AP-SNC10000
Smart Sensor Network Controller

High-performance Medium Scale Sensor Network Controller Solution

AddPac Technology

Sales and Marketing

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Product Overview

AP-SNC10000 Smart Sensor Network Controller

- Large-Scale Sensor Network Control Service
- Support Large-Scale Smart Hub Devices for Zigbee/Zwave sensors
- One(1) System Dual Sensor Network Controller Architecture
  One(1) Gigabit Ethernet Interface, Two(2) Hard Disk / a CPU Board
  Default : Single Smart Sensor Network Controller
  Option A : Dual Smart Sensor Network Controller
  Option B : One(1) Smart Sensor Network Controller
  + One(1) Smart Sensor Network Manager
- Fault Tolerant and Scalability Architecture
- Powerful Management and User Friendly Features
- Firmware Upgradeable Architecture
- Linux Operation System
- Dual Redundancy Power Module

Product Highlights

AP-SNC10000 Smart Sensor Network Controller

Centralized Sensor Network Controller Solution

Large-Scale Multiple Smart Hub Control for Z sensors

Hieratical Administrative Domains (site admin, site operator, group operator, user)

Dual System Architecture for Fault Tolerant System

Smart Network Management System Support for Large-Scale Sensor Devices

Linux based Operation System

Support the Various Smart Hub Devices (ZWave, ZigBee)

APOS™Technology
Multimedia Network Protocol

10/100/1000Mbps Gigabit Ethernet Support

Secure Network Protocol Support

Dual Power Supply System for Redundancy

Smart Web Management Scheme for Operator

Hardware Specification

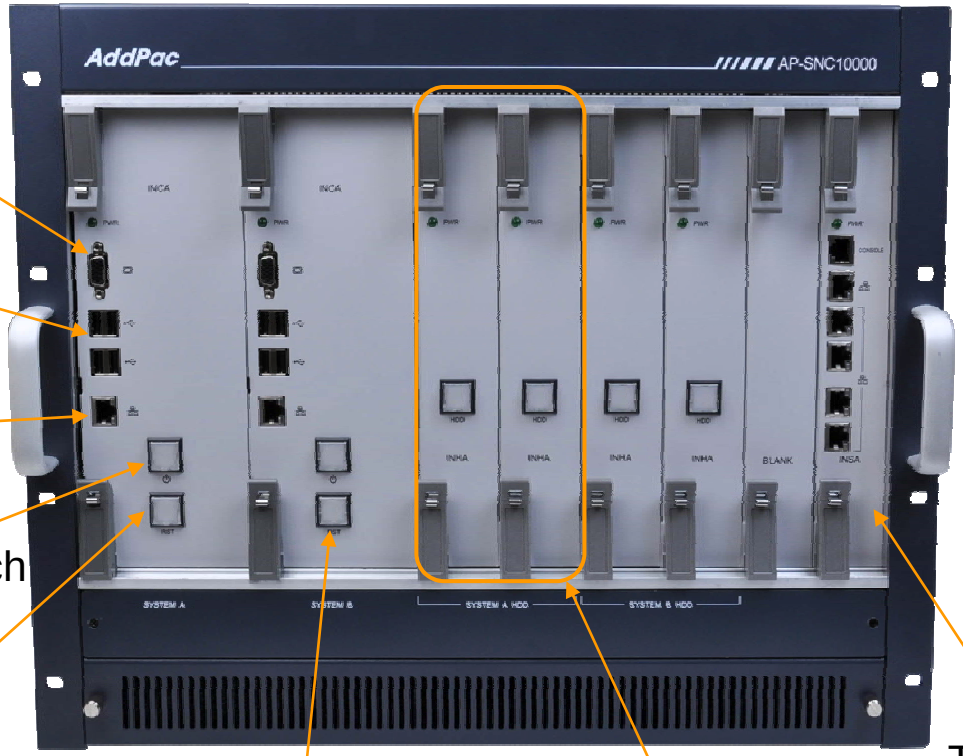
AP-SNC10000 Smart Sensor Network Controller

- High-End Computing Power
- Main Chassis
  - Dual Redundancy CPU Boards for System Fault Tolerant
    - One(1) 10/100/1000Mbps Gigabit Ethernet
    - Four(4) USB Interface Port
    - VGA Interface Port for External Video Monitor
    - Two(2) 3.5 Inch Hard Disk Interface Slot (RAID 1)
  - Dual Redundancy Power Supply Module
  - Hot-Swap Features
  - Right most two(2) slots is reserved for Switch Board,, etc

Hardware Specification

AP-SNC10000 Smart Sensor Network Controller

AP-SNC10000 Front Side



VGA Connector

USB Interface

Gigabit Ethernet Port

Power On/Off Switch for System

CPU Board A (Hot-Swap)

CPU Board B (Hot-Swap)

Dual 3.5 Inch HDD Disks(RAID1) : Hot-Swap

Two(2) Slots is reserved for Switch Board, etc

Hardware Specification

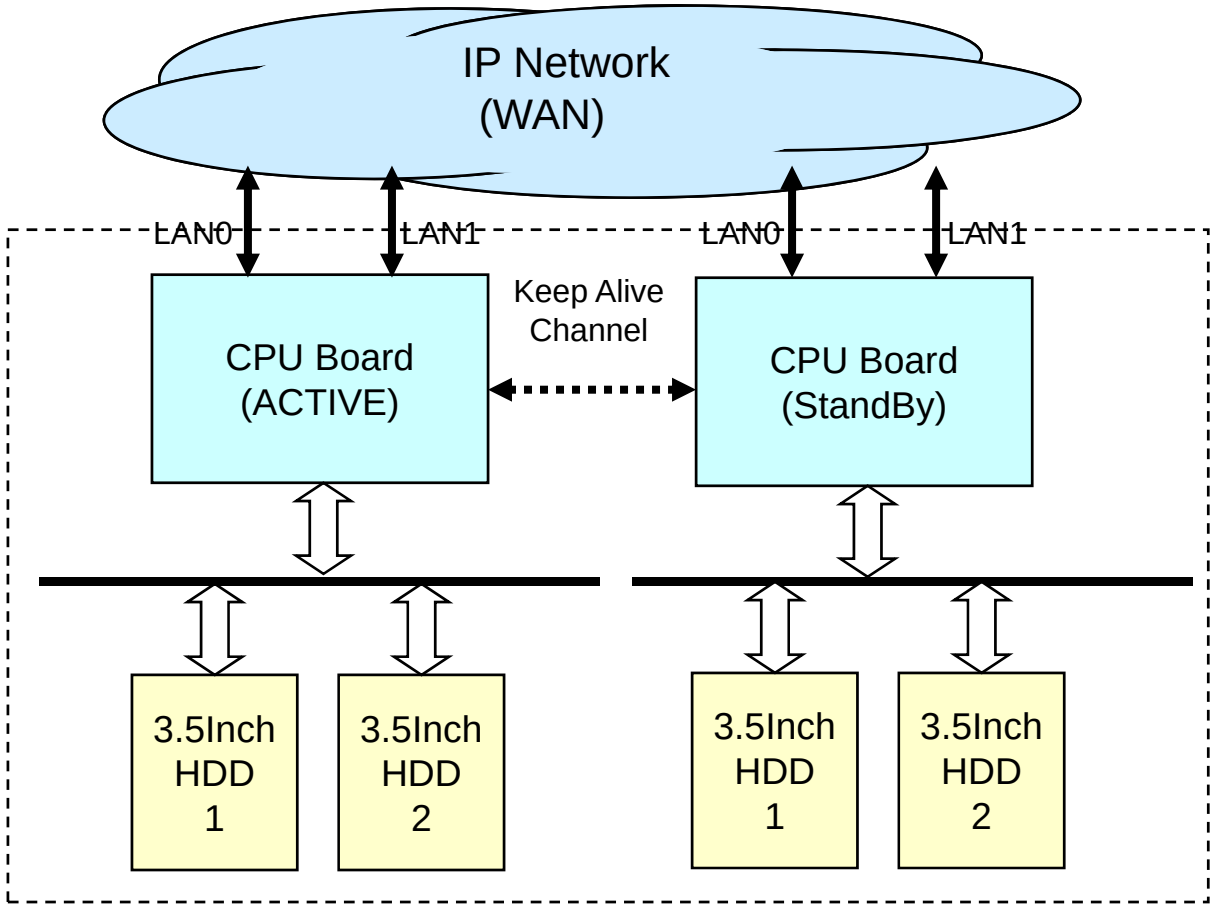
AP-SNC10000 Smart Sensor Network Controller

AP-SNC10000 Back Side

System Redundancy Features

AP-SNC10000 Smart Sensor Network Controller

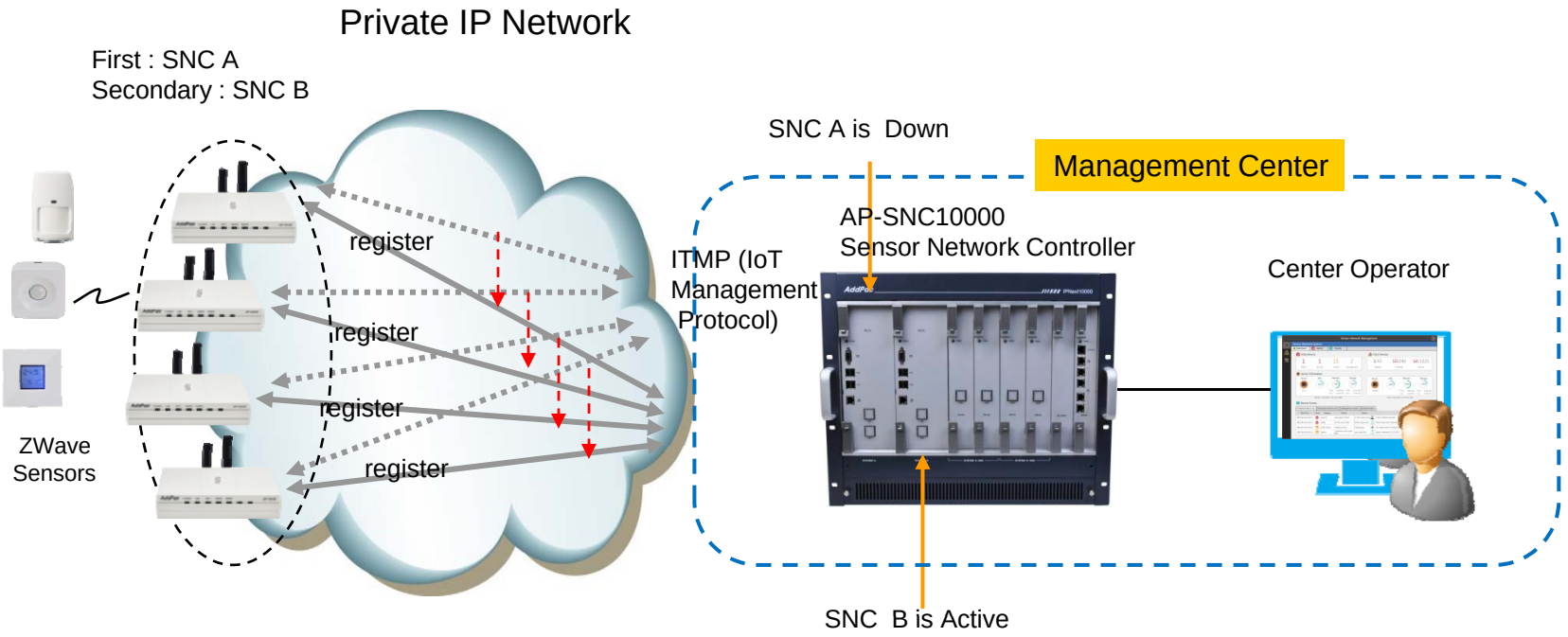
AP-SNC3000 System Block Diagram



System Redundancy Features

AP-SNC10000 Smart Sensor Network Controller

- Active– Active Duplication Scheme
- Active – Standby Duplication Scheme
- VRRP based Duplication Scheme

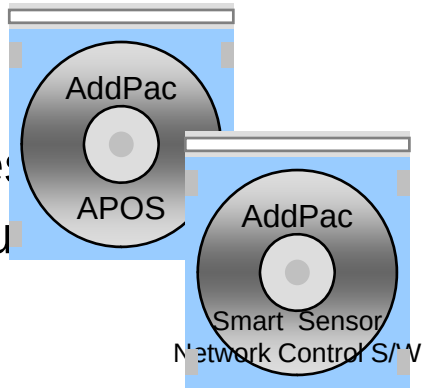


Active – Standby Duplication Scheme (example)

Software Service

AP-SNC10000 Smart Sensor Network Controller

- Built-in AddPac APOS Internetworking Software
  - Scalability, Functionality, and Stability Features
- Firmware Upgradeable RISC Computing Architecture
- Industry Standard IP based Network Protocol Features
- Sensor Network Control Service for Multiple Smart Hu
- Smart Web Management



Network Service and Features

AP-SNC10000 Smart Sensor Network Controller

- Network Managements
  - Standard SNMP Agent (MIB v2) Support
  - Remote Management using Console, Telnet
  - Web based Management using HTTP Server Interface
- Security Functions
  - Standard & Extended IP Access List
  - Enable/Disable for Specific Network Protocols
  - Multi-level User Account Management
  - Auto-disconnect for Telnet/Console Sessions
  - PPP User Authentication Supports (PAP & CHAP)
- Operation & Managements
  - System Performance Analysis for Process, CPU, Connection Interface
  - Debugging, System Auditing, and Diagnostics Support
  - System Booting and Auto-rebooting with Watchdog Feature
  - System Managements with Data Logging
  - IP Traffic Statistics with Accounting

Network Service and Features

AP-SNC10000 Smart Sensor Network Controller

- Other Scalability Features
  - DHCP Server & Relay Functions
  - Network Address Translation (NAT) Function
  - Port Address Translation (PAT) Function
  - Transparent Bridging (IEEE Standard) Function
    - Spanning Tree Bridging Protocol Support
    - Remote Bridging Support
    - Concurrent Routing and Bridging Support
  - Cisco Style Command Line Interface (CLI)
  - Network time Protocol (NTP) Support

IoT Service and Features

Key Concepts for Enterprise IoT Solution

AP-SNC10000 Smart Sensor Network Controller

- Enterprise Requirements
  - The things in enterprise are controlled on much more complex environment and configurations than home.
  - Network conditions and management requirements are also much more various than home.
- Our Solution
  - We do support flexible configuration of Smart IoT Controllers and Managers to meet various enterprise requirements.
  - We do support several type of Smart IoT Controllers and Managers to meet various enterprise environments.
  - We do support flexible management authority and access control for center/site operators and users.

Hieratical Administrative Domains

AP-SNC10000 Smart Sensor Network Controller

- Super Administrator
  - He can manage multiple sites and site operators.
- Site Operator
  - A site is logically independent administrative domain which can be a building or a set of offices and buildings.
  - A site operator can manage his site and group operators of it.
- Group Operator
  - A site is composed by multiple sections that are build up by hierarchical groups.
  - A group operator can view and control the sections that are belong to the group.
- User
  - An user can view and control his section.

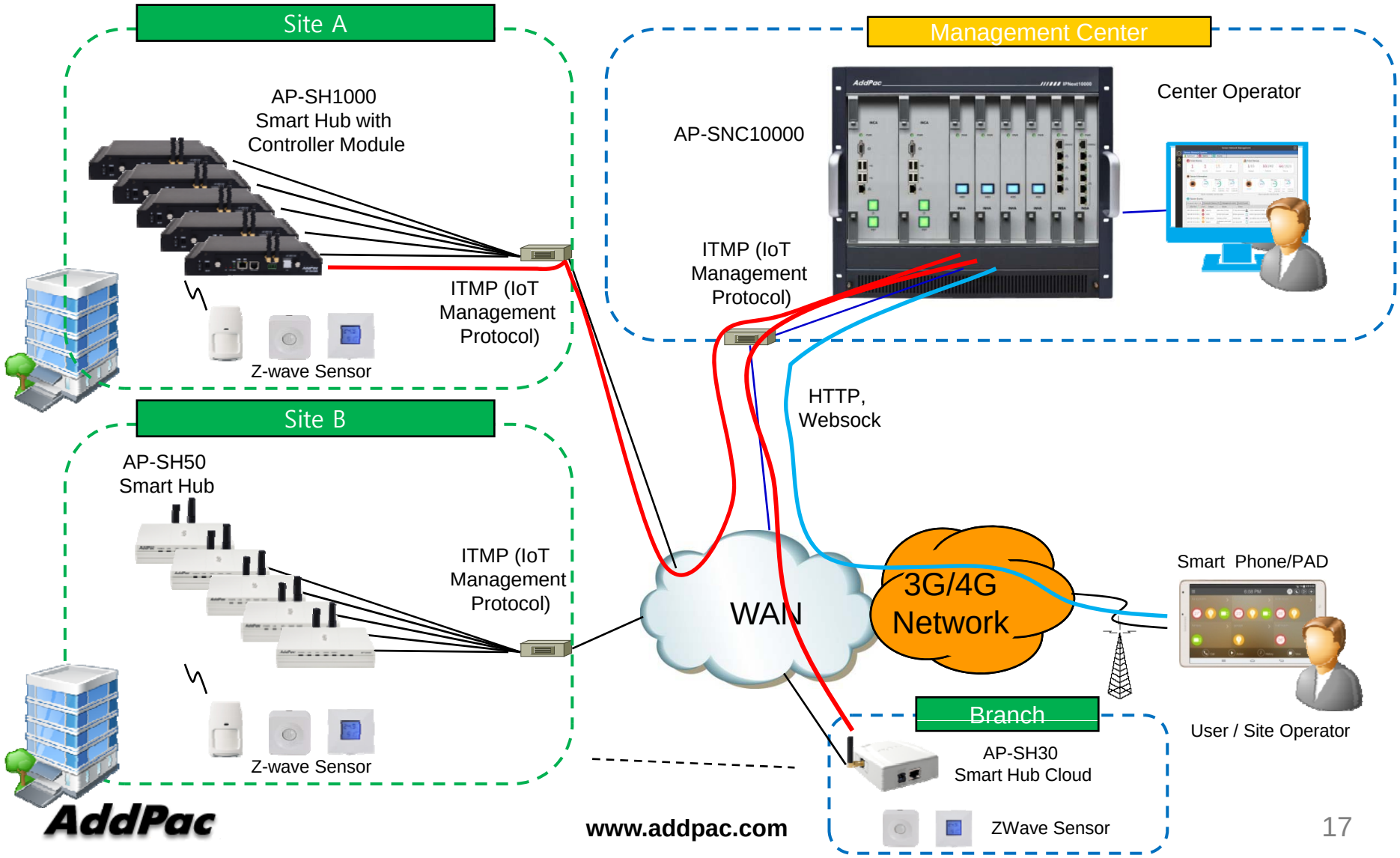
Multi Sites with Center Manager Model

AP-SNC10000 Smart Sensor Network Controller

- Smart IoT Center Controller and Manager
  - A management center has a AP-SNC10000 with ITCS-MS™, ITMS-MS™ software modules with active-standby fault tolerant configuration.
  - ITMS-MS™ is manager module for multiple sites which manages multiple sections and heretical group of sections in multiple sites.
- Smart Hubs
  - The Smart Hubs with / without built-in controller can be controlled and managed by ITMS-MS™ in a center.

Multi Sites with Center Manager Configuration

AP-SNC10000 Smart Sensor Network Controller



Smart IoT Manager ITMS

AP-SNC10000 Smart Sensor Network Controller

- ITMS™ is software module to manage set of Smart Hubs and controllers.
- ITMS-SS™ can manage single site and ITMS-MS™ can manage multiple sites.
- It manages super administrator, site operator, group operator.
- It manages sites, groups, sections.
- It monitors alarms, events and logs.
- It monitors servers and devices in the site.
- It provides dashboard of site, group, and section.
- It provides provisioning, upgrade, replace of Smart Hubs.

Ordering Information

- AP-SNC10000 Smart Sensor Network Controller Platform-
  - One(1) System Dual Sensor Network Controller Main Body
- Built-in APOS Internetworking Software for AP-SNC10000
- 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

Thank you!

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