

**AVANCEON**

Tomorrow's solutions, today



# SCADA SOLUTION FOR WASTEWATER TREATMENT PLANT

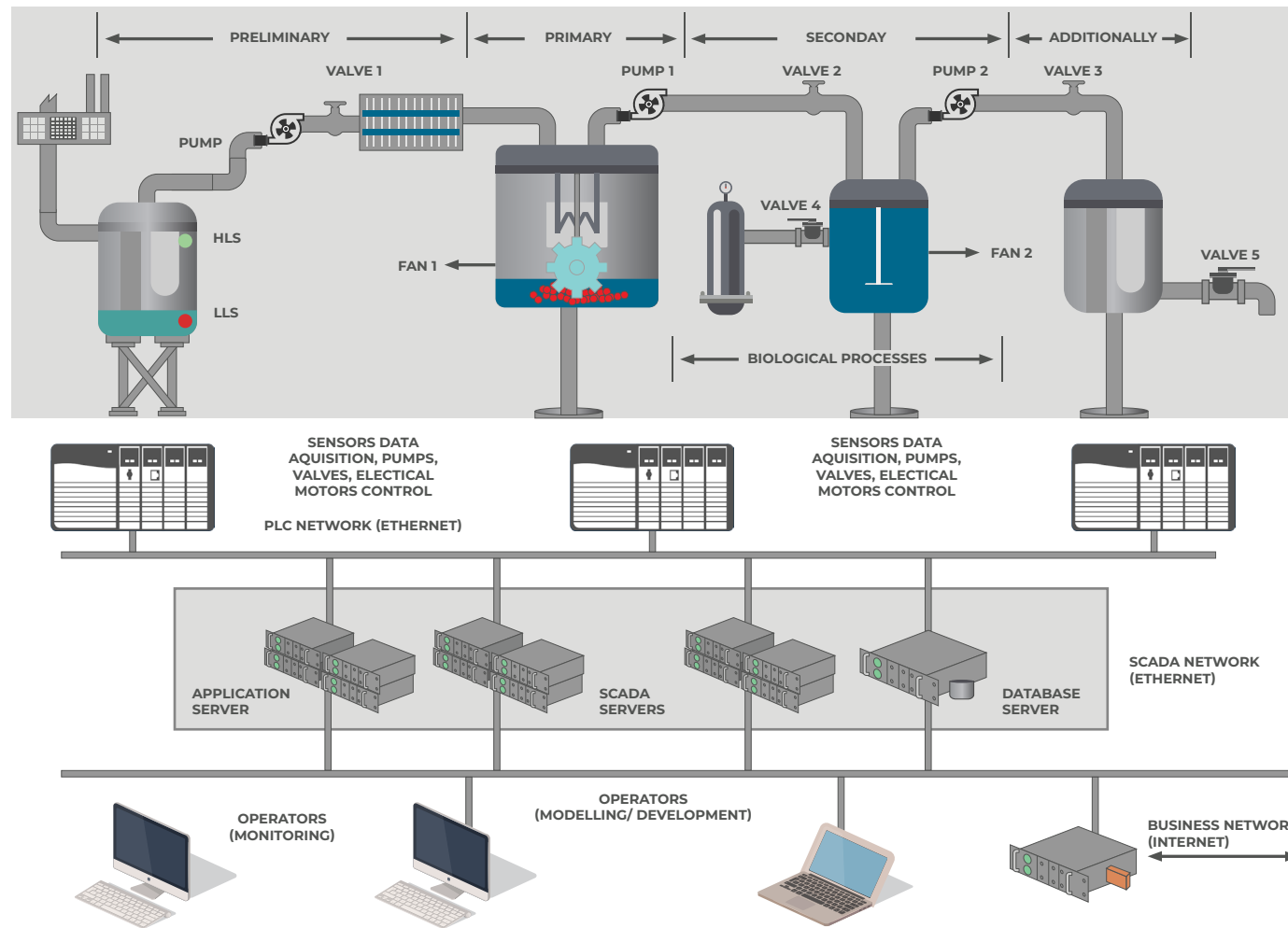


## OVERVIEW

Round the clock monitoring of municipal and industrial wastewater treatment operations is crucial for sustained community health and a clean, safe environment. However, constant vigilance, monitoring and control of these operations in a cost-effective manner can be very challenging as treatment facilities are often geographically spread and frequently located in remote locations away from populated areas.

Avanceon, an industry leader in Supervisory Control and Data Acquisition (SCADA), offers safe, cost-effective and robust SCADA solution for reliable control over treatment plant processes and effective management of wastewater collection and distribution systems. Implemented as either a standalone system or integrated with existing plant's control system, our intelligent and advanced SCADA solution ensures continuous monitoring, control and management of treatment operations.

Combined with the ability of developing automated workflows, our solution will enhance strategic decision making and have a positive impact on operations, maintenance, process improvement and savings for your wastewater treatment plant/s.



## COMPLETE SCADA SOLUTION

Avanceon's SCADA solution helps supervise the operations of wastewater treatment facilities using field instruments, remote terminal units (RTUs), programmable logic controllers (PLCs), etc. and manages the information generated throughout wastewater treatment processes. Our SCADA solution is feature rich and provide:

### OPEN ARCHITECTURE PLATFORM

Open architecture platform ensures an efficient path to meet highly customer specific adaptation requirements; enabling custom application development and operational independence from specific PLCs and RTUs that are being used.

With the ability to interface with various third-party applications (using various industry protocols e.g. OPC DA, OPC UA etc.), our platform enables seamless integration with applications that are used for asset performance management, maintenance management, data analytics & dashboards, accounting, simulation and optimization.

### SCADA SOFTWARE

SCADA software enables remote site communication and designs powerful Human Machine Interface (HMI) with

flexibility and capabilities that surpass standard SCADA HMIs. HMI provides high quality graphic visualization, real-time situational awareness and alarm management, enabling operators to efficiently manage/control critical plant operations from central location or remote-control room.

### ALARM MANAGEMENT AND OPTIMIZATION

This system notifies operators about abnormal situations that require human intervention and also helps optimize the system to reduce the number of unnecessary alarms as per best practices (ISA 18.2, EEMUA 191 etc.)

### DATA ANALYTICS AND DASHBOARDS

This application makes critical information available in appropriate detail (customized for each user level) in highly

interactive dashboards to track your KPIs. Advanced reporting feature generates standard and customized reports for process monitoring, energy consumption, asset performance, chemical consumption etc.

### REAL-TIME PLANT HISTORIAN

Plant historian gets integrated with site controls to support, capture and sharing of operating data.

### ENERGY MANAGEMENT SYSTEM

EMS ensures constant monitoring of energy consumption in wastewater treatment operations, makes diagnosis for energy optimization and recommends actions to achieve optimum energy efficiency in plant operations

## BENEFITS

### Centralized Operational Control

- Effective monitoring and control of wastewater systems from a single/central location
- Continuous 24 hour, 7 days per week monitoring of treatment operations helps in immediate detection of critical situations/problems for fast intervention and resolution
- Central monitoring and control provide critical data for water flow modeling and energy use optimization, as well as predictive maintenance of field equipment

### Increased Operational Reliability

- Reliable and robust SCADA architecture ensures constant communication from SCADA server to RTUs/PLCs
- Redundant server configuration provides primary and backup monitoring and control with seamless automatic fail-over in case of disaster and ensures high availability

### Reduced Operational and Maintenance Cost

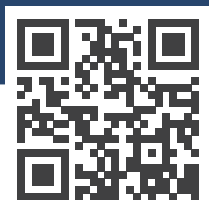
- Centralized SCADA system minimizes resource and maintenance costs by using fewer field staff to monitor field operations and reducing daily maintenance trips
- Optimum deployment of field crews for preventive maintenance and emergency situations
- Reduced training costs due to single/central control instruction
- Reduced energy cost by adopting energy conservation and optimization techniques

### Optimized Return on Investment

- Open SCADA architecture helps protect against control system obsolescence by allows it to operate with a host of standard open protocols supported by multiple hardware and software vendors
- SCADA solution has inherent flexibility to absorb future expansion requirements of plant operations
- Maximum return on your investment by supplying effective control and monitoring to keep plant operation running at optimum performance levels, while keeping costs at minimum

TECHNOLOGY PARTNERS





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