



# AP-M2M300

## 3G UMTS M2M Device

High Performance 3G UMTS M2M (Machine-to-Machine)  
Device Solution



# **AddPac**

**AddPac Technology**

Sales and Marketing

# Contents

- Product Overview
- Hardware Specification
- 3G Module Specification
- APOS Technology
- Network Protocols
- Network Management
- Security Management
- Application Service
- Ordering Information



# Product Overview

## AP-M2M300 3G UMTS M2M Device

- High Performance RISC & Programmable Architecture
- 3G UMTS based Network Interface
- One(1) Antenna Port & USIM Card Slot Interface
- One(1) 10/100Mbps Fast Ethernet LAN Port Interface
- RS232C (DB9) Port Interface
- RS232/RS485 Interface(Selected by Internal DIP Switch)
- Two(2) Relay Out Interface
- Analog Voltage or Current Interface (Selected by Internal DIP Switch)
- Pulse or Alarm Input Interface (Selected by Internal DIP Switch)
- DC12V External Power Supply, Battery Input Interface (DC12V)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web Manager
- Smart NMS for Large Scale Deployment
- Light and Compact Design with External Power Supply

# Product Highlights

AP-M2M300 3G UMTS M2M Device

## Powerful 3G UMTS based M2M Device

LAN to 3G Data Network Service  
RS232C to 3G Data Network Service

Analog Voltage/Current  
Pulse/ Alarm interface

Two(2) Relay Out  
Interface Port

APOS™ Technology  
Firmware Upgradeable Architecture

Powerful Network Protocol  
Support

One(1) Antenna Port  
& USIM Card Slots

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

Light and  
Compact Design

High Performance RISC  
Computing Power

Broadband IP Networking  
With a 10/100Mbps  
Fast Ethernet

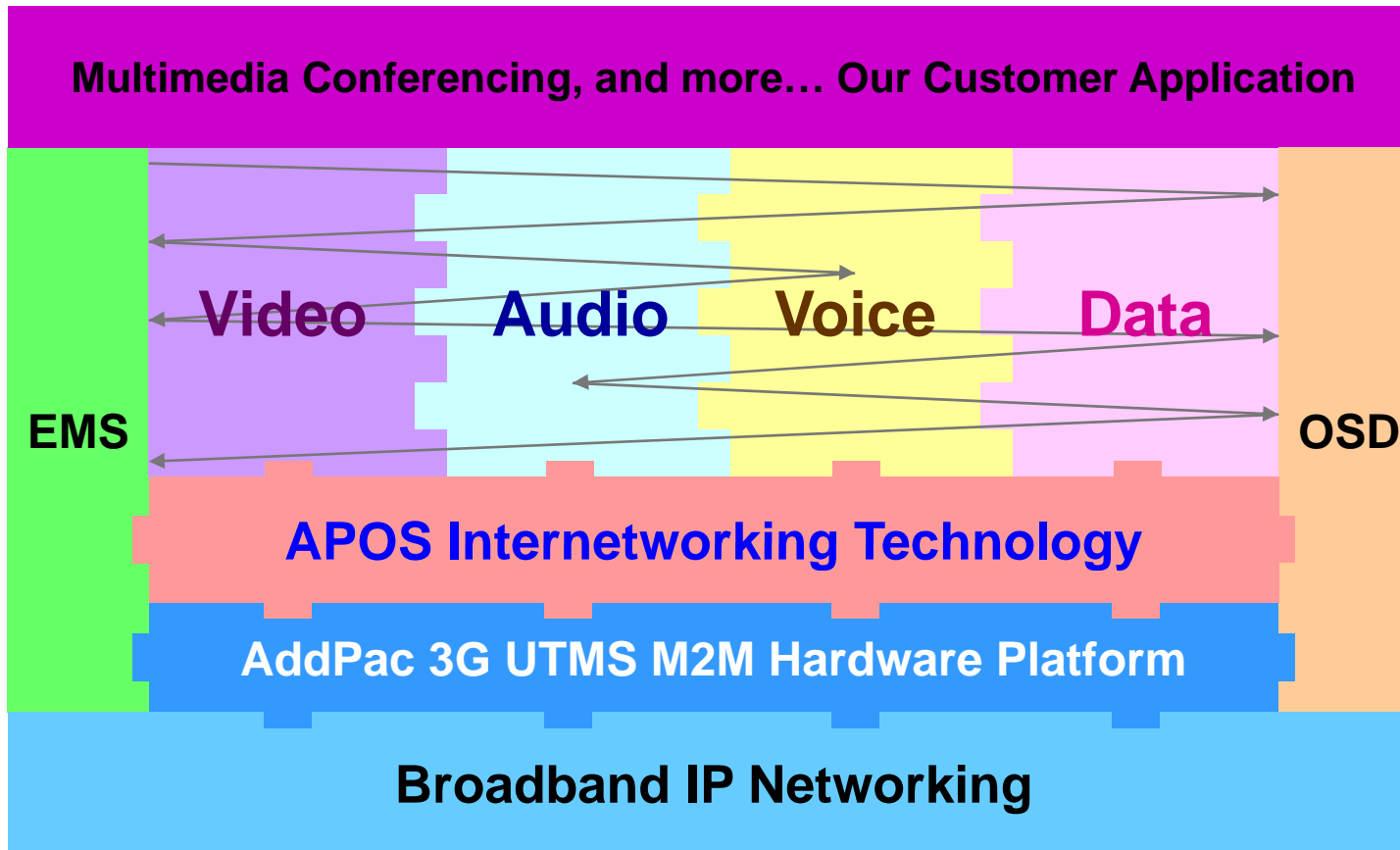
Smart NMS Large Scale 3G  
Routers Management Support

Powerful Trouble Shooting &  
Debugging Feature Support

**AddPac**

# APOS Technology

AP-M2M300 3G UMTS M2M Device



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

# Hardware Specification

AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP

- RISC Microprocessor Computing Power
- 3G UMTS Data Network Interface
- Cellular Network Interface
  - 1-Port USIM Card Slot
  - 1-Port 3G Antenna Interface
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet LAN Interface (RJ45)
  - One(1) RS232C Interface (DB9)
- Terminal Block Interface
  - RS232 or RS485 Interface
  - Analog Voltage or Current Input Interface (1N1, IN2)
  - Pulse or Alarm Input Interface (IN1)
  - Two(2) Relay Out Interface
- DC12V External Power Supply, Battery Power Supply Input

# Hardware Specification

AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP

## Network interface Configuration

Front Side



**AddPac**

# Hardware Specification

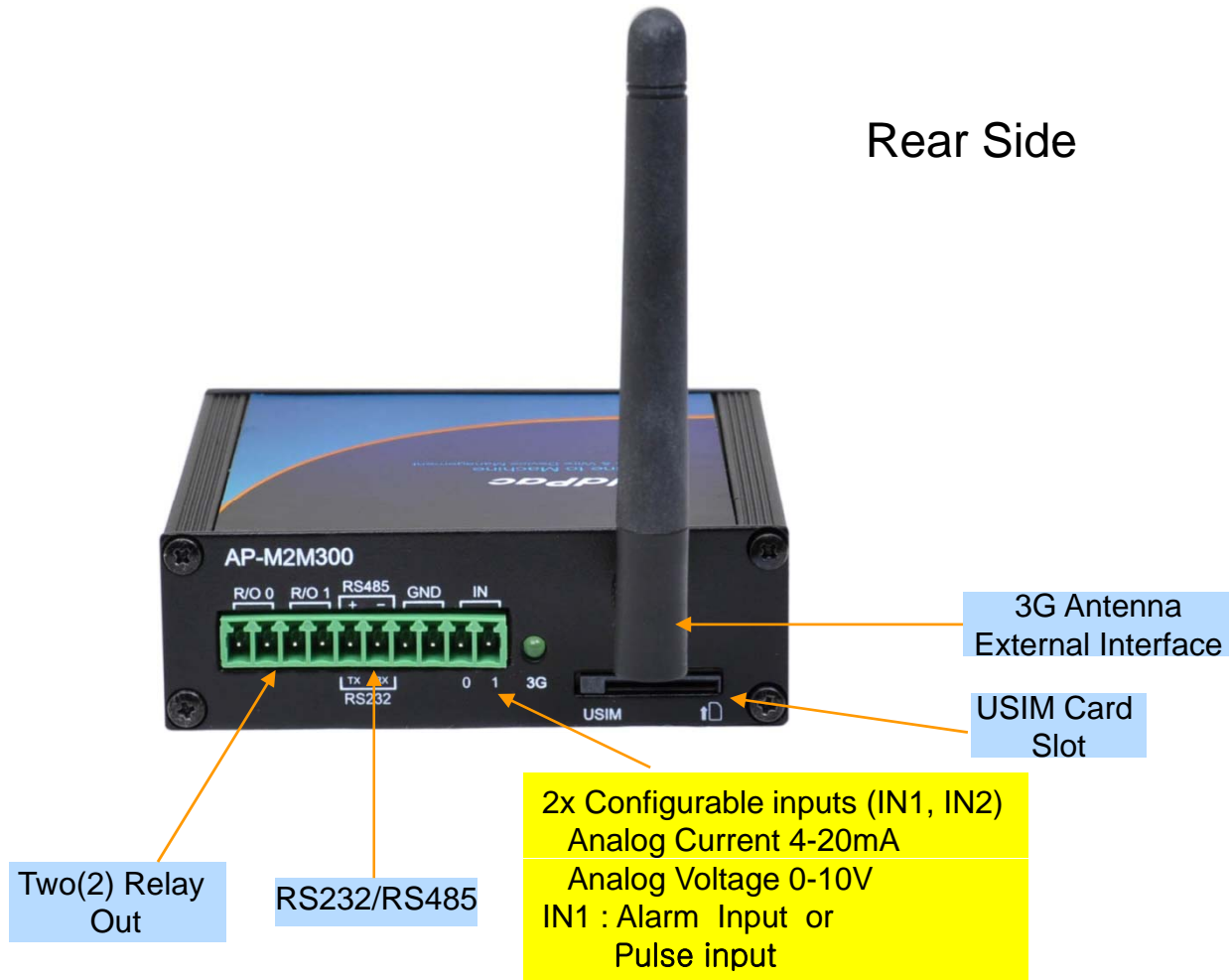
AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP

## Network interface Configuration

Rear Side



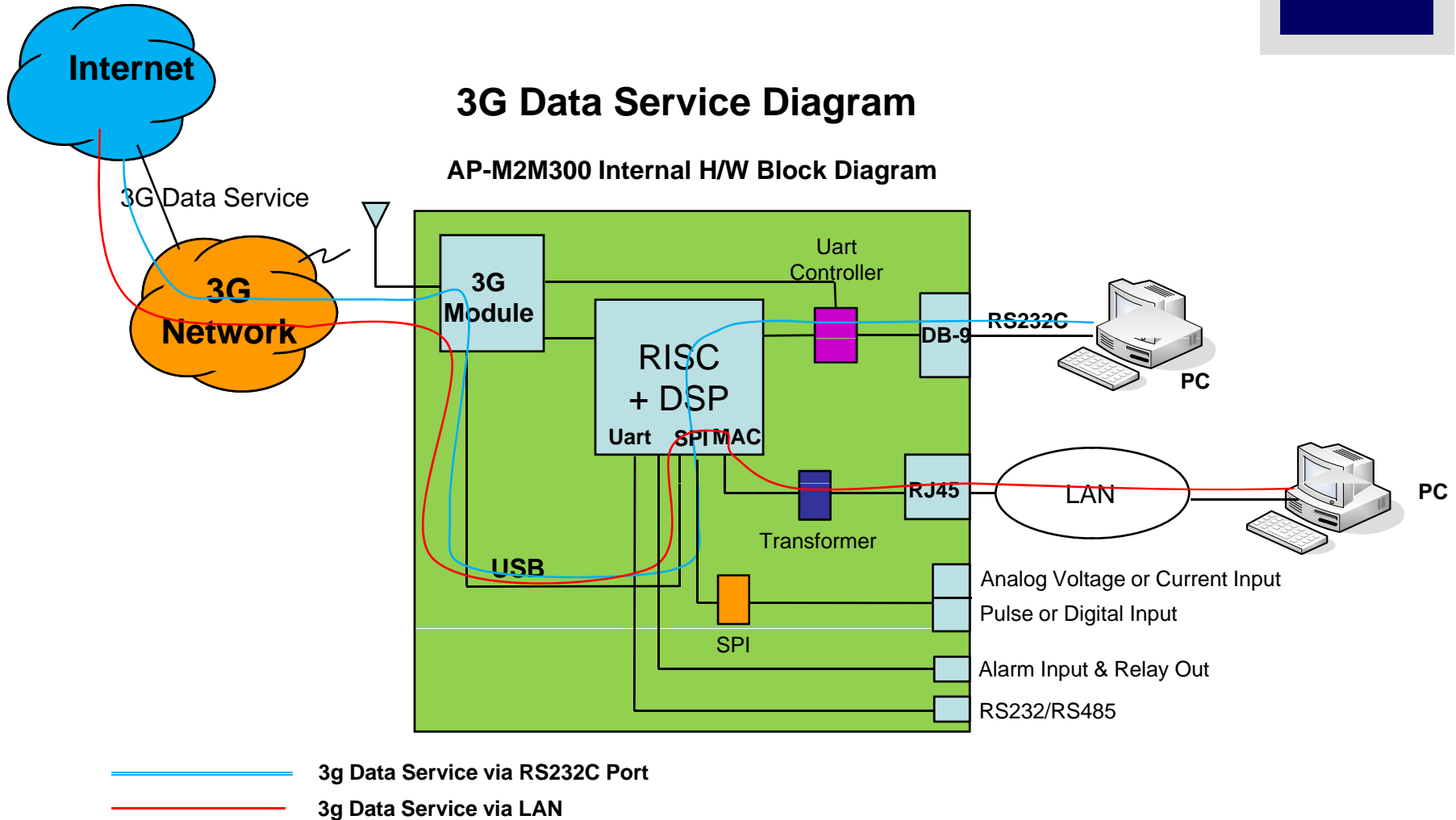


# Hardware Specification

AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP



# Hardware Specification

AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP

AP-M2M300 3G UMTS M2M Device	Basic Specifications
3G Antenna Interface	External 3G Antenna
USIM Card Slot	3G USIM Card Slot
Ethernet Interface	1-Port 10/100Mbps Ethernet Interface(RJ-45)
Serial Interface	1-Port RS232C Serial Interface Interface(DB-9)
Flash Memory	4Mbyte High-speed Flash Memory
Base Memory	32Mbyte High-speed SDRAM
I/O Interface	Analog Voltage (0 ~10V) (IN1, IN2)
	Analog Current (4~20mA) (IN1, IN2)
	Pulse Input or Digital Input (IN1)
	RS232/RS485 Interface
Power Requirement	Power Supply Adaptor / VAC 110~220V, 50/60Hz, 12V/1A
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimension	28mm x 86mm x 95mm (H x W x D)
Weight (Kg)	0.32Kg

# Hardware Specification

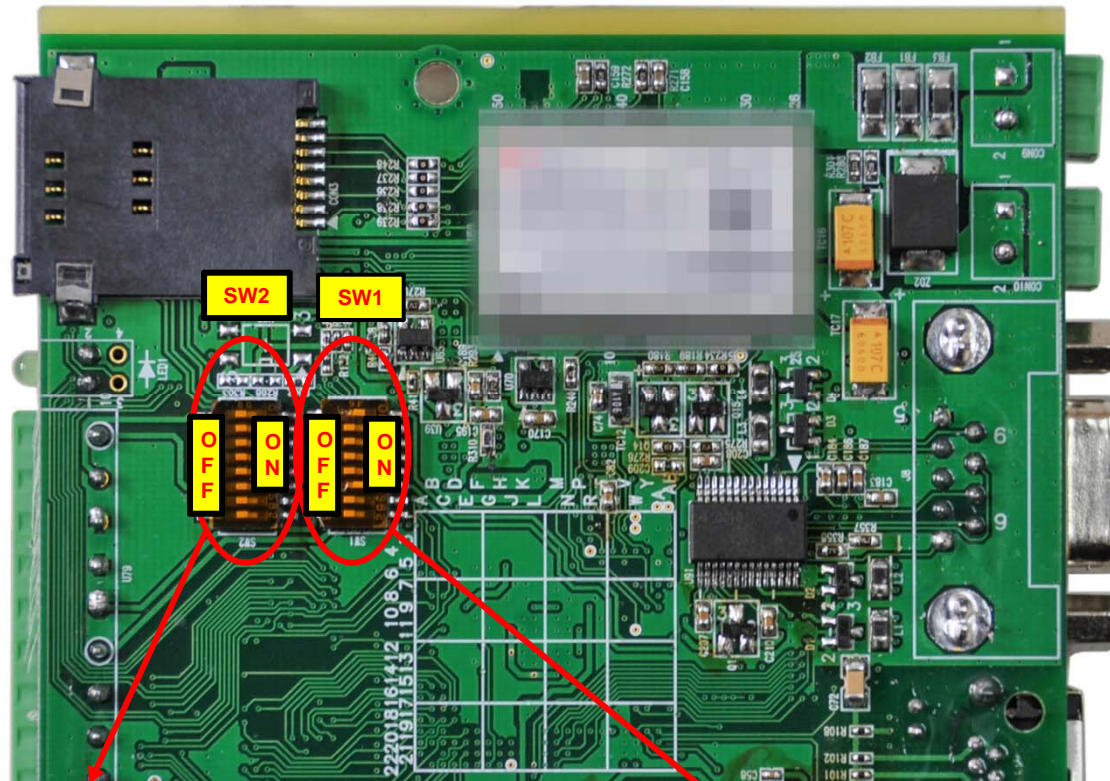
AP-M2M300 3G UMTS M2M Device

RISC  
CPU

High-end  
DSP

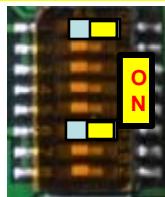
2x Configurable inputs (IN1, IN2)  
Analog 4-20mA  
Analog 0-10V

IN1 : Digital Input or Pulse input  
=> CLI Configuration

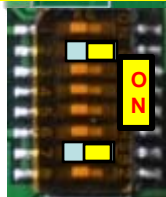


Current/Voltage & Pulse/Digital Input Switch

RS232/RS485 Dip Switch



Current



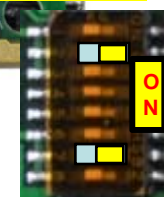
Voltage



Pulse or  
Alarm Input



RS232



RS485

**AddPac**

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

# 3G Module Specification

## AP-M2M300 3G UMTS M2M Device

- ✓ **3G UMTS/HSDPA/HSUPA Characteristics**
  - Class A User Requirement : data & voice simultaneously
  - UMTS Terrestrial Radio Access FDD
  - 3GPP Release 6 High Speed Packet Access(HSPA)
  - Dual-band Support\*(Option)
    - Band I (2100MHz),Band VIII (900MHz)
  - Dual-band Support\* (Option)
    - Band II (1900MHz),Band V (850MHz)
  - WCDMA/HSDPA/HSUPA Power Class
    - Power Class 3 (24dBm) for WCDMA/HSDPA/HSUPA Mode
  - PS(Packet Switched) Data Rate
    - HSUPA category 6, up to 5.76Mbps UL
    - HSDPA category 8, up to 7.2Mbs DL
    - WCDMA PS data up to 384kbps DL/UL
  - CS(Circuit Switched) Data Rate
    - WCDMA CS data up to 64Kbps DL/UL

# 3G Module Specification

AP-M2M300 3G UMTS M2M Device

- ✓ 2G GSM Characteristics
  - Class B Mobile Station
  - Quad-band Support
    - GSM 850MHz, E-GSM 900MHz
    - DCS 1800MHz, PCS1900MHz
  - GSM Power Class
    - Power Class 4 (33dBm) for GSM/E-GSM bands
    - Power Class 1 (30dBm) for DCS/PCS bands

# Network Protocols

AP-M2M300 3G UMTS M2M Device

## Basic Network Protocols

- ARP, IPv4, TCP, UDP, ICMP, SCTP, IGMP, MLD

## Routing Protocol

- IPv4 : Static, Option : RIP v2, OSPF

## Service Protocol

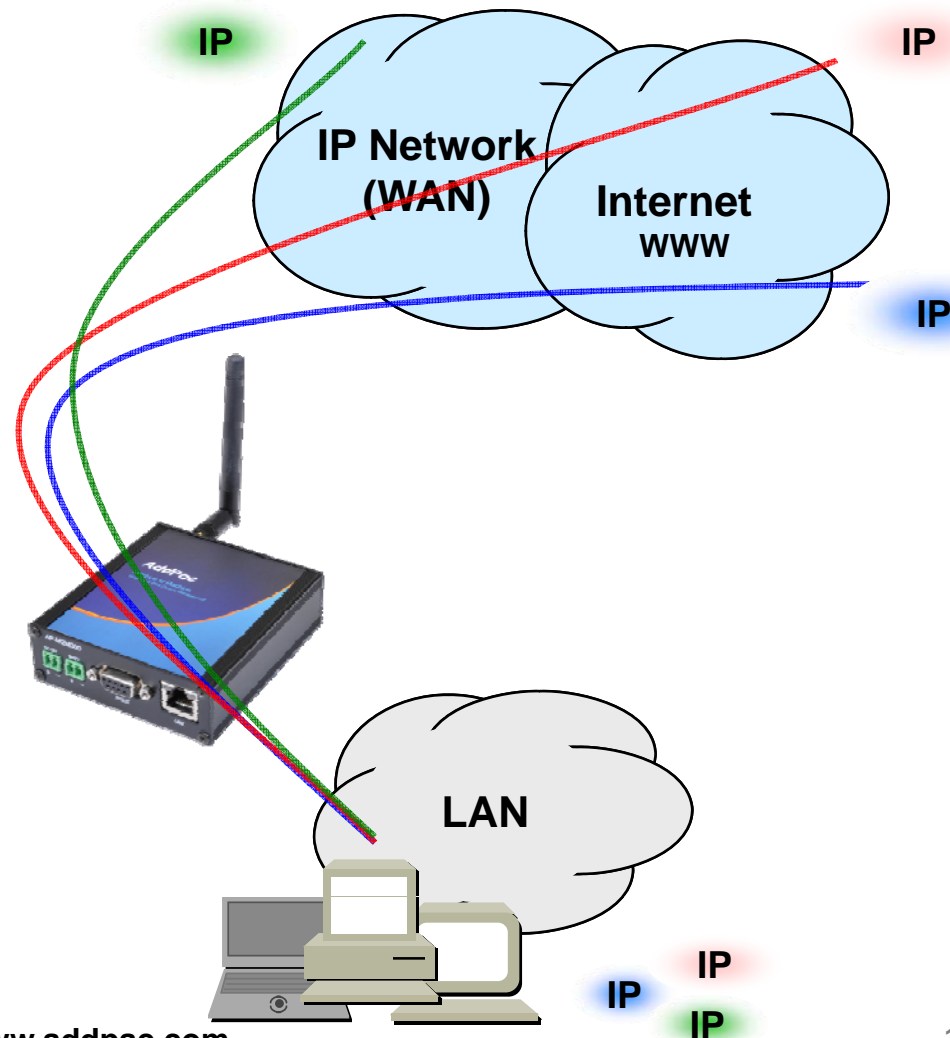
- FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
- CDP (Cisco Discovery Protocol)
- DNS Resolver, DDNS(nsupdate)
- Bridge
- Syslog

## IPv4 Address Configuration

- Fixed (Static)
- DHCP
- PPPoE

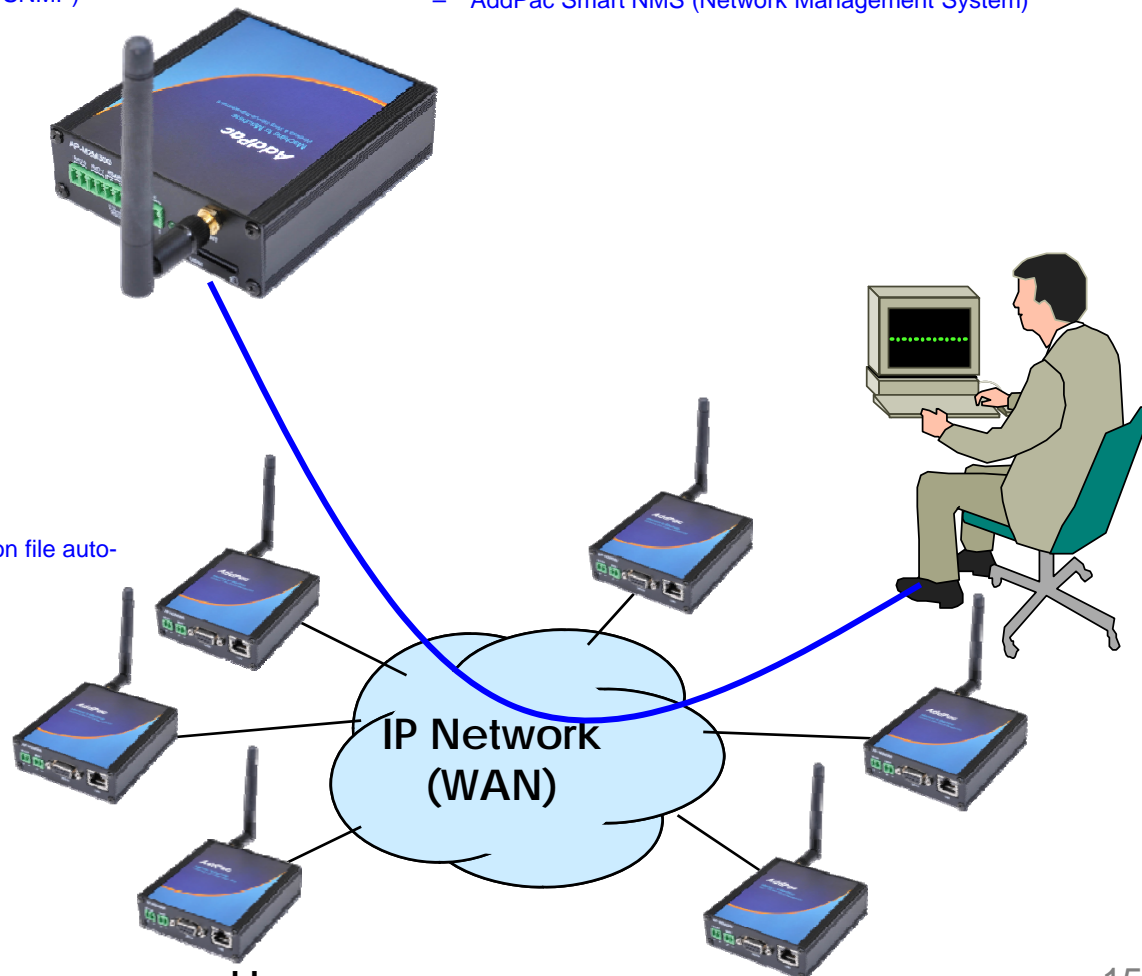
## Miscellaneous

- Cisco Style CLI
- Standard & Extended IPv4 Access List
- Multi-level User Account Management
- IP accounting
- STUN Client



# Network Management

- SNMP
  - Standard Simple Network Management Protocol( SNMP) Agent support
  - MIB v1 and v2 Support
- Web-based Management
  - Smart Easy Setup
  - Standard Voice Interface
  - Standard PSTN Back-up Interface
- Watch-dog Function
  - Hardware, Software watch-dog services
- Remote Management
  - Telnet
  - Rlogin
- Auto Upgrade Service
  - HTTP server based APOS image and configuration file auto-upgrade support
- Batch Job Function
  - Text based script downloading
- Interoperable with Smart NMS Service
  - AddPac Smart NMS (Network Management System)

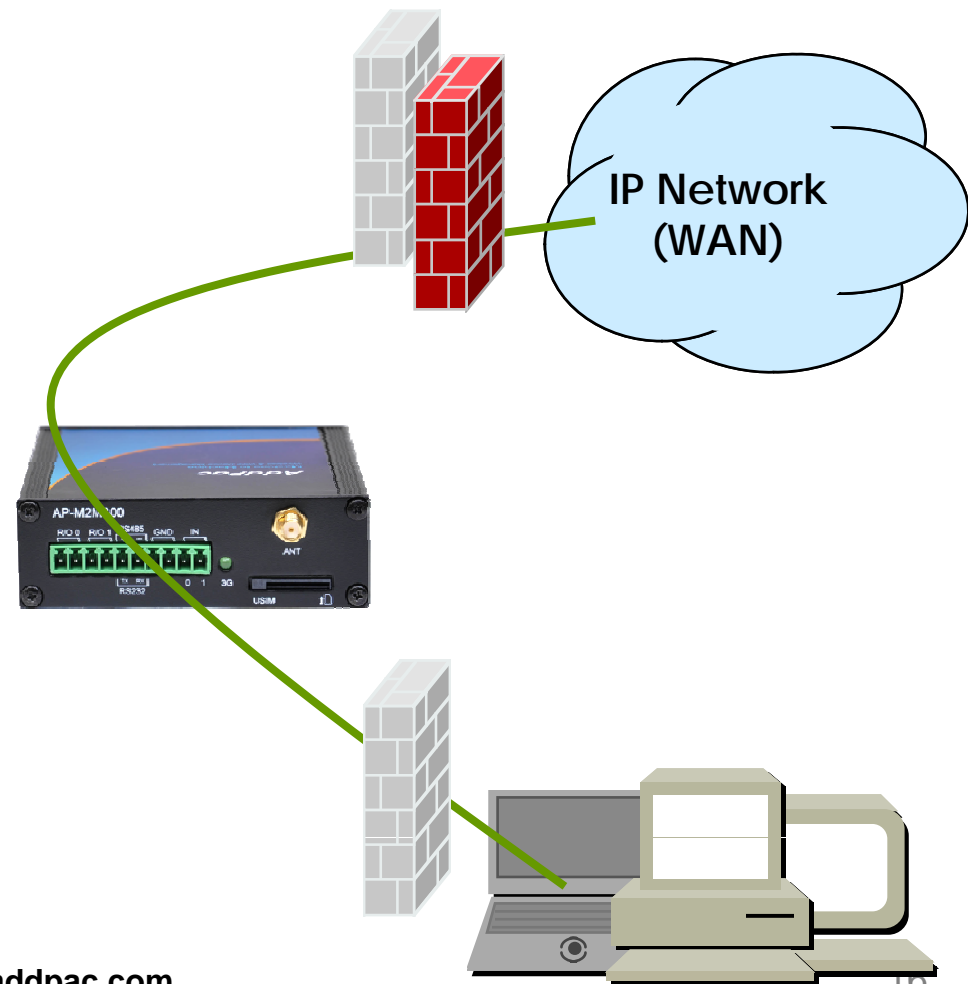




# Security Management

## AP-M2M300 3G UMTS M2M Device

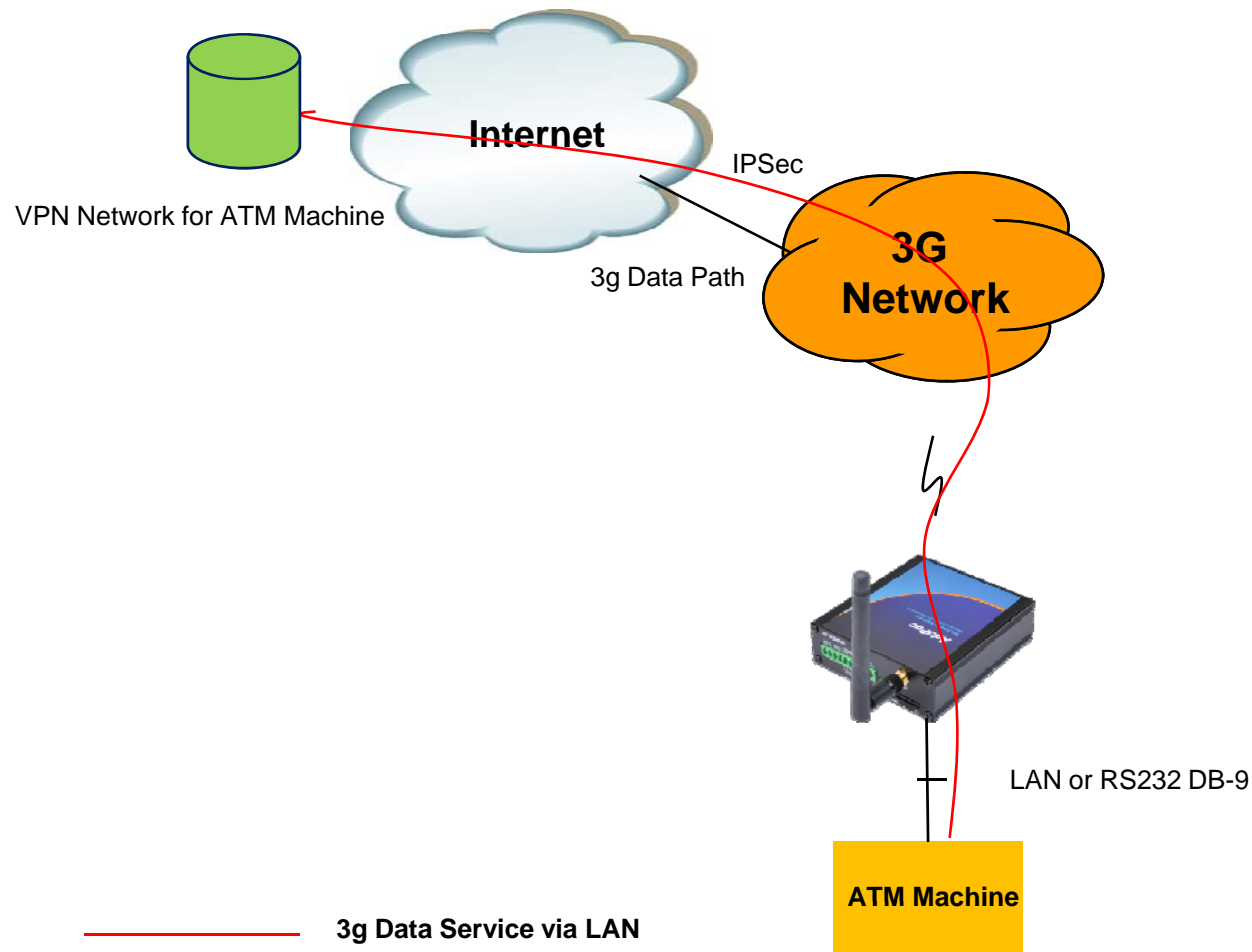
- IP packet filtering
- IP access list
- User authentication function
  - Password Authentication Protocol (PAP)
  - Challenge Handshake Authentication Protocol (CHAP)
- Enable/Disable specific protocols
- Auto-square connect of Telnet session
- Account Management function for multi-level user
- SNMP/TELNET/FTP/HTTP/TFTP port assignment function
- SNMP/TELNET/FTP access list management
- Boot mode security checking function





# M2M Application (Example : ATM Machine)

AP-M2M300 3G UMTS M2M Device



# Ordering Information

- **AP-M2M300 3G UTMS M2M Device Hardware**
  - AP-M2M300 3G UMTS M2M Device Main Body
  - RISC Microprocessor with High-end Programmable DSP Architecture
  - 1-Port 3G Interface (Antenna, USIM Card Slot)
  - 1-Port 10/100Mbps Fast Ethernet(RJ45)
  - 1-Port RS232C Serial Interface (DB-9)
  - I/O Interface : Relay Out, Alarm Input, Analog Voltage, Current Input
  - Including Network Cable, Antenna & Ext. Power Supply, etc.
- **Built-in APOS Internetworking Software for AP-M2M300**
- **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)

# 3G M2M Device Series

# 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](mailto:sales@addpac.com)