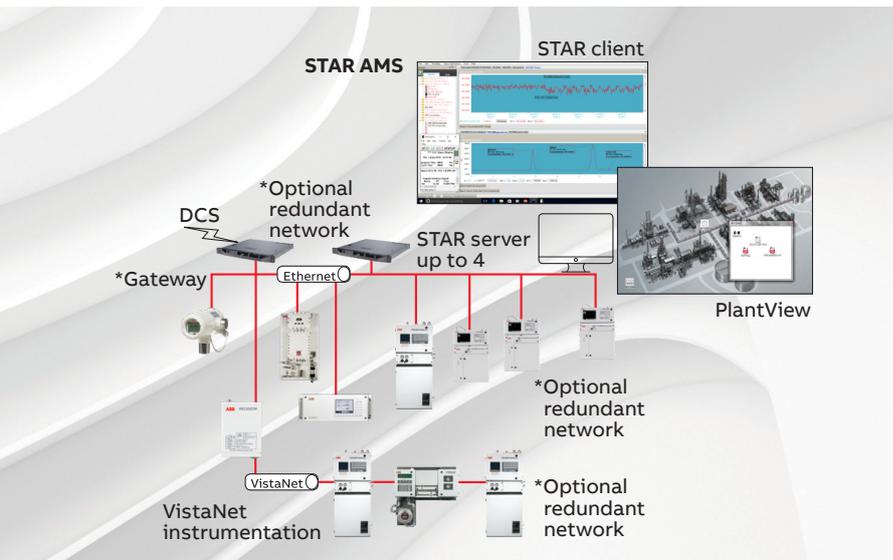# STAR Analyzer Management System (AMS)
Remote diagnostics, predictive maintenance and asset monitoring

Restore critical resource time and lower the total cost of ownership.

Measurement made easy

—
STAR Analyzer
Management
System (AMS)

Challenge

Approximately 63% of a technician's time is spent in scheduled maintenance and investigating non-existing equipment faults. Furthermore, the ratio of process analyzers to the number of assigned technicians continues to increase. This drives the need for remote diagnostics, predictive maintenance and asset monitoring to make the most efficient use of limited resource time. ABB's STAR AMS meets the challenge restoring critical resource time and lowering the total cost of ownership.

Solution

STAR AMS is a client-server platform designed to centralize and manage critical data from legacy and current process analyzer networks. Archival and retrieval, trending, reporting and statistical analysis are all essential data management tools provided by STAR AMS. The Remote User Interface (RUI) launch portal for legacy and current ABB analyzer assets STAR AMS and an OPC concentrator for third party analyzers provide time complete remote access to networked analyzer assets all displayed logically in the Plant View mode.

Product features

- Centralized analyzer data and documentation storage scalable to the number of analyzers connected and amount of data storage needed
- Integration of legacy and current ABB products and third party OPC DA servers
- Statistical analysis, trending and data overlay capabilities
- Alarm and Event notifications, remote diagnostics and predictive maintenance
- Integrated suite of software applications including multiple analyzer RUI launch portal and Plant View tool
- Remote analyzer configuration and backup, software upgrades and file downloads
- Multiple user level management options
- Analyzer availability KPI calculation
- Maintenance log

Stakeholder benefits

- Quick and easy access to analyzer performance history, maintenance records, environmental reports, analyzer data packages and other document formats such as pdf, jpeg, doc and xls
- Remote access to all networked analyzer assets from a central control point saving valuable analyzer technician time
- Helps simplify the migration of legacy products to current products according to end user budgets and schedules
- Accuracy and precision monitoring for optimizing analyzer performance during maintenance intervals
- Centralized analyzer troubleshooting, health and status monitoring reducing the total cost of ownership including sample systems
- Instant access to all networked assets within a logical, graphical plant layout UI environment
- Saves significant analyzer technician time by limiting the amount of required direct local interaction with each networked asset
- Enhanced security through supervised asset access capability

Specification

PC hardware requirement for STAR client

Process analyzer network Launchpad for plantwide analytical asset optimization

- 500 GB minimum hard drive
- 1 TB preferred
- 16 GB minimum RAM 32 GB preferred
- 2.8 GHz processor speed minimum 3.4 or faster preferred

Supported operating systems

STAR Client 7, 8, 8.1, 10
STAR Server and Gateway Windows 2008 R2, 2012, 2012 R2, 2016 server

STAR server

- Stores, simple, single point tags (i.e., OPC DA data) and complex metadata such as analyzer configuration, PGC chromatograms, analytical methods, and reports. The data stored with the STAR Server enables customers to better maintain and optimize their analyzer assets.
- Rack-mountable network server base unit
- Analyzer connectivity and communications via legacy VistaNET and/or standard Ethernet networks and viewed using STAR Remote Client(s)
- Data access through STAR Client from a workstation PC
- Geographical Plant View and traditional tree view layout
- Networking via Ethernet (2-redundant ports)
- Each unit is factory configured to meet customer data presentation requirements.

Network licensing options with the STAR Server

1 to 15 device licenses
1 to 50 device licenses

Data storage

Up to 5 years (depending on analyzer configurations) of chromatogram and report data storage

Software/hardware requirements for connectivity with ABB analyzers
- PGC5000, PGC1000 and Reid Vapor Pressure (RVP) analyzers
- PGC5000 version 1.0 and version 2.0 not supported.
- PGC5000 version 3.0 master controller software will support only Remote Client access from the STAR Client but can be upgraded to version 4.0.
- PGC5000 version 4.0 and newer will support full storage and retrieval of data from STAR DMS.
- PGC1000 all versions supported
- RVP4500 Series supported

Model 3100 and PGC2000 analyzers
- PGC2000/3100 GC must be VistaNET 2.0 (i.e. reporting through VN2300DM routers)
- CAC 3220 must be VistaNET 2.0 (i.e. reporting through VN2300DM router) only RUI launch supported from STAR client

Multiwave photometer analyzers
- Model 3402 VistaNET 2.0 enabled (i.e. reporting through VN2300DM routers)
- Model 3502 VistaNET 2.0 enabled (i.e. reporting through VN2300DM routers)

Gateway (optional)
Provides the interface between the process analyzer network and higher level process networks running on Distributed Control Systems (DCS), data acquisition systems, PC's, PLC's, SCADA systems and others. Communications to such process network solutions is dedicated, and where necessary, redundant.
- Connectivity is achieved through multiple modes OPC, Modbus, or any variety of ASCII-based serial protocols.
- Contact factory for further information on features and benefits.

VN2300DM router
- VN2300DM is a special applications network router capable of allowing data packets to be passed between VistaNET and a standard Ethernet network. VN2300DM also has the capability to be configured to output Modbus RTU over an integrated RS-232 port and Modbus TCP. It also facilitates legacy VistaNET instrumentation the ability to send data to the STAR Server. VN2300DM is Class 1, Division 2 approved and CE certified.
- Contact factory for further information on features and benefits.

Supported file formats
BASIC, BMP, DOC, DOCX, GIF, HTML, JPEG, PDF, RTF, TEXT, XML, XLSX, PDF All ABB analyzer file formats

Software/hardware requirements
- Connectivity with other ABB CGA analyzers and third party analyzers
- OPC server 2.05a DA compliant server
- Modbus TCP/RTU

Software/hardware requirements
Connectivity with DCS through gateway
(hardware defined above)