

Diagnostics

Increase your network availability



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## Downtime - a costly and growing problem

Downtime is the nemesis of every single industry, with hugely detrimental effects on production, output, revenues, and sustainability. Its financial impact is estimated at \$50 billion annually and increasing, as just one hour of downtime now costs at least 50% more compared to two years ago.



## Anybus Diagnostics to the rescue!

But fear not! Anybus Diagnostics offers a comprehensive range of products and services, empowering industrial companies to proactively implement preventive techniques. Experience significant reductions or even complete elimination of downtime.

### We have you covered all the way!



Compatible with multi-protocol networks



Increase network uptime and productivity



Optimize network maintenance schedules to implement preventive maintenance



On-site and Online support available

## How to reduce or even eliminate downtime

Happily, there are established techniques to tackle downtime and minimize its impact. Here are five preventive maintenance strategies companies can implement to significantly reduce downtime or even eliminate downtime altogether.

#### **Permanent Monitoring:**

The best way to alleviate the pain of downtime is to be forewarned about any issues in your network. Permanent, real-time monitoring tools provide companies with continuous visibility through userfriendly dashboards and customizable alarm thresholds, enabling timely notifications of potential issues.

#### **Network Segmentation:**

Divide the network into segments to isolate issues, prevent systemwide failure and simplify troubleshooting.

#### **Spare Parts:**

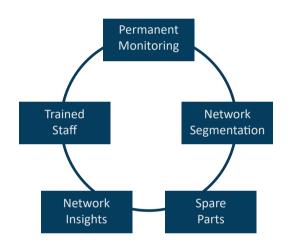
Hardware faults will happen eventually. In fact, hardware problems are the biggest cause of network communication faults. To mitigate the impact, it is essential to adopt a proactive approach by maintaining an inventory of critical spare parts, including connectors, cables, terminators, hubs, repeaters, and devices.

#### **AI-Powered Insights:**

Utilize AI software for quick and accurate network analysis, reducing reliance on highly experienced engineers and streamlining troubleshooting.

#### Train your own staff:

Certificated training courses offer hands-on experience, enabling engineers to effectively design, install, maintain, and troubleshoot industrial networks. By closing knowledge gaps within their staff, companies can improve network performance and increase uptime



#### Why HMS Networks?

"Anybus Diagnostic helps our customers avoid the devastating impact of unplanned downtime, by offering ready-made, industrially verified products, expertise, and training courses. By partnering with us, you can ensure the uninterrupted operation of your fieldbus and Industrial Ethernet networks."

#### **Bert Konings**

Business Line Director, Anybus Diagnostics

# Permanent monitoring solutions

We offer different solutions for the protocol you work with



### Atlas2 Plus

- Multi-protocol solution for PROFINET, EtherNet/IP, EtherCAT and Modbus TCP
- Retrospective analysis
- Preventive maintenance
- Interfaceable with Scada systems and historian with OPC-UA / MQTT
- Easy installation / design
- Power redundancy
- OT Security License
- Inbuilt digital assistant
- Network report generation



### ComBricks

- PROFIBUS DP and PA compatible
- Modular and flexible solution adaptable to any network layout
- Retrospective analysis
- Preventive maintenance
- Galvanic isolation among channels
- Connection through DB9 ports or green connectors
- Easy installation / design
- Transparent to the network
- Media conversion (Fiber / DP / PA / IS)



Cost-effective solution for monitoring mixed architecture networks



Accelerates troubleshooting by analyzing and visualizing real-time diagnostic data

### Your benefits



Allows remote monitoring through a user-friendly web dashboard



Prevents network crashes through accurate faultfinding capabilities



Simplifies maintenance by fusing results of multiple Atlas units into one overview

## Portable monitoring solutions

Looking for the perfect hand-held tool?



### ProfiTrace

- Multi protocol diagnostics for PROFIBUS DP and PA
- Diagnostics on messages and electrical signal
- Easy to connect and operate device
- Transparent to the network
- Network Report generator
- Measurement recording



#### Mercury

- Multi-protocol solution for PROFINET, EtherNet/IP, EtherCAT and Modbus TCP
- OT Security License
- IP 65 rated
- Compact and durable
- Inbuilt digital assistant

### Your benefits



Easy to use and access to data



Portable diagnostic device for sporadic network measurements



Reduces troubleshooting time



Compact solutions for multi-protocol networks



Access to recorded measurements for further processing

## Network segmentation and conversion

Find the right repeater to strengthen your network backbone



### ProfiHub

- Multi channel repeater
- Galvanic isolation among channels
- Connection through DB9 ports or green connectors
- Easy installation / design
- Transparent to the network
- Media conversion (fiber / copper)
- IP 20 / IP 65
- Power and channels redundancy

Your benefits



Hot slave insertion and removal during operaiton



Compact and robust construction

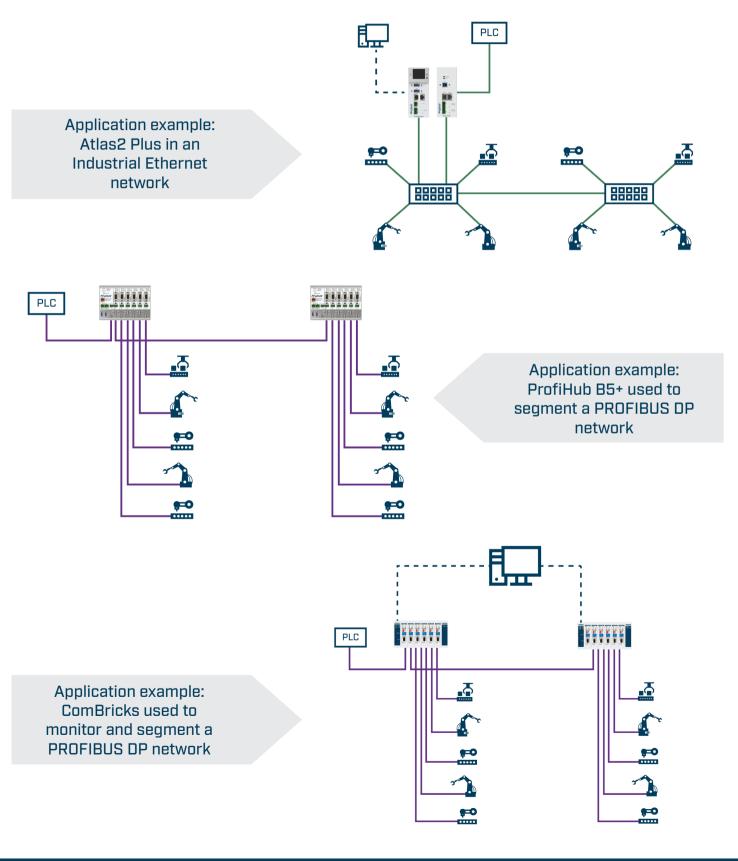


Dynamic spur lines to devices



Star, tree, and bus network segmentation

## Application examples of diagnostics solutions



## Anybus Diagnostics in action!

### Maintaining water purity

How the Anybus ProfiTrace and ComBricks helped Rijnland District Water Control Board ensure clean water

Rijnland District Water Control Board manages over thirty wastewater purification plants, but they faced a shutdown in one system due to a malfunctioning PROFIBUS network. They turned to Procentec (now Anybus) and used the ProfiTrace to identify and fix the problem. To ensure long-term network stability, Rijnland installed a ComBricks module to monitor the network. With the ComBricks, the network is now stable, avoiding unplanned downtimes and ensuring healthy water throughout the region.



To prevent future malfunctions, Rijnland installed a ComBricks module to monitor the PROFIBUS network.

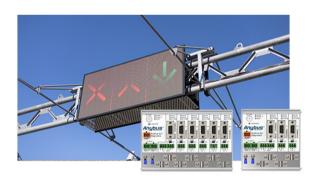
"The PROFIBUS system is now much more stable and totally free of malfunctions."

Paul Schipper, Rijnland District Water Control Board

#### Getting home on time

How the Anybus ProfiHubs plays a key role in maintaining SWARCO's intelligent traffic systems.

When we travel by road, we depend on intelligent traffic systems (ITS) to guide us to our destination safely and efficiently. But for an ITS to function reliably, it needs a stable industrial network that can transmit real-time data between various components. That's why SWARCO installed ProfiHubs in their ITS, ensuring the ITS' uptime and helping all of us get home on time.



To ensure the stability and reliability of their PROFIBUS network, SWARCO installed a ProfiHub B2+ and a ProfiHub B5 + in their ITS.

"These hubs are quite simply robust and, additionally, they look very well-organized."

Peter Smit, SWARCO Product Manager

## Become your own expert!

Our comprehensive range of Service and Training offerings enables you to acquire knowledge from our experts, helping you conquer these challenges at your own pace. Check out our wide range of on-site and online support services, from our HMS Academy where you can gain product and network knowledge via our eLearning platform, all the way to PI Certified protocol training courses.

#### Why you should invest in trainings with HMS



Ensure minimal downtime and optimal performance



Be in control of your own network at all times



Reduce long-term maintenance expemses



Ger the best training from experts with years of experience in the field

### With you every step of the way



#### **On-site support**

Unexpected downtime as a result of faults can lead to severe losses. If you encounter a complex fault in your network, you can rely on the Service of Anybus Diagnostics. Our experts are at your disposal to get your installation up and running as quickly as possible, or to explain best path or repair.



#### **Online support**

Our experts can utilize the Anybus Diagnostic tools to provide immediate online assistance. This service enables us to pinpoint various issues and provide guidance on how to address them directly within your system.



Work with HMS. The number one choice for Industrial ICT - Information and Communication Technology.

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