Smarten up your assets
Enhanced substation automation, control and protection for continuous and secure power delivery

Upgrade
Migrate
Retrofit
Extend
Retain
Work your plants harder
For utilities and industry, enhancing or upgrading existing protection and control schemes with state-of-the-art substation automation solutions is an important aspect in the overall strategy for process optimization.

ABB offers sustainable migration strategies for step-wise as well as one-stop retrofit and upgrade projects. Based on comprehensive domain experience and elaborated in close cooperation with customers, these ensure that both operational and economical needs are optimally met. Our proficient project management warrants efficient implementation of future-proof and fully factory-tested solutions with minimum service interruption. Full system integration capabilities allow us to maximize your benefits from IEC 61850 in substation automation, control and protection also in multi-vendor and multi-generation systems, when third-party and/or existing components shall be integrated with new ones.

Smarten up your assets
With ABB’s portfolio of IEC 61850 substation automation, control and protection solutions and vast refurbishment experience, you can take many smart steps:

Upgrade older protection and control systems with state-of-the-art IEDs* providing enhanced functionality and connecting to existing hardware interfaces. The IEDs talk IEC 61850 and pave the way for communication with station and/or higher level systems, which can be added or upgraded at any stage: Your entry ticket to the “smart grid”.

Migrate your secondary systems to IEC 61850 substation automation, protection and control systems with fully factory-tested solutions bay-by-bay with almost no service interruption. Future-proof migration strategies consider varying life cycles of components to suit operational and economic needs.

Retrofit substation automation, protection and control systems in one step with future-proof and ready-to-use solutions within a short implementation and replacement time. A sustainable retrofit strategy ensures smooth transition to new technologies and provides you with the system openness needed for hardware and functional extension as well as connectivity to other systems within the “smart grid” or simply within your own enterprise.

Retain existing components and redundancy philosophies and get fully integrated multi-vendor and/or multi-generation systems. Highest possible system integration and unique quality assurance by ABB’s in-house System Verification Center (SVC) ensures you of an optimized solution with a maximum of functionality and performance.

Extend your new, open systems and reuse our engineering at any time to grow with the infrastructure and satisfy tomorrow’s requirements.

* Intelligent Electronic Devices (IEDs)
What can we do for you?
Retrofit service portfolio

- Consulting to arrive at the optimal specification for a cost-effective solution considering all operational, maintenance and asset management requirements.
- Site survey, reports and studies to ensure proper interfacing of existing and new equipment, selected to provide adequate functionality and flexibility.
- Project management to warrant most efficient and timely project implementation and coordination with all parties involved.
- Engineering and design to ensure best possible system integration, fully exploiting the capabilities of the used devices and to provide best-in-class engineering for reuse and extension.
- Manufacturing and testing to provide fully factory-tested solutions that are future-proof and ready for implementation.
- Installation and commissioning for trouble-free interfacing of the new solutions with the existing environment and timely energization of all feeders.
- Training and education to ensure your staff makes optimal usage of the many features and benefits of the new devices and systems.

... use our comprehensive services to your advantage

What can we supply to you?
Solution portfolio

- Products: Station HMI and gateways, protection and control IEDs as well as interfaces to the process and legacy products
- Applications: Comprehensive SA functionality for today’s and tomorrow’s requirements
- Powerful tools environment ensuring efficient testing, commissioning and maintenance
- Bay protection solutions: The BPS 600 Series offers you a smart way of realizing reliable protection schemes for all applications in new and retrofit substations.
- Bay control solutions: The BCS 600 Series ensures maximum operator support and safety in the local control and supervision of AIS as well as GIS substations.
- Substation Automation Solutions: The SAS 600 Series of modular station level solutions is designed for maximum safety, efficiency and availability in local as well as remote control and monitoring of your substation.

... get the most from IEC 61850 substation automation, control and protection
Transform your assets into your competitive edge through upgrade, retrofit and migration to IEC 61850 substation automation, control and protection

Your benefits at a glance:

- Cost reductions in operation, maintenance and service
- Higher productivity and availability of assets
- Prolonged equipment service life
- Improved support for operators, maintenance and protection engineers
- Reduced outage times
- Enhanced service capabilities
- Sustainable investments into future-proof and interoperable systems
- System openness for hardware and functional extensions
- Enhanced asset life cycle and data management
- Reduced life cycle costs
- Enterprise-wide data integration for efficient power system management, i.e. "smart grid"

ABB ensures the complete success of the upgrade, retrofit or migration in close cooperation with the customer:

- Short implementation and replacement times
- Minimum service interruptions
- Scalable scope from component delivery to turnkey implementation
- Tailored division of work
- Easy access to full scope of professional services from consulting to commissioning, worldwide
- Excellent training in all aspects of power systems as well as IEC 61850 substation automation and protection at ABB’s or customer’s premises

Our proven system integration capabilities and powerful tools environment combined with a complete range of substation-proof bay and station level equipment and applications allow us to maximize your benefits from IEC 61850. This equally applies to new installations and refurbishments, multi-vendor and multi-generation systems, when third party or existing components shall be integrated with new ones.

What’s best: We warrant full system openness for hardware and functional extensions – with full reuse of the engineering i.e. IEC 61850 Substation Configuration Description (SCD) file, creating a sustainable investment today and in the future.