LAN Setup
  - DACS
  - Display
  - File Browser
- Miscellaneous
  - Door Control and Test
  - Network Test

# Smart Web Manager : Main Screen

AP-NRC20 IP RFID Controller

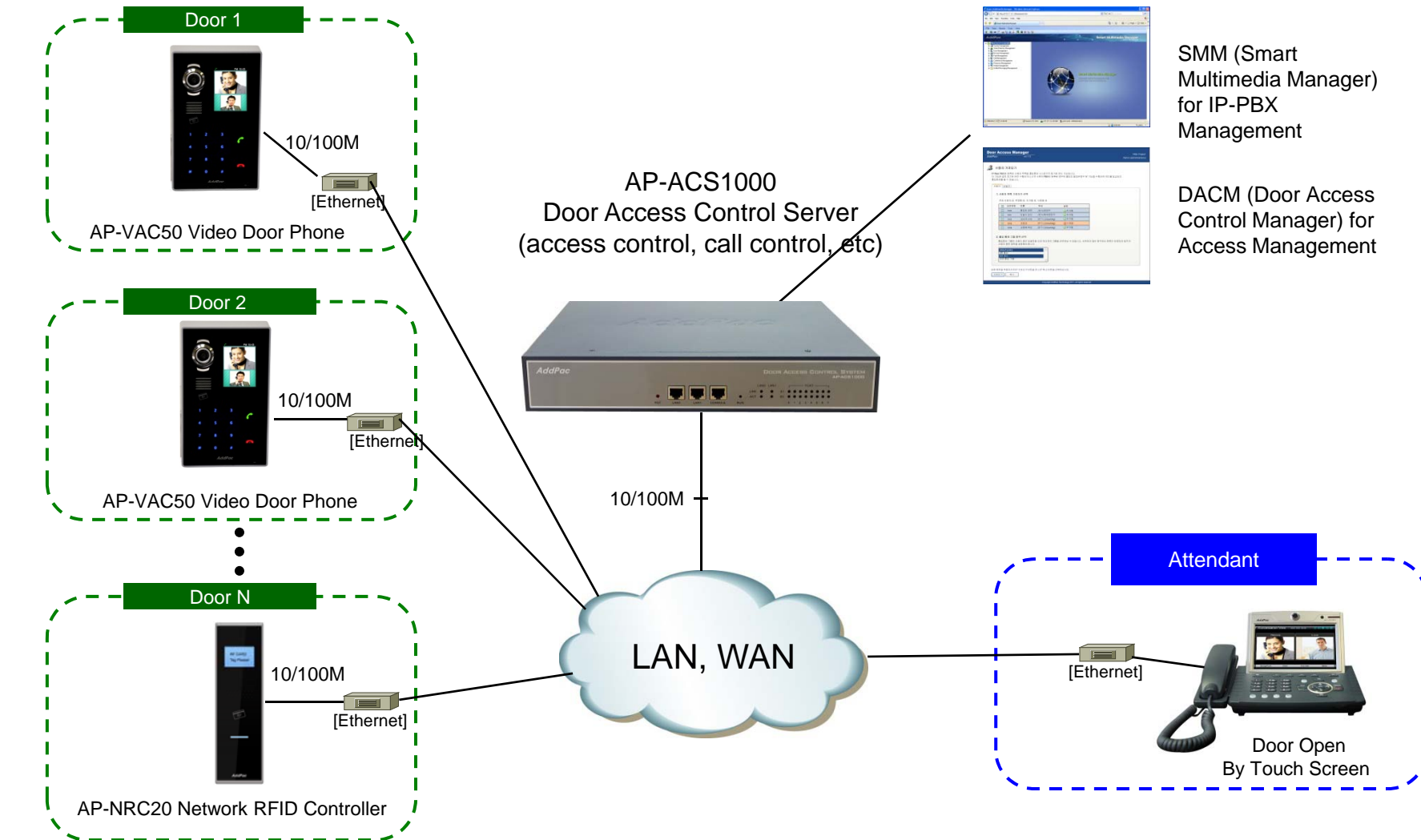


Menu Tree

Output Screen after  
Menu Select

System Information and  
Help Message

# Application Network Diagram





# Ordering Information

- **AP-NRC20 IP RFID Controller Hardware**
  - AP-NRC20 IP RFID Controller Main Body
  - RISC Microprocessor Programmable Architecture
  - Blue LCD
  - Internal Speaker
  - 1-ports 10/100Mbps Fast Ethernet
  - Including Network Cable Set & Ext. Power Supply, etc.
  - Option : PoE Interface
- **Built-in APOS Internetworking Software**
- **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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