COM 500
A Gateway for remote control of your substations

Improve the performance of your utility
COM 500 provides an open communication interface between the substation and the Network Control Center. This communication server solution features extensive communication support with a wide range of protocol alternatives. It combines substation-level data transmitting through different media and transfers it smoothly to the control room through a communication line. Based on MicroSCADA technology, COM 500 also supports various communication media including fiber optics, phone lines and line carriers (Power Line Carrier and Distributed Line Carrier).

Open architecture equals intelligent investment
Local communication is carried out swiftly and reliably through standard communication buses like LON, SPA and IEC 103, which enable open communications between the various process units in your substation.

A range of protocols connects distributed or centralized process units, such as protection relays and RTUs. As a result, COM 500 is also applicable to retrofit installations with partial RTU upgrades.

Ideal for both new installations and retrofits
The COM 500 communication server can be directly integrated with your network control system server. In other words, it offers cost-effective access for data transfer from the sub-station to the control center without the need for a separate control system. Monitoring and control operations can easily be added in the future by installing software applications in the system.
The power to monitor and control

COM 500 speeds the transfer of measurement data, event information, fault situation information, setting values, status information as well as disturbance recorder information.

COM 500 also transfers a set of valuable control tasks comprising open/close messages to control units, device settings and a remote reset.

ABB – open for all your needs

Developed in accordance with industry standards, MicroSCADA technology provides you with a solution that is characterized by maximum flexibility. As scalable as it is open, this system not only offers you the opportunity for constant growth, it can also be adapted to correspond to different process sizes or levels of complexity.

The solution is based on commercially available hardware and software, ensuring its openness to third-party applications. What is more, the system’s user-friendly and easy-to-use engineering tools reduce the need for advanced training, and decrease operation and commissioning times.

COM 500 Gateway Technology summary:

**Functions and features**

Support for standard and de facto standard protocols

- COM 500 communication is capable of handling up to 32 communication lines simultaneously and provides communication gateway functions for mapping signals between process devices and up to four upper-level systems
- Slave mode: IEC 60870-5-101, IEC 60870-5-104, DNP 3.0, Modbus slave, CDC-II, CPI, RP-570, Modbus TCP/IP, RP571 slave, F4F (Westinghouse) slave
- Supports direct time synchronization (GPS or Master Clock system), providing synchronization of the connected Intelligent Electronic Devices
- Optional configurations for complete availability, incorporating redundant communication lines and gateway solutions
- Remote connection via LAN or WAN over the TCP/IP protocol
- Dial-up connectivity, enabling remote access to all substation IEDs from anywhere in the utility
- Stand-alone or integrated as part of the substation automation system, and easy to expand and upgrade
- Complete data integration and signal coordination with real-time database
- Self-supervision with advanced diagnostic functions for complete information
- Data concentrator and signal grouping functionality
- Advanced user and control authorization
- A solid foundation for your future investment based on ABB’s Industrial IT solutions