

Monitor plant performance remotely via Internet

Pulp & Paper
Case Study

ABB's Remote Diagnostics Service provides real-time visibility into equipment performance.

One of India's largest paper makers – the Hindustan Paper Corporation – operates two paper mills in the country's remote northeastern region. Both mills are relatively isolated as there is little if any public transportation nearby, which makes it difficult and expensive to bring in service engineers from companies like ABB. But thanks to ABB's Remote Diagnostic Service (RDS) the cost and time required to commission a new ABB System 800xA control system and get the plant up and running properly has been reduced significantly.

Benefits of ABB Remote Diagnostic Service:

- Real-time support
- Reduced maintenance cost
- Optimized asset performance
- Fast and automated information retrieval
- Condition reporting enhancements



Controlling massive paper machines

System 800xA controls each plant's assets – in this case massive paper machines that run the length of a football field. The 800xA system monitors each machine's key components and processes to ensure it remains within carefully calibrated operating parameters. If there's a problem, System 800xA sounds an alarm.

Connecting to global knowledge base

The Remote Diagnostics Service was installed on the System 800xA client that serves also as a remote desktop server application for the mill's intranet system. The Remote Diagnostics Service connection serves as the gateway to allow ABB engineers in various global locations to download operating data and quickly analyze and resolve problems.

Resolving problems in real-time

For example, commissioning any new control system—especially one as sophisticated as the 800xA—is typically a two-step process. Following the start-up phase, customers often want to fine

tune performance by reconfiguring various system and process settings. ABB performance engineers usually have to return to the plant to accomplish this.

Features

- 24/7 technical support
- Remote access-on-demand
- Secure broadband connection
- E-mail/Pager alerts
- Predictive and preventative maintenance
- Access to wide range of ABB technical expertise

Saving time and travel costs

ABB's Remote Diagnostics Service allowed Hindustan to eliminate the need for a second visit. ABB engineers could access the control system remotely, in real time and—looking at the same data screens as the customer—work with plant engineers to implement the necessary changes.

Hindustan did not have to wait for an ABB engineer to visit the site. New settings were identified and implemented within a matter of days, rather than weeks.

ABB
SERVICES



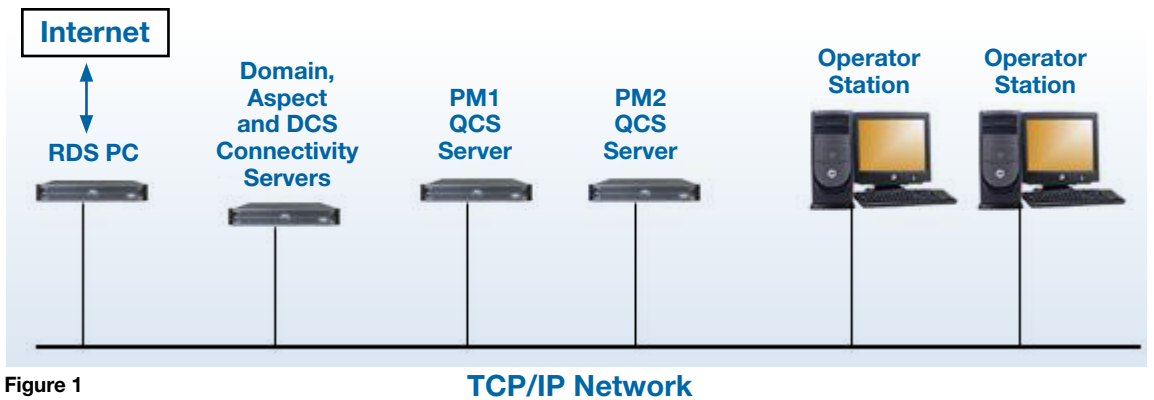


Figure 1

TCP/IP Network

Monitoring asset performance

Besides remote troubleshooting and system configuration, the Remote Diagnostics Service is also utilized to remotely monitor the process and machine performance after start-up as well as control tuning and performance improvements. Through the OPC data collection package of the 800xA system, the process data is collected and analyzed remotely using the ABB Loop Performance Manager. In Figure 1, the access path of the Remote Diagnostics Service is shown. All PCs and servers on the TCP/IP network can be accessed from a remote desktop using a Windows XP operating system.

Control tuning and process performance analysis

Remote control loop tuning and machine stability monitoring is also possible using Remote Diagnostics Service. Using the OPC data acquisition, remote tuning of loops is performed with simple bump tests, which are then sent for analysis using the remote connection. Overnight process data collection is used to measure equipment stability, runability and performance.

Summary

ABB's Remote Diagnostics Service is not only useful during start-up, but also after the project execution as it significantly reduces the response time to troubleshoot system problems. Cost savings are achieved by reducing the travel time and expenses of an on-site engineer. Having continuous monitoring of machine performance after the initial start-up ensures the smooth operation of plant equipment – an important benefit for customers like Hindustan Paper.



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