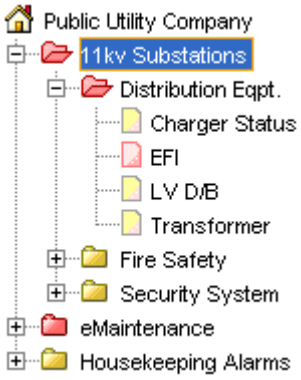
iSCADA for the Public Utilities Sector

Public utilities service providers often own, manage and maintain very large engineering infrastructure systems. It is the dream of public utilities operators to be able to know immediately or have prompt information on the status of each and every unit within their systems so that they are able to deliver the finest service to their customers.

The limiting factor to achieving this dream however, is the astronomical cost involved in deploying an expert system such as a conventional SCADA system. Budget constraints often result in the monitoring of only the higher end, bigger and upstream subsystems, leaving the smaller downstream subsystems unmonitored.

Power



For power utility companies, the generation and transmission facilities are typically managed by conventional SCADA systems. Monitoring of the distribution network is often limited to the 33/11kV intakes, while the 11kV substation network remained largely unmonitored. Since the chain is as strong as its weakest link, the unmonitored 11kV substations, as the final link to the consumers, determine the strength and reliability of the entire distribution system.

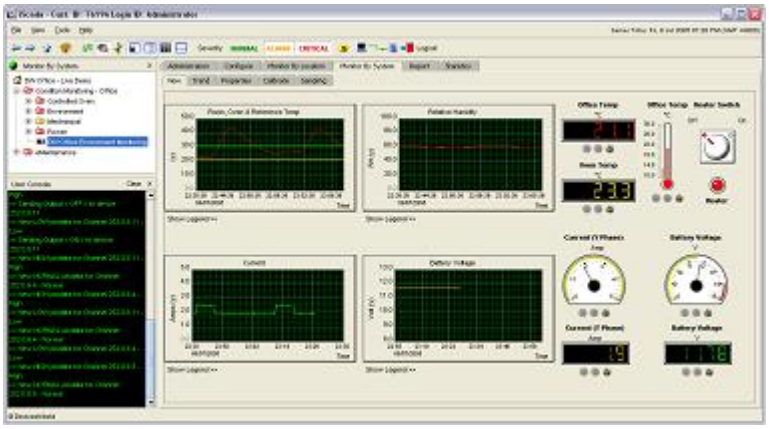
With the advent of Internet SCADA technologies, this weakest link can be centrally monitored and managed in a very efficient and cost effective manner. The iSCADA solution offers the benefits of a conventional SCADA without the associated high cost of communication infrastructure, software, MTUs and RTUs.

Event	Location	Building	Floor	Actions	Date & Time
EFI Tripped	Station 6543/BT	Bell Tower	(00) Ground Floor		Thu, 4 Nov 2004 09:43:16 AM
EFI Normal	SS21-City Hall St	City Hall	(00) Ground Floor	None	Mon, 17 Nov 2003 02:18:41 PM

Telecommunications

While the telecommunications equipment housed within Radio Base Stations or exchange buildings are centrally monitored by network engineers at their respective Network Operation Centers, it is critical that the supporting mechanical and electrical infrastructure of the stations (Security, Fire Protection, Air Conditioning, UPS and Backup Generator Sets) are centrally monitored by a specialized team of maintenance personnel.

Although it is possible for the monitoring of M&E systems to ride on the telco equipment monitoring infrastructure, it if often desirable and more efficient for the infrastructure maintenance team to utilize a separate monitoring system. This is because the network engineers and maintenance team often operate under rather different environments.



An Internet-based data acquisition like iSCADA provides an ideal solution for such housekeeping tasks as the data is not “locked” in the confines of a control room. It provides global access to various levels of management, contractors, and site engineers and technicians.