



ABB Ability™

Advanced Digital Services

Remote-enabled, software-assisted services
that generate actionable insights
to optimize operations

As one of the first and leading providers of industrial automation, ABB has been working with customers side-by-side all along. Now, ABB can help you take advantage of the fourth industrial revolution and usher your operations to the next level of efficiency and productivity.

Stay competitive, despite challenges

The global marketplace has created a very competitive environment. Companies are under pressure to meet production targets and reduce costs at the same time. To generate maximum value from their operations, companies must find innovative ways to overcome business challenges.



1. Fluctuating costs

Cost to produce fluctuates. But financial targets must still be met. Companies need to optimize resource utilization and reduce waste to stay ahead.



2. Lost production time

Asset and process issues can lead to unscheduled downtime. Companies need key performance indicators (KPIs) to alert them to potential problems that can cause production loss.



3. Ensuring quality

Quality requirements must be met for every unit of production. Companies need to reduce production variability to avoid off-spec and unsellable products.



4. Optimizing maintenance

Plant performance can be affected by numerous unknown issues. Companies need to apply predictive service techniques that reduce the need for corrections.



5. Increasing cyber-attacks

Industrial control systems are faced with an increasing number of cyber threats. Companies need to protect their assets, data, people and reputation.



6. Uncertain regulations

The regulatory environment is dynamic. Compliance is becoming more expensive and cumbersome. Companies need technology partners who can simplify compliance for them.



7. Process expertise

Lack of skilled workers is causing knowledge gaps. Companies need better diagnostic and analytical tools to reduce this gap.

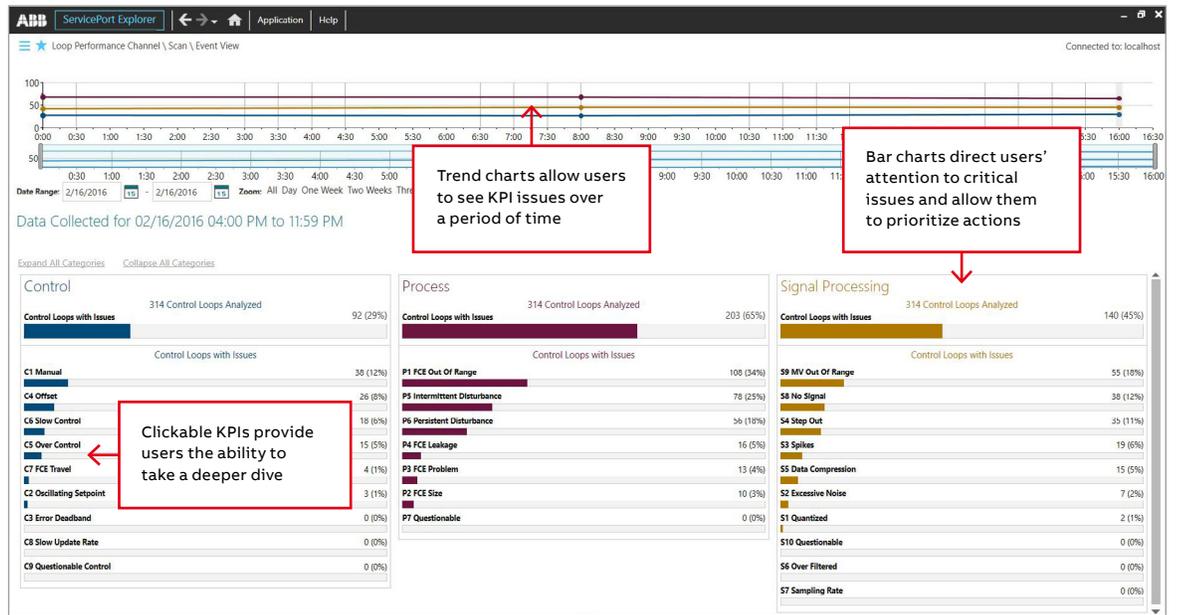
Optimize operations, increase productivity and enhance security

ABB Ability™ Advanced Digital Services are remote-enabled, software-assisted solutions that help plant personnel to identify sources of issues that inhibit performance in equipment and processes. They significantly reduce the time to resolution by recommending process improvements that have the highest impact on operations.

Plant personnel get actionable insights on their assets, processes and risks through three distinct data views:

- 1. Event view** provides a summary of calculated KPIs identified, categorized and prioritized in the order of severity and criticality.
- 2. Data view** provides detailed signal data collected during an interval of time.
- 3. Track view** provides the ability to configure application-specific rules to provide notifications based on pre-defined KPIs.

01 Event view provides actionable insights that allow users to prioritize improvement actions.



| Features | Benefits |
|--|---|
| Continuous analysis of KPIs | Automatic identification, categorization and prioritization of issues |
| Advanced patented algorithms compute deviations from norms | Increases availability and utilization through reduced process variability |
| Configurable email alerts when KPIs are outside thresholds | Accelerates problem resolution through fast assignment of service resources |
| On-site or remote access for customer and ABB personnel | Reduces response time and travel expenses |
| Regular performance analysis by ABB experts | Builds a solid foundation for continuous improvement |

Choose from a portfolio of services to meet your industry requirements

| | | Cement | Chemicals | Food and Beverage | Metals | Mining | Oil and Gas | Power Generation | Pulp and Paper | Water |
|------------------------|---|--------|-----------|-------------------|--------|--------|-------------|------------------|----------------|-------|
| Assets | ABB Ability™ Performance Optimization for control systems – 800xA | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ABB Ability™ Performance Optimization for control systems – Harmony | | ✓ | | | ✓ | ✓ | ✓ | | ✓ |
| | ABB Ability™ Performance Optimization for LV drives | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ABB Ability™ Performance Optimization for hoists | | | | | ✓ | | | | |
| Processes | ABB Ability™ Performance Optimization for control loops | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ABB Ability™ Performance Optimization for QCS* | | | | | | | | ✓ | |
| | ABB Ability™ Performance Optimization for QCS* transitions | | | | | | | | ✓ | |
| Risk mitigation | ABB Ability™ Cyber Security Analytics | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ABB Ability™ Cyber Security Asset Inventory | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*Quality Control Systems



See success cases from around the world



1. Chemicals company, USA

Needed to quickly identify opportunities to improve system and process performance.

Performance Optimization for control systems – 800xA identified, classified and prioritized opportunities so plant personnel could quickly take improvement actions.



2. Steel mill, Spain

Needed to review the cyber security status of two process automation systems controlling the steel processing lines.

Cyber Security Analytics collected information from control systems and other computers on the plant network and highlighted strengths and weaknesses of control system security allowing them to improve their cyber security strategy.



3. Mining company, Australia

One of the world's largest bauxite operations, needed to ensure reliability and performance of their distributed control system.

Performance Optimization for control systems – Harmony avoided unscheduled downtime by detecting problems early and providing an action plan.



4. Petrochemical company, Italy

Needed to optimize system and process performance.

Performance Optimization for control loops collected and analyzed data to produce actionable information on KPIs that allowed plant personnel to identify loops with problems and implement corrective actions.



5. Power generation company, Sweden

District heating and electricity producer needed to digitize and automate control system management.

Performance Optimization for control systems – 800xA, Cyber Security Analytics and Performance Optimization for control loops automatically collected and analyzed information from plant's control system to detect performance irregularities and direct improvement actions.



6. Pulp and paper mill, India

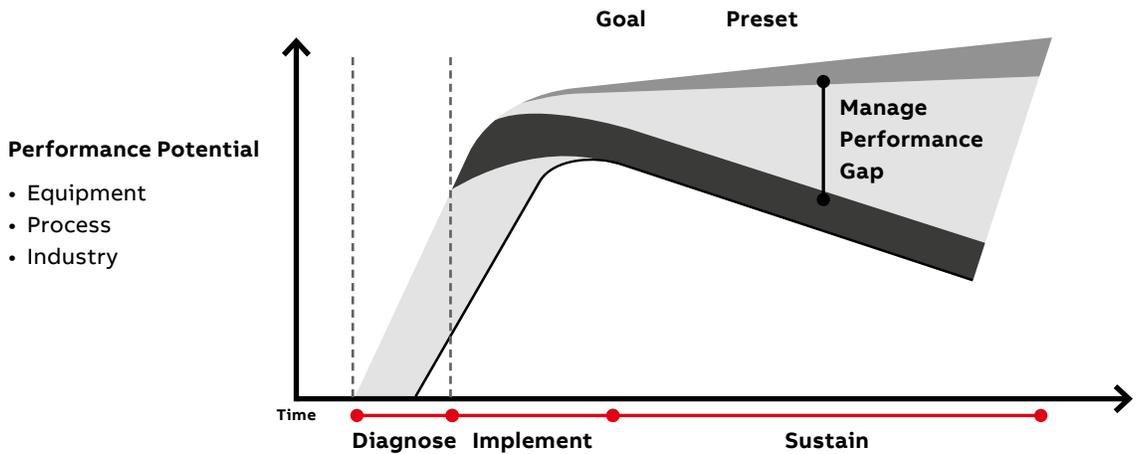
Needed to maximize production, ensure quality and cut costs.

Performance Optimization for control loops and Performance Optimization for QCS reduced sheet breaks and lowered grade recovery times, resulting in more salable production.

Achieve operational excellence

ABB works with you to implement a strategy that allows you to continually improve process performance, extend asset life and reduce risks. We follow a proven methodology that helps you maximize value from your operations.

- Diagnose: We collect asset and process data, measure performance gaps and deliver an action plan.
- Implement: We execute the action plan to reduce performance gaps.
- Sustain: We define trigger conditions, schedule maintenance and monitor performance continually.



Help us identify your needs

Which of the following services would you be interested in?

| | | | | |
|------------------------|---|---|---|--|
| Assets | ABB Ability™ Performance Optimization for control systems – 800xA | ABB Ability™ Performance Optimization for control systems – Harmony | ABB Ability™ Performance Optimization for LV drives | ABB Ability™ Performance Optimization for hoists |
| Processes | ABB Ability™ Performance Optimization for control loops | ABB Ability™ Performance Optimization for QCS | ABB Ability™ Performance Optimization for QCS transitions | |
| Risk mitigation | ABB Ability™ Cyber Security Analytics | ABB Ability™ Cyber Security Asset Inventory | | |



Let's get started.

Contact your local ABB representative today!

**[new.abb.com/process-automation/
process-automation-service/advanced-services](https://new.abb.com/process-automation/process-automation-service/advanced-services)**

ABB Inc.
579 Executive Campus Dr
Westerville, OH 43082 USA
automation.service@us.abb.com

© Copyright 2019 ABB. All rights reserved.
Specifications subject to change without notice.