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SEMAPHORE
a CSE-Global Group Company

Asia & Oceania

SMS texting NOW supports database transfers;

Available in the T-BOX Wireless Monitor, T-BOX LT, and T-BOX MS RTU products, this new feature allows data archives and sampling tables to be transmitted via SMS messaging.

Commonly employed for short text messages, such as alarms and events, SMS provides inexpensive data transmission using very low power. This makes it ideal for products which use battery or solar power systems. Now process information can be transmitted with minimal impact on network and power budgets. SMS further extends RTU applications to areas in which weak cellular signal strength allows only SMS messages to be transmitted.

Cyber Security Enhancements;

Significant cyber security enhancements for its T-BOX line of SCADA system RTU products. HTTPS and IEEE 802.1X are now available with a T-BOX MS Modular System, when equipped with a 32-bit CPU.

HTTPS, or "HTTP Secure," is the hypertext transfer protocol with encryption using the SSL or TLS protocol. It is now available as an add-on which allows access to the T-BOX MS integral web server using HTTPS. Simple menu interactions allow the user to configure the TCP ports for HTTP and HTTPS, whether HTTP is blocked, and to specify a certificate file name. Since T-BOX RTU products allow users to exploit the power of the Internet, HTTPS Secure is an important new SCADA security feature.

IEEE 802.1X addresses a key security risk that many operators have uncovered in vulnerability assessments. IEEE 802.1X provides authentication for devices wishing to access a local area network (LAN). Also available as an add-on, it prevents rogue devices from attaching to the LAN or RTU port. That, in turn, prevents unauthorized access to proprietary information and the ability to download configuration or operation parameters.

SNMP joins the suite of RTU Protocols;

By introducing firmware updates that allow the Kingfisher and T-BOX RTU SCADA system products to communicate using the Simple Network Management Protocol (SNMP). The inclusion of SNMP allows Semaphore RTUs to participate in network monitoring and management functions that are widely used in the information technology (IT) and broadcast industries.

With support for SNMP client and trap implementations by way of function blocks in the IEC 61131-3 environment, applications programmers can readily configure the RTU to interrogate network devices and perform network monitoring and management functions via SNMP. The Semaphore SNMP daemon implementation additionally incorporates a dedicated management information base (MIB) that defines objects such as current RTU system settings, date and time, last configuration date and system uptime to be queried of the RTU.

New Releases

That's SMART

Applications using Semaphore RTU's.

The applications below are from recent examples of our clients using Semaphore technology in some very different and ingenious ways.

Ring Main Unit

Traditional Ring Main Units either open the 11,000Volt circuit or close it to earth, generally a manual function with little to no feedback. Our client wanted a simple method of adapting to the pre-wired Ring Main Unit so that commands can be sent and status results received. Using Tbox MS units with built in GSM modem cards we have been able to monitor all the status points of the RMU, remotely receive an SMS command text and set the switch position of the RMU. Sounds simple, well it is and it also means that when the client installs over 8,000 units he still does not need a control room, everything can be done from a secure cell phone, even receiving historical data of operations.

Smoke Monitoring

How do you monitor smoke build up in a series of duct work channels where there is no power, limited signal and no way for anyone to hear an audible alarm? You install TBOX LP units, these units with in built GSM support sit in the duct work on a replaceable battery pack. As they sit in silence they monitor and record the airflows, temperature and smoke levels, once triggered the LP units send out a series of escalating text messages until they receive an acknowledgment from a user. Therefore even though the alarm is hidden the LP makes sure someone hears it and takes action.

Well Head Automation

Remote well heads operating in desert conditions traditionally require an 80 Amp/hour battery box, solar panels, large cabinets, radios, all linking back to a central server—NOT NOW—smaller cabinets, small batteries, greater battery life, full web page animations, NO central server, email reports and a host of other unique features ensures the Semaphore RTU solution becomes a very simple to use and fit RTU solution. The client has already commented that compared to prior RTU installations the Semaphore solution is small, neat and delivers data straightaway that can be easily read by his operation personnel.

Generator Set Monitor

When you have over 1800 site power generators spread over a large country and your fuel economy is extremely poor, what do you do, well the fuel economy is bad for your company, but good for the people taking your diesel fuel. Bad for your generators as they run dry and bad for your application as running a diesel generator set dry causes more damage. Our client installed Semaphore Low Power RTU's with in built GSM modems, the RTU's monitor fuel levels in the tank, match the drop in fuel level to a known expected consumption rate, if the rate is exceeded the RTU sends an alarm message to security so they can attend and arrest the fuel thieves, alternatively the generator alarms go off to alert nearby people to the theft. The client can now also schedule refills of the generator sets as he can remotely see when levels are low. He also has the ability to stop the generator and isolate it so that if the generator is no longer needed, no one has to drive to site to shut it down, remote from his cell phone!

Street Light Monitor/Control

Monitoring 120 kilometers of street lighting normally required a crew in a truck to travel up and down the motorway to inspect damaged light bulbs—NOT NOW Semaphore RTU's installed in the power monitoring grid of the street lights watches for fluctuations in the circuits of the light networks. The RTU then can determine which set, series or run of lights has a reduction in power load and then match this to a known variable to determine approximately which light assembly has failed. The RTU then sends an email report and a text message to the service crew who can now drive straight to the failed light and replace/repair it.

If you would like further information on any item in this newsletter please contact our AsOc operations attention Mr. David Trench davidt@cse-semaphore.com

Or visit our web site;

www.cse-semaphore.com