

# Increase the efficiency and security of remote assets

Telemetry and Remote SCADA Solutions for Oil & Gas and Water & Wastewater



Requires Adobe Reader for full interactive experience.

Distributed by:



888.858.3647 | [relevantsolutions.com](http://relevantsolutions.com)



# Legend



Click / Tap  
to know more

Front page

Previous/Next

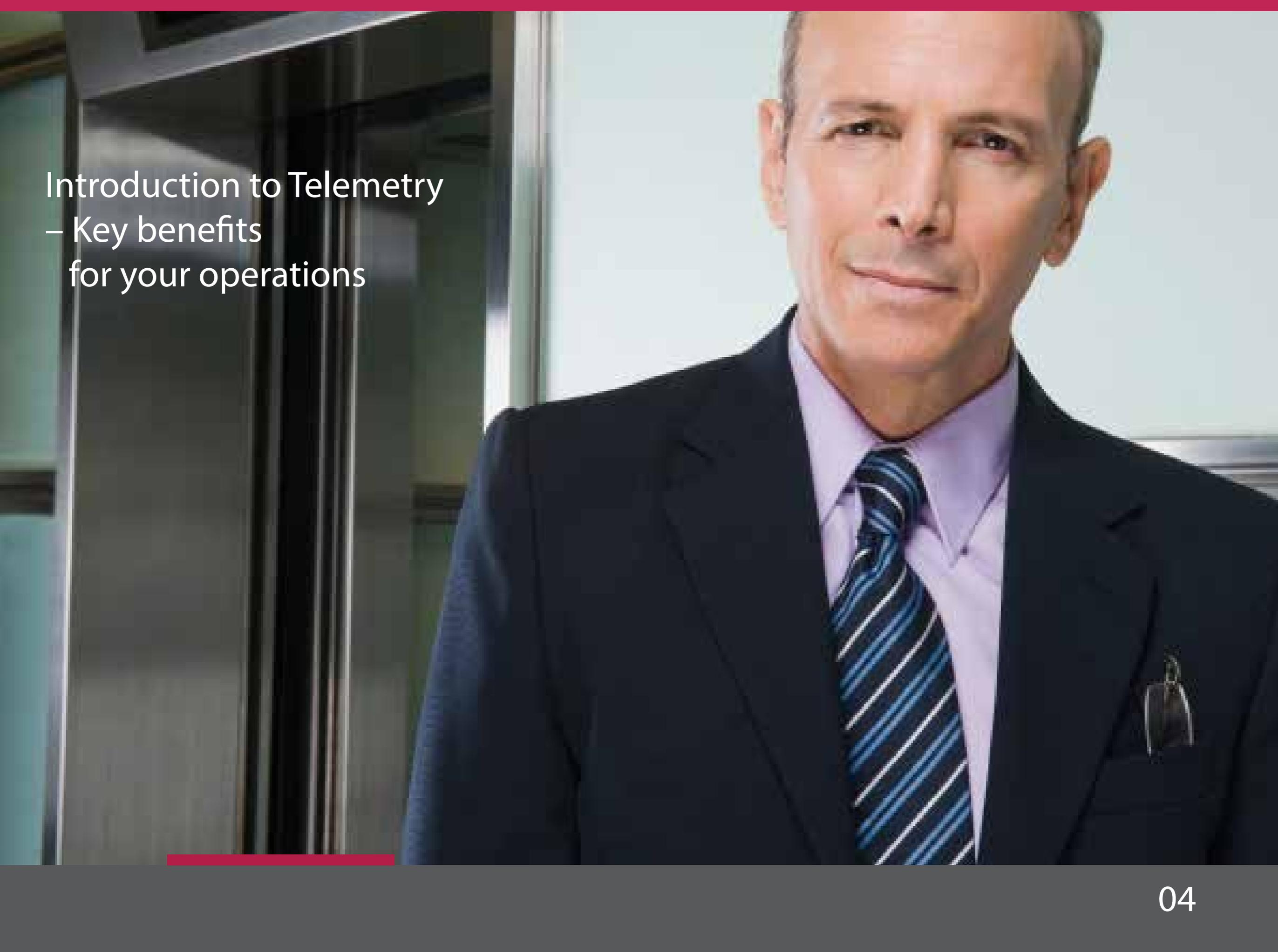
# Integrated end to end Telemetry and SCADA Solutions to help solve remote operation challenges!

Telemetry Offers

With Telemetry and Remote SCADA Solutions (TRSS) from Schneider Electric, you will increase the efficiency and security of your remote operations and assets. Capitalize on the proven track record of Schneider Electric in a wide range of industries in the areas of instrumentation, control and data acquisition, wireless communication, and IT infrastructure.

From simple reservoir level measurement to wellpad optimization integrated with ERP, remote systems are constantly challenged by emerging regulations, rapid technology change, and new industrial trends.

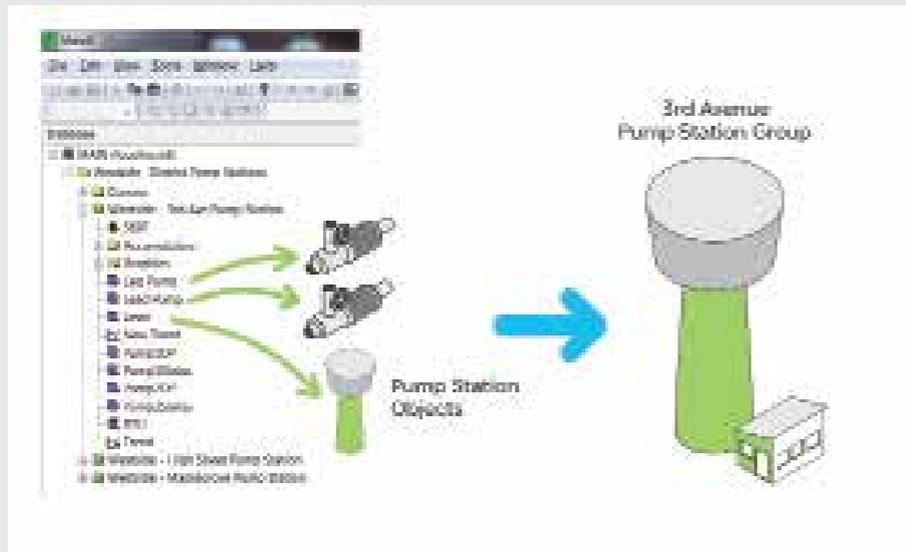
Schneider Electric delivers dedicated Telemetry and Remote SCADA Solutions that allow you to efficiently monitor and control field operations across a widely dispersed infrastructure.

A professional photograph of a man in a dark navy blue suit, a light purple dress shirt, and a blue and white striped tie. He is standing in front of a large window with a view of a city skyline. The lighting is soft and professional. The text is overlaid on the left side of the image.

Introduction to Telemetry  
– Key benefits  
for your operations

# Control cost of ownership

## Effective and intelligent SCADA host



StruxureWare™ SCADA Expert ClearSCADA™ is an innovative, flexible, and comprehensive SCADA host platform. From a built-in historian and alarm redirection, to object-based templates and multideveloper environments, SCADA Expert ClearSCADA is designed to help you control operational costs through quick deployment and reduced down-time.

# Control cost of ownership

## Flexible and efficient Smart RTUs



SCADAPack™ Smart RTUs offer flexibility through a wide range of features and options and are easy to network, program, and maintain. Designed to help you control operational costs by keeping you out of the field with online configuration and editing of logic applications, either through a dedicated development environment or through our SCADA Expert ClearSCADA host software. Innovative circuitry and firmware designs result in ultra-high efficiency modes that suit the challenges of solar powered-SCADA.

# Control cost of ownership

## Easy-to-use data radio solutions



Trio™ licenced and licence-free data radios offer versatile field networking solutions for point-to-point and point-to-multipoint wireless network. High performance is offered in each of a wide range of cost effective product lines including frequency hopping radios, simplex and half duplex remotes, redundant base stations, and store and forward repeaters. Trio's flexible feature set and intuitive design enable greater choice in network functionality and ease of use.

# Control cost of ownership

## Rapid deployment wireless instrumentation



Accutech™ field instruments are easy to install being self-contained with power, radio, and sensor. With the elimination of cabling, trenching, and conduit, deployment costs are reduced by up to 75% relative to traditional, wired alternatives. Together, the high performance, long reach, licence-free radio and long lasting battery help to reduce support costs while delivering valuable data.

# Enhance SCADA security and reliability across wide area

## Protection that starts at the source

Using DNP3 protocol with AGA12-2 message encryption helps to ensure your data is not tampered with over remote connections, from the controller to the SCADA host. With DNP3 secure authentication only authorised devices are able to request execution of critical commands such as setting outputs, transferring files, or changing controller configuration.

# Enhance SCADA security and reliability across wide area

## Reliable wireless connectivity

SmartPath™ technology used in Trio radios lets system designers create a network topology that offers alternative radio link paths. The result is enhanced connectivity and redundancy without the message latency common in more traditional MESH technologies. Together with an effective range of models and performance enhancing features, Trio radios improve the reliability and security of data radio connections.

# Enhance SCADA security and reliability across wide area

## High level of data availability

SCADA Expert ClearSCADA offers dual or triple redundant servers, disaster recovery sites, and remote performance servers to enhance data availability. Even LAN/WAN links and connections to remote controllers can be configured for redundant paths over different media.

# Enhance SCADA security and reliability across wide area

## Security from the control room and remote clients

SCADA Expert ClearSCADA host software is continuously tested against current security regulations and cyber threats. Security-enhanced account and password management lets you decide right down to the object level which user gets to see and control which data points within the SCADA system. Users or user groups are assigned password-protected levels of access for specific features, including configuration, operation, alarms, and database navigation. Object permissions are automatically carried over when new instances are created from templates that provide efficient scalability with reduced risk of error.

# Enhance SCADA security and reliability across wide area

## Reduce risk of data loss

Whenever remote data points change, the SCADAPack E Smart RTU stores a time-stamped DNP3 event which remains in its data queue until polled or reported. This allows the SCADA Expert ClearSCADA host to poll less often and still obtain a continuous record of data history even when communication links go down.

# Improve operational efficiency from field to enterprise

## Easy access to business systems

SCADA Expert ClearSCADA is an open object-oriented platform with a rich suite of industry standard interfaces including SQL (ODBC or OLE-DB), OPC, and .NET. This gives any reporting package, such as an MIS or ERP business system, easy access to the real-time database, alarm/event journal, and historian.

# Improve operational efficiency from field to enterprise

## Automatic recognition, less configuration

Tight integration across telemetry and SCADA network components can yield significant operational advantages if the host software is included. SCADA Expert ClearSCADA offers preconfigured templates that are easy to set up and customize, SCADAPack-specific objects that require less configuration while providing access to more detailed data. With the ability to detect a newly networked SCADAPack Smart RTU, SCADA Expert ClearSCADA can automatically download the required control applications and configuration. Subsequently, with automatically synchronized clocks, SCADAPack data logs are seamlessly retrieved into the SCADA Expert ClearSCADA historian. A very powerful result of the object-based architecture is that any changes to the SCADA Expert ClearSCADA database can be made online, thereby reducing the effects of operational stoppages.

# Improve operational efficiency from field to enterprise

## True mobile access

SCADA Expert ClearSCADA Mobile provides real-time remote access to critical SCADA data, allowing users to monitor performance while on the move, helping to improve staff productivity and enhance overall system performance. SCADA Expert ClearSCADA Mobile also gives remote users access to real-time alarms and events, including remote alarm acknowledgement, and historic trends and lists.

# Improve operational efficiency from field to enterprise

## Real time monitoring of network health

Effective networks offer efficiency and reliability when they are working properly, but to know when this is occurring, you need real-time access to network health information across the system. When used with SCADA Expert ClearSCADA, our products offer direct access to network communication statistics from RTUs, data radios, and field instruments as well as specific health indicators like battery status, RSSI, and temperature.

# Improve operational efficiency from field to enterprise

## Escalated notification of alarm

Configured alarms are an important aspect of any process monitoring system but are only useful if the notification gets to the right person or machine. SCADA Expert ClearSCADA host software provides escalated notifications based on a wide range of configuration variables. If an alarm is not acknowledged within a set period of time by the console operator, it can be automatically passed to the field operator.

If the alarm still remains unacknowledged, it is forwarded to maintenance personnel via web clients, SMS, and browser interfaces.

# Reduce risk by improving safety and regulatory compliance

## Prevention through knowledge

Accutech wireless instruments provide crucial information by monitoring process variables that were previously out of reach for physical and/or cost reasons. Whether it is gas leak detection with an AM10 acoustic monitor, tank level measurement with the SL10 submersible or door/hatch access detection with the SI10 switch input device, Accutech provides the enhanced process knowledge you need to mitigate the effects of critical incidents.

# Reduce risk by improving safety and regulatory compliance

## Improve compliance through more secure data

For applications requiring traceability, remote SCADA solutions from Schneider Electric provide extensive data-logging features to help meet regulatory requirements for history. SCADAPack Smart RTUs offer periodic or sudden burst high-speed data logging along with both onboard and external memory options. SCADAPack E Smart RTUs, when used with DNP3 protocol and SCADA Expert ClearSCADA, offer automatic data back-filling whenever the communication network to the host is interrupted.

# Reduce risk by improving safety and regulatory compliance

## Assurance through certification

Accutech instruments, SCADAPack Smart RTUs, and Trio radios are designed for installation in remote environments with high humidity and extreme temperatures. Our products are tested for hazardous and/or explosive-designated areas, while our gas flow computers are tested to API 21.1 standards and rated for custody transfer applications.

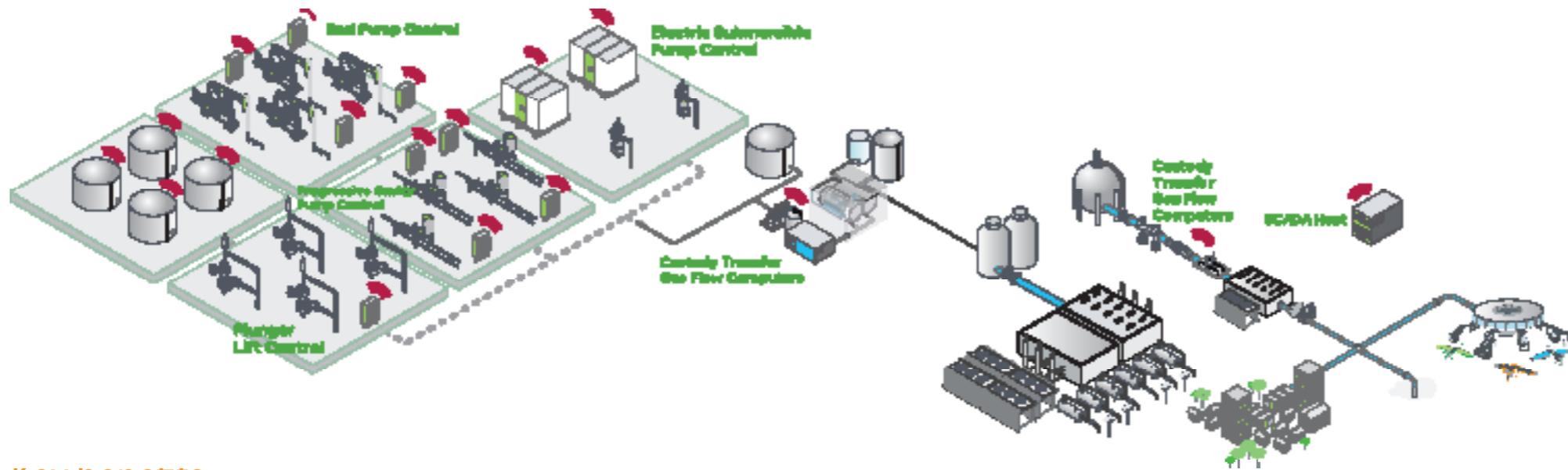
Reduce risk by improving safety  
and regulatory compliance

# Benefits for your Oil & Gas operation



# Enhance production, help improve energy management and increase reservoir performance with real time data

Learn more with white papers on related topics

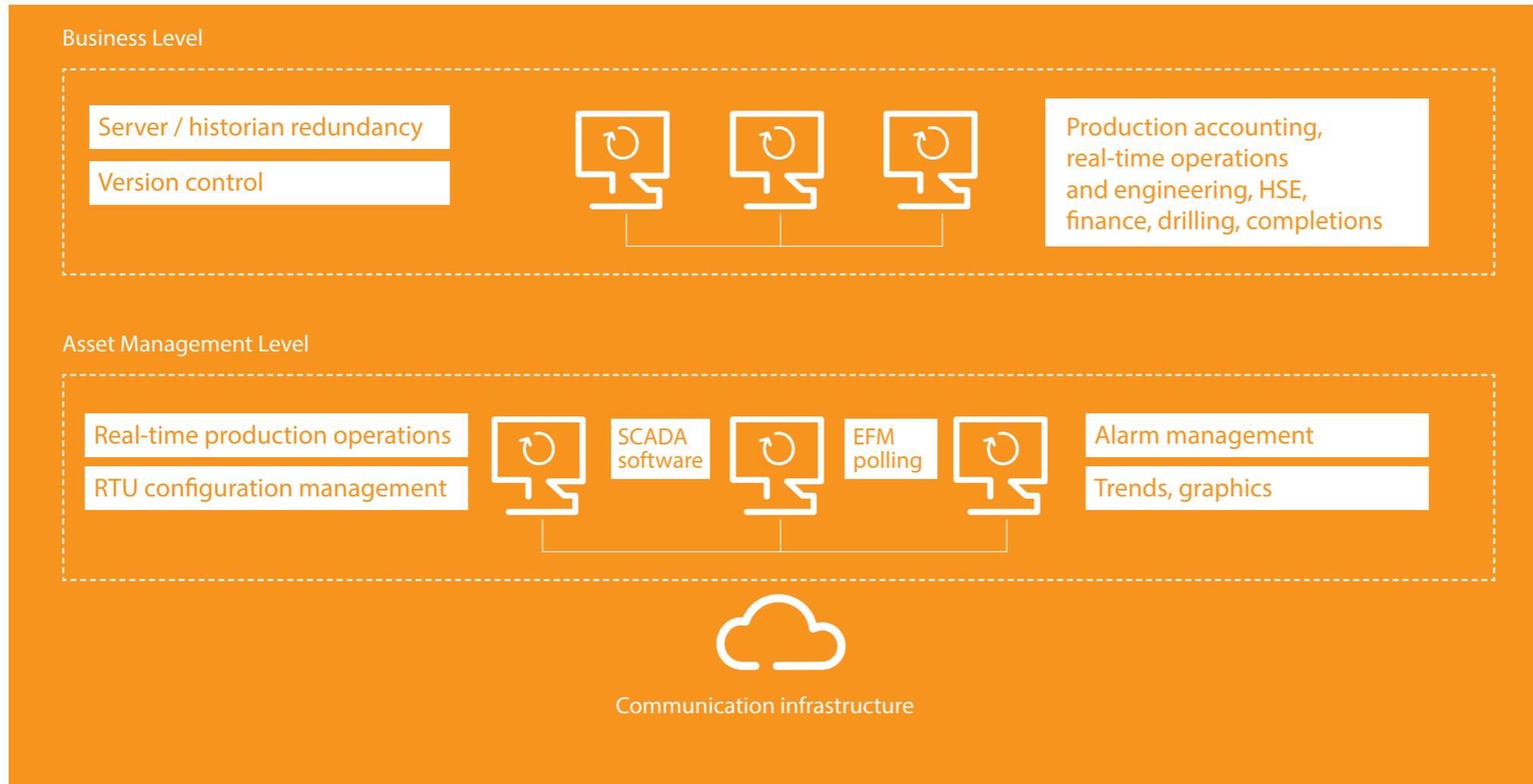


## Key benefits:

- » Helps you maximize availability of field operations and minimize deferred production
- » Enhance your energy use (Steam, CO<sub>2</sub>, Gas, Electricity) by helping to minimize production costs and environmental impact
- » Improve measurement reliability for effective production management and accounting
- » Reduce risk to environment and people
- » Optimize water management
- » Improve compliance with regulatory and fiscal requirements

# Telemetry in Oil & Gas – Smart field

Learn more about solutions for smart field



Oil & Gas references



Integrated security & Asset management

- CCTV, intrusion
- Access control
- Thermal imaging



Energy management

- Solar
- MV & LV
- UPS
- Secure power



Process optimization

- PLC / RTU
- Pad optimization
- Datalogger



Metering, EFM instruments

- EFM
- Wireless instruments
- Press, temp, level
- Leak detection



SIMOPS flow-back

- Drilling
- Fracking
- Flow-back
- Produce



Pad manager

- Plunger control
- Rod pump
- PCP
- Gas lift
- Water injection



Tank manager

- Water
- Oil
- NGLs
- SWD

# Improve data visibility from field to enterprise

## Business System

Oracle, SAP, ArcGIS, OSIsoft

## SCADA Expert ClearSCADA

Efficient management of remote assets

## Trio Data Radios

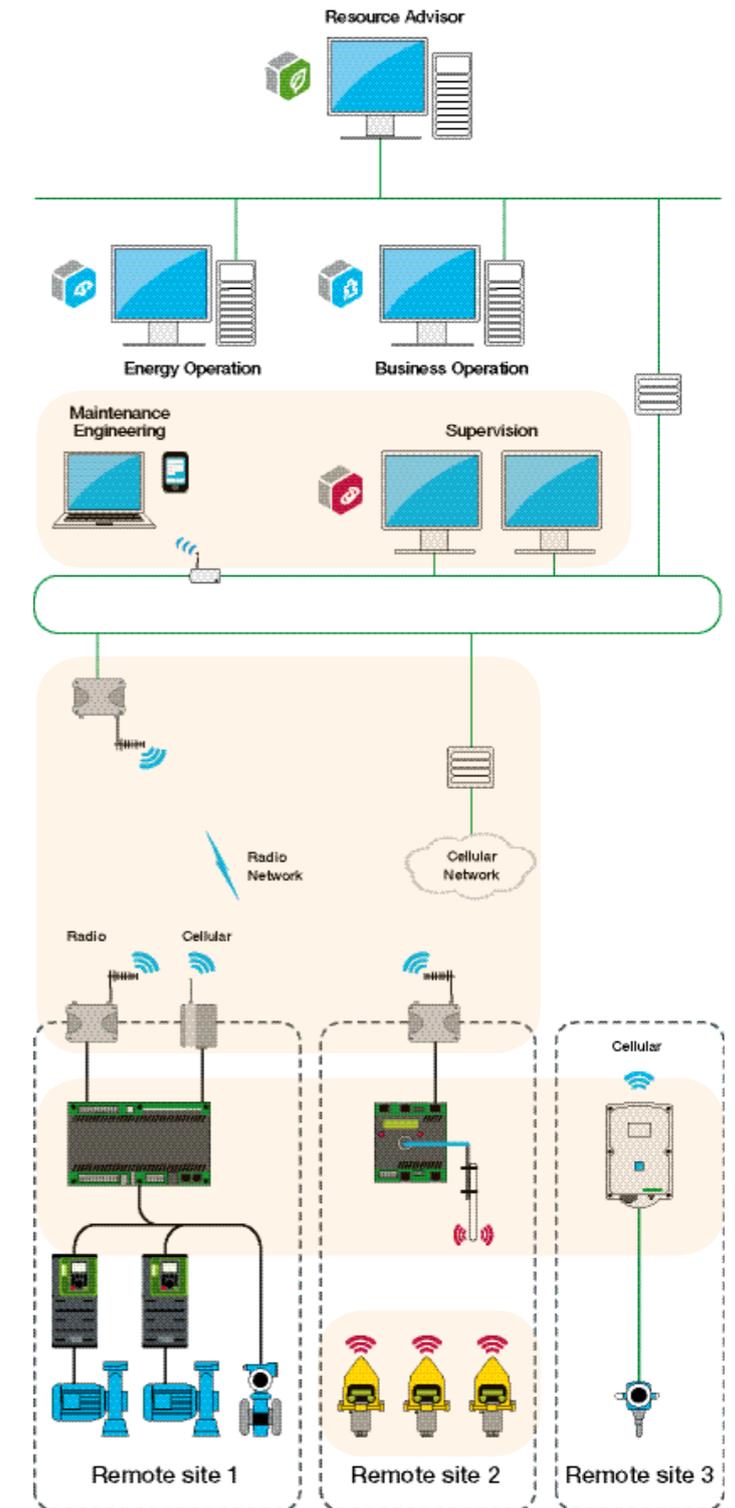
Bringing versatility and reliability to your wireless network

## SCADAPack RTU, Oil & Gas Applications

Smart RTU to improve security & reliability of remote operations

## Accutech Wireless Instrumentation

Rapid-deploy, Self-powered Wireless Instrumentation



# Benefits for your Water & Wastewater operation



# Monitor and control your critical infrastructure assets

## Key benefits

Enhanced energy management  
Extensive event capture and logging  
allow customers to optimize their  
operations to save energy.

Regulatory compliance  
Integrated hardware and software  
provide audit trail to help meet the  
regulatory requirements.

Reliable and secure operations  
End-to-end diagnostics and  
maintenance help to minimize risk of  
operation interruptions.

### Pumping

- » Pumping station control
- » Well monitoring and control

### Distribution

- » Pressure distribution system
- » Water quality monitoring
- » Irrigation systems

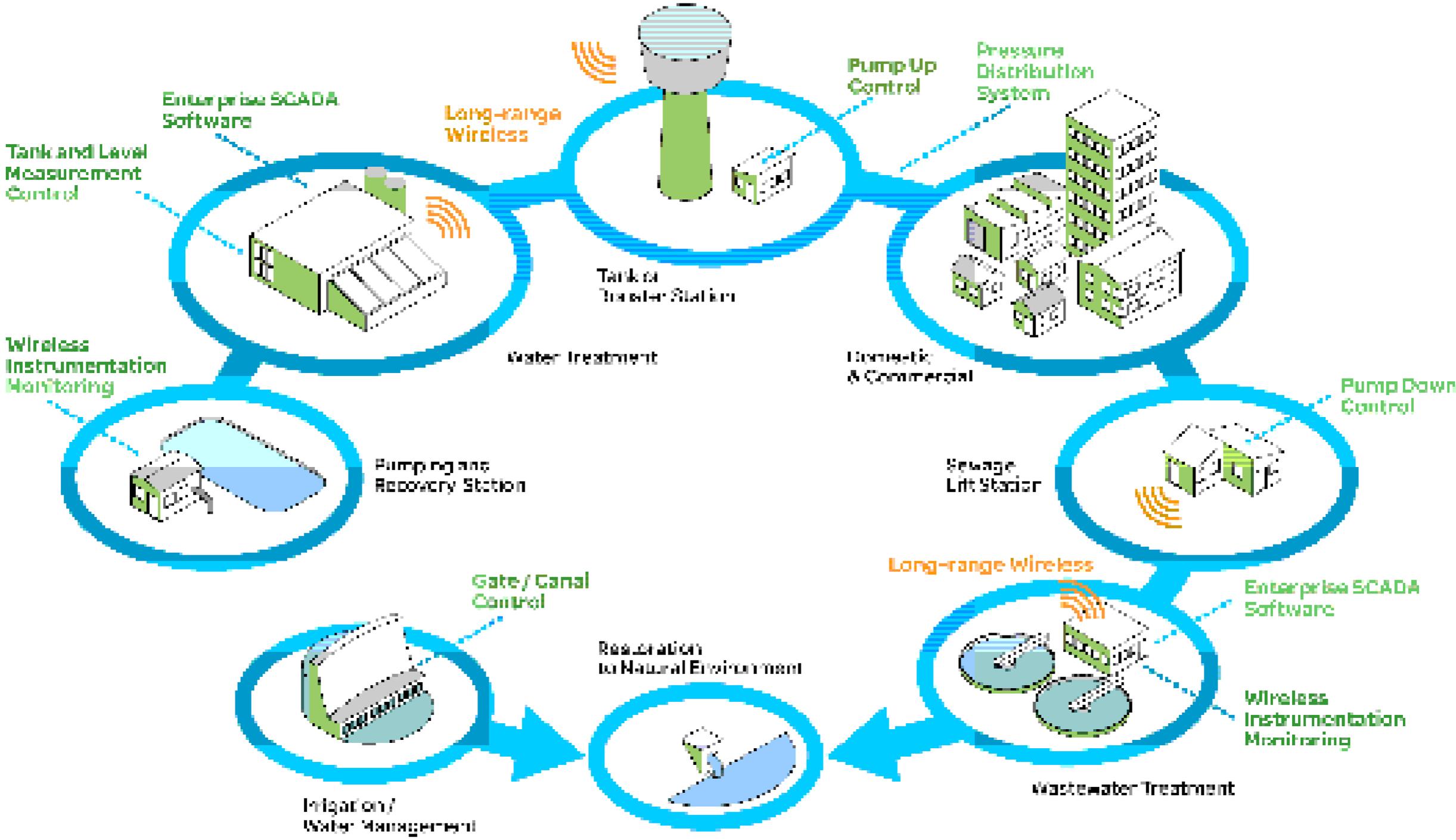
### Sewage Collection

- » Storm water monitoring
- » Lift station control

### Water & Wastewater Treatment

- » Supervision

# Telemetry Water Wastewater Applications



# Enhance access to real time process in hard to reach areas

White Paper



Water & Wastewater references

## Pump and Lift Stations

A SCADAPack controller helps to reduce the cost of configuration and deployment and provides alarms in real-time and control access to mobile operators. This out-of-the-box lift station controller also features web server and alarm redirection capabilities via public networks.

Benefits include:

- » Reduced cost of ownership through remote configuration and diagnostics,
- » Enhanced security with a dedicated suite supporting encryption and authentication,
- » Improved operation and compliance through time-stamped data and priority reporting.

## Water Quality Monitoring

SCADA Expert ClearSCADA helps to maintain data integrity through its inherent ability to synchronize historical events in the database even after communication interruption with the intelligent field controllers.

## Well Monitoring and Control

SCADAPack E supports time-stamped data and buffers less important data until it is convenient for the SCADA host to receive it.

# Improve data visibility from field to enterprise

## Business System

Oracle, SAP, ArcGIS, OSIsoft

## SCADA Expert ClearSCADA

Efficient management of remote assets

## Trio Data Radios

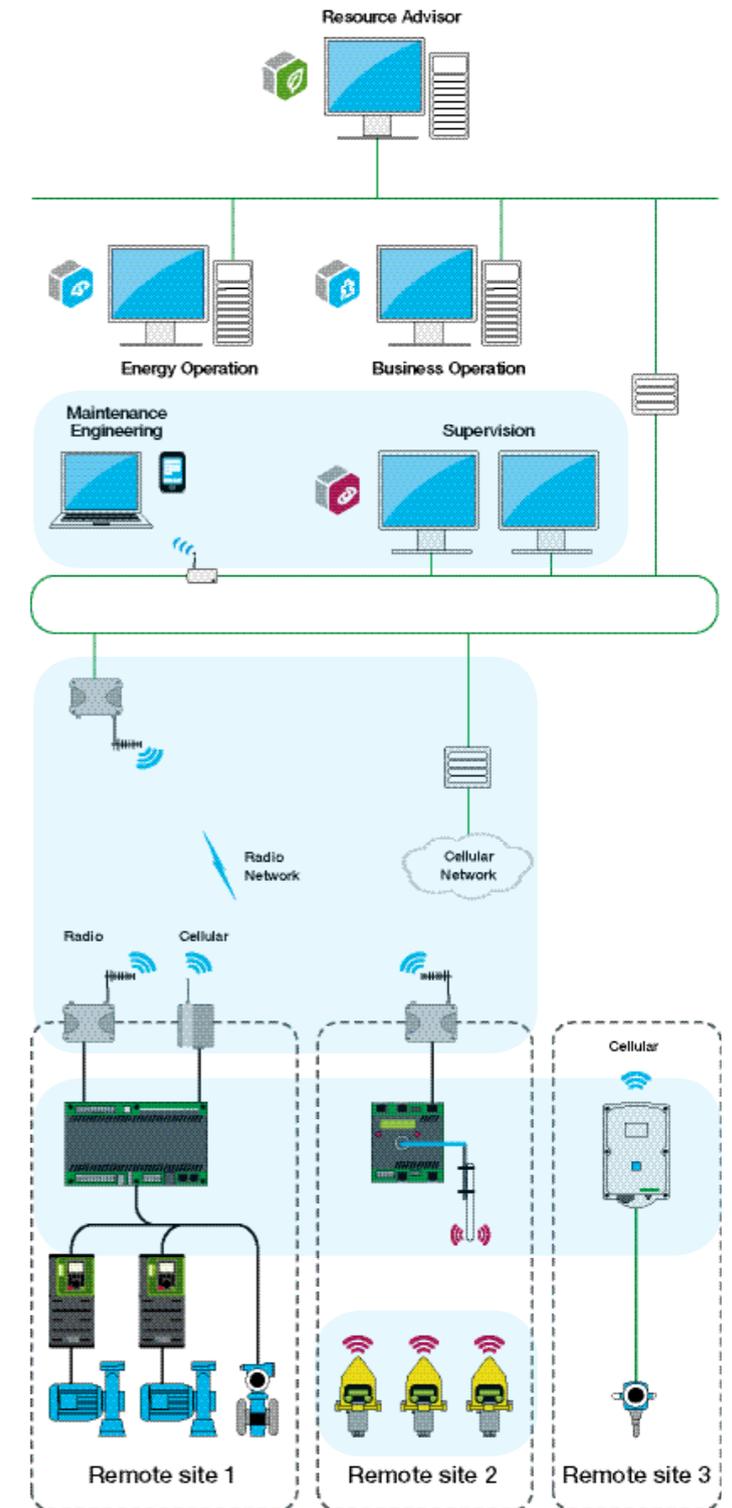
Bringing versatility and reliability to your wireless network

## SCADAPack RTU, Water & Wastewater Applications

Smart RTU to improve security & reliability of remote operations

## Accutech Wireless Instrumentation

Rapid deploy Self-Powered Wireless Instrumentation



PlantStruxure: collaborative and integrated automation architecture from Schneider Electric for industrial and infrastructure applications



# Telemetry and Remote SCADA Solutions are a pillar of the PlantStruxure integrated architecture

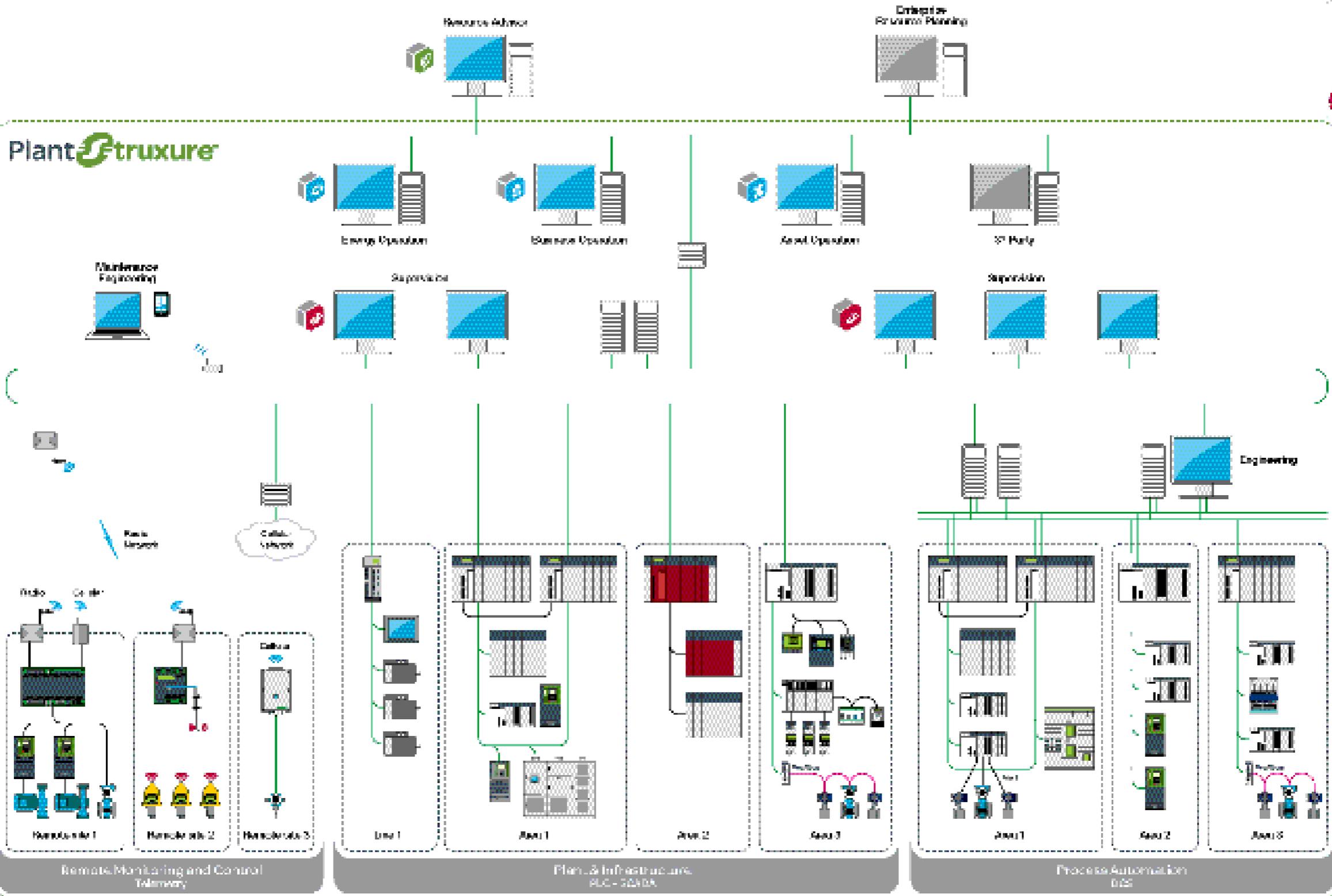
PlantStruxure™ is Schneider Electric's collaborative and integrated automation architecture for industrial and infrastructure customers.

It brings together our Telemetry, PLC/SCADA, and DCS offerings with complete life cycle services to help make your operations more efficient.

From initial design to modernization, PlantStruxure transparently connects control, operation and enterprise levels of your business.

Telemetry Offers

To know more  
about the architecture



Back to cover

> Make the most of your energy™

Distributed by:



888.858.3647 | [relevantsolutions.com](http://relevantsolutions.com)

Schneider Electric Industries SAS

Head Office  
35, rue Joseph Monier - CS30323  
F92505 Rueil-Malmaison Cedex  
FRANCE

[www.schneider-electric.com](http://www.schneider-electric.com)





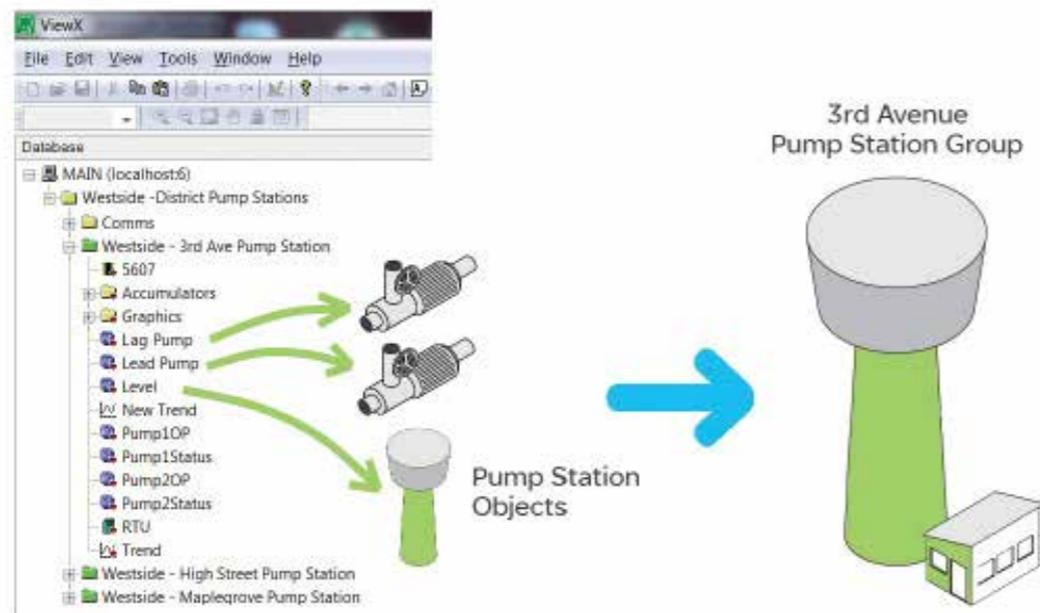
# SCADA Expert ClearSCADA™

SCADA Expert ClearSCADA is part of the StruxureWare™ Software Suite.

With this software suite, Schneider Electric is committed:

- > To provide high visibility and control for dispersed assets,
- > To enhanced security management and reliability

SCADA Expert ClearSCADA is fully integrated with the Telemetry Offer and open to business layer application connectivity.



To know more about ClearSCADA Range

SCADA Expert ClearSCADA references

# Trio™ Data Radio

Trio is an optimized solution for remote radio wireless infrastructure, with flexibility and a special feature set that enables greater choice in network design and functionality by accommodating a greater range of solutions.

Trio radios are available in a range of hardware configurations that are optimized for customer-specific communication requirements and can make use of Network Management Software for troubleshooting and preventative maintenance purposes.



To know more about Trio Data Radio Range

White paper

# SCADAPack™ E - WWW Application

SCADAPack E, a family of compact Smart RTUs, combines the functionality of a Remote Terminal Unit with the power of a Programmable Logic Controller and is designed to operate in challenging remote environments.

Supporting open, event-driven protocols such as DNP3 and IEC 60870-5, the SCADAPack E provides a scalable controller platform that ensures reliable and secure end-to-end control and monitoring of remote assets in critical infrastructure. Additional I/O and communication functionality is provided by a wide range of expansion modules.



To know more about SCADAPack E Range

SCADAPack E references

# SCADAPack™ - Oil & Gas Application

Range of compact Smart RTU combining capabilities of remote terminal units with the power of Programmable Logic Controller and designed to run in challenging remote environment.

Optimised for Modbus-centric control and monitoring application in the most remote and challenging environments, the SCADAPack 100/300/32 range provides smart controller platform solutions with energy-efficiency, ruggedness and cost-efficiency in mind.



To know more about SCADAPack Range

SCADA Pack references

# Accutech

Wherever traditional instruments struggle with operational, safety or budgetary goals, Accutech provides a solution that is both viable and easy to use.

As wireless instrumentation becomes increasingly mandatory for many remote applications, Accutech offers an alternative to traditional, wired monitoring systems.



To know more about Accutech Range

White paper

Accutech references