

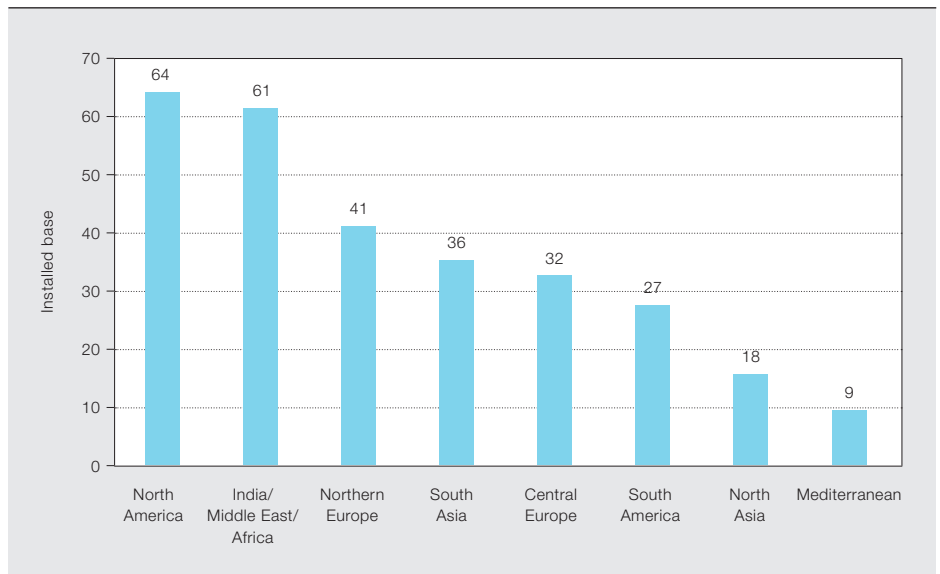


A service tool grows up

ABB's ServicePort™ is now delivering advanced services to a wide range of customers worldwide

PATRIK BOO – When the ABB ServicePort™ Service Delivery Platform was launched in 2012 as a tool to support ABB engineers in delivering service, developers hoped they had a tool that would be embraced by the engineers and, more importantly, ABB customers. Now their tool has been validated. ServicePort is being successfully used at more than 200 sites, by hundreds of customers and ABB personnel, and all indicators point to continued growth.

1 Installed customer ServicePorts by region



Whether a company refines oil, recycles wastewater, produces packaging, mines minerals or engages in any industrial processing, repeatability and smoothly running processes are central to a successful operation. With today's intense global competition, companies are faced with reducing production interruptions as much as possible.

Most plant managers work to prevent problems or catch them early before they have an adverse effect. But proactive service to maintain maximum uptime isn't always easy to deploy.

Finding people highly experienced in the areas of process diagnostics is challenging in both developed and developing economies. Clearly it is difficult to transfer entire teams of experts to developing economies. In developed economies difficulties in finding and keeping the required expertise in the midst of baby boomer retirements means companies must expand their search for this expertise, so that when production issues arise, they have an approach for how to address the issues.

Title picture

The ABB ServicePort Service Delivery Platform facilitates secure, remote-enabled execution of advanced services from ABB experts.

For access to the service expertise needed to keep production moving, many customers turn to outside providers. This option can save time and costs while providing the help needed to address specific issues. After managers make the decision to work with an outside provider the challenge is finding a company with the right experience and technology to meet the needs of the company's equipment, process and industry.

ABB is often called upon to supplement a plant's service engineers for two very important reasons: because it has extensive expertise in process automation, and because it has the tools needed to deliver that expertise quickly and effectively.

As a world leader in process automation, ABB has a deep bench of experts who have a broad range of knowledge, experience and skills in customer processes and equipment.

Demand for advanced services has grown in recent years, and the question for ABB has become how best to deliver advanced services to more customers, such as those in remote locations.

To meet this need, ABB created ServicePort, which brings top expertise directly into customer sites worldwide through a secure, remote connection specially designed to help deliver advanced services.

ServicePort provides the means for ABB engineers to swiftly diagnose a customer's equipment and process problems. Wherever an industrial company is located, whenever process expertise is needed, a site can have direct access to ABB's depth of knowledge and abilities.

ABB has taken the concept of ServicePort and made it a reality. But more than that, ABB has turned ServicePort into a growing success.

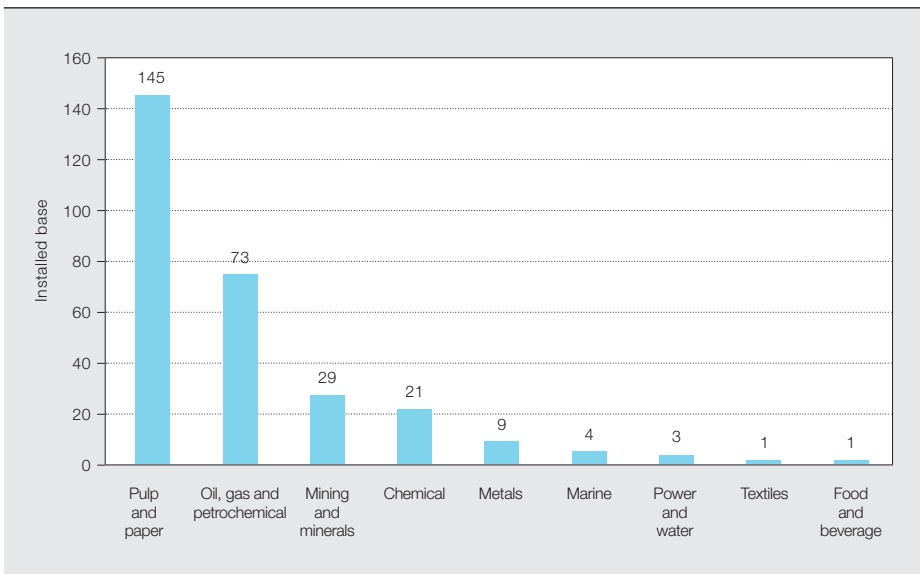
The beginning

ServicePort started as a promising idea for making high-quality ABB expertise directly available to process industry companies in a way that was fast and flexible. While the

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first prototype was used to deliver advanced services to a customer in 2008, in 2011 the concept gelled into the robust design now known as ServicePort. As a service delivery platform, ServicePort makes it possible to quickly and consistently capture data from control systems and analyze the data so that the customer or ABB advanced services personnel can make sound recommendations about improvement actions.

2 Installed customer ServicePorts by industry



Wherever an industrial company is located, whenever process expertise is needed, a site can have direct access to ABB's depth of knowledge and abilities.

Customers were initially cautious about installing ServicePort because they perceived it, with its remote connection, as a potential cyber security risk. However, ServicePort is designed to be secure, with customer data protected at every stage, and customers have grown to trust this.

As customers realized that through secure remote delivery they could obtain the needed high-level process analysis and troubleshooting at a lower cost, more and more sites opted for ServicePort. It has become an expeditious way for process industry customers to connect with ABB advanced services.

After just two years, more than 200 ServicePorts are now in use worldwide, with customer sites in India, the Middle East, Africa, northern and central Europe, the Mediterranean, north and south Asia, South America and North America – and its use is expected to grow → 1. Based on 2013 and 2014 sales figures, the expected compound annual growth rate for advanced services powered by ServicePort is 41 percent.

When ServicePort was first introduced, its implementation began primarily in the pulp and paper industry. It quickly expanded into many industries. Today, the service is used in chemicals, food, gas, marine, metals, minerals, mining, oil, paper, power, textiles and water → 2.

There are significant reasons why the service has gained traction. As a remote-enabled service delivery platform, ServicePort allows customers and ABB experts to

view, scan and track important key performance indicators (KPIs) that impact equipment and process performance. This gives engineers the ability to take actions to solve problems and improve performance. Customers and ABB personnel have local or remote access to clear, frequently updated views of KPIs.

By automatically collecting, analyzing and monitoring selected KPIs, ServicePort helps engineers make better informed decisions, giving sites improved availability, process performance and product quality, while reducing raw material use and energy costs → 3.

Because the automated service tools used to capture and analyze data are so effective, they can be used by less experienced engineers. This expands ABB's ability to support global customers.

Branching out

To ensure that an enterprise's specific needs are met, ABB developed a way for ServicePort to provide the exact advanced services that a site chooses. Like a smartphone, ServicePort can host multiple apps, called Performance Service Channels, which deliver specific ABB advanced services.

The channels fall into three categories:

- Equipment performance services monitor the use and performance of ABB products, such as control systems and drives.
- Process performance services diagnose and improve production or

All ABB advanced services powered by ServicePort use an effective three-part methodology – diagnose, implement and sustain – to close performance gaps and assure higher performance.

3 Using ServicePort enables customers and ABB personnel to have clear views of equipment and process key performance indicators with which to make decisions.



- business processes, such as loop performance and cyber security.
- Industry performance services diagnose and improve equipment or processes specific to certain industries, such as mining, and pulp and paper.

Performance Service Channels currently available are:

- Equipment (ABB Extended Automation System 800xA, ABB Harmony system)
- Process (cyber security, control loop performance)
- Industry (ABB mine hoists, ABB quality control systems)

New Performance Service Channels continue to be developed.

To further meet a site's individual needs, ServicePort installation options have also grown. Although ServicePort began as a single on-site hardware station, customers can now choose between workstation, rack-mount, mobile, mini or virtual options → 4.

Comprehensive analysis

All ABB advanced services powered by ServicePort use an effective three-part methodology – diagnose, implement and sustain – to close performance gaps and assure higher performance.

ABB advanced services are differentiated by the engineering designed into their delivery. This engineering ranges from automating data collection and analysis; through designing repeatable processes; to estab-

lishing secure, remote-enabled interaction between the tools, processes and experts the customers want.

One example of ABB's advanced services powered by ServicePort is System Performance Service. Using System Performance Service, ABB control system customers can obtain an automated control system checkup that provides a benchmark for system performance and configuration. Comprehensive diagnostic analysis can be used to assess a control system's operation and implement improvements. Through ServicePort, System Performance Service identifies, classifies, and helps prioritize opportunities to improve system performance.

Case studies

One ABB customer, a large natural gas processing facility in the Middle East that utilizes the world's largest ABB Harmony Distributed Control System, used ABB's Harmony and Loop Performance Service to identify and troubleshoot potential process problems. The plant needed uninterrupted operation to process large volumes of product and obtain top performance from its process control systems. However, production expansions and upgrades had created uneven performance at the site's eight processing trains.

The customer asked ABB to provide a single monitoring method to identify existing and potential process problems, as well as a standard method for trouble-

4 To meet customer demand, ServicePort is offered in a range of options including workstation, rack-mount, mobile, mini or virtual.



shooting these problems. ABB Harmony and Loop Performance Service, powered by ABB ServicePort, provided the data gathering, analysis and troubleshooting methodology the plant needed.

Performance Service software tools quickly identified a faulty bridge controller. By monitoring CPU use rates, the customer found a controller out of normal range, identified the cause and resolved the issue. Today, the plant continues to use

standards. Since the chemicals could be problematic or even hazardous if not used as intended, it is essential that each is correctly processed and tracked. To maintain needed accuracy, control system settings must be monitored often and compared with ABB best practices and standards. Additionally, system software has to be continuously updated with new releases.

The plant managers decided to take preventive actions to ensure that system configuration and parameters are accurately monitored by investing in ABB System 800xA Performance Services powered by ServicePort. Customer personnel immediately began using the channel daily to monitor system

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these performance services to diagnose and resolve system and process issues, and to monitor system and process performance.

Another customer, a large chemical plant in the United States, produces numerous chemicals for consumer products that must be accurately processed for quality, efficiency and safety. In this complex operation the control system must perform optimally, making it critical that system settings and parameters are configured according to industry best practices and

software, and were able to make more informed decisions relative to configuration changes.

Plant managers use System 800xA Performance Service to ensure system software is continuously updated with the newest releases. The ABB service team provides remote and on-site services to help the customer maintain software updates. Customer and ABB personnel use ServicePort Explorer in the plant to view data and trends to address issues and can even view data off-site.

After just two months of use, the customer decided that the ABB System 800xA Performance Service powered by ServicePort were so effective that company managers asked ABB to provide additional services to help them ensure product quality.

ServicePort spreads

As ServicePort appears at more customer sites, those who obtain it have a tool that can provide them with the level of service needed to maintain performance throughout the process automation life cycle.

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