

DeltaV™ Control Loop Data Collector for AMS Optics

- Improve operational performance using AMS Optics by easily identifying underperforming DeltaV™ control loops
- Promote collaboration between Process and Maintenance teams by providing both valve and control loop health data on one platform
- Historize control loop performance metrics to gain more insight into the problem for faster troubleshooting
- Connect multiple DeltaV Systems to a single AMS Optics installation and display a single KPI of manually operated control loops



DeltaV™ Control Loop Data Collector provides users with the ability to stay in touch with the health of all control loops from anywhere.

Introduction

Control loop performance directly impacts the reliability and availability of an asset. However, underperforming loops often go undetected for weeks or months as control engineers and instrument technicians have difficulty monitoring hundreds of control loops and instruments across the site.

With the DeltaV™ Control Loop Data Collector, users are notified of unhealthy control loops enabling them to address issues proactively. This helps users recognize when a faulty measurement, defective valve, or poor tuning is getting in the way of achieving operational goals.

For example, users are notified if a tuning recommendation is available that can significantly improve control. Taking corrective action reduces process variability and improves control performance that can save millions of dollars each year.

Actionable Information to Relevant Persona

Control loop health notifications are delivered to users depending on active abnormal conditions. The following conditions are monitored for every control loop and, based on user configuration, alert the user if tuning or maintenance is needed.

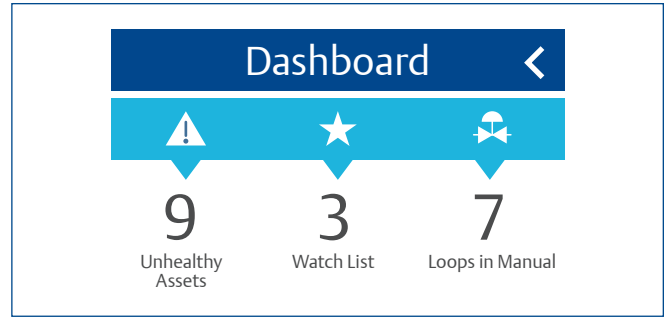
Control loop conditions monitored:

- Bad valve
- Device alerts detected incorrect mode
- Large variability
- Limited control
- Oscillation occurring
- Tuning recommendation available
- Uncertain input

Reduce Control Loops in Manual

The number of control loops set to Manual mode (or are set to an Incorrect mode) is an indication of impending control loop issues or already existing operational problems.

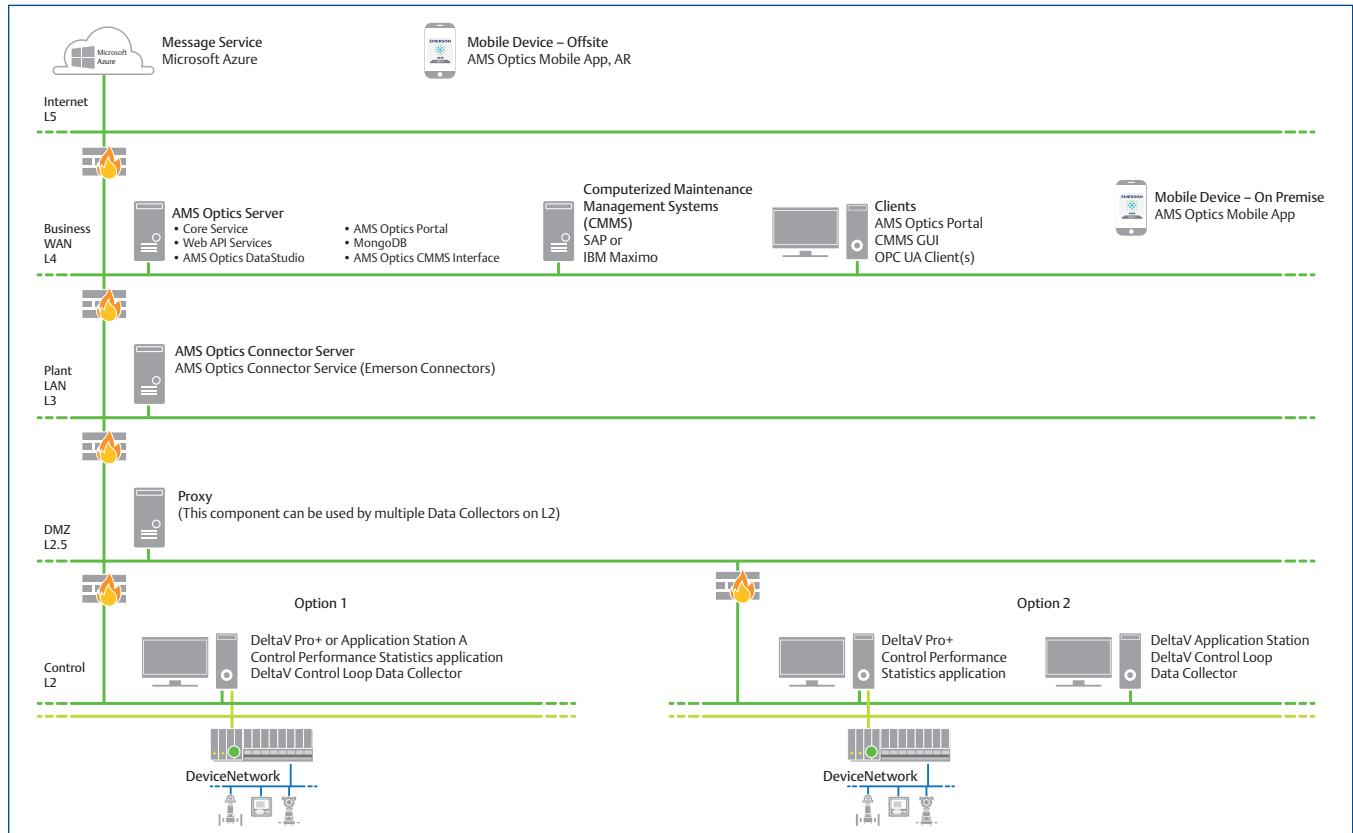
The DeltaV Control Loop Data Collector displays a KPI, Loops in Manual, on the AMS Optics Portal dashboard, which lists all control loops that are not set to automatic control. This drives users to reduce control loops running in manual to achieve design specifications.



View all Loops in Manual control from the dashboard.

Layered Security Keeps Networks Safe

The DeltaV Control Loop Data Collector allows flexible installation for complex network architectures. Multiple proxies can be installed in between network levels to connect the DeltaV System to the AMS Optics server, allowing for layered network deployment, as shown below.



Connectivity to Multiple DeltaV Systems

AMS Optics can connect to multiple DeltaV systems through one Optics Connector Service. Each DeltaV System would require a DeltaV Control Loop Data Collector installed on a ProfessionalPlus or Application Station. This allows all your control loops to be monitored and viewed in a single place, delivering increased efficiency and awareness.

AMS Optics Connector Service (Emerson Connectors) Requirements

Operating System	Windows 10 Pro Windows 10 Enterprise Windows 10 IoT Enterprise 2016 LTSB (64-bit) Windows Server 2019 Datacenter Windows Server 2019 Standard Windows Server 2016 Datacenter Windows Server 2016 Standard
CPU Architecture	64-bit
Processor	2.4 GHz, 4-Core processor, Intel Core i5, or better
Memory	4 GB RAM (supported) 8 GB RAM (recommended)
Hard Drive	SATA (supported) SATA or better (recommended)
Available Disk Space	20 GB (supported) 100 GB (recommended)
Internet Information Services (IIS)	v8.5, v10 (supplied with OS)
Network	1x 1GB NIC

Proxy Requirements

Operating System	Windows 10 Pro Windows 10 Enterprise Windows 10 IoT Enterprise 2016 LTSB (64-bit) Windows Server 2019 Datacenter Windows Server 2019 Standard Windows Server 2016 Datacenter Windows Server 2016 Standard
CPU Architecture	64-bit
Processor	2.4 GHz, 2-Core processor, Intel Core i3, or better
Memory	2 GB RAM
Hard Drive	SATA (supported) SATA or better (recommended)
Available Disk Space	20 GB
Internet Information Services (IIS)	v8.5, v10 (supplied with OS)
Network	1x 1GB NIC

Additional Specifications

Browser	Current versions Google Chrome Microsoft Edge
Ethernet	One or more Ethernet ports (1GB NIC)
Internet Connectivity	A high-speed Internet connection is recommended to download installations and patches, register software, and receive alerts and messages on the mobile application.
Screen Resolution	Minimum: SXGA (1280x1024 pixels)
Supported Anti-virus Software	Symantec™ Endpoint Protection McAfee™ Endpoint Norton™ Security with Backup
Supported Virtualization	VMware v6.0 up to v7.0 HyperV 2012, 2016, 2019, 2022

DeltaV Versions Supported

v12.3.1, v13.3.1, v14.LTS, v14.LTS FP1

NOTE: Install appropriate DeltaV hotfixes to enable Control Performance Monitoring functionality.

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