KEYSTONE ELECTRONIC SOLUTIONS

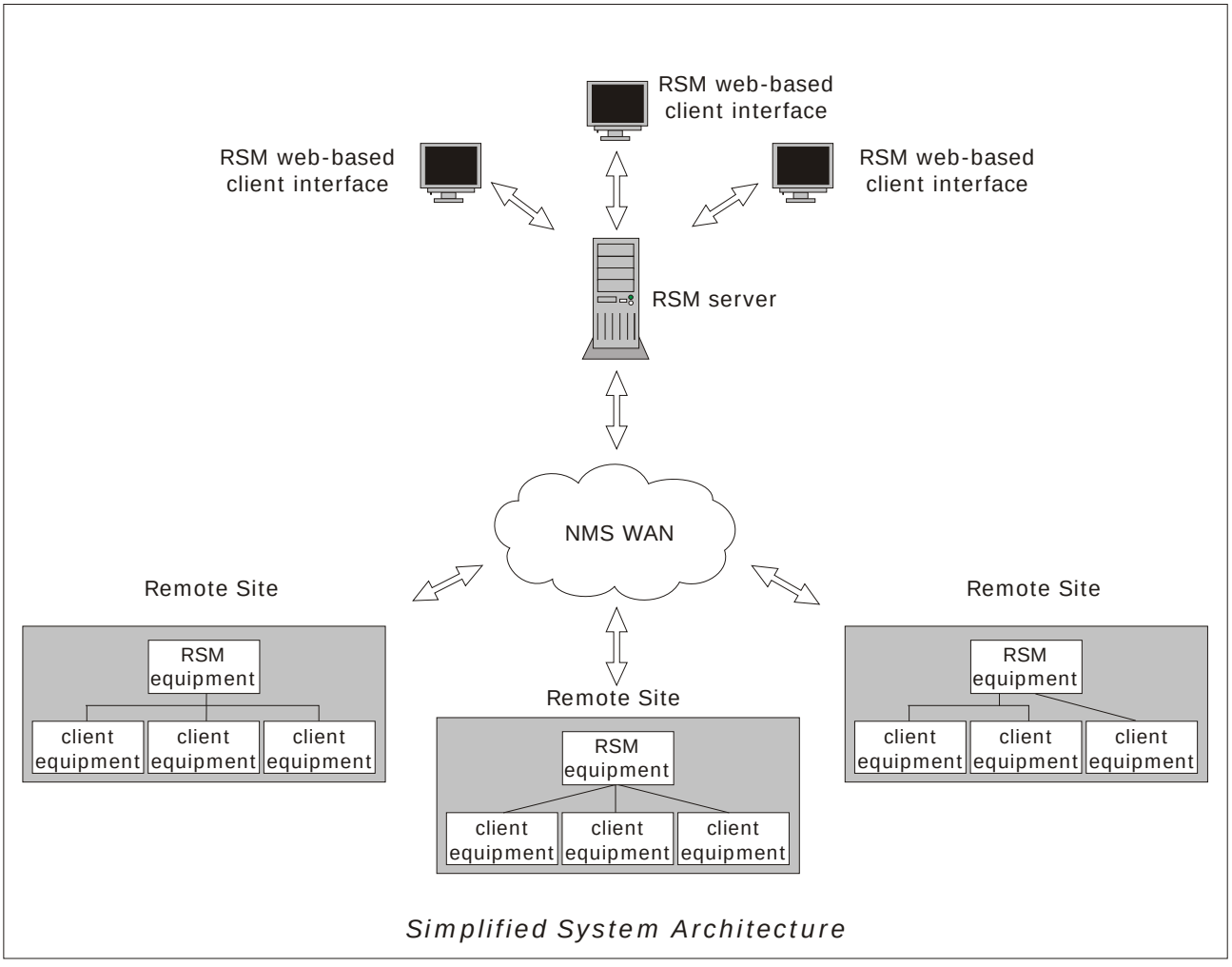
Remote Site Monitor

Specifications

Remote Site Monitor - System Architecture

The Remote Site Monitor (RSM) offers a web-based modular solution for remote monitoring of devices in locations such as telecoms GSM base stations, point of presence containers, industrial security applications and many others.

The small, rack-mounted unit features a bus topology, enabling additional monitoring modules to be added into the system as and when required. This limits the initial capital outlay, as you only buy the particular modules you need. You can always add on additional monitoring modules later as the site grows.



Simplified System Architecture

Remote Site Monitor - Key Components

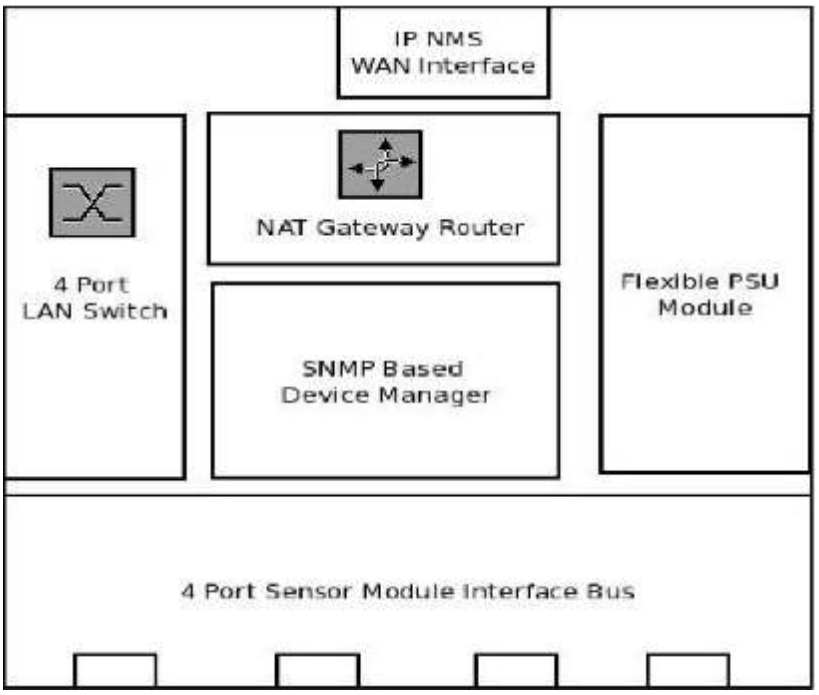
Network Management System (NMS) Server

- Linux Based Server Application
- Oracle MySQL back end database
- Simple Network Management Protocol (SNMP) interface for equipment management
- Web 2.0 based user interface, user side application deployment required
- Geographical Information System (GIS) referenced network and management overlays.
- Provides opportunities for future integration with other network
- utilities such as access management and problem tracking systems
- Highly scalable component based server implementation.

Remote Site Equipment

- RSM Controller with integrated Network Address Translation (NAT) gateway
- Input / Output (IO) Sensor Module
- AC Power Monitor Module

Remote Site Monitor Controller



Controller Architecture

Flexible Internet Protocol Connectivity:

- 10/100 Mbps Ethernet Internet Protocol (IP) Network Management
- System (NMS) Wide Area Network (WAN) Interface
- Static or Dynamic Host Configuration Protocol (DHCP) based WAN interface configuration
- Integrated 4 Port Local Area Network switch for interconnectivity to other IP based equipment over a site wide LAN.
- DHCP server for dynamic IP address assignment within the LAN
- Network Address Translation (NAT) Gateway Router to enable port forwarding between WAN hosts and LAN based hosts.
- Integrated configurable firewall for network security

Flexible Power Supply Unit (PSU) module:

- Interchangeable PSU options available
- Single input 48VDC module (default configuration)
- Dual input 48VDC module with power monitoring
- Single input 220VAC module
- Dual input 220VAC module with power monitoring

Remote Site Monitor

Specifications

Telecommunications industry standard management interface:

- Simple Network Management Protocol version 2c (SNMPv2c) management agent for NMS integration
- SNMPv2C traps sent on alarm event
- Zero effort integration with any SNMP enabled Network Management System
- >16GB Non-volatile storage for events, trending / graphing sample information and the configuration database.

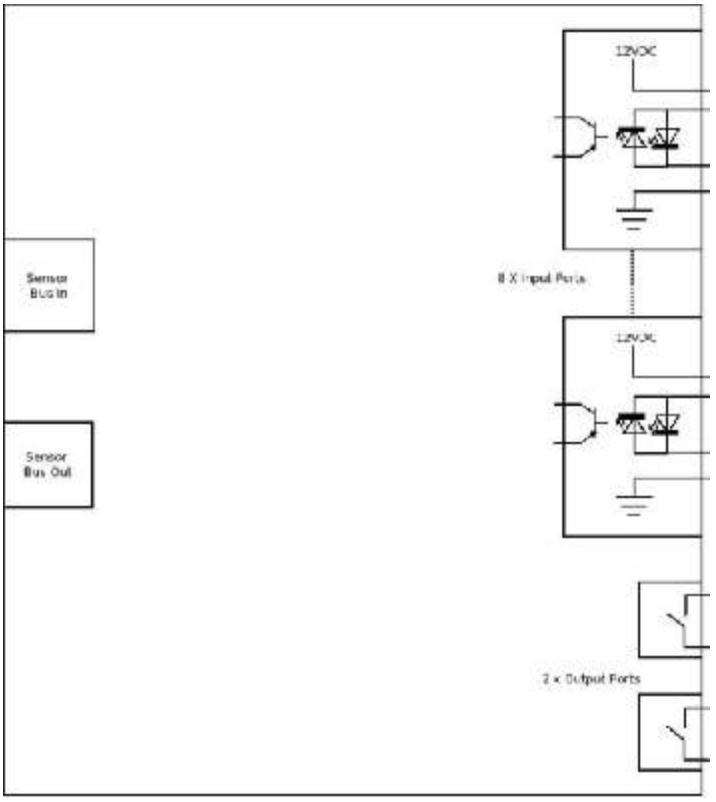
Flexible system configuration and management interfaces:

- Internal Hypertext Transfer Protocol (HTTP) web server
- Internal File Transfer Protocol (FTP) server
- Internal Secure Shell (SSH) server
- Hypertext Transfer Protocol (HTTP) based Local Craft Terminal (LCT) application for site configuration and monitoring
- Universal Serial Bus version 2.0 terminal configuration interface

4 High speed sensor module expansion bus interfaces:

- Multi-drop / daisy-chain bus topology to reduce wiring complexity
- 4-Wire bus interface
- 12V Power feeding over sensor bus
- Up to 4 sensor modules supported per bus
- Any mixture of sensor modules supported

Input/Output Sensor Module



8 input / 2 output Sensor Module

High speed sensor bus interface:

- Daisy-chain topology
- Bus 12 VDC Power feeding, no power supply required for the module

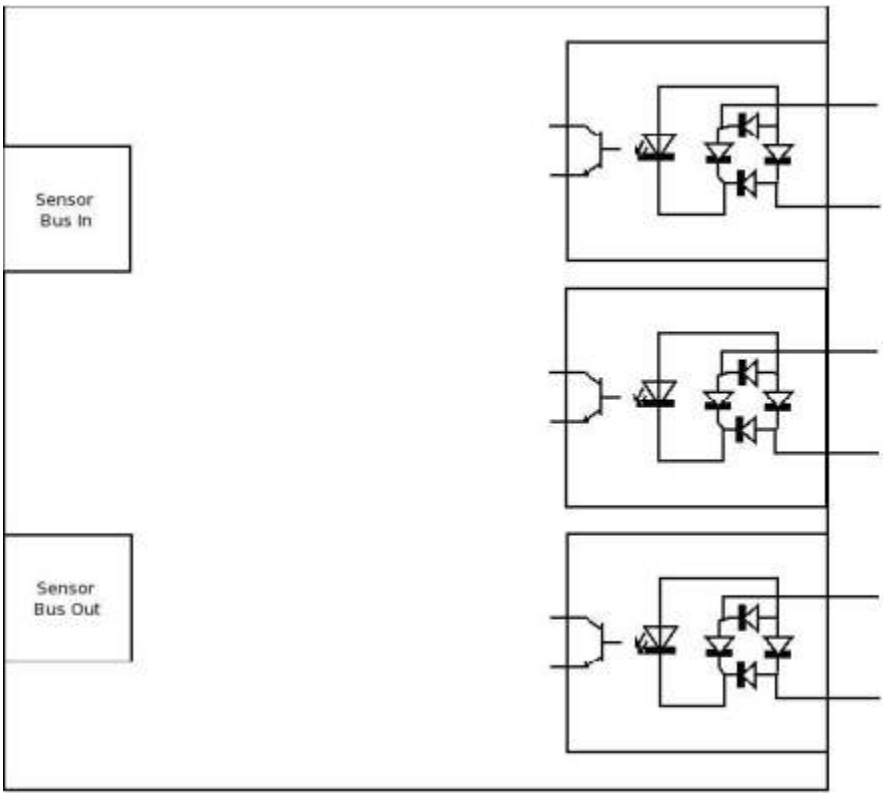
8 Input Monitoring Ports:

- 12 VDC Power feeding on input ports
- Internal Jumper to enable single ended usage
- 5 to 28 VDC input tolerance
- Up to 48 VDC operation with external resistor fitted
- Polarity insensitive inputs
- Normally Open or Normally Closed operation supported

2 Output Ports:

- Drive up to 1A - 48VDC
- Configurable for Normally Open or Normally Closed operation

AC Power Sensor Module



3 Input AC Power Sensor Module

High speed sensor bus interface:

- Daisy-chain topology
- Bus 12 VDC Power feeding, no power supply required for the module

3 AC Power Input Sensor Ports:

- 3 x 230 VAC Single phase power sensing
- 1 x 230 VAC 3 Phase power sensing
- 300 VAC Over voltage protection.
- Fully isolated inputs, all inputs operate completely independently of each other
- Standard kettle cord connector

KEYSTONE ELECTRONIC SOLUTIONS

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