ABB Ability™ Genix Datalyzer
Digitalization takes analyzer fleet monitoring to the next level
Measurement made easy

Stricter regulations and increased focus on sustainable operations are driving the digital transformation in continuous gas monitoring systems.

Genix Datalyzer lowers cost of ownership, provides easy access to data, ensures value added insights and helps to maintain and optimize availability.

Take the guess work out of analyzer monitoring
Comprehensive data, all of the time

Across the world, environmental regulations on emissions are becoming increasingly more stringent. These regulations often require continuous measurement and control of pollutants with demanding asset availability requirements. Non-compliance has never been more expensive.

Gas analyzers provide real-time data needed to ensure clients meet regulatory requirements. A common challenge associated with this type of advanced equipment is the demand for skilled maintenance and service support staff to ensure compliance with the regulations.

Local skilled staff are often stretched, or not available 24/7, and for some operations it may not be possible to have on-site expertise at all.

ABB offers a comprehensive suite of solutions for emission monitoring and is helping customers make the shift toward CEMS as a Service.

The newly released digital solution: ABB Ability™ Genix Datalyzer is the solution. It is a cloud hosted data analytics platform for fleet-wide asset health monitoring.

Through analysis of equipment data, including sample handling systems, the solution helps in decreasing unexpected maintenance and down-time events whilst reducing the need for local intervention and skill level required to operate these systems.

Enhanced by an innovative service agreement delivered by trained service engineers, ABB is changing the business model and offering total measurement care with known costs so that customers can focus on their business.

A fleet monitoring solution which removes the complexity and transforms data into business value.
Taking the next step from preventive to predictive maintenance

**Regulatory compliance**
Non-compliance has never been more expensive, in terms of both fines and threat of shutdown. Increased regulations result in increased compliance costs, requiring 24/7 monitoring of pollutant gases.

**Asset availability**
The failure of a single part of an analyzer can cause cascaded damage in the system. End-users need to ensure maximum uptime of the analyzers by regular monitoring of key parameters.

**Asset quality & accuracy**
Regulatory aspect for emissions monitoring has laid back the emphasis on keeping asset quality high. Even if an end user follows preventive maintenance methodology it has its own disadvantages.

**Resource availability**
Retirements and other departures erode “institutional knowledge” on analyzers. Staff changes challenge’s ability to standardize maintenance practices across multiple sites.

**Scheduled maintenance**
Maintenance may be required at convenient and less convenient times. If a major event is not preempted with the help of condition monitoring or predictive maintenance solutions, it can be difficult to do maintenance during inconvenient times.

**Safety & cybersecurity**
Safety of the personnel and of the data & systems is getting more critical with time with various data breaches in major companies.

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**Genix Datalyzer**
With over 60 years of experience in emissions monitoring, ABB is able to provide customers with cost-effective, regulatory compliance, and sustainable emissions-monitoring solutions that are dependable and offer reliable performance along with safety.

With ABB Ability™ Genix Analytics and AI Suite in, ABB demonstrates their ability to marry their industrial and automation experience with digital innovation to help industries in their digital transformation to reduce costs and increase performance.

ABB can now automate contextual data from operational technology (OT) with information technology (IT) and Engineering technology (ET). With assets, such as gas analyzers, at its core, this powerful platform includes the collation of the massive data that each asset generates. Being the primary player in analyzer systems, ABB has combined the power of Genix platform along with years of expertise in managing the analyzer systems and has launched ‘ABB Ability Genix Datalyzer’.

This new solution helps to maintain and optimize availability while reducing personnel challenges. The solution is rightly suited to manage above covered six dimensions of an emission monitoring solution.

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ABB is ideally positioned to know how to extract, converge, contextualize and utilize data for prediction possibilities, and suggest improvements.
Secure data available anywhere
Cybersecurity features

Secure applications
Helps building secure (and Minimum Cyber Security Requirement (MCSR) compliant) applications

Authentication based
Azure Active Directory (AD) based authentication that supports Multi Factor Authentication (MFA), Single Sign On (SSO), on-premise directory sync

Application authorization
Role Based Access (RBAC) framework to support application authorization

User & resource access control

Audit trails & reports

Logging & audit framework

Secrets management
Secrets management Application Programming Interface (API) for securing secrets such as Role, Password & ID

Edge hardware
- Tested for security vulnerabilities & certified
- Built in Trusted Platform Module (TPM) chip which hardens device to prevent unintended access
- Achilles Level 2 certified

Edge deployment
Secure edge module development (Leveraging Ability, Edge & Edgenius)

Genix Datalyzer

Preventive maintenance challenges

Overreaction
Manual processes
Unpredictable costs
Resource availability
Asset quality
Regulatory compliance

Predictive maintenance benefits

Convenient scheduling
Early anomaly detection
Improved asset quality
Easy compliance
Lower unplanned downtime
Safety
Easy access to data

Taking the next step from preventive to predictive maintenance

Convenient scheduling
Early anomaly detection
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Easy compliance
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Easy access to data
Genix Datalyzer
Key features

- Access to analyzer system diagnostics
- Value added insights
- Live analyzer process data
- Event based notifications
- QAL3 assessment & reporting
- Fleet overview (plant, site & corporate level)
- Historical trends (upto 5 years)

Genix Datalyzer
Key benefits

- Data access
  24x7 easy access to data and value-added insights

- Asset availability
  Maximization of process & asset uptime, reducing the risk of being non-compliant

- Lower cost of ownership
  Improved reliability due to lower operational risk

- Predictive maintenance
  Can pre-empt major failure (predictive). Less need to have expert resources in each site

- Increased profitability
  Build and deploy analytical applications readily – reduce costs and improve margins

- Cybersecure
  Secure applications, Azure AD based authentication, Audit trails & reports, secure Edge module development
Making emission monitoring easy
Supported products and target industries

Genix Datalyzer
Engagement process

- Introduction of Genix Datalyzer by ABB Sales Engineer
- Solution demonstration
- Understanding of existing continuous gas monitoring system
- Select license option
- Receive quote
- Solution deployment

Supported products:
- ACF5000
- AO2000 System
- ACF-NT
- AO2000
- EL3000

Target industries:
- Waste to energy
- Cement
- Power generation
- Oil, Gas & Chemical