DeltaV™ System Health Monitoring Service

- Increase awareness of system diagnostics
- Accelerate response time to system events
- Reduce dependence on manual tasks
- Achieve continuous monitoring

Introduction

Manufacturing sites have historically emphasized asset management of their process assets over that of their automation system assets. Often, sites do not have the personnel, technical skills, or the time to effectively monitor their automation system assets. The result is manufacturing sites react to system events rather than prevent them. This increases the labor required to maintain the assets and creates disruptions in the normal work flow.

The DeltaV System Health Monitoring Service automatically checks important health information of system assets such as controllers, DeltaV distributed control system (DCS) servers and workstations, SIS controllers, switches, firewalls, DeltaV Virtualization infrastructure, CIOCs, UPSs, and non-DCS servers and workstations. The solution sends notifications to Emerson when observed health parameters are outside of expected normal operating ranges.

Emerson’s Connected Service works 24x7x365 with the goal of diagnosing these critically important health warnings before they escalate into problems — potentially leading to a process disruption. Tailored recommendations eliminate the troubleshooting normally required for system diagnostics. 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.

DeltaV System Health Monitoring Service puts you in the driver’s seat to centralize monitoring of your control system’s assets. An on-premise dashboard integrates system diagnostics into a single-pane-of-glass, and Emerson’s Guardian Web Portal presents the data for off-premise tracking. Shift your system maintenance from reactive to proactive: Continuous and automated health monitoring helps you realize optimal system performance through increased awareness and accelerated response time.

Benefits

Increase awareness of system diagnostics: Even a small control system has hundreds of diagnostic parameters relating to individual components, software, and hardware. Additionally, these diagnostics come from disparate sources and require various applications and interfaces. Consolidating these diagnostics into a single-pane-of-glass allows the DeltaV System administrator to achieve awareness, identify anomalies, and realize optimal system performance.

Accelerate response time to system events: Experience earlier issue detection and quicker resolution, resulting in reduced equipment failures, data loss and downtime. DeltaV System Health Monitoring Service connects local system health data with Emerson’s expertise to diagnose the root causes of problems and quickly notify local responders. System administrators can shift from reactive maintenance to proactive response and prevention.
Reduce dependence on manual tasks: SHM automates vital measurements of system performance and diagnostics. By delegating manual monitoring of a system’s health parameters to Emerson’s automated DeltaV System Health Monitoring Service, site resources can focus on delivering quality product and bottom-line results. Spend less time reacting to system issues, and more time focusing on process management and operations. Achieve a proactive maintenance strategy and gain productivity by leveraging the power of automation.

Online monitoring of critical system assets: Hundreds of health checks are repeatedly and automatically performed on control system assets such as controllers, DCS servers and workstations, SIS controllers, switches, firewalls, DeltaV Virtualization infrastructure, CIOCs, UPSs, and non-DCS servers and workstations.

The continuous online monitoring enables Emerson to quickly detect, diagnose and provide timely resolution of your system’s health warnings.

Recommended mitigating actions provided: When a health condition is detected, the local System Health Monitoring appliance alerts Emerson. The alert is diagnosed and analyzed to identify the most likely root causes. Recommended actions are then provided to you and the local service provider to enable a collaborative and quick resolution of the issue. The statuses of the alerts are tracked in Emerson’s Call Tracking System and the Guardian Web Portal to ensure that problems are ultimately resolved.

Complementary to Guardian Support: Guardian Support for DeltaV DCS delivers extensive support features including expert technical phone support, DeltaV DCS software updates, Knowledge Base Articles, operating system security update management, lifecycle status information, and many others. DeltaV System Health Monitoring Service provides an excellent complement to Guardian Support through its online diagnostic capabilities and proactive health condition notifications. DeltaV System Health Monitoring Service identified actionable alerts are now integrated into the Guardian Web Portal, and the system also automatically uploads your encrypted DeltaV DCS registration file monthly.

Service Description

Achieve continuous monitoring: Periodic, manual health checks frequently miss anomalies and abnormal events. These underlying health warnings could lead to a system disruption if left unmitigated. But, automated and continuous diagnostic analysis captures these intermittent issues. The DeltaV System Health Monitoring Service connects the right information with the right expertise at the right time. Rest assured that your system diagnostics are being analyzed all day, every day with Emerson’s Connected Services.

Related Services

Emerson’s Plantweb Digital Ecosystem harnesses the power of Industrial IoT to expand digital intelligence to the entire manufacturing enterprise to help you achieve Operational Certainty. Emerson’s Connected Services are your expert resources in gathering, analyzing, and interpreting equipment and process information.
Service Requirements

- DeltaV DCS version v11.3 or above is required.
- Active Guardian Subscription is required for the annual subscription option. Please contact your local Emerson office for information regarding one-time purchases without Guardian Support.
- A connection to the site’s SMTP (email) server is required.
  - Health conditions detected at the site by the System Health Monitoring appliance are reported to Emerson via email, enabling the remote monitoring service. Therefore, the System Health Monitoring appliance is required have a connection to the site’s SMTP (email) server. No remote connectivity is required back into the site.

Ordering Information

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System availability can be influenced by a variety of factors, and no product or service can guarantee full and continuous system availability. This service is one part of an overall strategy to improve system availability through earlier issue detection and proactive response. This service does not use predictive technology to prevent unplanned downtime; rather, this service captures system health warnings that could be indicative of a current problem. Emerson does not warrant that this service or the use of this service protects the DeltaV system from unplanned downtime or failed system components. Emerson shall not be liable for damages, non-performance, or delay.

To learn more, contact your local Emerson sales office or representative, or visit www.emerson.com/shm.

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