

SureService™ Program

- Best-in-class system reliability
- Preventive maintenance package
- Confidence in your control system
- Time to focus on your core business



SureService provides you with the peace of mind to know your control system will perform when it counts.

Introduction

Unplanned shutdowns are expensive and impact your profitability. That is why so much work and planning goes into ensuring your automation system is never the cause of one.

Your distributed control system (DCS) is the brain of your plant, and just like any other investment, it requires special attention — you can't simply turn it on and forget it. When your DCS has a problem, it can lead to production slowdowns, or worse, a shutdown. Effective planning and execution of necessary Lifecycle Services is essential to maintaining production levels and preventing loss of revenue. The right mix of maintenance activities will help you operate safely, consistently and economically, while improving your asset reliability and further preserving your investment.

While no one intends to set up their assets for failure by not providing the proper strategy, many companies struggle to get started. Even for those that believe they have a good strategy, they may not be measuring the correct Key Performance Indicators (KPI) that allow modifications when something isn't working. So the question is — does your Lifecycle Strategy result in best-in-class system reliability, allowing you to achieve maximum profitability?

Benefits

Best-in-class system reliability: Understanding how to unlock maximum value from your systems is critical to achieving your goals. Reliability professionals know that spending too much time on reactive activities — and less time on preventive, proactive and predictive undertakings — can lead to more safety incidents, low availability and high maintenance costs. The same is true for your DCS, which is why you must have the right strategy in place.

Selecting the correct Lifecycle Strategy for your system doesn't have to be a daunting task. With Emerson's SureService program, it is easy to choose from four packages of bundled Lifecycle Services. Trained experts will guide you through the process of selecting which option will best allow you to keep your control system running efficiently and achieve maximum system reliability and performance, while delivering value-added business results.

Preventive maintenance package: Emerson’s Guardian™ Support enables real-time visualization and management of your control system, which can be complemented with a preventive maintenance package to provide priority access to best-in-class automation availability. The preventive maintenance package will allow you to change the maintenance strategy from a fail/fix approach to a predict/prevent approach. The package will proactively identify shortcomings that may impact system continuity and availability and, at the same time, support and implement the preventive maintenance strategy by leveraging the Emerson’s factory standard health checks coupled with the local office’s service capabilities and site knowledge.

Confidence in your control system: Take the guess work out of how to get the maximum value out of your system. Emerson’s system reliability and lifecycle consultants have access to a centralized repository of proven best practices that are shared and repeatable worldwide and across the site. As part of the SureService system reliability and lifecycle consulting assessment process, Emerson experts find and uncover risks to system availability, benchmark you against best practices, and provide a strategy and actionable plan to meet your business needs.

Time to focus on your core business: Automation is Emerson’s core business, and an established and accessible network of factory-certified experts deliver the knowledge, experience and best practices necessary to help you achieve your business goals. Over 1,000 local technicians and engineers, coupled with more than 170 Local Service Centers around the world, ensure consistency of delivered services. Their knowledge is powered by the integration with products, technologies and delivery infrastructure that links right back to the source. Emerson subject matter experts can monitor any situation and deliver appropriate resources responsibly, effectively and consistently. When Emerson becomes an integrated part of your team to ensure your control system performs when it counts, it allows you to focus on your core business – the process.

	ST100	ST200	ST300	ST400
Guardian Support & System Health Analysis	X	X	X	X
Scheduled Preventive Maintenance Site Visits		X	X	X
Guided Lifecycle Strategy, Benchmarking & Governance			X	X
Fully Outsourced Lifecycle Services				X

Service Description and Features

With Emerson's SureService program, it is easy to choose from four packages of bundled Lifecycle Services. The progressive tiers provide flexibility to decide how much to involve Emerson in taking care of your system maintenance, reliability and performance needs. Each of the tiers build upon one another, allowing you to find the package that best meets your needs.

ST100 — A set of services that provide core support needs for your system

ST100 includes:

Guardian™ Support

Emerson's Guardian Support enables real-time visualization and management of your control system:

- 24x7 expert technical support and remote system diagnosis speeds up troubleshooting and resolution, reducing downtime and improving performance.
- Software updates help you maximize value-add features and functions in system software updates.
- Support portal and dashboard provide system-specific information including system health score, Knowledge Base Articles (KBAs), Microsoft security updates, asset lifecycle status and issue resolution tracking.
- Automated notifications provide relevant and actionable system information via email or RSS web feed.
- System analysis reports highlight specific areas requiring action to maximize system availability and reliability.

Site Evaluation Service and Spare Parts Analysis

Site Evaluation Service assesses the site across multiple dimensions and provides a quantitative measure of performance in a detailed site report covering:

- Health of installed hardware and software.
- Product lifecycle and continued serviceability status.
- Backup and restore activities.
- Status of cyber protection for best performance.
- Performance of alarms against ISA-18.2 standards.
- Recommended spare parts inventory based on OEM installed hardware.

ST200 — A preventive maintenance program to provide priority access to best-in-class automation availability

ST100 with the following additional features:

Preventive Maintenance Package:

Factory-Standard Periodic Health Check

The Scheduled System Maintenance (SSM) health check is the factory-standard list of activities that review all the key components of your DeltaV™ system to ensure its availability and uncover potential issues which might affect the performance or may cause an unexpected disruption of your production process. It covers the following system dimensions:

- System updates and hotfixes
- Controllers
- Cabinet
- Workstations
- I/O subsystems
- Network
- DeltaV SIS™ maintenance
- Backup and Recovery
- Automated Patch Management
- Virtualization

Maintenance Service Hours

The maintenance service hours in an ST200 contract may be utilized to execute the Factory-Standard Periodic Health Check and to execute recommended actions resulting from the System Maintenance Report. These hours may also be utilized for other service work that you may deem appropriate and agreed with the Emerson local office as part of the ST200 preventive maintenance contract.

Maintenance service hours may take on different forms in a service contract. They may be (but not limited to):

- Defined number of hours (more commonly called bank of hours) that can be used for service work throughout the duration of the service contract.
- Preferred service rates that will be utilized in the event that a service work is triggered.
- A blanket purchase order on which service work can be charged against for service engineer mobilization.

Designated Local Service Engineer

The Designated Local Service Engineer deliverable leverages a local service engineer's knowledge of your site and system to increase efficiency in service delivery and issue resolution. The Designated Local Service Engineer can be a team of service engineers from the local office assigned to be the focal point of contact and provide support to the customer.

Here are some (but not limited to) the activities that the Designated Service Engineer will be involved in:

- Be familiar with the customer's site and systems
- Conduct the Factory-Standard Period Health Check
- Discuss the System Maintenance Report (SMR) with the customer, propose and implement recommended actions
- Possible involvement on daily operational activities around other maintenance services included in the service contract

System Maintenance Report

Emerson has developed and implemented tools for diagnostic purposes that provide insight into the health of your DeltaV DCS. These tools will be utilized together with the Factory Standard Periodic Health Check result and Guardian information to prepare a report that consolidates all relevant information pertaining to preventive maintenance. A team of Emerson factory experts will perform a thorough analysis of the data and provide a list of recommended actions categorized by priority. The report with the findings and prioritized recommended actions are then provided and discussed with you by the Designated Local Service Engineer to enable a collaborative and quick resolution of the issues. This proactive detection of irregular health conditions facilitate resolution before they lead to costly unplanned downtime.

ST300 — A comprehensive program that meets all of your system reliability needs and provides governance across your systems

ST200 with the following additional features:**System Reliability and Lifecycle Consulting**

Emerson will dedicate a Customer Value Manager to serve as your comprehensive lifecycle consultant. They will enable development, implementation and preservation of your lifecycle strategy. The Customer Value Managers have access to a centralized repository of proven best practices that are shared and repeatable worldwide and across the site.

They find and uncover risks to system availability, measure you against best practices, and provide a strategy and actionable plan to meet your business needs. The combination of program management oversight, KPI tracking, consultation on system updates and more result in real-time predictive maintenance and proactive response. The fostering of a cross-site distribution of knowledge and sharing problem management techniques through proven methodology and infrastructure drives improvements across the enterprise and fosters collaboration.

The Customer Value Manager will develop, implement and maintain:

- Guided Lifecycle Strategy
- Governance and Escalation
- Dedicated Standards, Processes and Tools
- KPI Dashboard
- Collaboration Platform for Storing and Sharing
- Root Cause Analysis Reports
- Continuous Improvement and Lessons Learned Sharing
- Assessment and Consultation on KBAs
- Spare Parts Assessment and Recommendation
- Customized Role Based Curriculum Plan and Tracking Tool

Factory Product Expert

Emerson will designate a Factory Product Expert out of our Product Engineering organization to be your consistent connection to the next level of expertise. The Factory Product Expert will utilize their domain knowledge and be backed by experts in DeltaV Product Engineering and the DeltaV Technology organization to resolve complex system issues. The relationship with the Factory Product Expert will be established and developed through periodic meetings, person-to-person email exchanges and telephone conversations as needed. This approach will provide continuity of support and a climate of teamwork and open communications.

Priority Call Handling and Escalation

In addition to the exclusive professional and expert advice, the Factory Product Expert will facilitate priority call handling and escalation through oversight and intervention. Whenever you or a member of your team call the Global Service Center (GSC), the Factory Product Expert is notified via email within 60 minutes of the call. The Factory Product Expert has the discretion to participate in the progress of any call, as deemed necessary. The Factory Product Expert will complement the local resources and those of the GSC wherever expert technical input is needed, and further facilitate interaction to ensure responsiveness. Because this expert is familiar with the previous call history of the account, the Factory Product Expert is able to quickly align with the caller, leading to efficient call progression, rapid response and resolution.

Reactive / Emergency Onsite Service

Your Local Emerson Service Organization or Local Business Partner will mobilize a local Emerson-certified Field Service Specialist in the event telephone technical support or remote diagnostics fail to determine the actions required to resolve the technical issue. The service will be structured based on the customer's needs, local capabilities, and logistics conditions. This may include guaranteed response time, type of coverage, and number of callouts.

The Local Service Organization will:

- Provide an Emerson-certified Field Service Specialist for onsite service-related activities.
- Perform troubleshooting and issue resolution in accordance with established product guidelines.
- Document all work performed and parts replaced in a Field Service Call Report for customer verification, invoicing when appropriate, and future reference.
- Acquire safety training as required by the customer.

ST400 — A strategic alliance in which Emerson takes responsibility for your system maintenance, reliability and performance

SureService ST400 allows you to focus on your core business — the process — while Emerson takes full responsibility for your automation system's maintenance, reliability and performance. Emerson will become an integrated part of your team. Automation is Emerson's core business, comprised of an established and professional network of factory certified experts, and powered by the integration with products, technologies and delivery infrastructure that links right back to the source. By forming a strategic partnership and shifting your system's needs to Emerson, it will allow you to meet and exceed your business goals. To ensure your objectives are achieved, your Emerson Customer Value Manager will drive a comprehensive lifecycle strategy comprised of any services deemed necessary to deliver optimal KPIs.

ST300 with the following additional features:**Fully Outsourced On-site Services**

- Resident Engineers
- Expanded set of performance KPIs, including defined time to repair

DeltaV System Health Monitoring

The DeltaV System Health Monitoring service automatically checks important health information of system assets such as controllers, DeltaV DCS servers and workstations, SIS controllers, switches, firewalls, 'DeltaV Virtualization' infrastructure, CIOCs, UPSs, and non-DCS servers and workstations.

The solution sends notifications when observed health parameters are outside of expected normal operating ranges. Emerson's remote monitoring solution works 24x7x365 with the goal of diagnosing these critically important health warnings before they escalate into problems – potentially leading to a process disruption. Actionable Alerts enable collaboration between local service experts and site maintenance personnel to ensure corrective action is taken to address the root cause of any problem detected.

Automated Patch Management Service

Every month, there are new Microsoft security updates, anti-virus updates and DeltaV DCS hotfixes that need to be acted upon. Emerson's Automated Patch Management Service provides an effective solution that addresses the five deployment steps: identification of required Emerson approved updates, acquisition of update executables, distribution to appropriate DeltaV DCS nodes, installation and compliance auditing.

Emerson tests these updates against DeltaV versions to assure their installation will not cause any issues. Then the list of Emerson approved updates (WSUS metadata, etc.) is sent to subscriber sites where the approval lists are distributed to the subject DeltaV systems. The DeltaV systems can then be updated per these approval lists.

Backup and Recovery Services

Emerson's Backup and Recovery Services are an easy-to-use, easy-to-manage enterprise class data backup and disaster recovery solution for your DeltaV DCS, AMS Suite and other critical files, folders and databases. Emerson's Backup and Recovery Services provide expert consultation, implementation, verification and recovery support for Emerson's Backup and Recovery solution.

DeltaV Upgrade Service

Software upgrades sometimes require major planning, risk assessment and careful execution. Emerson's expert software engineers will safely apply the latest software features to your application. Professionals will perform expert planning, specialized custom testing and risk assessment on a system simulated to match your site specifics to provide a smooth transition when upgrading DeltaV software. This service is designed to efficiently minimize the risk of implementing upgrades, allowing you to leverage the latest advances in software technology with confidence.

Basic Cybersecurity Assessment Service

Emerson offers a suite of cybersecurity management solutions. The Basic Cybersecurity Assessment Service is the initial control system cybersecurity review and assessment and will provide high-level insight into what parts of best practice cybersecurity standards that are in place in the DeltaV DCS today.

Emerson's initial Basic Cybersecurity Assessment covers a wide range of cybersecurity related issues including:

- Review of the DeltaV network segmentation.
- Review of existing cybersecurity policies and procedures in place.

- Review of portable device policies (USB sticks, Portable CDs, etc.).
- Review of level of workstation and server "hardening" efforts (USB ports, personnel access policies, etc.).
- Review of user access policies and procedures including passwords and unused accounts.
- Determination of O/S security update policies, procedures and enforcement.
- Review of patch management practices.
- Review of network physical security and perimeter protection "best practices."
- Review of data backup plans and data management procedures.

Other optional add-on services

Advanced Cybersecurity Assessment

A comprehensive baseline DeltaV DCS cybersecurity vulnerability assessment and report identifies control system security vulnerabilities and recommends mitigating actions to help achieve the site's control system cybersecurity integrity requirements.

This service element includes pre-assessment expert cybersecurity consultation service (either on-site or via conference call), reviewing of existing policies/procedures, control system drawings, best practices and network architecture review.

Then, an on-site visit is required to fully explore all aspects of the currently installed cybersecurity processes, policies, procedures and enforcement activities.

Alarm Services — Alarm Analysis and Reports

The ISA-18.2 Alarm Management Standard has been a milestone for industries using modern control systems with alarm functionality. It defines the alarm management lifecycle, reviews alarm management issues, and establishes terminology, concepts and requirements. It is recognized as Good Engineering Practice by insurance companies and regulatory agencies (e.g. OSHA). The Alarm Services — Alarm Reports can help you by identifying "bad actor" alarms, providing recommended remediation to manage your alarm load and help comply with ISA-18.2 standards.

Alarm Services — Alarm Flood and Nuisance Alarm Remediation

Alarm performance deficiencies identified in the alarm reports can be addressed through a variety of remediation by leveraging DeltaV Alarm features: e.g. conditional alarming, first out alarming and dynamic flood suppression.

DeltaV Extended Hardware Warranty (EHW)

The standard hardware warranty period for the DeltaV DCS and safety instrumented system (SIS) is 12 months from initial installation, but not greater than 18 months after shipment. EHW service extends the standard hardware warranty and supports the essential spares requirement for your DeltaV DCS SIS by providing direct access to required spares from Emerson.

Control Performance Improvement

Control performance improvement requires a two-step process, including data collection and analyses, followed by a comprehensive report that will provide a closer look at the key loops requiring attention. With the help of process personnel, the field service engineer will enable the plant area to collect data that can be further analyzed and identify key process loops. The data is transferred by the field service engineer to Emerson specialists for further analysis using various software tools and process simulation. The second step involves the creation of a plant performance report, which outlines a

remediation plan for the process loops requiring attention. In some cases, opportunities for advanced process control can be identified.

User Group Attendance

Inclusion of this option provides complimentary attendance to the Emerson Exchange User Group annual conference. It does not cover travel expenses or lodging. Meals are provided during the conference.

Emerson Global Users Exchange enables users to leverage their investment in the Emerson technologies they currently use, and have a lasting impact on their success.

The conference provides the opportunity to attend hundreds of workshops, short courses and training sessions that will enhance users' professional development and increase their value to their companies. In addition, the Industry and Technology Forums will give users an opportunity to learn about the latest industry and technology trends.

Service Feature	ST100	ST200	ST300	ST400
Guardian Support	✓	✓	✓	✓
Site Evaluation Service including Spare Parts Report	✓	✓	✓	✓
Preventive Maintenance Package <ul style="list-style-type: none"> • Factory Standard Periodic Health Check • Maintenance Service Hours • Designated Local Service Engineer • System Maintenance Report (SMR) 		✓	✓	✓
Reactive / Emergency Onsite Service	○	○	✓	✓
System Reliability and Lifecycle Consulting <ul style="list-style-type: none"> • Customer Value Manager • Factory Product Expert • Priority Call Handling through Oversight and Intervention • Periodic Technical Review Meetings • Governance, Escalation and Priority Call Handling • KPI Dashboards • Assessment and Consultation on Knowledge Base Articles (KBAs) • Lifecycle Planning • Continuous Improvement and Best Practice sharing 			✓	✓
Resident Engineer		○	○	✓
DeltaV™ System Health Monitoring	○	○	○	✓
Patch Management Service - Manual or Automated	○	○	○	✓
Backup and Recovery Services	○	○	○	✓

✓ = Included ○ = Optional

Service Feature	ST100	ST200	ST300	ST400
DeltaV™ Upgrade Service	○	○	○	✓
Basic Cybersecurity Assessment Service	○	○	○	✓
Advanced Cybersecurity Assessment	○	○	○	○
Alarm Services - Alarm Analysis and Reports	○	○	○	○
Alarm Services - Alarm Flood and Nuisance Alarm Remediation	○	○	○	○
DeltaV™ Extended Hardware Warranty	○	○	○	○
Control Performance Improvement	○	○	○	○
User Group Attendance	○	○	○	○
Educational Services	○	○	○	○
Other Local Offerings - i.e. Spare Parts Stocking Program, Local Help Desk	○	○	○	○

✓ = Included ○ = Optional

Ordering Information

Description	Model Number
SureService ST100	Please Contact Your Local Emerson Sales Office
SureService ST200	Please Contact Your Local Emerson Sales Office
SureService ST300	Please Contact Your Local Emerson Sales Office
SureService ST400	Please Contact Your Local Emerson Sales Office

Emerson

North America, Latin America:

☎ +1 800 833 8314 or

☎ +1 512 832 3774

Asia Pacific:

☎ +65 6777 8211

Europe, Middle East:

☎ +41 41 768 6111

🌐 www.emerson.com/deltavureservice

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