

Wireless Facilities Management System (WFMS)

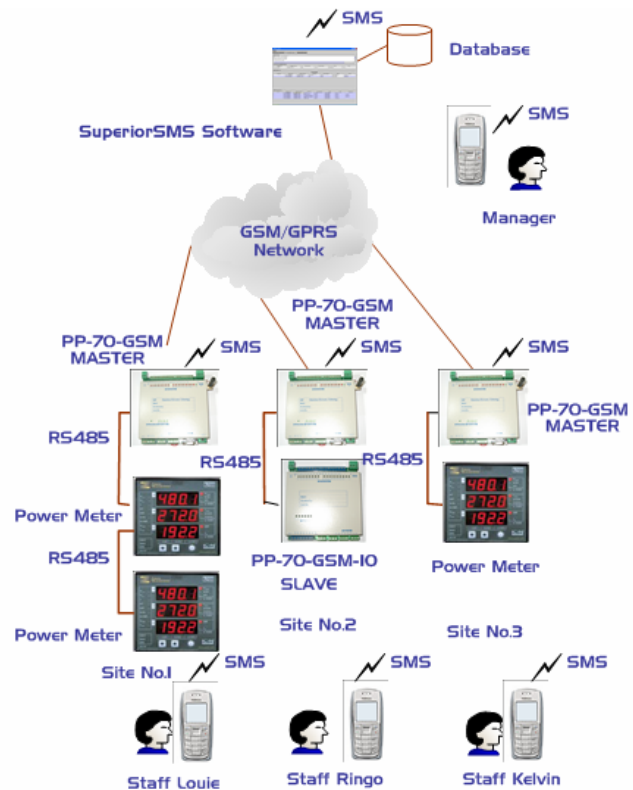
Efficient and Effective Wireless Solution for Facilities Management, Control or Monitoring

Efficient and cost effective Facility Management has become an extremely important issue for most FM companies today as they strive to manage more facilities with fewer resources. @WFMS is an open and user friendly FM solution designed specifically for the monitoring, control and data acquisition of unattended facilities through the use of the popular GSM wireless technology and low-cost SMS messages. @WFMS allows the FM companies to offer a performance based service that minimizes the operating cost without compromising quality and security. @WFMS is designed to interface easily with any existing BAS and extract information critical to the facility's continuous operation. This information is then relayed to a remote server where the collected data is stored in a SQL database and can be retrieved later for further analysis of how effectively and efficiently the facility is maintained.

@WFMS allows the maintenance team to manage multiple facilities efficiently without having to access these sites in person unless there is a critical alarm or during regularly scheduled maintenance. This allows the team to focus their effort in performing proactive and preventive maintenance and finding new ways to improve the facility's operating efficiency. The historical data collected by @WFMS also allows the team to have a better understanding of the site's operations and improve the facility's overall performance.

@WFMS SMS Server

- MS Windows 2000/XP/VISTA compatible
- Automatic detection of GSM modem
- User friendly GUI for incoming SMS messages and alarms



- Display individual events, logged data, COS (Change of State), and threshold alarms for individual sites
- Support international GSM mobile numbers & SMS formats
- SMS messages can be forwarded automatically by the server to designated staff
- Provide Summary Report of COS, alarms, events and control actions taken

Current Status Window

- Display the current system status
- Force an update with the "Data Dump" command.
- Provide the operator with an instant feedback of the site status for immediate control actions

System Configuration

- The @WFMS SMS server software provides a simple GUI for entering site details and fault label for each input.

Transformer and Circuit Breaker Monitoring

The @PP70GSM I/O Master can be deployed to remotely monitor the status of a wide variety of electrical equipment such as circuit breakers, transformers, MCBs, UPS, Battery Chargers, Gen Sets, status by-pass switches...

Water Treatment Facilities Monitoring System

The @PP70GSM I/O Master can be deployed to monitor the directional flow of water in water treatment facilities. The current flow is sent to the central monitoring software with SMS messages to indicate instantaneous water flow and its direction. The @WFMS allows the maintenance staff to take immediate action to control any irregular flow activities.

Street Lights Monitoring and Control

The @PP70GSM I/O Master can be deployed for the remote controlling of street lighting and failure monitoring. The unit controls a group of street lights and sends the lighting status to the central control room via SMS messages. The street light can also be turned on/off via SMS messages. The unit is capable of entering a standalone operation mode where the street light is controlled by a time schedule.

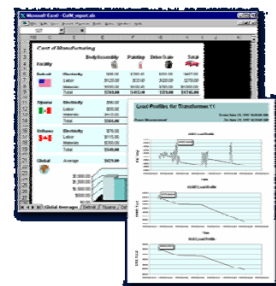


Utility AMR for Energy Monitoring

The @PP70GSM I/O Master can be deployed for Remote Energy Monitoring and Peak Demand control. Each @PP70GSM I/O Master can be configured to periodically poll a group of energy meters and sends SMS messages containing vital energy usage data like kWh and kW Demand to the central server for usage analysis and bill verification.

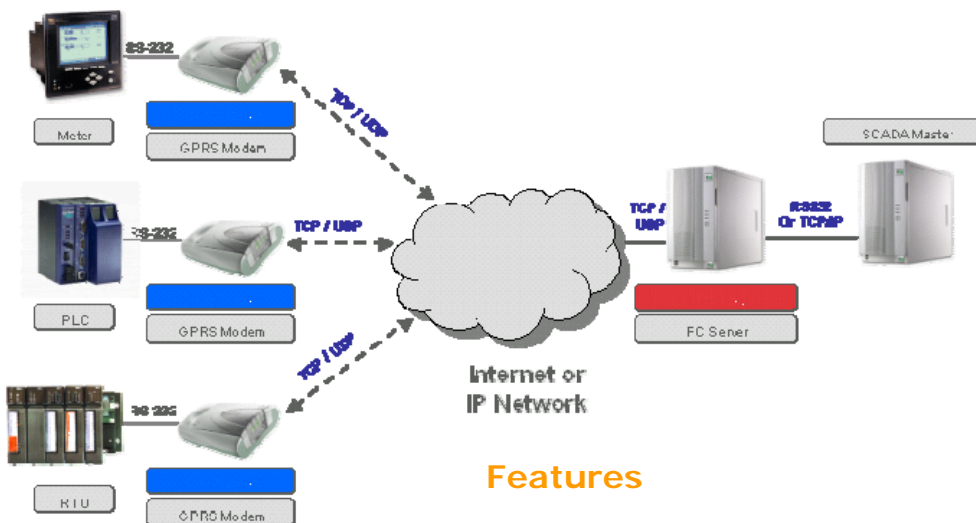
Vehicle Monitoring for Security Enhancement

The @PP70GSM I/O Master can be deployed to remotely monitor the vehicle's security status to determine the battery status, if the door has been opened by an intruder, if any windows have been broken, and if the ignition has been started. The unit sends SMS alarms silently and wirelessly to the owner, without alerting the intruder, so that appropriate action can be taken.



SuperiorGPRS

SuperiorGPRS is an innovative solution that allows telemetry data to be wirelessly and transparently transferred over a GPRS network without requiring equipment manufacturers or software providers to make changes to their products. A typical Telcom Service Provider often assigns changing dynamic IP addresses to its subscribers. This practice causes significant problems to the IP equipment that cannot handle changing dynamic IP addresses. Further, although the GPRS connection is supposedly **"always on"**, this may not be always true in practice. To solve this problem, SuperiorGPRS provides an innovative solution that helps manage the IP communications link over a GPRS network and provides "online" connectivity transparently for existing or new applications that require cost-effective and **"always on"** wireless communications functionality.



Applications

- o Water Utilities – fresh and waste water level alarms, pump control, sensors measurement...
- o Electrical utilities - fault indicators, reclosers, transformer temperature alerts
- o Remote metering - water, electricity and gas
- o Rental equipment monitoring
- o Building management system
- o Streetlights monitoring and control

Advantages and Benefits

- Quick to install and easy to use
- Lower capital cost than private radio networks
- Lower operating costs than GSM and CDMA
- Operating costs based on amount of data transferred, instead of time connected
- Compatible with existing equipment, protocols and infrastructure
- Solution is completely transparent
- Supports different protocols and equipment vendors
- **"Always On"** connectivity provides real-time communication
- Detailed diagnostic and statistical information available for quality of IP link and data usage summary

Features

- Completely transparent between the 3rd party SCADA software and the remote field devices
- Automatic connection to GPRS network and periodic verification of its IP connection
- User-friendly Graphical User Interface (GUI) for site configuration, diagnostics and statistical data
- Supports numerous SCADA protocols such as Modbus, DNP, and other proprietary protocols
- Secure and reliable delivery of data packets
- Easy to configure – setup within minutes

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