

# LEVERAGING YOUR SCADA SYSTEM

## *AGM news bulletin*

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Developing and upgrading the SCADA system is the best way to leverage existing infrastructure, retaining previous investment in equipment and operator training, upgrading the efficiency of the controlled processes and postponing investments. After 15 years in the Communication & Control field, **AGM** was formed in 1996 with aim of developing, installing and maintaining innovative *upgrade solutions for SCADA/DCS systems*.

We are sharing our latest innovative upgrade solutions with you in this bulletin, while soliciting your ideas which we value especially.

### **Wireless networking management**

R-Win is a smart communications adapter for management of wireless communications in a SCADA/DCS (Distributed Control System).

The R-Win system consists of software installed in the SCADA control center and embedded hardware-software units installed in remote stations in the field. The R-Win unit in the field transmits the PLC/RTU controller data via an IP Radio-Modem and/or Cellular Router that broadcasts the data to the network and manages the wireless communications of the distributed system.

The R-Win unit is capable of communicating with neighboring units via "lateral" communication obviating mediation by the control center, and thus contributes a number of unique and important capabilities to the system including:

- Communication and Control Redundancy and Resilience.
- A more effective communication network via Routing-Bridging-Store & Forward and Real Time or Near Real Time communication capabilities.
- Management of local, sub-system control processes without involving the control center.
- An additional level of information and communication security.

[Read More ...>>>](#) (R-Win tech document).

### **Communication security by R-Win**

With R-Win installed within a modern wireless RF system, the IP radio-modem system supports the AES 128-bit advanced data and security encryption standard, which conforms to FIPS 140-2 Standard requirements.

The R-Win microcontroller for both, the RF and the Cellular devices is equipped with information security protocols - Security protocol SSL, SSH and IPsec.

Additional security capabilities can be obtained by exploiting the R-Win microcontroller's programming options, including the option of adding encryption software.

## **MOSCAD upgrading**

*With the cancellation of the MOSCAD and MOSCAD-L products in January 2009 (source - Global Data Specialists), many SCADA managers are reluctant to "tamper" with their tried and true MOSCAD but are compelled by reality to search hard for replacement-upgrade solutions.*

The Motorola MOSCAD system was developed in Israel in the late 80's and it is only symbolic that another Israeli communication and control company has developed an upgrade solution for the veteran MOSCAD.

AGM's expertise consists of providing a smart, innovative upgrade for legacy SCADA systems. Applying the experience of SCADA managers and operators, AGM's solution is based on the MOSCAD structure - two parts in the package, an RTU and a transceiver.

AGM offers a two step upgrading process; Our approach is to replace the old transceiver with a modern, off-the-shelf, standard transceiver, assuring a center-transparent upgrade by installing AGM's R-Win between the RTU (MODBUS side) and the radio-modem (Radio TCP/IP communication side).

The center HMI will need only a minor adjustment while gaining major benefits to the system due to the R-Win's advanced features. (see above).

This migration could be followed by an additional and subsequent upgrade of the old RTU with a modern off-the-shelf standard PLC, thus integrating it smoothly with the modern R-Win and the radio-modem.

## **Last Mile wireless connectivity**

AGM offers its clients a valuable service in expanding distributed control system coverage by Last-Mile wireless communication in installed SCADA /DCS systems. The most common applications are telemetry and security sensors, installed on the perimeter of an existing pumping station, power substation or a mine driller equipped with RTU/PLC.

AGM's excels in wireless I/O transparent connectivity, between the diverse telemetry devices and the legacy SCADA/DCS.

For more info;

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*AGM is seeking partners to implement its solutions in the market*