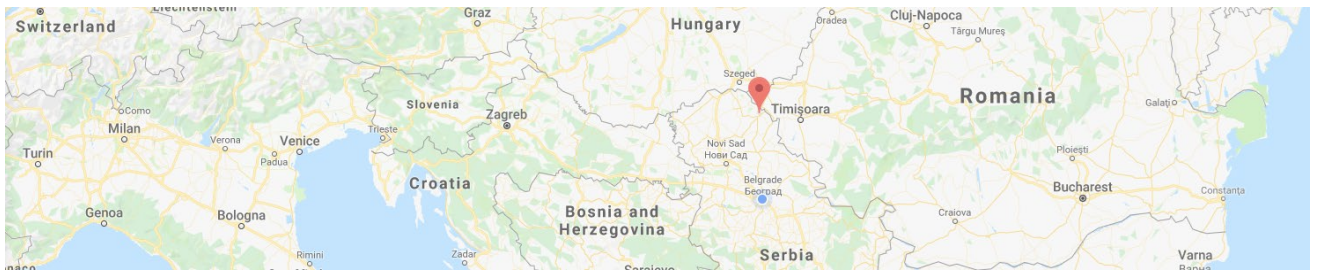


# SCADA System for Kikinda City Water Supply

*Location: Kikinda City (Serbia) and outlying villages*

*Customer: JPK Kikinda (Public utility company of Kikinda Municipality)*

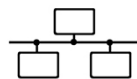


## MAIN OBJECTIVES

- Remote supervision and control of unmanned Water Supply Stations:
  - GSM/GPRS communication with remote locations
  - Local and remote automation
  - Remote control via SCADA station(s) and SMS messaging
- Upgrade of existing system with new functionality:
  - Local and remote measurement of water flowrate and water production totals
  - Remote measurement of consumption of additives used for water purification
  - Extensive logging of relevant values with historical data analysis
  - Custom and specialized reporting and production overview
- Technical and engineering assistance for current and future projects and upgrades
- Implementation of modern equipment, functionalities and industry standards

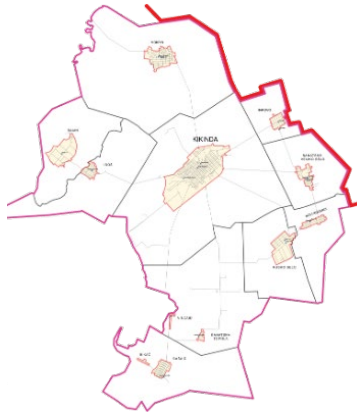


measure the facts



## SCOPE OF WORK

- Eleven (11) remote Water Supply Stations, one central SCADA station (headquarters)
  - Each remote station includes water well, pumps, dosing section for water purification, power supply section with cabinets and frequency drives, multiple instrumentation for measurement fo pressure, water level, water florate and totals, power levels, etc.

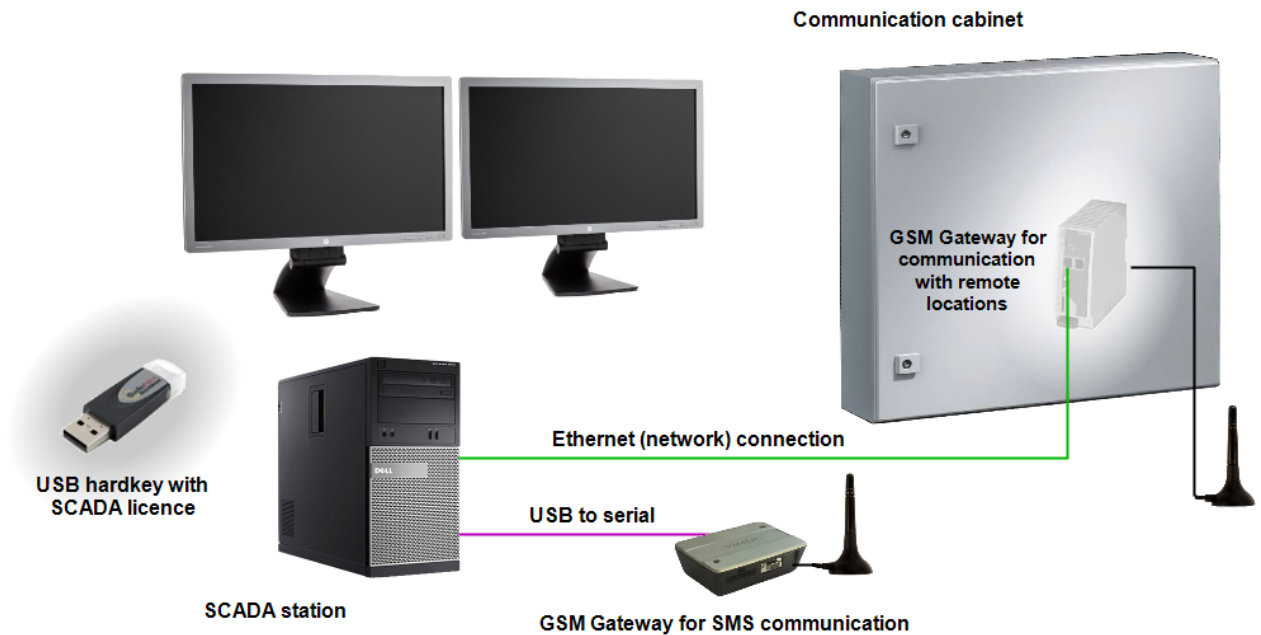


- Remote stations are also equipped with automation and communication cabinets. Local PLC (Siemens 1200) is tasked with data collection and control.) Some regulations and functions are performed by autonomous systems, and others are in control of local PLC, and subsequently SCADA system via remote control.



- GPRS Communication is implemented by Phoenix Contact modems (TCRouter2002T).

- Central location (headquarters) is equipped with communication cabinet and computer station (SCADA). Control center for SMS communication is also at this location.

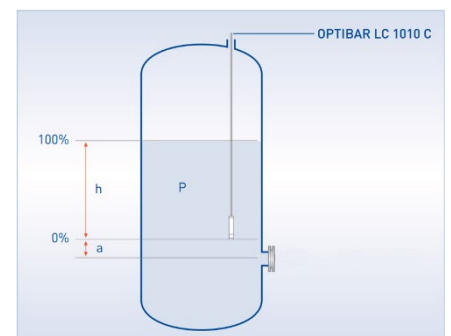


- Ten (10) flowmeters are installed on remote Water Supply Stations. These flowmeters measure current flowrate of water production, as well as total production.

- Flowmeter type is **Krohne Waterflux 3050**, electromagnetic flowmeter for basic water applications

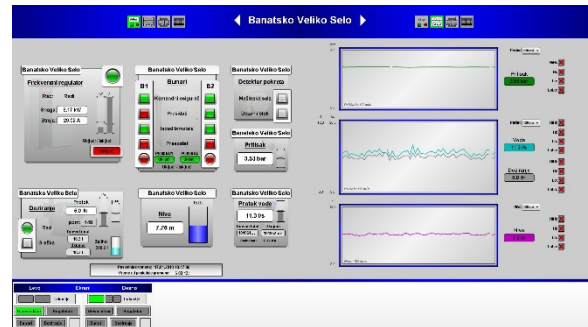
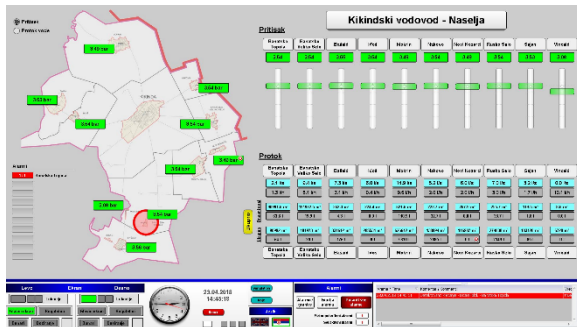


- Ten (10) Water Supply Stations have level measurement, by means of hydrostatic level probes. Probe type is Krohne **Optibar LC 1010C**, a submersible level probe water and wastewater, environmental engineering and OEM applications.

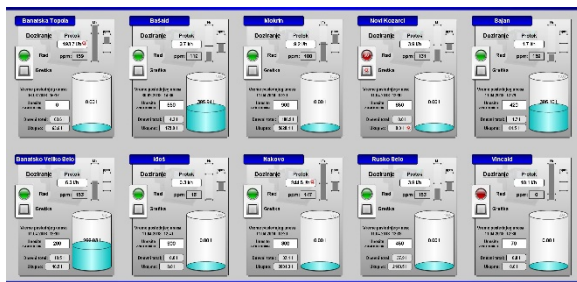


## SCADA SYSTEM

- SCADA is designed to offer control and supervision over remote Water Supply Stations.
  - Realtime monitoring of all locations can be performed from Main Overview Screen, location screens, or several specialised overview screens.

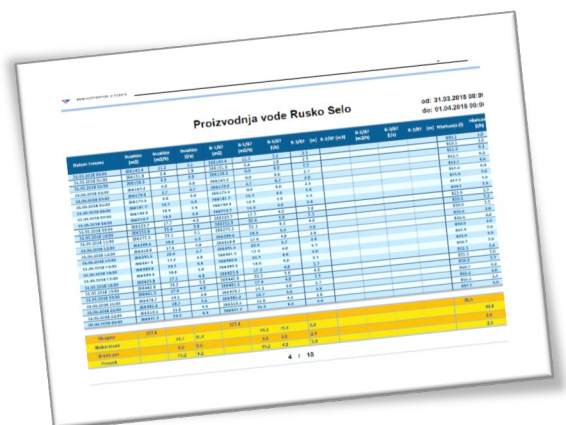
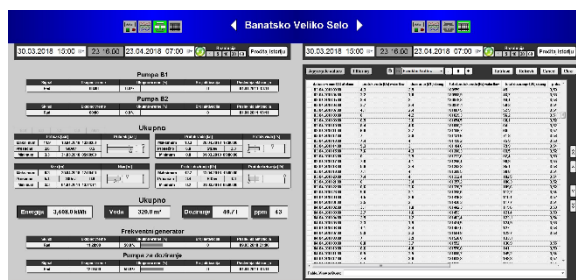


Main Overview screen (left), and single Water Supply Station screen (right)



Overview of all dosing blocks/sections (left), and overview of all pumps and switches (right)

- SCADA also offers historical data analysis with trends and statistics, as well as a lot of options for reporting. This includes automatic and user generated production batch reports, daily, weekly and monthly production and statistical overviews.



Historical review with data tables and statistics (left), and Daily Water Production Overview report (right)