Introduction

It is very often that in a water system there are water tanks that act as pressure boosters. Level monitoring in such tanks is very important to ensure that whole regions with consumers will not be left without water. When the water level drops a remote pump house must operate to send water to refill the tanks. Such pump houses maybe located hundreds of meters or even kilometers away from the tanks. Automatic communications between tanks and pump houses ensure an unmanned system that operates 24/7.

Requirements

- Monitor level at water tanks scattered in a geographic region
- Monitor pump houses and automatically receive commands from tanks to increase pressure in a water pipeline system
- Alarm immediately on empty tanks
- Take advantage of a cellular communications network using SMS and GPRS communications
- High expandability

Proposal
Infinite SCOM-100 is a GSM/GPRS Edge RTU designed specifically for remote monitoring systems.

Using machine to machine (M2M) SMS commands SCOM-100 devices, on event can send commands to other SCOM-100 devices to perform a local action. For example at a water tank a low level digital event can trigger an SMS message to a remote pump station to start a pump to refill the remote tank.

Any number of SCOM-100 units can communicate with each other using the M2M functionality. Digital transition events and analog measurements overstepping can trigger M2M messages to remote stations and maintenance personnel.

Moreover the SCOM 100 is capable to connect to a central station using GPRS communications and standard OPC server functionality to connect to a host SCADA system.

SCOM-100 communicates via SMS and GPRS with users, PCs, other SCOM-100 units in M2M, all at the same time.

**Why SCOM-100**

- All-in-one cellular GPRS quad band solution
- Machine 2 Machine communications via SMS
- Real-time data acquisition using GPRS
- Easy to implement and maintain
- Seamless connection to SCADA via OPC server
- SMS alarms & remote control