Atech

Link & Power up Your Life !!

IWAP2000 Ultra Low Power Serial Adapter Application Guide

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Product Management

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What is an IWAP2000?

- IWAP2000 is a 802.11b wifi to serial interface adapter
- It has a user configurable RS232/422/485 interface
- It operates in WiFi client mode
- It can operate on TCP socket server mode or client mode
- It operates on battery from 10 hours to 30days
- It draws less than 100mA averagely
- The ultra low power solution for internet tracking, remote sensing/monitoring, mobile resource management, by leveraging the global IEEE802.11b infrastructure.

IWAP2000 Components

- IWAP2000 WiFi to serial adapter
- 1 2dBi omni-directional antenna
- 1 DB9 to RS422/485 break-out adapter
- 1 1.5m DB9 cable
- 1 5VDC/1.5A, 100-240VAC adapter
- 1 Mounting Kit
- User's Guide CD

IWAP2000 Features

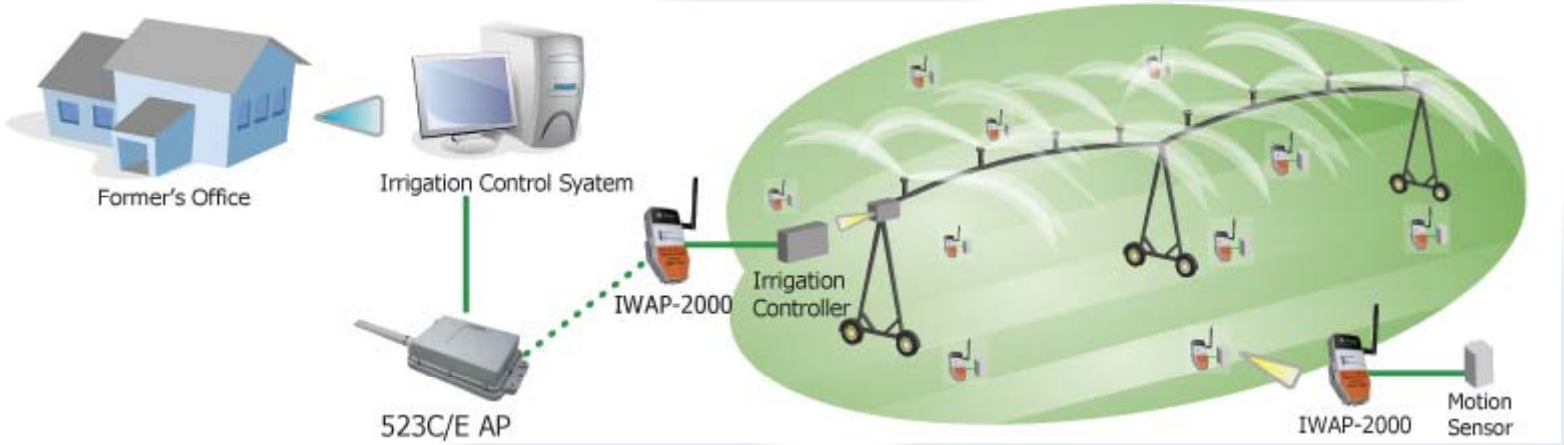
- Fully compatible with 802.11b
- Dip switches to switch between RS232/422/485 modes
- Simple ACSII command interface, over local UART and remote from TCP/IP client.
- Security: WEP128, WPA-PSK, and WPA2-PSK (TKIP and AES) supported.
- RS232 relieve charging to extend battery life.
- Ultra-low power consumption:
  - 2-8mA Sleep Mode
  - 40mA average RX
  - 120mA TX burst current usage.
- SMA connector to fit different antennas for various needs
- Internal rechargeable battery pack for fully stand-alone operation
- ICMP, Telnet, TFTP, DHCP, FTP, UDP Time server clients.
- FTP client “over the air” firmware upgrade.

Network Configuration

- IWAP2000 is a client device in WiFi infrastructure network
- Can do static IP or DHCP client
- Can do UDP or TCP
- Network configuration is done through serial interface
- IWAP2000 can be configured as a TCP socket server or client in layer 3 network.
- If it work as a serial port device server, use TCP socket server mode.
- If it transmit data periodically to a data server device, use TCP socket client mode.

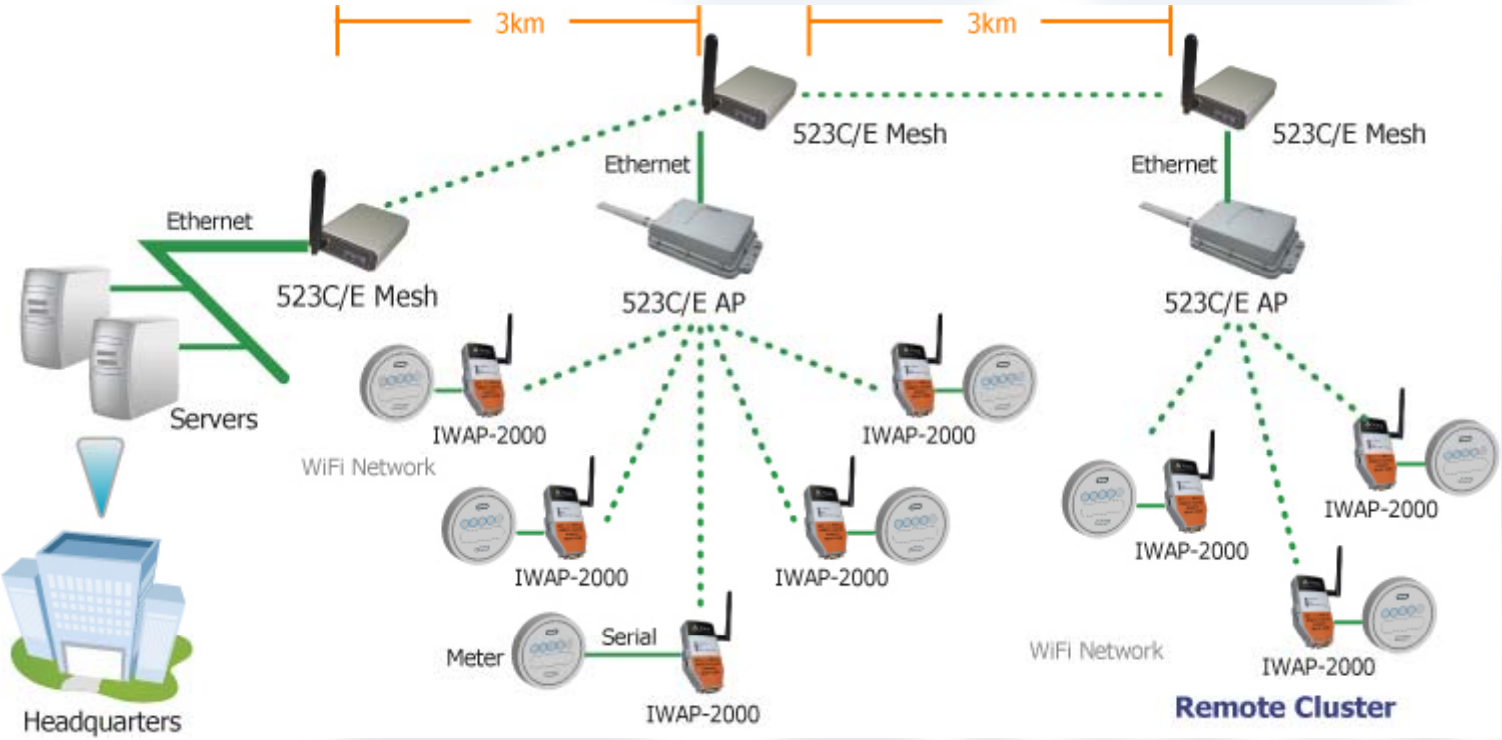
Typical Applications – Wireless Sensing/Control

- Moisture monitoring, irrigation control



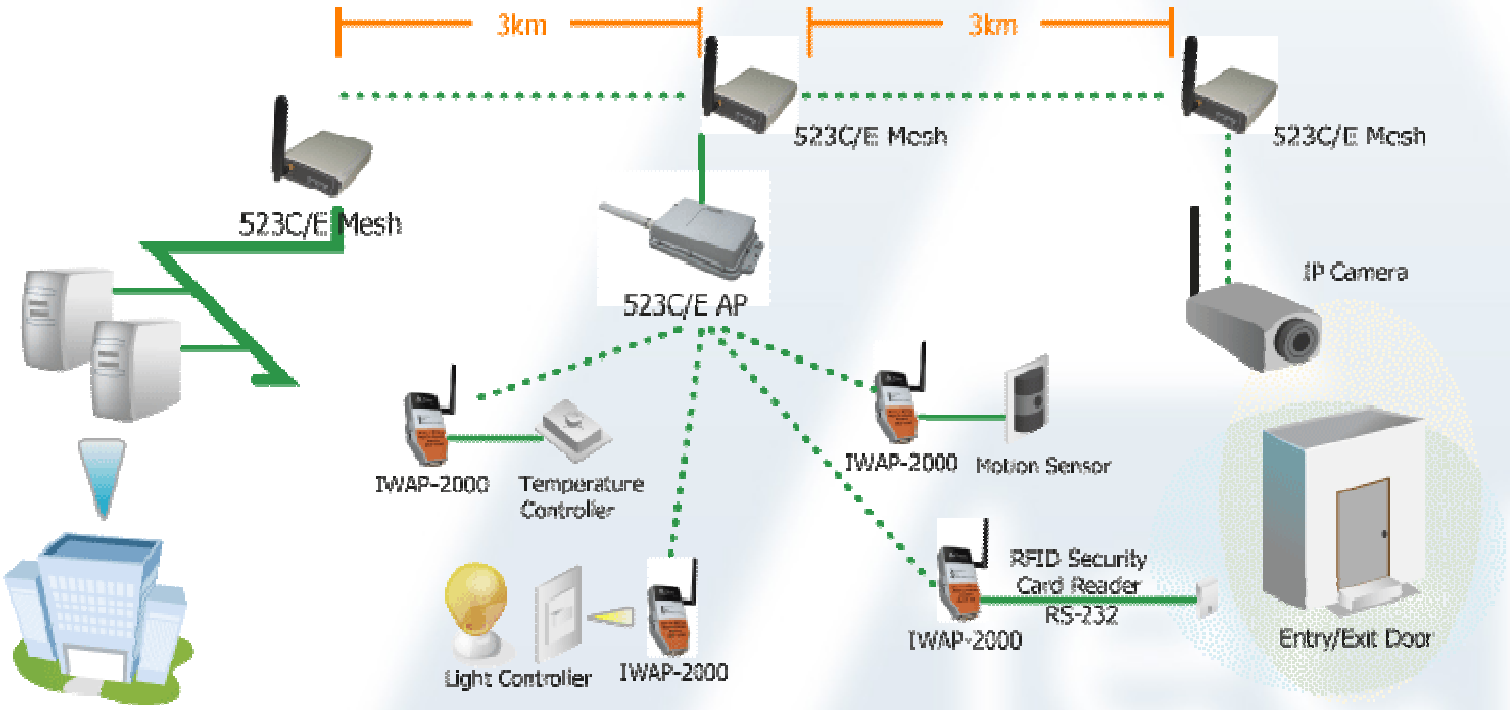
Typical Applications – Wireless Sensing/Control

- Automatic meter reading, remote monitoring and environmental sensors or controls



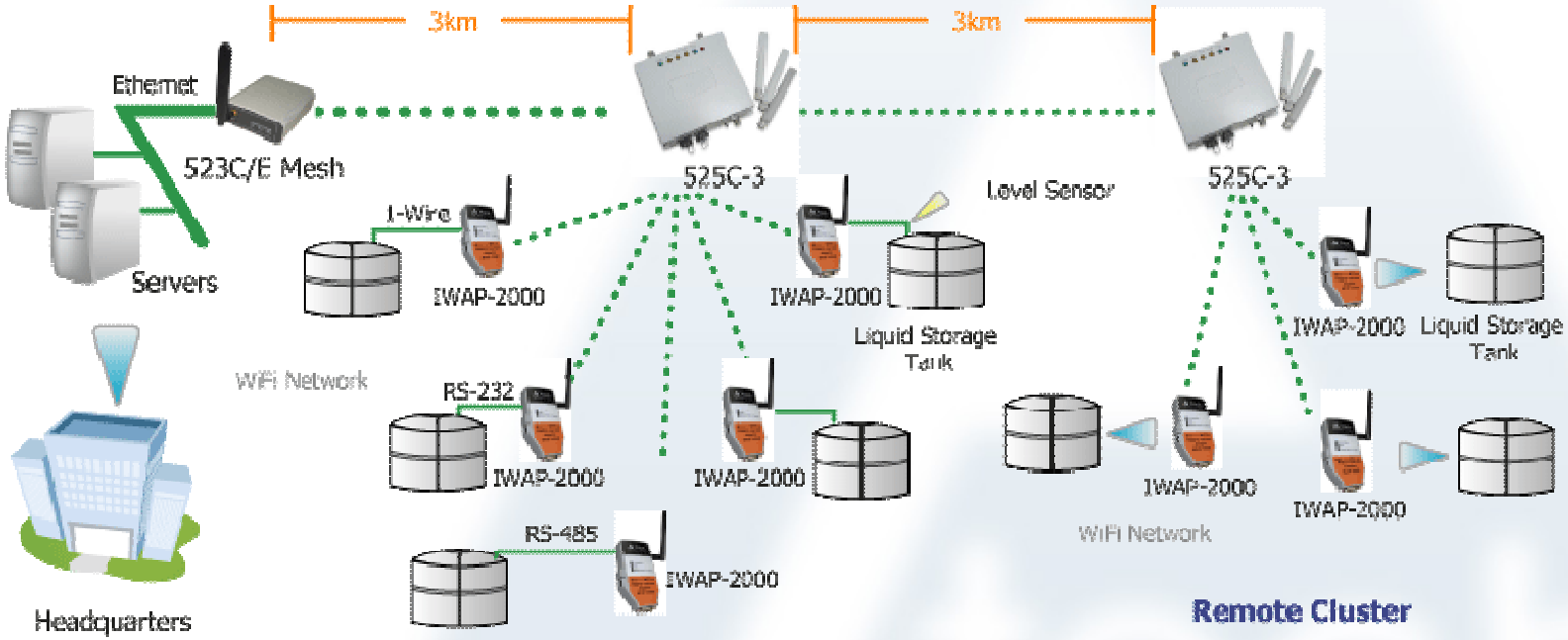
Typical Applications – Wireless Sensing/Control

- Security gate, weight scale, thermal printer requires a WiFi link



Typical Applications – Wireless Sensing/Control

- Hazardous Environments

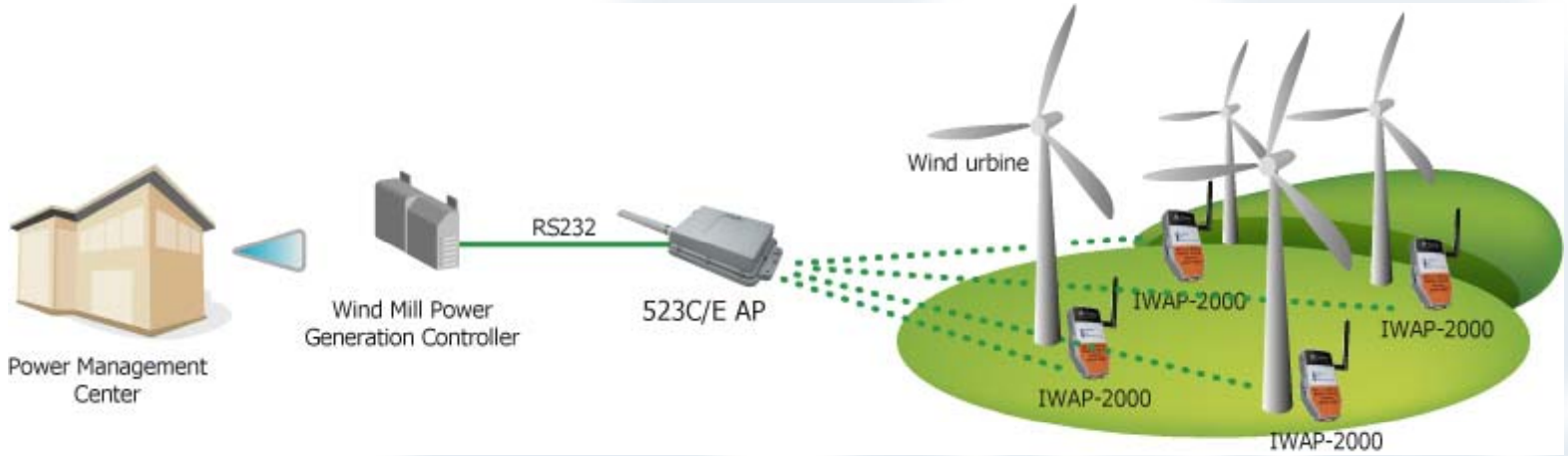


Typical Applications – Asset Tracking

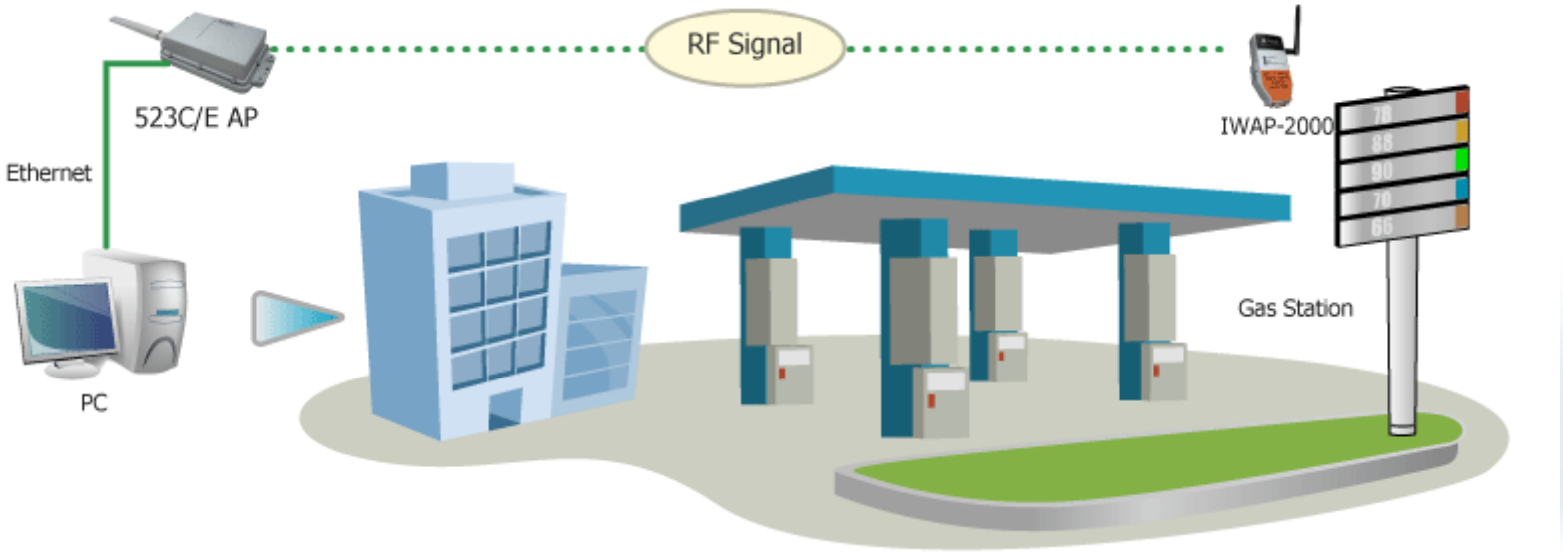
- Health Care : to track portal diagnostic and medical equipment for any vital signs such as the heart rate, pulse-ox, blood pressure etc.
- Automotive Manufacturing / Network Attached Tools : to track through the manufacturing process and out to the finished goods lot.
- Transportation : visibility across the supply chain with status reporting on assets.
- Chemical : to track location of time and temperature sensitive hazardous materials.
- Oil / Gas : to track for security and emergency response applications.

Typical Applications – Battery operation

- Solar/Wind powered sensors and equipment
- Battery operated environment
- Any sensor application with battery back-up requirement



Typical Applications – Cable Replacement



Unique Features – Selling Points

- Very low power consumption
- RS232/422/285 in the same box
- Battery operation or battery back-up capability
- Industrial temperature range
- Standard SMA connector for user upgradable antenna
- WEP, WPA, WPA2 security

Questions and Comments?

If you encounter any technical issues while using IWAP2000, do not hesitate to contact us @Atech. Our technical staff will help you resolve the technical issues. You can contact us by email or phone. The following is our technical contact:

- Hours: 9:30AM to 5:30PM (GMT+08:00)
- Email: wifi.support@atechtpe.com.tw
- Phone: +886.2.6629.6667