

Remote Support & Monitoring Services



Support^{IT} Remote Services are an enhanced form of Call Center support provided by ABB's Pulp & Paper Drives Specialist Network. Remote services are based on top quality data connection concepts, remote connection services and drive system tools.

Today's top performing machinery requires efficient support access by the best specialists available. Modern equipment enables frequent changes to be made in order to improve quality or output e.g. with new settings. Dynamic process changes with increasingly complex equipment often need special attention. Sometimes random problems will initiate an acute need for a highly specialized person to investigate the root causes on site.

Telecommunication technologies have offered various remote communication solutions over the past decades. Problems arise, however, when a high level of data transfer capacity and safety is required. ABB's service offering is based on best-of-class connectivity products, vendors and services.

Data Connection Models

Two main methods of data communication are used to establish the connection between the mill and ABB.

The traditional point-to-point modem call connection can be established on an as-needed basis. This is a method often used when IS infrastructures do not support fixed data communication, or if the drive system PCs are isolated from office networks.

Fixed data communication is the preferred alternative when fast data transfer is required, as is usually the case when working online with system monitoring. Fast Internet access is usually built into most office infrastructures. Data security for Internet connections are supported by different vendors and technologies.

Services with Internet connectivity between the mill and ABB Pulp & Paper support Virtual Private Network (VPN) and standard firewall technologies. A VPN hardware client or router at the customer mill will allow access only to the ABB PC stations.

Pulp & Paper Drives Remote Services

Internet remote connection can be established on an as-needed basis for control services, e.g. as an extension of the Call Center service. The connection can also be established as a constant connection for monitoring services. In this case, the control services are prevented without the mill's specific consent. The main control of the line connection is always at the mill.

Remote Control Services

In addition to ABB's 24-hour Support Services, telephone and e-mail support, the remote access to the drive control tools provides the possibility to perform:

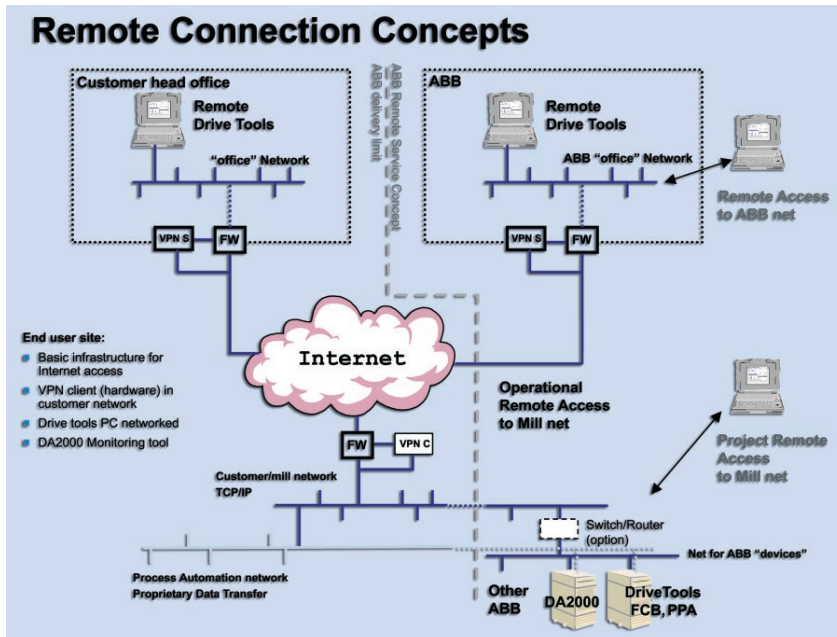
- Evaluation of the log files
- Drive system parameter verification
- Parameter changes
- On-line measurements in the same way as directly from the maintenance PC at the mill
- Application software changes
- System software upgrades whenever a suitable machine stop is available
- Remote guidance
- Written instructions sent to the maintenance PC

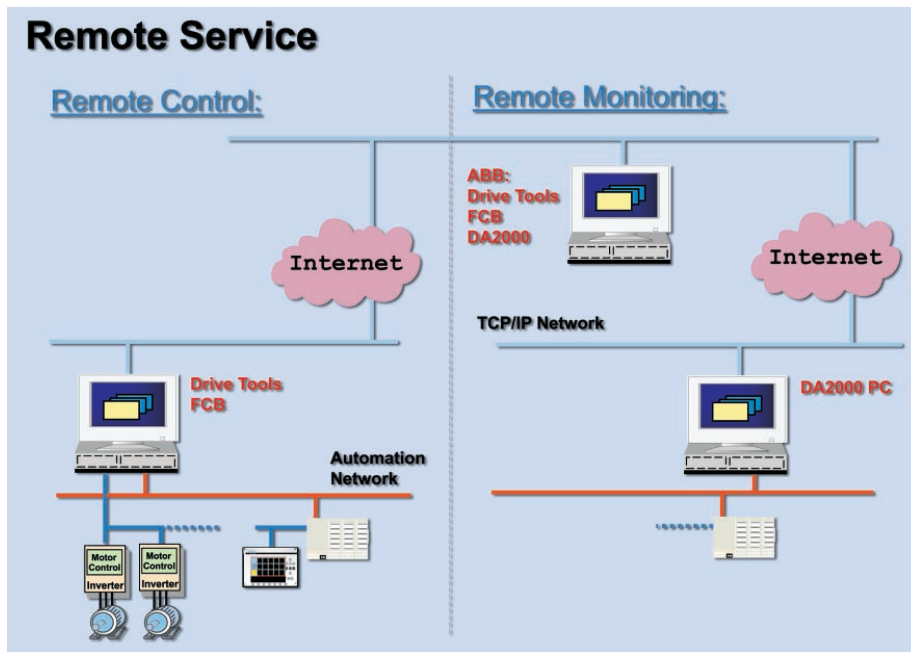
These services provide basic information for control upgrades or fault finding, and errors can be detected and corrected.

Remote Monitoring Services

Regular status monitoring of the drive system is an enhanced form of ABB's remote services. With appropriate monitoring tools the ABB specialists can analyze data records without using the actual control tools. Using a specific monitoring setup also ensures operational safety and the maintenance of local control for the process.

A fixed line connection to the target area is necessary in order to execute reliable data scanning on a regular basis. Manual line connectivity is possible, but it always requires mill personnel on-site.





The monitoring results and expert analysis summaries are reported to the customer. These summaries include notifications and recommendations for immediate actions and process improvements based on the data scans.

Pulp & Paper Drives Control Tools

Drive control tools are always included in the main delivery. The System Software tool is used to configure the overall system. Function blocks and signal attributes can be adjusted or created.

Individual motor control features can be changed with the drive parametering tool.

Monitoring and Analysis Tools

Regular monitoring is performed with ABB's Advise^{IT} Drive System Analyzer, DA2000. The tool is installed in a stand-alone PC station. The workstation is connected to the drive controller. The DA2000 operates on a unique RAM database, allowing real-time analysis and indications based on long-term signal history.

Pulp & Paper Drives Specialists Network

ABB's Pulp & Paper Drives Network consists of about 300 Paper Machine Drive experts with sales, engineering, project management and service engineering experience around the world.

The knowledge of the Remote Application Services is available from Pulp & Paper Drives 24 hours a day, throughout the year.

These specialists include:

- Commissioning engineers
- Application engineers
- Design engineers.

The Remote Control and Monitoring Services are supported by the ABB Call Center process.

Customers can rely on these services to provide the best support in the most urgent and demanding situations.

ABB's Technical Support for Pulp & Paper

A range of different types of technical support is available through the local service:

- Technical requests
- Consultation
- Field service, commissioning
- SW update support
- Drives warranty support
- Technical analyses, repair services, calibration
- Service contracts

A number of Asset Optimization Services are also available. These service programs are targeted for better availability, efficiency and quality optimization.



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