## Support and Remote Services

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>SupportLine Basic</strong></td>
<td>ABB technical telephone support, SupportLine Basic, includes two telephone contact cases (maximum one hour of telephone support time) per year. Includes a 4-hour response time commitment.</td>
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<td><strong>SupportLine</strong></td>
<td>ABB technical telephone support is available 24-hours a day. Each case is carefully tracked through resolution. Our global support network is available if escalation is required. A SupportLine subscription provides a cost-effective solution and elevated call priority with response time commitment based on subscription type. Three Service Levels: <strong>SupportLine Bronze</strong> (10 Support hours), <strong>SupportLine Silver</strong> (20 Support hours), <strong>SupportLine Gold</strong> (35 Support hours).</td>
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<tr>
<td><strong>SolutionsBank Basic</strong></td>
<td>Subscription access to a sub-set of ABB SolutionsBank web-based technical product information, specifications and alerts. Visit <a href="http://SolutionsBank.abb.com">http://SolutionsBank.abb.com</a> for your complimentary subscription.</td>
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<tr>
<td><strong>SolutionsBank</strong></td>
<td>Web-based, self-service technical support for ABB technology via the Internet. Obtain technical information, auto-notification of information relevant to your installed ABB equipment, SupportLine case tracking, software revision downloads, up-to-date trouble-shooting guides, and more. For subscription details visit <a href="http://SolutionsBank.abb.com">http://SolutionsBank.abb.com</a>.</td>
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</table>
| **Remote Diagnostics Services (RDS)** (includes SupportLine Gold) | ABB process control system specialists, with access to historical and real-time data, provide site- and system-specific support. A secure, high-speed remote connection between your system and ABB experts significantly improves diagnosis and response time for on-demand and scheduled maintenance activities. For additional information visit [www.abb.com/remotediagnostics](http://www.abb.com/remotediagnostics). Three Service Levels:  
  - **RDS Troubleshooting** – On-demand support connectivity to assist in diagnosing system problems via a secure, high-speed remote connection. Includes telephone technical support.  
  - **RDS Periodic Maintenance** – Scheduled quarterly remote collection and analysis of control system data for evaluation of system asset health. Includes telephone technical support and Remote Troubleshooting.  
  - **RDS Continuous Monitoring** – Continuous remote monitoring of control system assets provides alerts to system issues before they become a problem. Real-time notifications are automatically generated and sent to ABB’s SupportLine team for diagnosis and resolution. Includes telephone technical support, Remote Troubleshooting services and Periodic Maintenance. |

### Emergency On-Site Response

Support response time is guaranteed based on your service requirement. Check with your service representative for availability in your area.

## Maintenance and Field Service

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<td><strong>Requirements Assessment</strong></td>
<td>The annual Requirements Assessment is part of the service needs-discovery process. Experienced ABB personnel discuss business objectives, asset maintenance requirements, and maintenance goals to ensure that changes in business strategy or maintenance requirements are integrated into the service maintenance program.</td>
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<tr>
<td><strong>Demand Service</strong></td>
<td>Knowledgeable and experienced ABB field engineers are supported by ABB’s global systems, tools and specialists to provide service solutions for MOD 300 and Advant MOD 300 specific preventive and corrective maintenance requirements. Scheduling specific preventive and corrective services in advance enables us to provide the best qualified service personnel to satisfy the requirement. A commitment for a specific number of maintenance hours within an APA agreement provides the opportunity for reduced cost, based on hours needed.</td>
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**ABB Process Control Systems Services**

MOD 300 and Advant with MOD 300

Services for the MOD 300 and Advant with MOD 300 process control systems.

Services for MOD 300 and Advant MOD 300 process control systems. These services can be purchased stand-alone or bundled with other offerings. Our Assured Performance AgreementSM (APA) service contract program offers cost-effective service bundles and complimentary service solutions to align with your specific service requirements.
Improves system performance and efficiency by identifying system snarls through analysis of hardware, software, Ethernet/control system communications, and existing maintenance program effectiveness. Recommendations are provided based on findings. Includes system “cross talk” analysis.

Network Service
Provides a complete network evaluation and upgrade. Network service specialists pinpoint sources of sluggish performance and optimize networks to minimize interruptions, improve data traffic flow, productivity and security.

Software Management Services
Provides assistance with new software and/or upgrade release implementation. Concordance checks between running configurations and off-line files are performed to assure that reliable back-ups are available. Computer operating system and software disaster recovery back-ups are also maintained.

Training Services

AVIBank
An AVIBank (ABB Video Instruction Bank) subscription offers access to the ABB library of audio-visual instructions. These cover various topics. For example: “Operate IT > MOD Importer. Choosing the correct options makes it easy to visually determine what values have already been imported.” (AVIBank entries are limited for MOD 300.) Visit http://SolutionsBank.abb.com for your complimentary subscription.

Gap Analysis
ABB University professionals interview maintenance supervisors to identify required skill sets and knowledge gaps for each employee. A documented analysis provides training availability and recommendations.

Coaching/Refresher Training
ABB University customized competence-building programs are designed to help on-site personnel to maintain efficiency in ABB equipment configuration, operation and maintenance. Delivered at plant site.

In-Center Courses

– B405 Advant OCS System Engineering
This course teaches students the skills required to configure the basic control and display structure of Advant OCS with MOD 300 Software. This training is targeted to a Control or System Engineer responsible for product configuration of Advant OCS with MOD 300 Software.

– B425 Configuring the MOD 300 Database Using Windows 2000
This course teaches students the base knowledge and skills required to configure and maintain the control database of an Advant OCS with MOD 300 Software. Emphasis is placed on using the Microsoft Windows 2000 platform. This course also prepares the students to attend the T675 Configuring Operate IT Process Portal B1 with MOD 300 Connect course.

– T324 System 800xA for MOD 300 Configuration
This course teaches installation, configuration and maintenance of the Extended Automation System 800xA for MOD 300. This training is targeted to system and application engineers, commissioning and maintenance personnel, service engineers and system integrators.

– BS15 Taylor Control Language Using Advant OCS
This course teaches the skills required to write Taylor Control Language (TCL) sequences using fundamental and advanced language features. Although this course is written for users of Advant OCS with MOD 300 software, it also applies to the traditional MOD 300 System.

Parts and Repair Services

BusinessOnline
Complimentary*
Subscription to web-based parts and repair services. Secure Internet tools provide access to price, availability, order acknowledgement, tracking, order history and more – for thousands of ABB products, parts and repair services. Visit www.online.abb.com for your complimentary subscription.

Emergency Parts
Emergency replacement parts ordering is available 24 hours a day. Once your order is received, our global logistics network uses standardized processes and tools that ensure the highest quality parts are efficiently delivered to your site.

System Support
Access to local and global parts inventories extends and facilitates the availability of new and refurbished parts for previous generations of ABB systems, as long as technically and commercially feasible.

Test and Inspection
ABB ISO 9002-certified testing centers utilize state-of-the-art automated test equipment. Component-level, multi-level, in-circuit and full-functional testing, and environmental stress testing are available for ABB and other manufacturer’s parts.

Repair and Refurbishment
Provides an economical alternative to new part replacements. ABB ISO 9002-certified repair network provides repairs, reconditioning and version management that meet or exceed original equipment specifications. A full one-year warranty is included for ABB and qualified non-ABB repair and refurbishments.

In most cases, a complete stock of new and refurbished parts is available for MOD 300 and Advant MOD 300 systems. Check with your Service Account manager for specific availability.

Hardware Upgrades
Replacement system components are now available to replace those no longer available or repairable due to new technology or the unavailability of replacement parts. Upgraded components now available include CRT to LCD monitors, SC power supplies, DeltaComm Keyboards, and Hardened Console Refurbishment.

Parts Inventory Management Programs
ABB parts programs help you to effectively plan for parts and repair expenditures, and provide a monthly payment schedule, based on historical usage or anticipated demand.
– Smart Spares – Provides a secure parts location and barcode technology for inventory management assistance. Includes an auto-restocking feature, through the ABB parts logistics center via Internet connection.
– Inventory Access – A monthly subscription provides site-specific compliment of spare parts, which is maintained locally or on-site. ABB retains ownership of parts until they are put into service.

Parts Inventory Analysis
Identifies over- or under-stock conditions, based on predicted requirements, lifecycle expectations and standard stocking levels. Assists in determining optimal on-site parts stock quantities.
This program, included in the Assured Performance Agreement contract program, offers several levels of participation based on anticipated part and repair expenditures – for all technologies at the site. Benefits include parts usage reports, inventory audits, and after-hours transaction fee savings.

### Migration and Upgrade Services

**Evolution Plan**
System evolution planning services over the life of the control system, provide a periodic review of installed systems status and recommendations for evolution planning. Considering system lifecycle status changes and the availability of new functionality, ABB will help to define a strategic evolution roadmap to optimize system functionality.

**System Software Management**
The Automation Sentinel software lifecycle management program, extends the support for and value of existing ABB control system software investments. The scope of the program includes new software versions for installed control system software, upgrades to newer software products for installed systems and evolution to ABB's latest system software technology, System 800xA. The program provides the support of the installed systems with periodic software updates incorporating system improvements and maintenance updates. A subscription also includes online access to download new software releases, software product documentation and access to technical telephone specialists for software installation and upgrade support. As a service to subscribers, ABB reviews and tests the monthly Microsoft security updates and provides qualification reports to help minimize user risk and test efforts. Automation Sentinel provides evolution to 800xA software typically at a savings of over 50%!

**Lifecycle Audit and Report**
Provides site audits to analyze control system hardware, firmware and software levels. Site audit report clearly explains the most effective migration path towards the latest technology.

**Multibus and Advant Stations**
ABB Advant 500 Series UNIX based OS500 operator stations and older Multibus Consoles can be evolved to System 800xA Process Portal Operator Stations. System 800xA Process Portal Operator Station software includes complete integration with all existing MOD 300 controller infrastructure. Its features include Operations, Asset Optimization, System Management, Information Management, and Batch Management. Existing graphic displays can be converted to the 800xA Process Portal format for minimal impact to operations personnel. System 800xA provides more powerful facilities (in addition to TTD logs) to archive the historical data. (System 800xA Software can be purchased directly or obtained free of charge as part of ABB's Automation Sentinel program.)

**Series 6000 (Model A, B, C) and SC Controllers**
Model A, B, and SC series controllers can be evolved to the latest AC460 controllers and will re-use existing application code. Application optimization can be performed to improve the controller memory usage and overall controller loading.

**Direct and High Density I/O Evolution To S800 I/O**
Migration is available to evolve Direct and High Density I/Os to the latest S800 I/O. Custom cabling is utilized in order to re-use existing I/O wiring and the existing terminating panels. New S800 I/O may be located within existing cabinetry.

**TRIO I/O**
Taylor Remote I/O (TRIO) can be re-used as-is with existing TRIO LANs – simply relocated to fully TRIO compatible AC460 controllers.

**DPSS and Unix Based AdvaBuild Engineering Tools**
Both multibus-based Configurator and Unix-based engineering toolsets, AdvaBuild V2 can be evolved to AdvaBuild V3. Existing applications and DB are kept intact and migrated to a true client-server architecture, offering significant performance and efficiency improvements.

**Multibus and Custom PC Interfaces (e.g. VAX Interface)**
Multibus serial and custom Ethernet computer interfaces can be evolved to an open industry standard OPC via the OPC Server for MOD 300. Connecting directly to the DCN, it can replace the proprietary interfaces above and expose MOD 300 process information to the "outside" world via the OPC open standard.

**DCN Evolution**
Evolution services are available to assist MOD customers in evaluating communication levels on existing DCNs. Such evaluation may include recommendations to evolve to eDCN (fiber or copper) to increase bandwidth and/or take advantage of commercially available off-the-shelf technologies.

### System Application Engineering Services

**Requirements Assessment**
The annual Requirements Assessment is part of a needs-discovery process to identify application engineering requirements and determine project scope and availability of service.

**Display Building Service**
An ABB application engineer will work with your operation and engineering staff to modify purchased video display packages. ABB can further work with your staff to develop new video display packages necessary to meet operational requirements.

**Configuration and Commissioning Service**
ABB installation, configuration, and commissioning services include but are not limited to: on-site coordination and installation scheduling, additional hardware and software installation coordination, control loop services, process analysis and troubleshooting, and implementation of engineering change notices.
### Performance Evaluation Reporting

ABB, in cooperation with your management team, will develop a system performance report that meets site and ABB requirements. The report will be completed and periodically distributed by the ABB application engineer.

### On-site Training

ABB application engineers are available to deliver high-level, specific, on-site training focused on equipment operation and control utilization. On-the-job training focused on technical understanding of ABB equipment is available.

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<th>Engineering and Consulting/Optimization Services</th>
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<tr>
<td><strong>Requirements Assessment</strong>&lt;br&gt;Complimentary*&lt;br&gt;The annual Requirements Assessment is part of service needs-discovery process to identify and recommend Optimization Services to complement your site maintenance strategy.</td>
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<tr>
<td><strong>PID Loop Tuning Services</strong>&lt;br&gt;Loop Tuning Services deliver loop performance excellence, providing significant manufacturing cost savings through improved product quality, reduced waste, and increased uptime.</td>
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<tr>
<td>– <strong>Software Installation and Configuration</strong> includes Loop Performance Manager (LPM)** software installation and verification of communications to the control system, configuration service, and on-site introductory software training.</td>
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<td>– <strong>Loop Tuning and Auditing</strong> of a pre-determined number of loops and report of as-left tuning parameters.</td>
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<tr>
<td>– <strong>Loop Evaluation and Re-tuning</strong> includes periodic service visits to examine performance and re-tune loops if required and a detailed report of findings.</td>
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<td><strong>Security Validation Services</strong>&lt;br&gt;When applying security policies to your ABB process control systems, it is important to verify that the policies are compatible with the functionality of the systems. ABB service has the expertise to test for compatibility and to apply your security policies to your ABB systems and products.</td>
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<tr>
<td><strong>Power Quality and Grounding Audit</strong>&lt;br&gt;Provides a detailed analysis of incoming power quality and grounding grid integrity and its effects on connected devices and internal power systems. Survey findings pinpoint specific problem areas and provide fixes.</td>
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<tr>
<td><strong>Process Fingerprint</strong>&lt;br&gt;A process benchmark establishes current process and control performance and provides recommendations for improvement. The resulting implementation recommendations support product stability and overall process performance improvement.</td>
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*N no purchase required.

**Loop Performance Manager (LPM) software is proprietary PID loop tuning and auditing software developed and distributed by ABB.

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