Application Note
IPR100

ELECTRIC UTILITY EXTENDS RANGE OF SCADA MONITORING & CONTROL USING THE IPR100

Customer Profile

- Electricity Utility with over 1.7 million customers over 46 counties

Application

- Remote Locations connected via Radio and IP for extended SCADA Monitoring & Control

Business Benefits

- Improved Power Grid Reliability
- No increase in running costs
- Single box solution
- Central setup and adjustment of remote IP to radio interface
- Diagnostic Data available

Products Used

- IPR100

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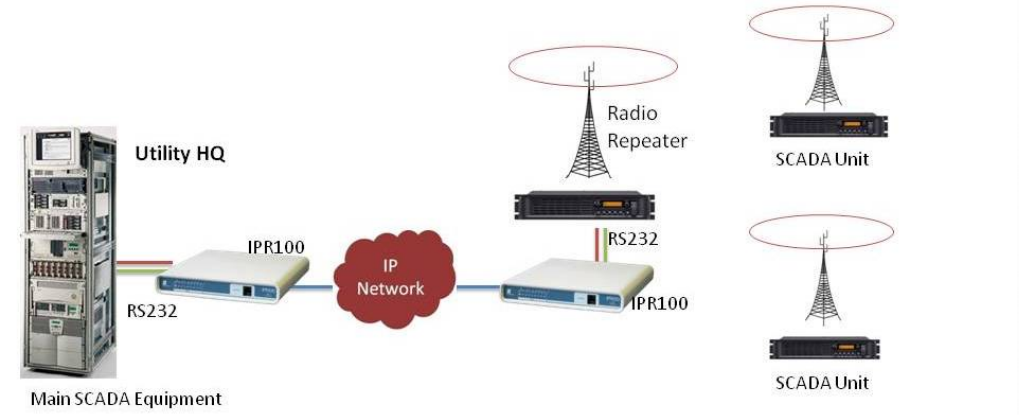
➢ Overview

An electrical utility with over 1.7 million individuals and businesses in 46 counties relying on their distribution systems for electric power is supported by a SCADA monitored and controlled network. The existing microwave and WAN networks did not extend to all locations. The IPR100 data port was used to connect these remote locations via radio thereby improving maintenance support, network reliability and productivity.



➢ The Challenge

The data from the remote sites had to be transported via RS232 format via radio, then via an IP network and eventually back to RS232. The challenge was to find a product that would support these different formats and provide the appropriate flow control to interface between IP and radio networks.

➢ Solution

The IPR100 provided an ideal solution to transport the RS232 data and provide the flexibility to combine the different communication mediums. The adaptor not only has data transport capabilities but also supports voice communications for future expansion. Separate IP addresses are provided for both data and voice paths.

When setting up the data path PTT has to be established before data can be sent via the RF signal. Both inter-character timeout and message length could be varied to overcome the delay problems anticipated in the communication link. The changes required to fine tune the link could be made over the IP network via the web browser built into the IPR100.

➢ Conclusion

The IPR100 proved a reliable interface to transport data and gave technicians the flexibility to setup the parameters to match the different communication mediums. Ongoing costs are low as the existing IP and radio networks were utilized. Power Grid network reliability was improved with the extended monitoring of remote points. The opportunity to reliably extend voice traffic to remote locations was an added bonus.