

CASE STUDY RWA SCADA PROJECT

Brief Description / Solution

The project is to provide Riyadh Water Authority (now part of Ministry of Water and Electricity, Riyadh Water O&M Program) with a telemetry metering and automation system for Riyadh water networks and plants.

Considering the possible scope of the project it was decided to execute it over a number of stages. The current first phase of this project comprises the installation of new flow and pressure metering at key points in the network, then to start collecting new and existing important signal parameters such as flow, pressures, level, valve positions and booster pumps status from water distribution network, treatment plants, terminal group and booster stations, and then transferring all these signals, from forty remote sites distributed all over Riyadh city, through a radio network (part of the project) to Main Control Center (M.C.C), where all the data is received , displayed , monitored and analyzed on a dedicated PC based computer systems.

The project consists of the following sections:

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|-----------------------------|------------------------|
| 1. Civil Section. | 2. Electrical Section. |
| 3. Instrumentation Section. | 4. Telemetry Section. |
| 5. Radio Section. | 6. Computer Section. |

Customer

Riyadh Water Authority (now under Ministry of Water and Electricity , Riyadh Water O&M Program.

Vendors

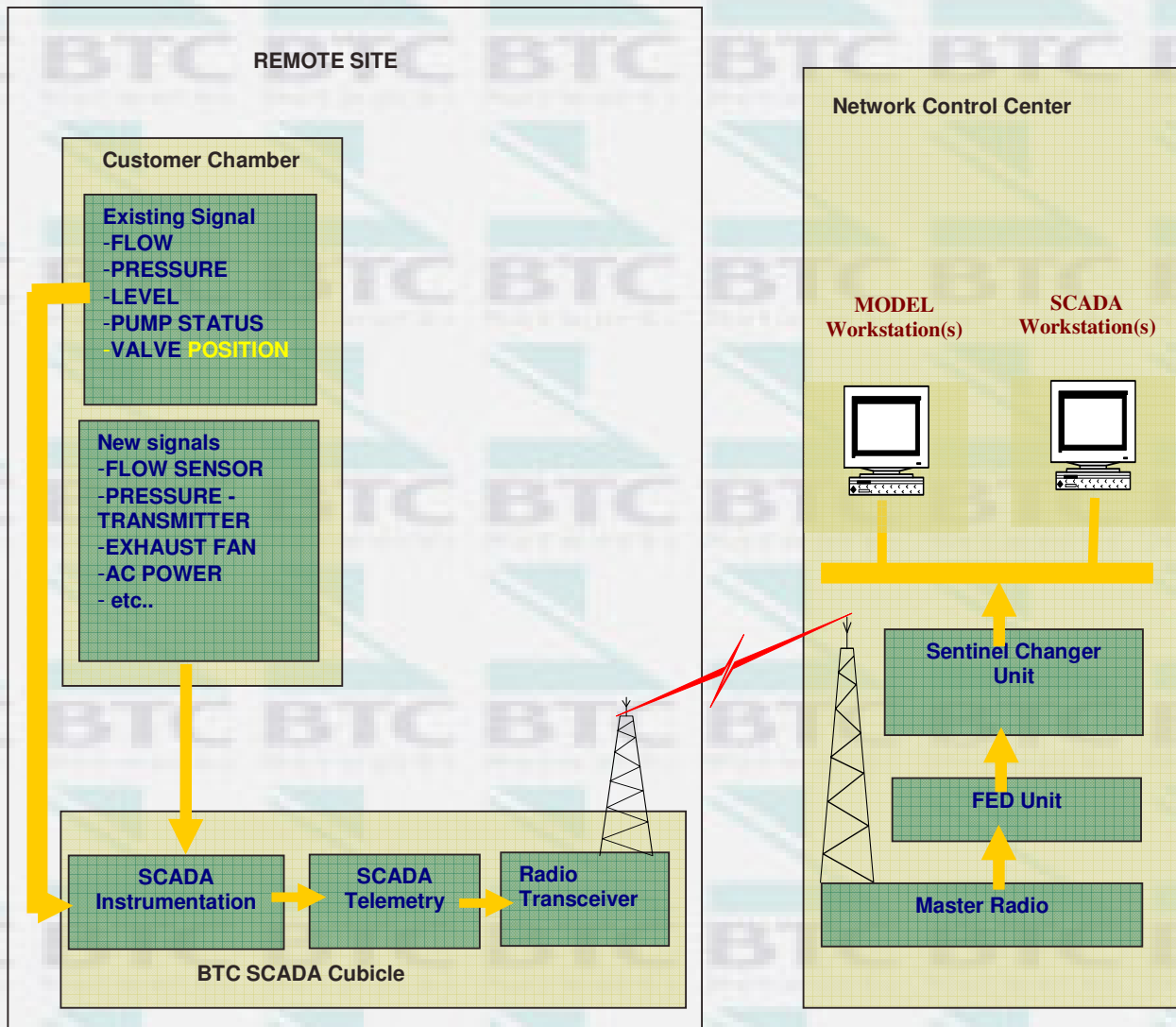
1. Serck Controls for Telemetry and Computer equipment.
2. ABB for Flow and Pressure meters.
3. SIL for panel instruments.
4. PACSCOM for Radios.
5. 7-Technolgies for network Modeling software

What is the advantage to the customer

1. Operating expenditure savings via reduced leakage activity
2. Capital expenditure savings by ensuring investment is prioritized and undertaken in an optimum manner
3. Improved service to customers by reducing interruptions to supply and ensuring low pressures are minimized

4. Increased flexibility of supply
5. Savings in operating expenditure due to fewer water quality problems
6. Ability to show due diligence via contingency planning
7. Operating expenditure savings by reducing water quality complaints by customers
8. Capital expenditure savings by having to repair fewer mains bursts
9. Ability to show due diligence when an incident occurs

Block Diagram



SCADA SYSTEM BLOCK DIAGRAM