



Wastewater Treatment on Virtual Private Network

SUMMARY

Company

Århus Kommune, Miljøkontoret, Denmark

Application

Wastewater Treatment on Virtual Private Network

Solutions

- Process Supervision
- Process control
- Data Acquisition
- Information system

Products

- iFIX
- iHistorian
- InfoAgent
- Dus III

Benefits

- Easy maintenance and operation
- Easy access to data and information

The municipality of Aarhus is handling wastewater produced by more than 800.000 people. 14 Purification Plants, 102 Pumpstations and 8 Emergency outlets are needed to do so. Since 1988, the municipality has used FIX DMACS, but in order to meet the need for more openness and exceed hardware limitations, the system has been upgraded to iFIX, iHistorian has been added and a switch from WAN to VPN network were made.

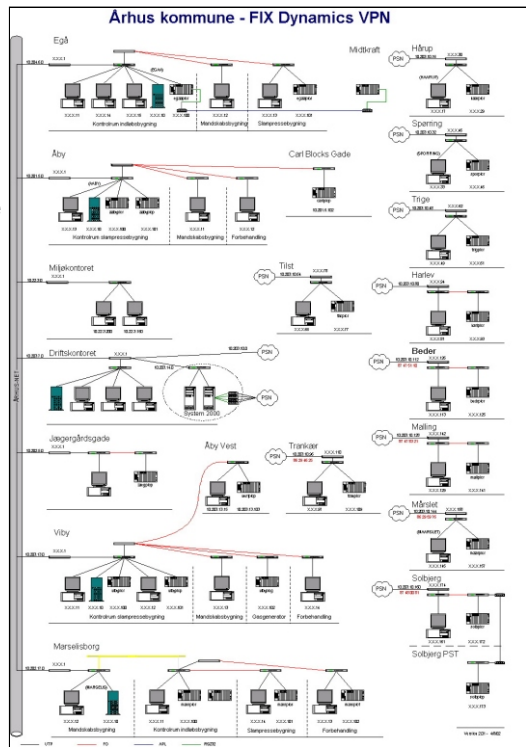
VPN Network

New environmental requirements and wishes to exploit programmable technology are facts that were decisive for the extensive upgrade and enhancement of the system. The system consists of 14 HMI iFIX stations, 26 iFIX iClients and 14 iHistorian Servers.

All units are connected to the Aarhus Net. The Aarhus Net is a VPN network, that connects all offices, institutions, schools and carecenters in the municipality of Aarhus. This gives a very large flexibility in terms of maintenance monitoring. With a PC equipped with a modem connection, it is possible to do almost any adjustments to the system. It also enables maintenance staff to go online and make program changes, if necessary.

Easy access to data

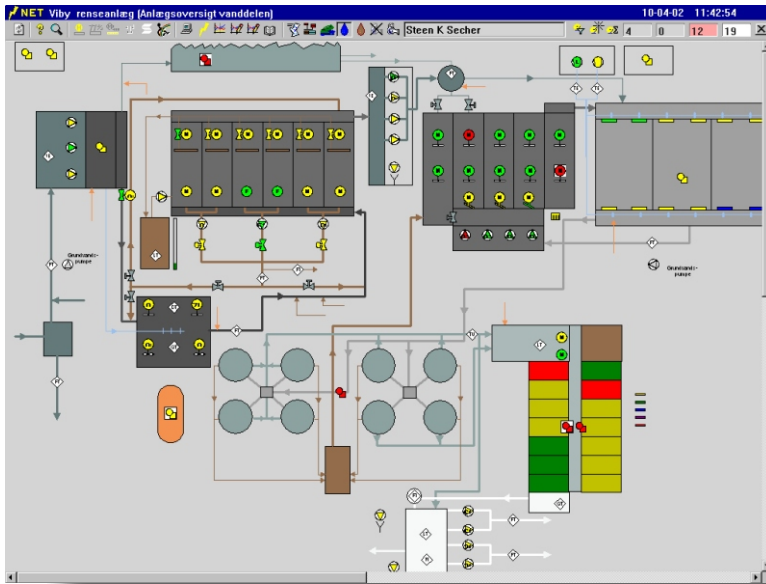
Furthermore, data, from labresults and process data, are stored in iHistorian and in a Microsoft SQL-Server. All data are available for keypersonnel via a Microsoft Information Server and a browser on their personal PC. Data from both the pumpstations and the purification plants can be visualized in reports with the iHistorian Excel Add-in,



displayed in trending charts in iFIX or via InfoAgent. From a browser users can configure their own displays with the information necessary to them, and have access to this information at any time.

Ensured easy maintenance

The system is configured using standards to ensure easy maintenance and operation. Every operation station is starting up with an



overall picture of the municipality of Aarhus, from here it is possible to click into any plant, and have a graphical overview of the entire plant.

Parameter pictures can be opened in order to give the operator possibility to alter settings for the automatic process. All inputs from the operator, are tested with the Security settings, to ensure that the user has the proper rights to make the changes.

Integrating Maintenance system

The Municipality of Aarhus also uses the Maintenance- and informationsystem Dus III. Most of the equipment in the purification plants and the pumpstations are registered in Dus III and have all necessary data attached.

The next step is to implement the DUSiFIX. Hereby the data in the information-system such as faultregistrations, workorders etc. can be accessed directly through iFix. A right click on the piece of equipment in question on the iFix

to the desired information. This means, that through the SCADA system, will not only lab- and processdata be available, but also maintenance- and equipmentdata.

Added value

Although the system includes all purification plants in Aarhus and covers a large area geographically, the performance and speed of the system is fully satisfactory. Upgrading to iFIX and switching to the VPN Network has added a lot of flexibility and accessibility to the system and has facilitated the maintenance.

