



INDUSTRIAL AUTOMATION

myABB / My Control System

the business portal for the digitalization of maintenance

Rolf Vahldieck – Head of Global Service Product Management



Presenter

Rolf Vahldieck

Head of Global Product Management for Control System Services

Presenter Profile:

responsible for the digitalization of control system services and the operation of the digital infrastructure, which includes the business portal myABB / My Control System worked for more than 40 years with ABB in many different management positions



Maintenance for Control Systems

What are the challenges today?

Challenges

Plant availability and asset health

Maintenance efficiency

Work force availability and skill gaps

Life cycle management

Cyber Security and Digitalization

Plant / Production



Goals

Minimum operational risks

Minimal operation costs

Competent resources

Optimal budget planning

Investment protection

Maintenance for Control Systems

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Cyber Security and Digitalization

ABB Ability™

**Asset Health
and Cyber Security**

for control systems

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Digitalization of Maintenance for Control Systems

Advanced Services are Digital Services

Challenges

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Life cycle management

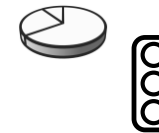
Cyber Security and Digitalization

ABB Ability™

**Asset Health
and Cyber Security**

for control systems

Advanced Digital Services



Analysis

- Performance
- Software
- Security
- Life Cycle



Monitoring

- Health
- Security



Updating

- daily Security Updates

Digitalization of Maintenance for Control Systems

Advanced Services are Digital Services

Challenges

Plant availability and asset health

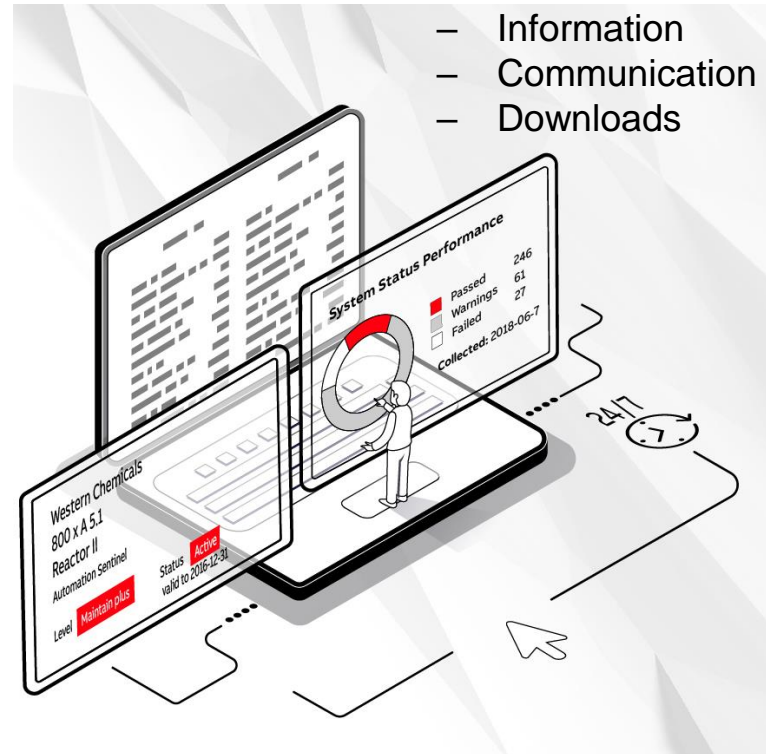
Maintenance efficiency

Work force availability and skill gaps

Life cycle management

Cyber Security and Digitalization

Customer Portal



Advanced Digital Services



Analysis

- Performance
- Software
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Monitoring

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Digitalization of Maintenance for Control Systems

Advanced Services optimize Maintenance and Operation




Customers



Customer Portal



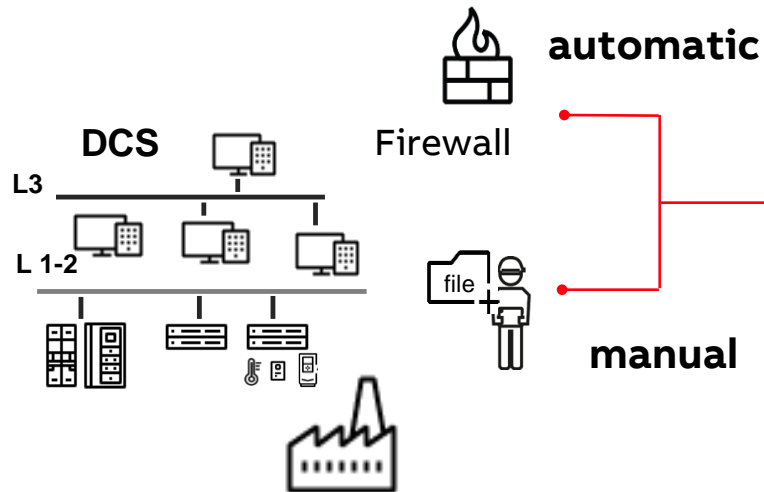
Advanced Digital Services

-  **Analysis**
 - Performance
 - Software
 - Security
 - Life Cycle
-  **Monitoring**
 - Health
 - Security
-  **Updating**
 - daily Security Updates

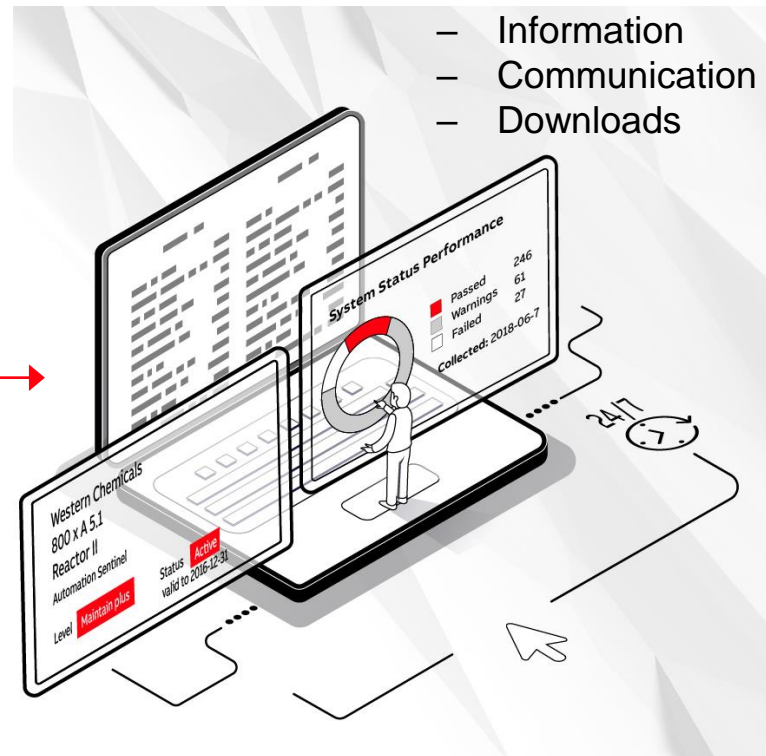
Digitalization of Maintenance for Control Systems

Data are the Base for Advanced Digital Services




System Data



Customer Portal



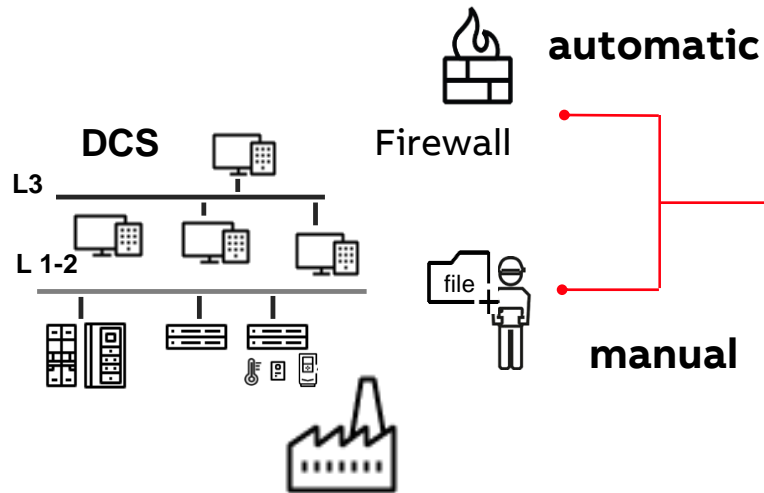
Advanced Digital Services

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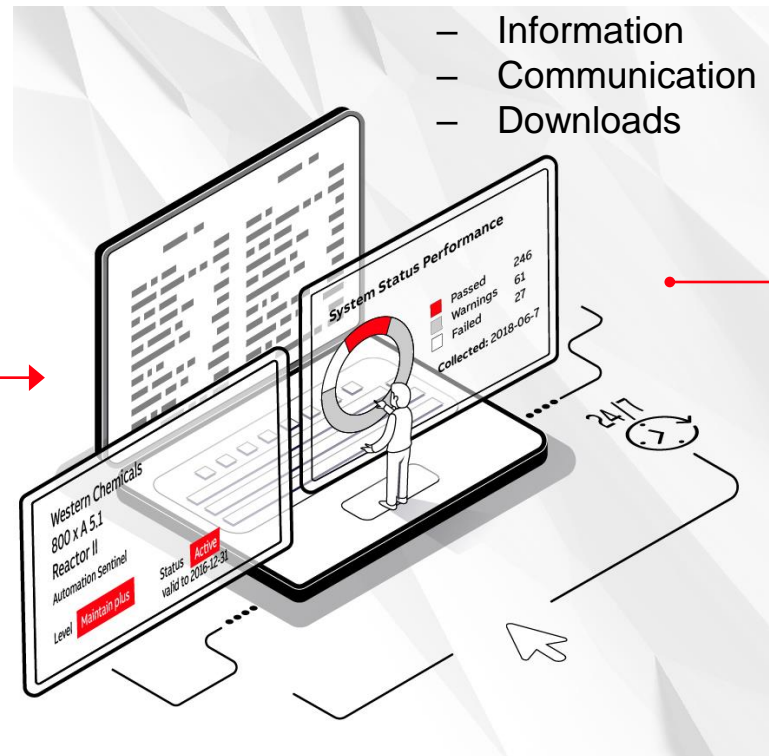
Digitalization of Maintenance for Control Systems

24/7 online accessible

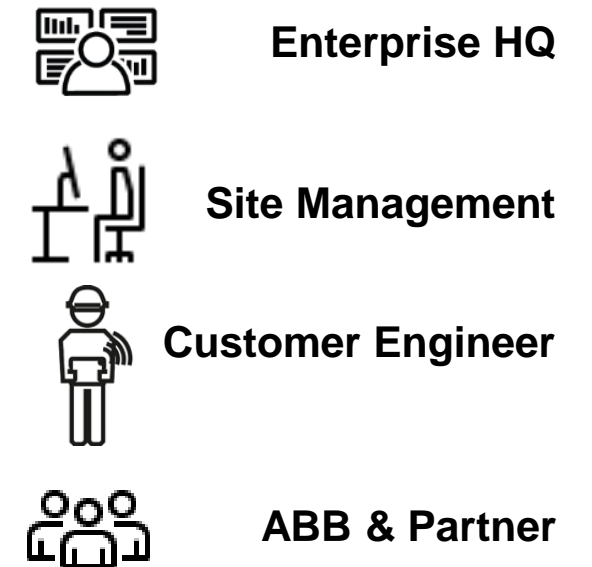
System Data



Customer Portal



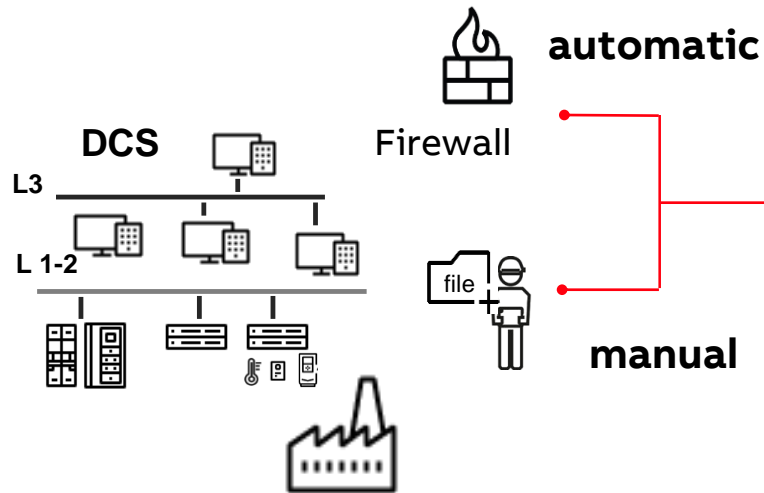
Users



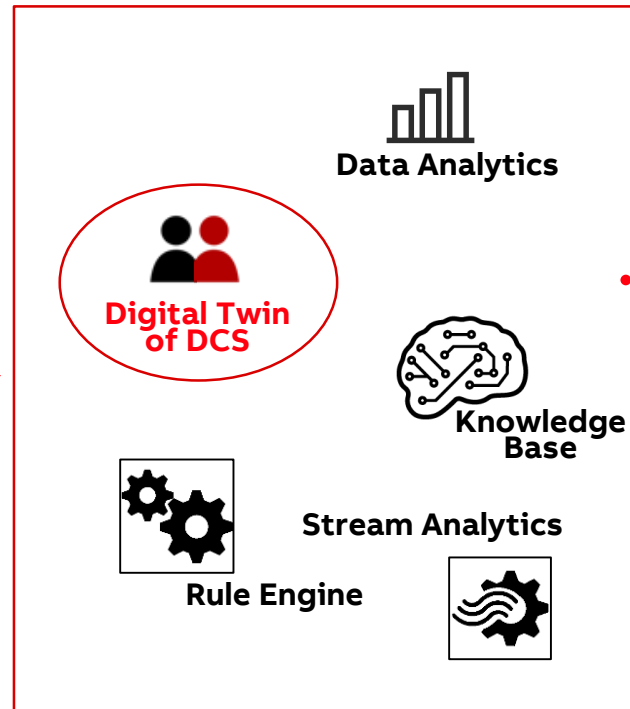
Digitalization of Maintenance for Control Systems

Large Backend Infrastructure for Digitalization of Services

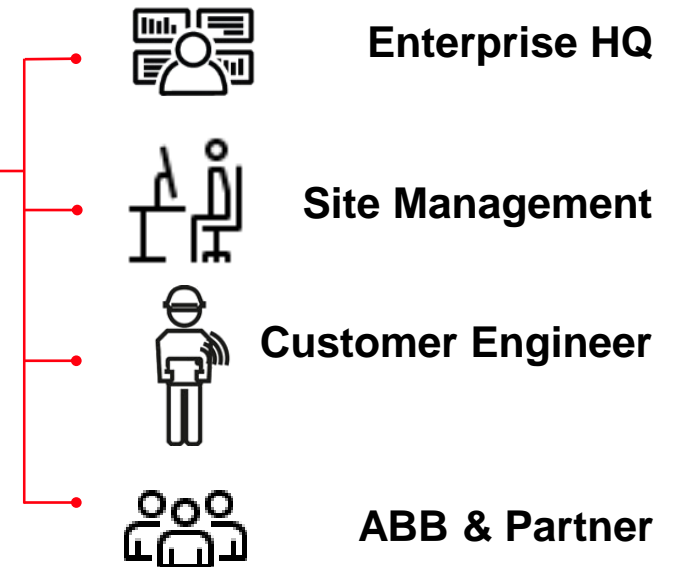
System Data



Backend Infrastructure



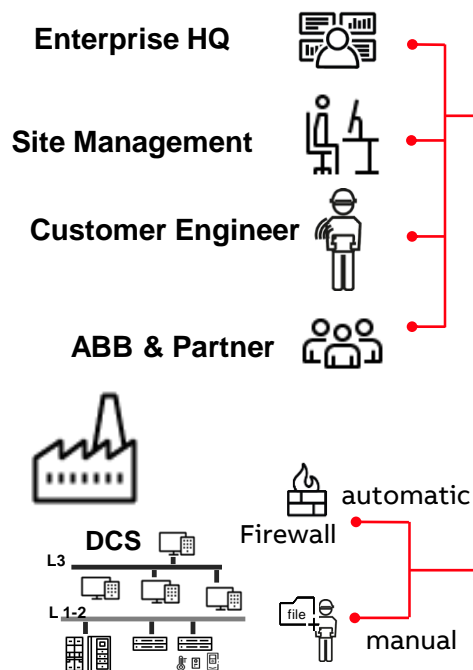
Users



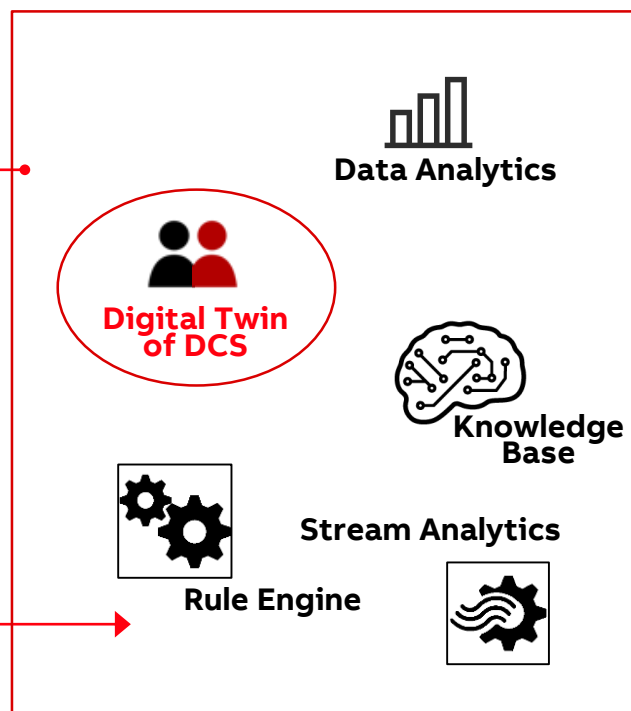
Digitalization of Maintenance for Control Systems

Digital Service Delivery

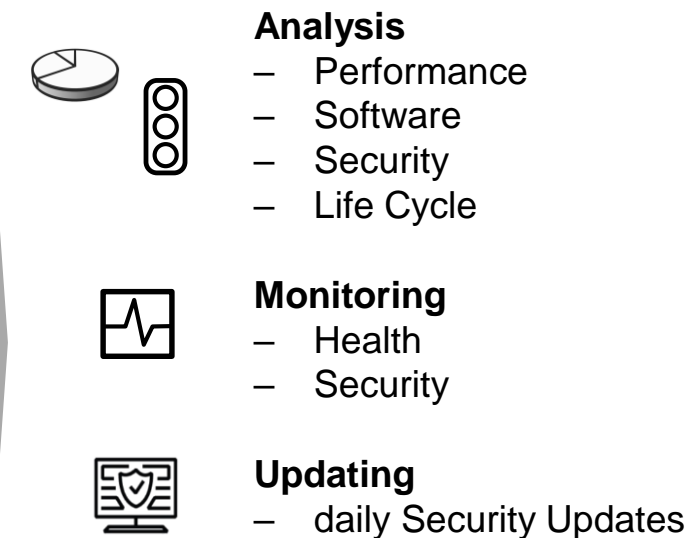
Input & Output



Backend Infrastructure



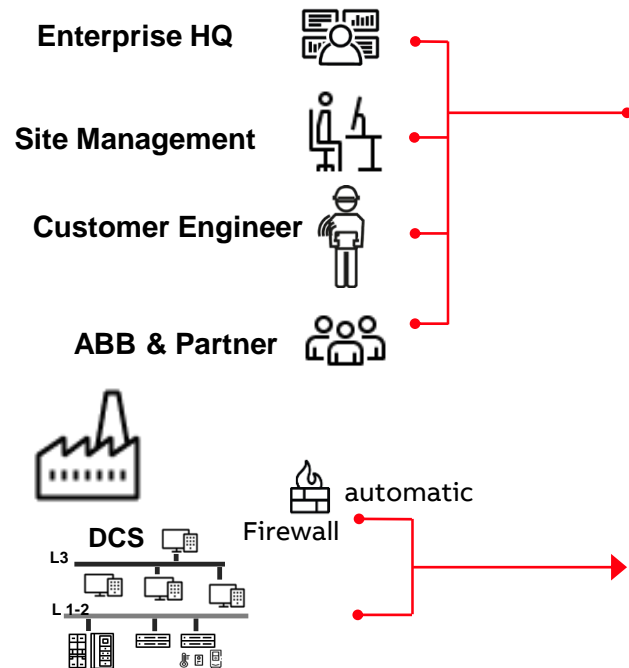
Advanced Digital Services



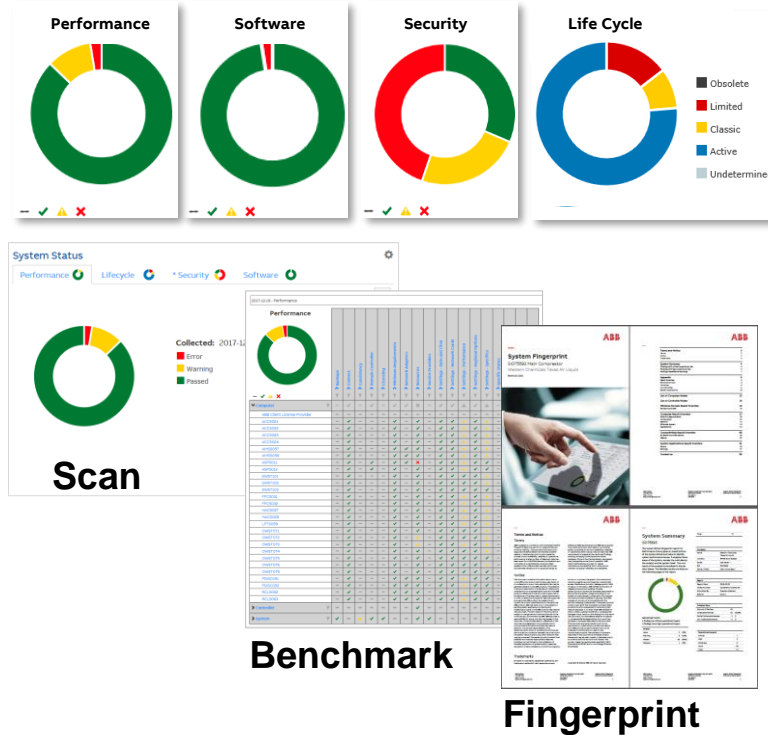
Digitalization of Maintenance for Control Systems

From an Overview down to Details

Input & Output



Status & Recommendations



Advanced Digital Services

-
- Analysis**
 - Performance
 - Software
 - Security
 - Life Cycle
 - Monitoring**
 - Health
 - Security
 - Updating**
 - daily Security Updates



Demo

myABB / My Control System

myABB dashboard > My Control Systems site details > System details

EUSN: Main Compressor ★
800xA 5.1
Western Chemicals Texas AirLiquid, United States, Texas, 77541, Freeport, 2301 N Brazoport Blvd

Current SID: SID75593 EUSN: Main Compressor

[System preferences](#)

Automation Sentinel

Level: **Maintain** Status: **Active** valid to: 2020-02-28

[More information about the program](#)
Available as part of Automation Sentinel [Download subscription document](#)

Licenses

[Licenses details](#)

License	Product	License class	License type	Hardware ID
SLB76020109061027	800xA 5.1 System FP4	Base	Permanent	0A1B2C3D4E5F

Documentation

- System service files
- System Related Documentation
- Control System Documentation
- Video Library

Cyber Security

- Cyber Security Premium [More Info](#)
- Security advisories

Security Update Service

Last WSUS sync: 2018-04-05

Status	Count
Failed	1
Needed	2
Need reboot	10
Updates installed	15
Total number of nodes:	28

ABB Local Service Contact

Steven R Burt

Steven R Burt, ABB Inc.
23000 Harvard Road
44122 Cleveland
United States

Telephone: 440-585-5167
Email: steven.burt@us.abb.com

Control System Administrator

Jessy James
MCS SE
Nya Gatan 1
98765 Stora Staden
Sweden

Telephone: 001 100 200 300
Email: eu.maint.us@gmail.com

Partner Contacts

DEMO-PARTNER-GH

[DEMO PARTNER MAIN](#) [Benchmark](#)

[Demo Partner Additional2](#) [Fingerprint](#)

24/7 online customer collaboration

all relevant information in one place

access to software licenses and downloads

Increases performance and reduces system downtime with online system health analysis

supports system life cycle and investment planning

improves cyber security through assessments and validated security updates

Advanced Services – Benefits

Save time, reduce risk and lower costs

- quickly identify potential problems
- see impact and recommended actions
- prioritize and schedule corrections

- see the life cycle status and forecast
- fact-based decision for life cycle planning and budgeting

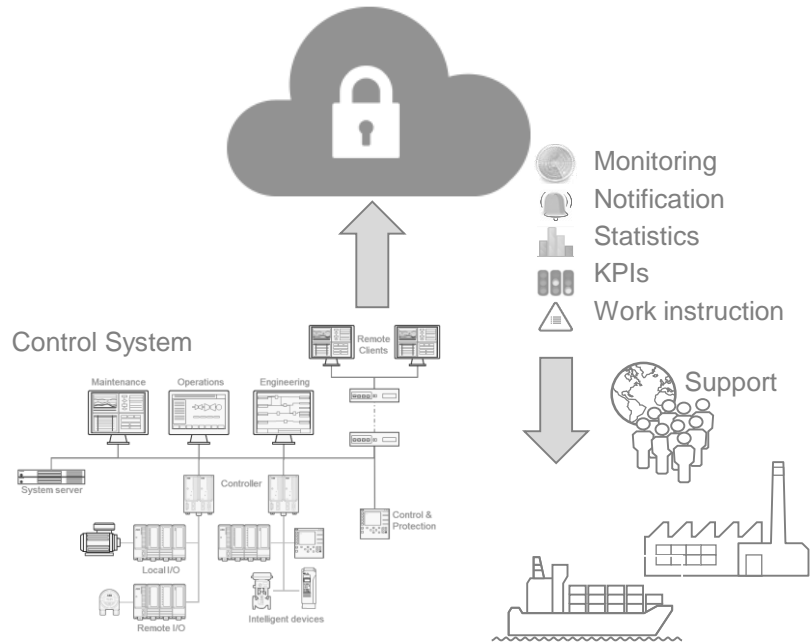
The screenshot displays the ABB System Status interface. At the top, there are tabs for Performance, Lifecycle, Security, and Software. The main area is divided into three sections:

- Scan:** A donut chart showing the results of a system scan. The legend indicates: Red for Error, Yellow for Warning, and Green for Passed. The chart shows a high percentage of green, with a small yellow and red segment.
- Benchmark:** A table with columns for various system components and their status. The table lists numerous components like 'ABB Client License Provider', 'ACC0002', 'ACC0008', etc., with status indicators (checkmarks, warning icons, error icons) for each.
- Fingerprint:** A report titled 'System Fingerprint' for 'SID75593 Main Compressor' at 'Western Chemicals Texas Air Liquid'. It includes a 'System Summary' section with a smaller donut chart and a 'Terms and Notice' section.

Scanning or Monitoring of Control Systems ?

ABB Ability™ Asset Health for Control Systems

Infrastructure



What is scanning ?

- a snapshot
- shows the status at a point in time
- allows comparing
- highlights changes

What is monitoring ?

- a continuous process
- detects deviations automatically
- identifies trends
- generates notification

Case Study / Control System Monitoring

Dec. 2016

Company

Tinplate production site
Global player

Products



The company's products are used for canning and packaging of goods in the processed foods, paints, beverages, dairy products and other industries.

Production



Rolling Mill
System 800xA 5.0
– Server + 3 Clients
– 3 PEC Controller
– Profibus with S800I/O

Case Study

Critical Issue prediction after 2 weeks

Notifications

High



Dear system monitoring user,

our subscription service for System Event Monitoring has identified a **critical system status** that needs your consideration. For any type of assistance please contact your local ABB Service partner.

800xA event list message:
Alarm storage is almost full.

Finding:
The 800xA storage almost reached its capacity. There is a risk that it will fill up completely in short term which might end up in old alarms being lost and alarms from specific alarm categories being suppressed.

Severity: High

Recommendation:
1. Check the configuration.
2. In case every configured event category is set to "AUTO" try to find to which event category most events are belonging to.
3. Change the configuration of this event category from "AUTO" to a fixed amount of alarms.

Critical



system status that
al ABB Service

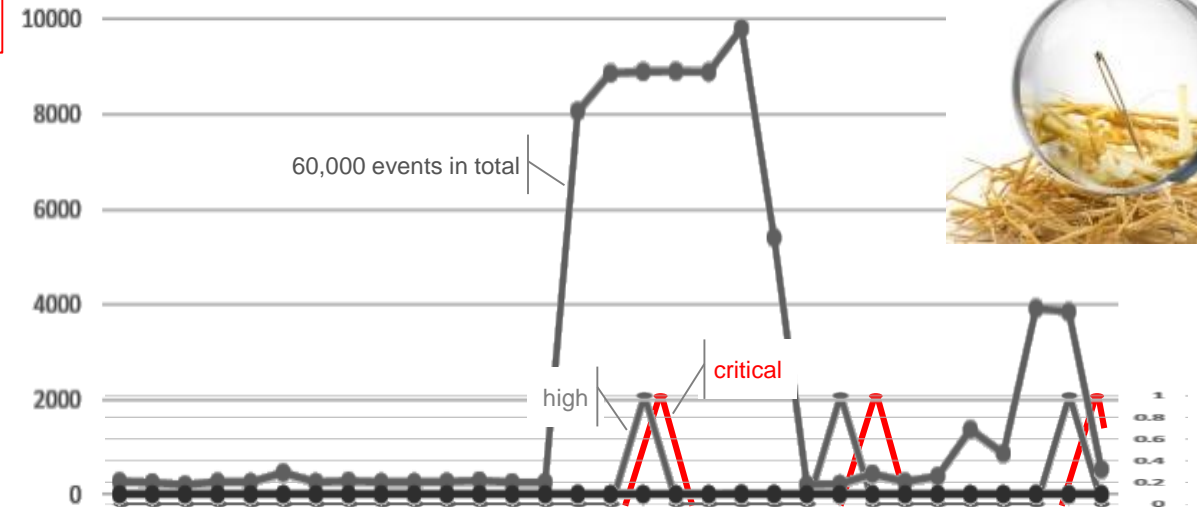
Finding:
The 800xA Alarm Manager storage reached its capacity. Old alarms are possibly lost. Alarms from specific alarm categories might not show up any more in the 800xA alarm list, depending on the used configuration.

Severity: Critical

Recommendation:
1. Check the Alarm Manager configuration.
2. Disable all Alarm Manager Service Providers.
3. Re-enable one Alarm Manager Service Provider and wait until it reaches status "Service".
2. Re-enable all other Alarm Manager Service Providers one by one.

Time Course

1. 1st Notification with high severity after 2 weeks of operation
2. 2nd Notation 6 hours later with critical severity
3. Field Service implemented recommendation as emergency measure
4. Problem occurred again
5. Phone call with customer, Field Service and L3 Support
6. Customer requested remote expert support



Case Study

What happened?

800xA event list message:
Alarm storage is full.

Finding:

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Recommendation:

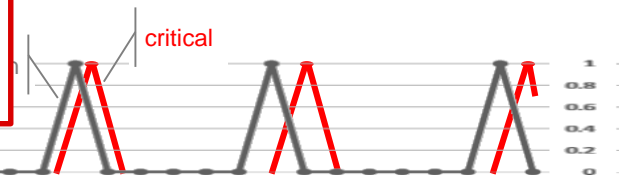
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Critical

High

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categories being

category most
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System 800xA Control System Monitoring

ABB Ability™ Asset Health for Control Systems

Scope

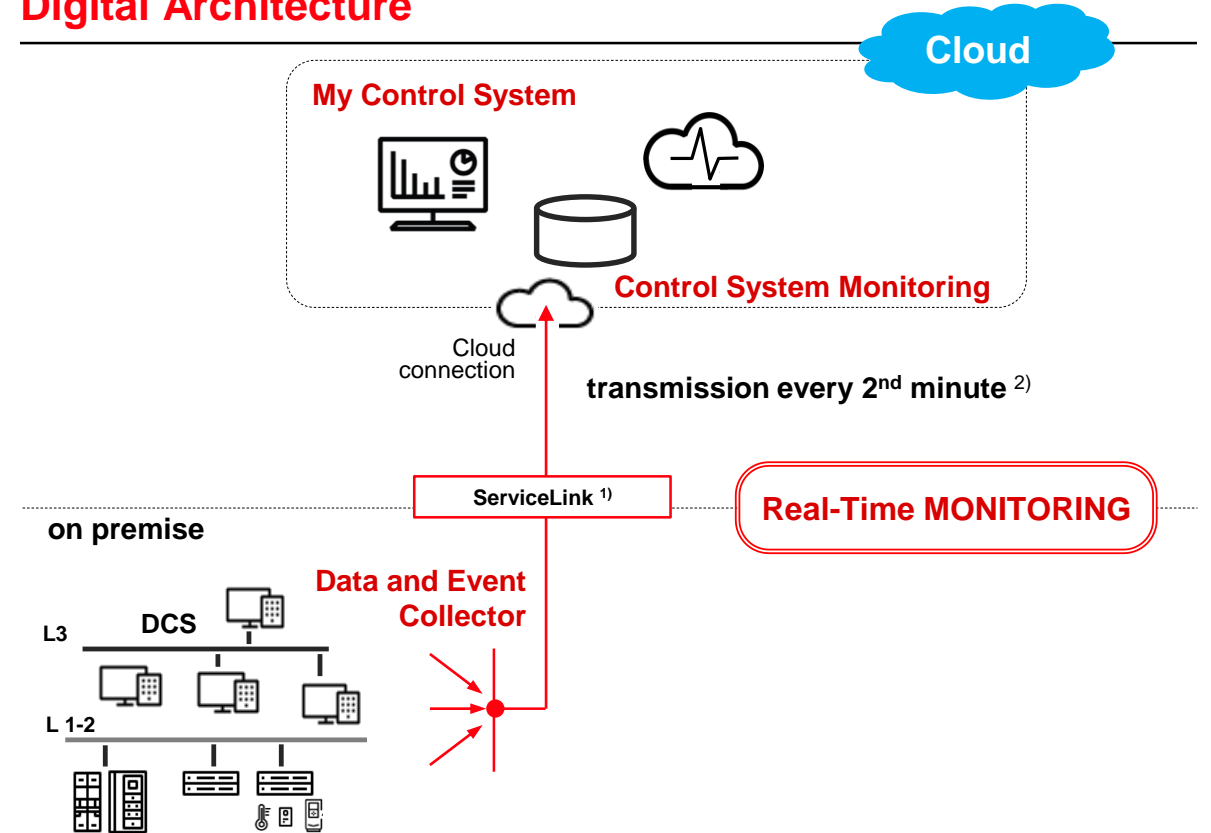
System and Security Event Analysis

- System functions
- Communication and networks
- Control and I/Os
- Fieldbus

Frequent recording and analyzing of KPIs

- Performance
- Software
- Security

Digital Architecture

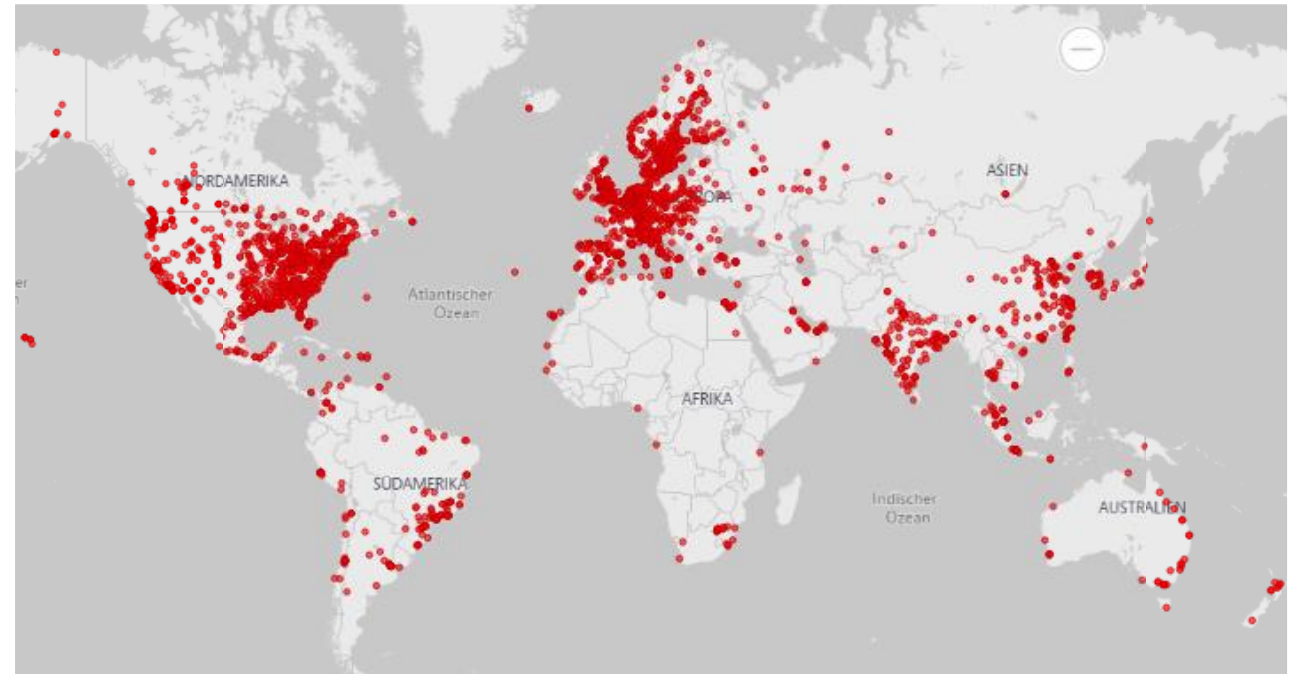
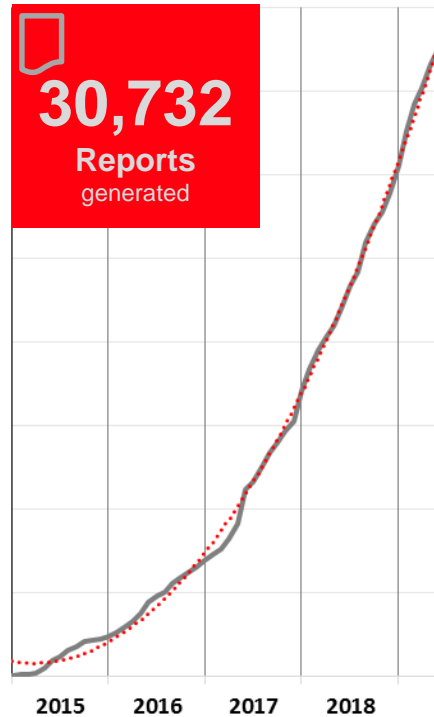
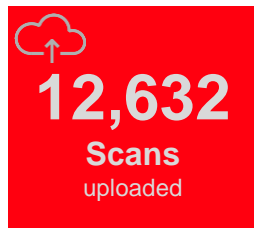


1) ServiceLink is a RAP-based remote connection (RAP: Remote Access Platform from ABB Group IS)

2) Every 2nd minute is the typical collection rate, minimal transfer rate is every 5th minute

ABB Ability™ Digital Services for Control Systems

Statistics Aug, 2019



Summary

Recommended Actions

1. register to My Control System
 2. use My Control System for on-line information and down loads
 3. introduce Advanced Services into your maintenance strategy
-

Short term Benefit

- reduction of operational risks and costs and increase of plant performance and reliability
-

Mid term Benefit

- optimal budget and investment planning

AABB