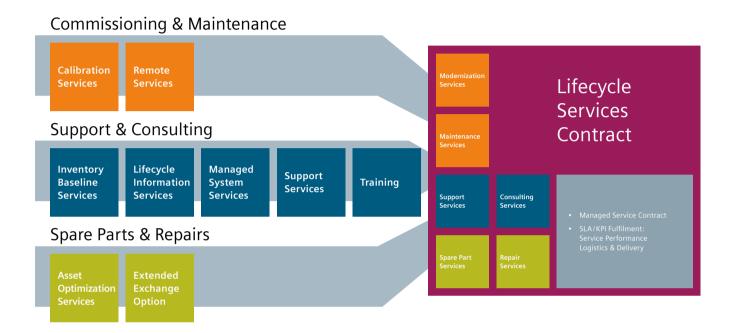




Industry Services for Process Instrumentation



Commissioning and maintenance

Commissioning and maintaining field instruments is extremely time-consuming and labor-intensive and – depending on whether it's performed inside or outside explosion-risk zones – involves a substantial outlay.

In addition, the ever-growing demands for IT security are increasingly playing a key role.

Our range of on-site services, platform-based remote services, and comprehensive calibration services support you in all your activities, from engineering and commissioning to maintenance.

Support and consulting

Siemens' Inventory Baseline Services and Lifecycle Information Services provide convenient and powerful portfolio elements for your installed base.

We offer design, operation, and maintenance personnel a comprehensive training program that can take place either at the Siemens Training Center or on your premises. Managed System Services are focused on the efficient, centrally coordinated processing of complex support requests. They not only make all service and support activities transparent, they also significantly reduce service time.

Spare parts and repairs

Asset Optimization Services take a structured, systematic approach to the comprehensive optimization of your spare part supply.

With the Extended Exchange Option, you can protect any Siemens process instrumentation products you order from unforeseeable repair costs.

Lifecycle Services Contracts

A modular Lifecycle Services Contract is composed of defined service elements and contract-specific parameters.

Long-term investment protection and the assurance of serviceability are the essential benefits of a contract solution.

Reliable measurements thanks to professional calibration services



Calibration Services Measuring, positioning, recording, and controlling are important parameters in all industrial processes.

That's why process instruments need to deliver the highest levels of precision and reliability.

Off-site Calibration module

As with any precision technology, the calibration of measuring and test equipment requires solid expert knowledge to ensure that the devices' specific capabilities are available over the long term and can be used reliably in the specific field of application.

Our Siemens Industry Services provide complete, traceable calibration of electrical, physical, and mechanical measured variables worldwide. Whether it's pressure, vacuum, temperature, flow rate, or conduction – we guarantee the highest quality in our ISO/IEC 17025-accredited laboratories and service centers.

The verification of custody transfer satisfies the requirements of international and national guidelines (including MID, OIML, and PTB).

We also offer Web-based test cycle management using our "WebLogX" system in order to comply with calibration cycles and to archive "audit-proof" calibration documents and keep them accessible to you at all times.

Off-site Calibration module

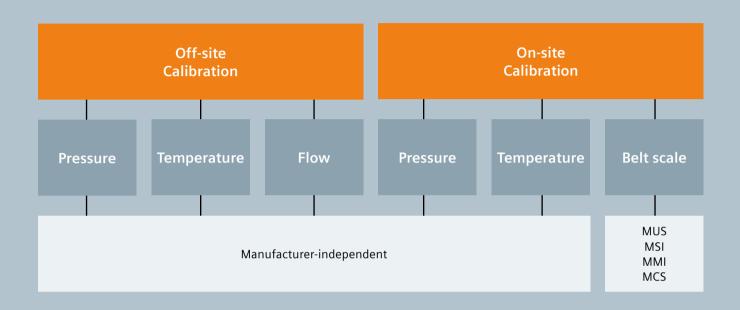
We offer an extensive range of calibration and verification services for your process measuring equipment. Regardless of whether you need to calibrate for pressure, temperature, or dynamic weighing systems like belt scales – we help you meet your demand for high quality.

We calibrate your measurements quickly and accurately using optimized processes and high-precision process calibrators. Traceability and accreditation according to ISO 9001 are a given, and on-site calibration also eliminates logistical effort and wait times.

Process interruption is minimal or can even be eliminated altogether, which can significantly reduce downtime and increase plant availability.

Pressure measurements are vital for safety (SIL) and product quality. With our on-site services, you save the shipping and logistics costs required for off-site calibration.

Increase your plant's efficiency and product quality



Structure of our service portfolio of calibration services

On-site Calibration module

With our on-site calibration services for belt-scale measuring systems, we provide sustainable and reliable inventory control, reduce transaction costs, and protect your assets' value, resulting in improved production performance and quality.

Siemens belt scales are calibrated using static calibration rates as standard. A material test to verify the dynamic belt load is also optionally available. In this case, the roll stations must first be aligned and the speed sensors tested.

Our service technicians use their specialized knowledge of the maintenance of dynamic weighing systems to ensure the accuracy, reliability, and availability of your measuring system.

We're also able to support the approval of our Siemens belt-scale systems for custody transfer according to OIML standards.

- Periodic calibration ensures a consistently high product and batch quality
- High-quality production ensures faultless end products
- Our standard-compliant services support you in implementing important legal requirements



Innovative Remote Services



Remote Services for Process
Instrumentation

Our Remote Services for Process Instrumentation lay the groundwork for greater flexibility, efficiency, and productivity.

Remote Assisted Collaboration or Desktop Sharing are available as technology-based services from engineering to commissioning and maintenance.

Remote Services in every lifecycle phase

The engineering, commissioning, and maintenance of field instruments is extremely time-consuming and labor-intensive and – depending on whether it's performed inside or outside explosion-risk zones – involves a substantial outlay.

Nevertheless, these service activities can be optimally supported and implemented via remote access using state-of-the-art, high-performance communication media.

In this case, it's vital that the ever-increasing requirements for IT security and traceability of remote activities be met.

Our offering of platform-based remote services enables our customers to access the product manufacturer's centrally available expertise at any time and from any location.

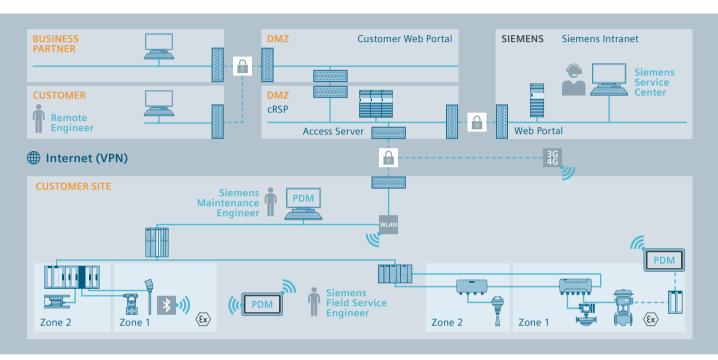
cRSP functions and benefits

The Siemens Remote Service Platform provides

- A graduated security and access concept
- Secure and monitored communication
- Reduced administrative effort thanks to the central administration of all system accesses
- Centralized monitoring, logging, and reporting of remote accesses with continuous monitoring by your personnel
- Freedom from disturbances thanks to the separation of different networks (DMZ)
- Compatibility with general industrial security concepts
- ISO 27001/CERT-certified

The Customer Web Portal – an optional expansion of the cRSP – allows you to centrally manage all accesses.

Greater flexibility, efficiency, and productivity



Siemens' platform-based remote service infrastructure

Remote Desktop Sharing

Remote Desktop Sharing allows Siemens experts – in compliance with industrial security standards – to access parameterization software (like SIMATIC PDM) and use it to access this software on connected field instruments.

This permits the Siemens experts themselves to transfer documents and perform parameterization/configuration activities. Simultaneous access by multiple remote experts can also be implemented using Desktop Sharing.

In contrast to Remote Assisted Collaboration, a Siemens expert is authorized to access the parameterization environment or the field instruments connected to it directly and remotely.

Remote Assisted Collaboration

Also using the Siemens common Remote Service Platform (cRSP), Siemens experts support service technicians on-site at your plant.

The SIPIX SD tablet PC can be used to transfer video images via an independent VPN channel and communicate via live chat.

Wearing data glasses, it's also possible to work on field instruments freehand. In this case, text or transparent images are displayed in the service technician's field of vision, or experts provide audio instructions.







Remote Assisted Collaboration and Remote Desktop Sharing

Maintenance

Commissioning

Remote Services for Process
Instrumentation

Engineering



Engineering module

Field instruments are generally configured and parameterized using manufacturer-independent engineering tools like the SIMATIC Process Device Manager.

These tools are normally used on Windows-based PC systems, which provide the ideal platform for implementing Remote Desktop Sharing concepts.

If necessary, project engineers can temporarily share their actual task with a Siemens expert and work with them on the same screen.

The Siemens expert can also guide the project engineer in using the engineering tool as well as making entries.

Commissioning module

During the field instrument commissioning phase, support often places higher demands on a remote infrastructure than it does during the engineering phase.

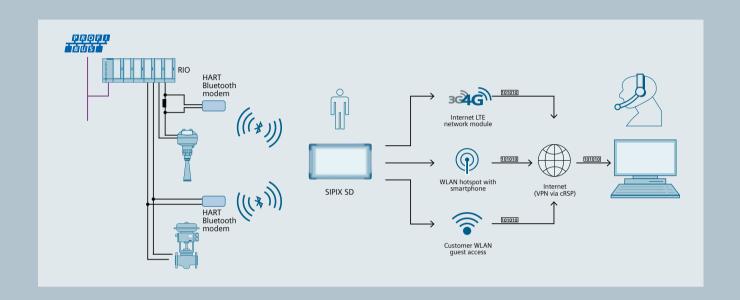
Generally speaking, the field instruments are already installed mechanically but still need to be connected to the higher-level control system.

It's also very often the case that networks for communicating with the outside world aren't available.

That's where our Remote Assisted Collaboration approach comes into play.

The infrastructure on the SIPIX SD tablet permits a number of communication options, both with field instruments (Bluetooth, HART) and with the outside world (GSM, LTE).

Global support for engineering, commissioning, and maintenance



 $Remotely\ assisted: working\ together\ using\ collaboration\ software$

Maintenance module

Maintenance is generally covered by inspection and maintenance services according to DIN 31051: for example, inspecting the field instrument's condition for a transparent view of the system status and implementation of preventive measures.

In most cases, maintenance is performed on site with the device installed.

This makes it especially difficult to consult outside experts during the maintenance phase, especially when the field instrument is located in an explosion-risk zone and/or requires maintenance outside scheduled service intervals.

In this case as well, Remote Assisted Collaboration based on SIPIX SD offers numerous options for technical support by a Siemens expert.

- Worldwide availability of specialized expertise directly from the product manufacturer
- Technical assistance during the project planning, commissioning, and maintenance phases
- Guaranteed worldwide access via a remote service platform certified according to ISO 27001/CERT
- Virtual availability of a Siemens expert on site at your plant, including in explosion-risk zones

Efficient inventories offer transparency



Inventory Baseline Services are modern, data-driven services that help make the maintenance of machines and plants even more efficient by applying new methods and tools.

Installed Base Data Collection module

Standard tools for automatically acquiring component data in the automation system are used for straightforward and reliable recording of the existing plant base.

This process can be executed while the plant is in operation without affecting its performance.

- Software parameterization by service specialists
- · Automated data acquisition
- Manual additions possible

Inventory

The inventory of the spare-part store can be conducted manually or integrated into the inventory data in the form of a separate list

- MLFB number
- Serial number
- HW, FW, SW revision
- Number of components

Data Processing and Verification module

An analysis tool imports and processes recorded data, ensuring that the individual components are analyzed correctly. Manual additions are possible at any time. The result of this evaluation is a map of the automation system with a list of all the components acquired. After the data has been verified, the inventory data is transferred to a central database that serves as the foundation on which additional services can be built.

Data verification

- Identifies SW packages available for ordering
- Adds externally sourced products
- Adds required information
- Enters your data correctly, including address, plant designation, your contact, and your Siemens contact
- Logs components with unknown order numbers

Inventory Baseline Services are performed in a sequence of steps

Installed Base Data Collection

Data Processing and Verification

Inventory Report

- Automated inventory
- Manual recording of additional components
- Data processing
- Data standardization
- Data verification

- Reporting
- Data storage in database

Sequence of steps of the Inventory Baseline Services

Inventory Report module

The content of the reports is divided up into:

List of the existing plant base

- Overview of and detailed information on operator systems
- Overview of detailed information on automation systems
- · Detailed information on network and field components

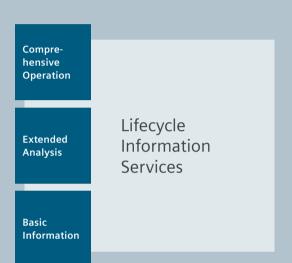
Overview of the system's lifecycle status

- Number of Siemens components
- Number of non-Siemens components
- Statistics on the availability of recorded products for delivery
- Recommendations from Siemens
- Reference to other services

- Cost-efficient and standardized inventory process
- Decision-making aids for planned plant expansions
- Preparation for updates/upgrades
- · Basis for implementing additional services



Lifecycle Information Services



Lifecycle Information Services provide important information on the product status, service recommendations for the Siemens products in your installed base, and decision-making aids for other plant-specific services.

The Lifecycle Information Services portfolio has a modular structure that allows you to selectively download the information you need.

You decide how comprehensive you want this report to be by choosing from among three different modules: **Basic Information, Extended Analysis** and **Comprehensive Operation**.

Basic Information module

In this module, you can see the general product lifecycle status.

The report comprises:

- Products, number of critical parts, and a list of unknown and third-party products
- Number of components available for delivery as original part, successor part, or other type
- · Information on repairability
- Measures and recommendations relating to serviceability and availability of spare parts

Extended Analysis module

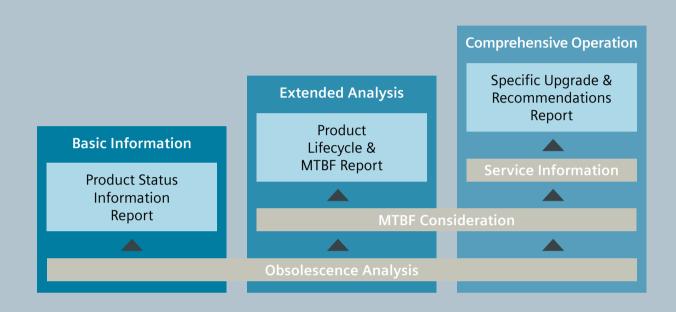
The Extended Analysis service module contains the Basic Information module and an analysis of the product-specific mean time between failures (MTBF).

The Extended report comprises:

- · Availability and risk analyses based on the MTBF
- · Determination of the MTBF value already achieved
- Detailed MTBF report per item that marks components that have an MTBF value of over 80 percent



Customized service information



The Lifecycle Information Services modules

Comprehensive Operation module

The **Comprehensive Operation** service module contains the **Extended Analysis** module and additional plant-specific information on upgrades/updates and relevant services.

The Comprehensive report comprises:

- Product and version history with current status of the existing components
- Detailed information on documents, diagnoses, and relevant services
- Technical analysis of critical components with action recommendations
- Reference to service information under the headings: Applications and Tools, Firmware Downloads, FAQs, and Latest News

- Regular proactive service information prevents rising maintenance costs
- Plant availability is optimized thanks to specific service recommendations
- Risk of functional obsolescence reduced to a minimum
- Unscheduled downtime and cost-intensive bottlenecks in the supply of new or used parts are avoided



Complex support requests are efficiently processed



Managed Technical Support Managed System Services

Mobilization

Managed System Services are modular lifecycle services focused on providing comprehensive system support with an innovative and proactive approach.

The core of this portfolio element comprises a comprehensive system inventory, the centralized coordination of all service activities by a Support Manager, and regular reports.

Mobilization module

Operators perform a setup in the Mobilization module to obtain precise information on

- Current products and systems and their lifecycle status
- Your current service organization and those of affected partner companies
- Existing maintenance processes and plant documentation

After the completion of this module, you'll receive information on execution, communication, and IT access along with an initial Lifecycle Status Report.

Managed Technical Support module

A central Support Manager prioritizes and coordinates all required service and support activities.

It also ensures the efficient exchange of information between participating partners.

Thanks to close coordination by the Support Manager in an overarching role, they can apply experience already acquired and existing solutions to process complex requests.

Inventory



Access



Report



Support Manager



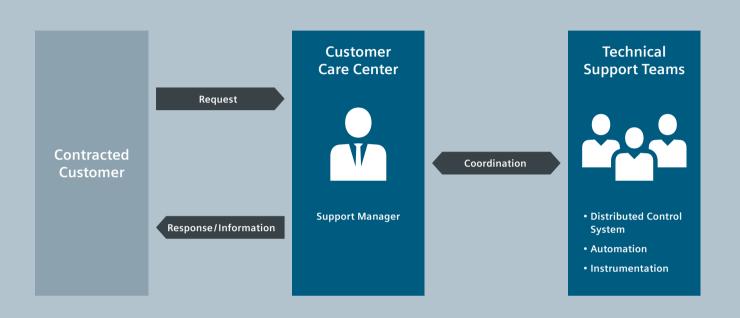
Communications



Expertise



Reduce your maintenance costs and create transparency



The Support Manager is the central contact for Managed System Services

Information Services module

From the initial system inventory to the final report, this module delivers status reports throughout the term of the contract.

It provides exclusive access to the Online Information System containing all contract-related content.

Your benefits

An efficient, centrally coordinated processing of complex support requests reduces maintenance costs and creates transparency.

- · Customized and skilled
- Coordinated and efficient
- Proactive and informative

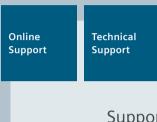
Lifecycle Reports



Online Information



Support Services for all phases of the plant lifecycle



Support Services Siemens Industry Online Support provides you with the latest information on our product portfolio as well as a technical forum.

Technical support experts provide fast and qualified support for all technical requests relating to process instrumentation products.

Online support – up-to-date information available anytime

The online portal is your central Web address for comprehensive information about products, systems, and services from Siemens Industry.

It gives you access to FAQs, manuals, certificates, descriptions, sample applications, tools, and much more.

The service catalog offers information about our services in all phases of your plant's lifecycle.

In the forum, you can participate in discussions with other users and share experiences.

The mySupport function provides you with your own personal work area where you can easily display all the information you need for your daily tasks in a straightforward format.

support.industry.siemens.com

PIA Lifecycle Portal

... the selection, design, ordering, commissioning, and maintenance tool for process instrumentation.

Products and services integrated into one portal specifically for process instrumentation.

siemens.com/pia-portal

- Fast technical support for design, engineering, and maintenance thanks to comprehensive product information and sample configurations and applications
- Direct knowledge exchange with other users in the technical forum



Online personal support from fast, efficient, and qualified experts



Worldwide availability of on-site services

You can access Siemens Services for Process Instrumentation from almost any country in the world.

These services are provided by our own service personnel or by accredited Siemens Partners.

Using our international contact database, you can quickly find the right contact, whether it's a Regional Service Control Center or your Regional Sales Representative.

siemens.com/aspa

Technical Support: fast and qualified

Siemens Technical Support provides you with fast, qualified support for all technical requests relating to process instrumentation products and systems from Siemens Industry.

Using the contact database and with just a few mouse clicks, you can find contact information for the right technical support expert by selecting the application and products or technology.

A short time after your support ticket is received, an expert will call you back with the support you need – in your language and in your region

- Worldwide availability of qualified contacts for technical requests
- Expert support saves engineering and commissioning time and costs
- Failsafe planning and optimized engineering effort



Ongoing skill development for process instrumentation



Our training portfolio offers targeted, ongoing skill development.

A wide range of courses in different training categories supports you with practical learning technologies tailored to your needs.

Prepared for maintenance – thanks to efficient and professional training on our technology.

Classroom

Classroom training courses conducted at our Training Centers worldwide or on site at your premises provide you with customized knowledge of technical subjects:

- Basic and advanced technical courses covering the entire instrumentation and weight measurement portfolio
- Service training courses on commissioning, maintenance, fault clearance, and diagnostics and more advanced digital services

eLearning

Training anywhere at any time – with our interactive eLearning courses covering the use of our product portfolio in a variety of applications and industries.

Videos

Our videos briefly communicate course content on service topics like calibration, maintenance, and commissioning as well as general product information.

Tutorials

Do you want to learn how to operate or configure our devices? Then our interactive tutorials are right for you!

eBooks

Advanced technical information on our products and technologies has been compiled for you in our eBooks.

Expertise



Practical knowledge directly from the manufacturer supports you in your task



Maintenance training

Our goal is to increase your expertise so that you can increase your plant's availability and optimally schedule service intervals. That's why we offer comprehensive, expert service training courses tailored to your needs and schedule.

Our Service Academy for Process Instrumentation provides your maintenance personnel with both basic and advanced training in field instruments.

These intensive, professional training courses are conducted by trainers experienced in technical service and support.

Your benefits

Regular training reinforces existing knowledge and adds new knowledge. Our training can be your competitive advantage by offering the following benefits:

- Guaranteed service expertise
- Up-to-date knowledge on demand
- Broad portfolio for imparting knowledge

SITRAIN Portal

For more information on our training courses, visit our SITRAIN Portal:

sitrain-learning.siemens.com

Guarantee your plant's availability



Our Asset Optimization Services take a structured and systematic approach to comprehensively optimizing your spare part supply.

The individual phases are designed as modules in our service portfolio and can be sourced individually as needed.

Analysis module

For a simple and efficient analysis of plant and stock inventories, we first determine the existing part situation on site in terms of

- Availability of spare parts
- Product lifecycle
- Lead time for delivery of spare parts

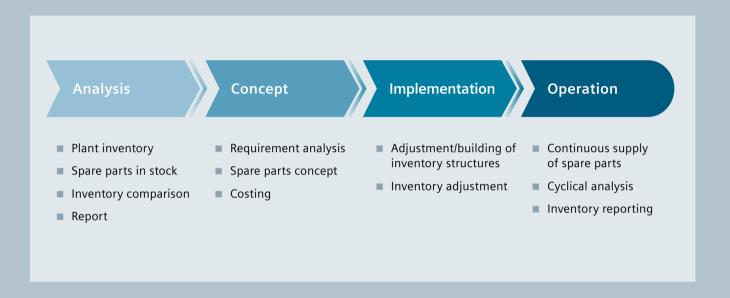
A standard report indicates the current product status of spare parts in the plant and in the warehouse, and also identifies the parts that don't exist in the inventory and that can only be repaired. Comparing the inventories in the plant and in the warehouse reveals both surpluses and shortages and provides recommendations for future action.

Concept module

The Concept service module is subdivided into the requirement analysis, the formulation of a plant-specific spare part concept, and costing based on regional and central warehouse structures. An offer of an operational spare part supply is prepared on request.



Take advantage of Asset Optimization Services



Flowchart of Asset Optimization Services

Implementation module

An initial implementation concept is drafted based on the results of the concept phase and, in particular, on requirements for inventory management. Implementation begins with establishing and organizing the required warehouse structures. The next step is identifying the warehouse locations and defining the relevant spare parts. This allows any existing supply gaps to be securely closed, and inventory surpluses can be continuously reduced, sold, or discarded. When the Implementation service module is completed, your spare part supply is technically, economically, and logistically optimized.

Operation module

An optimized and continuous spare part supply ensures the high availability of your plant in continuous operation. A cyclical analysis of spare part inventories is conducted whose scope depends on the contractual agreement with Siemens Industry Services. The regular provision of information on all inventory additions, withdrawals, and changes keeps you up to date at all times.

- · Secure, reliable supply of spare parts
- Improved serviceability, resulting in increased plant availability
- Technical and economic inventory optimization, resulting in reduced capital lock-up
- Maximum transparency in inventory management



Minimize your investment risk

Extended Exchange Option

With the Extended Exchange Option for Process Instrumentation (PI) products, you can protect your Siemens order from unforeseeable service costs.

The Extended Exchange Option allows defective devices that have failed during their intended use to be replaced.

Reduce investment risk and ensure optimized operating procedures

Is there a warranty gap between the purchase of our products and their delivery to your premises?

Are you looking for comprehensive coverage to protect your investment?

Would you like to improve your ability to calculate your maintenance costs and avoid unforeseeable service costs?

Protect your investment

The Extended Exchange Option can be purchased for all Siemens process instrumentation products along with the product order. It can't be purchased after the original product order.

You can select a run time of 24, 36, 48, or 60 months that begins when the product is delivered. Your selection applies to all the process instrumentation products in the relevant order that have serial numbers (for traceability).



Ensure optimized operating procedures with the Extended Exchange Option



Timeframe of the Extended Exchange Option

Ordering and processing

The Extended Exchange Option can be ordered locally from the Siemens sales company.

In the event of a warranty claim, the defective product can be returned from anywhere in the world using Siemens' standard process for returns.

If you're interested in the Extended Exchange Option for Siemens process instrumentation or if you have any questions, please contact your local Siemens sales company.

Your contact will be happy to help and will provide you with detailed information on how to order and process the extended warranty.

Siemens contact database:

siemens.com/aspa

Your benefits

Easy to order

One-time payment along with the product order for long-term device protection

Cost transparency

During the selected time period, no costs will be incurred to replace defective devices

· High flexibility

Different time periods can be selected based on your requirements

Global availability

In the event of a warranty claim, you can return the device to any of Siemens' worldwide locations

Traceability

A certificate will be issued that includes all the covered devices and the selected time period. In addition, you can always check the availability of your device by entering the serial number in the Siemens PIA Lifecycle Portal at siemens.com/pia-portal.

Ensure the reliability and availability of your process instrumentation



A modular Lifecycle Services Contract is made up of defined service elements and contract-specific parameters.

These plant-specific service elements and contract parameters are selected and specified in consultation with you.

The contract solution is based on the requirements of the plant instrumentation and the required maintenance strategies.

Reliability and availability across the entire lifecycle

The requirements for accuracy, reliability, and availability of measuring instruments are steadily increasing.

At the same time, requirements and standards for the operation of plant instrumentation are very specific, especially with regard to the lifecycle of the overall plant:

- Reliability
- Availability
- Process efficiency
- Product quality
- · Maintenance costs
- Modernizations

Siemens offers you its global expertise and experience with a wide range of services for process instrumentation so that your plant-specific standards can be completely met.

Standard services and proactive lifecycle services flexibly combined

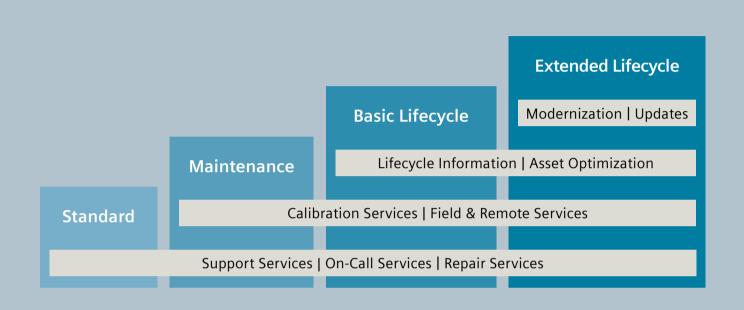
The Lifecycle Services Contract gives you a powerful service program for all aspects of your process instrumentation.

This portfolio is the foundation for all our flexible, customized service contracts that are perfectly matched to your needs across your plant's lifecycle.

In addition to standard services, the service contract also offers you proactive lifecycle services that can be combined with a range of contract options, such as contract duration and arrival/response time.

A Lifecycle Services Contract guarantees the reliability and availability of your measuring instruments, which makes it a key contributor to the optimal productivity of your plant.

Lifecycle Services Contracts make it easy



Typical contract profiles for Lifecycle Services Contracts in process instrumentation

Contract profiles

The individually composed Lifecycle Services Contracts can be divided into typical contract profiles that build on one another and that are available in different forms.

A service contract for process instrumentation always includes active contract management including contract execution, organization, documentation, and change management.

Your benefits

- Contractually assured reliability and availability of process instrumentation
- Assured arrival times for servicing, spare parts, and preventive maintenance
- Ability to calculate maintenance costs
- Expertise from the process instrumentation manufacturer
- Contract management from a single source for the entire contract term

Service strategies: reactive vs. proactive

A reactive service strategy without a contract increases maintenance risk. Expenditures for operations and unplanned downtime fluctuate and are difficult to budget. Long-term maintenance planning is out of the guestion

But with a proactive service strategy, management of the entire maintenance process is systematically included in your long-term planning. Contractually assured support for process instrumentation keeps the maintenance risk low and makes operating costs transparent.



Examples of benefits for your plant

Technological expertise and experience in process instrumentation

As a system ages, the number of available qualified specialists to handle maintenance and operation often decreases.

Given the large number of technologies, communication methods, and instrument manufacturers, finding available field instrument experts for maintenance can be a tremendous challenge.

Field Services and Remote Services give you contractually assured access to our experts throughout the entire product lifecycle.



Maintenance

The growing complexity of systems and plants makes qualified support from specialists all the more important. The diverse system components must work together smoothly in order to ensure productivity and economic efficiency in operation.

Managed Technical Support offers comprehensive information on the installed base and service history.

This allows service requests to be efficiently processed and substantially improves the first-time-fix rate.

Reliable measurements

Measuring, positioning, recording, and controlling are key parameters of all industrial processes.

That's why process instruments must fulfill the highest levels of precision and reliability.

Process instrumentation from Siemens satisfies these demands and gives you an efficient way to increase your plant's efficiency and improve your product quality.



Take advantage of Lifecycle Services for Process Instrumentation

Sustainable



Fast, worldwide availability of expertise is guaranteed over the long term.

Modular



The modular service portfolio supports a plant-specific maintenance process and helps you avoid costly and unplanned downtime.

Innovative



You'll benefit from a state-of-the-art service concept, thanks to our port-folio of industry-compatible service tools and the latest collaboration software.

Visit us:

siemens.com/piis





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