



ABB INDUSTRIAL AUTOMATION ENERGY INDUSTRIES

ABB Ability™ System 800xA

Global Landscape and Updates

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800xA System and O&G Solutions

- ABB Ability™ System Industrial IT 800xA
- 800xA Safety Integration
- ABB Ability™ System 800xA Plant Asset Management
- 800xA Electrical Integration
- Support for life cycle

ABB Ability™ System Industrial IT 800xA

The power of integration



System 800xA is the most capable automation platform on the market today

- Comprehensive feature set
- Largest global market share
- Global support network
- Reliable, Scalable and Flexible

Unparalleled integration and connectivity to plant systems, applications, and devices

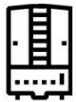
ABB Ability™ System 800xA Installations



11,000 systems



100 countries



50,000 controllers



50,000 workstations



35,000,000 I/Os



60,000,000 Tags

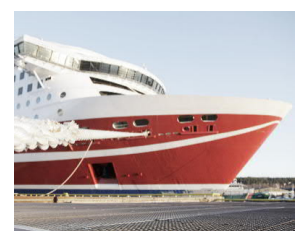
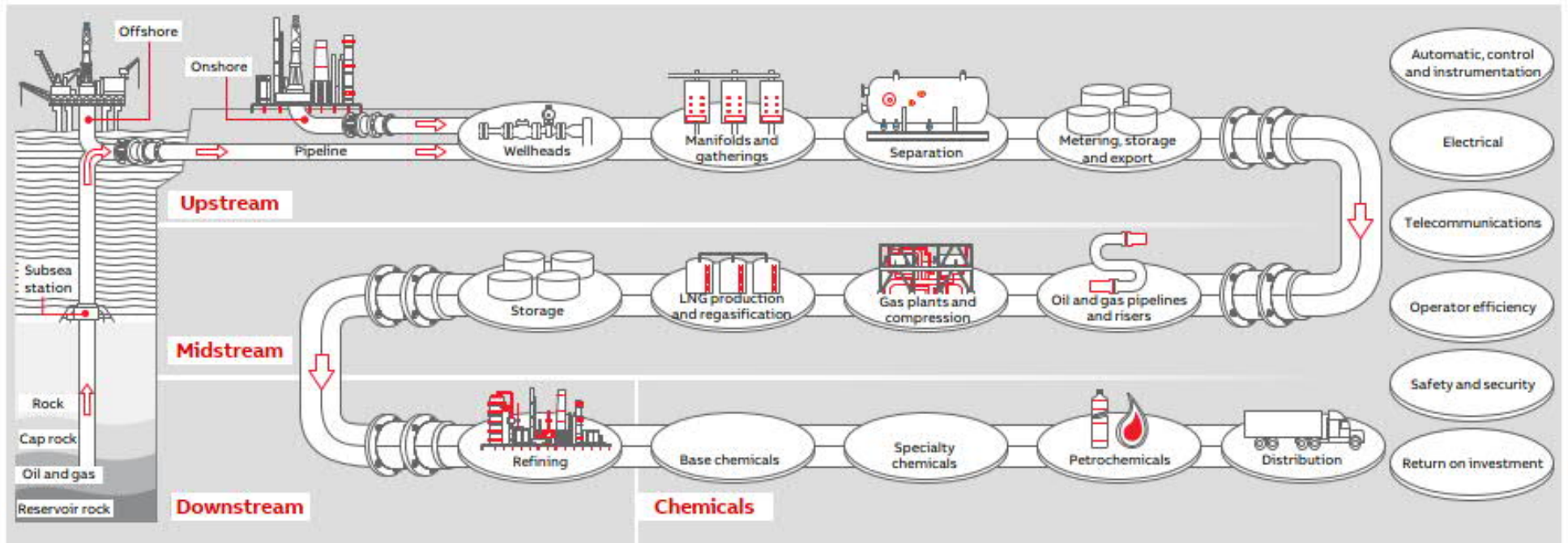


ABB Industrial Automation Energy Industries in O&G Industry

Improve yield, reduce cost, & enhance safety

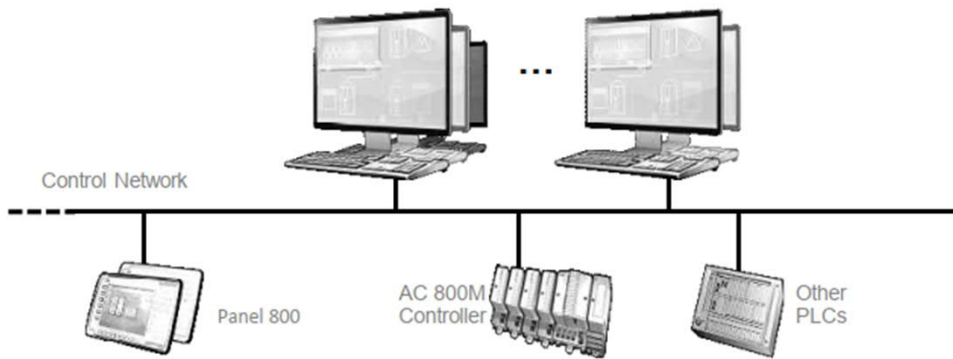


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ABB Ability™ System Industrial IT 800xA

Basic Concepts Review

DCS or PLC/HMI/SCADA?

DCS (Distributed Control System)



PLC (Programable Logic Controller)

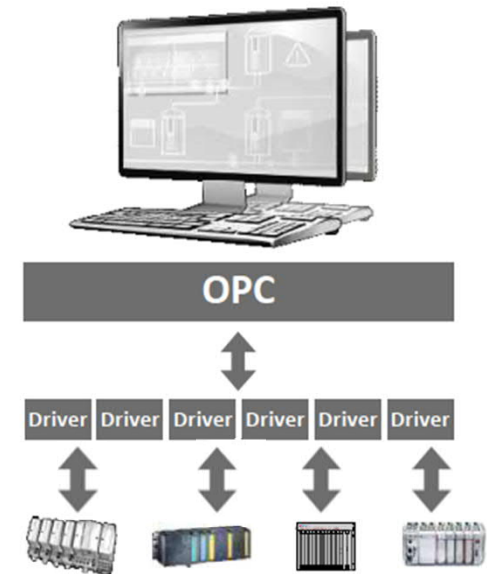
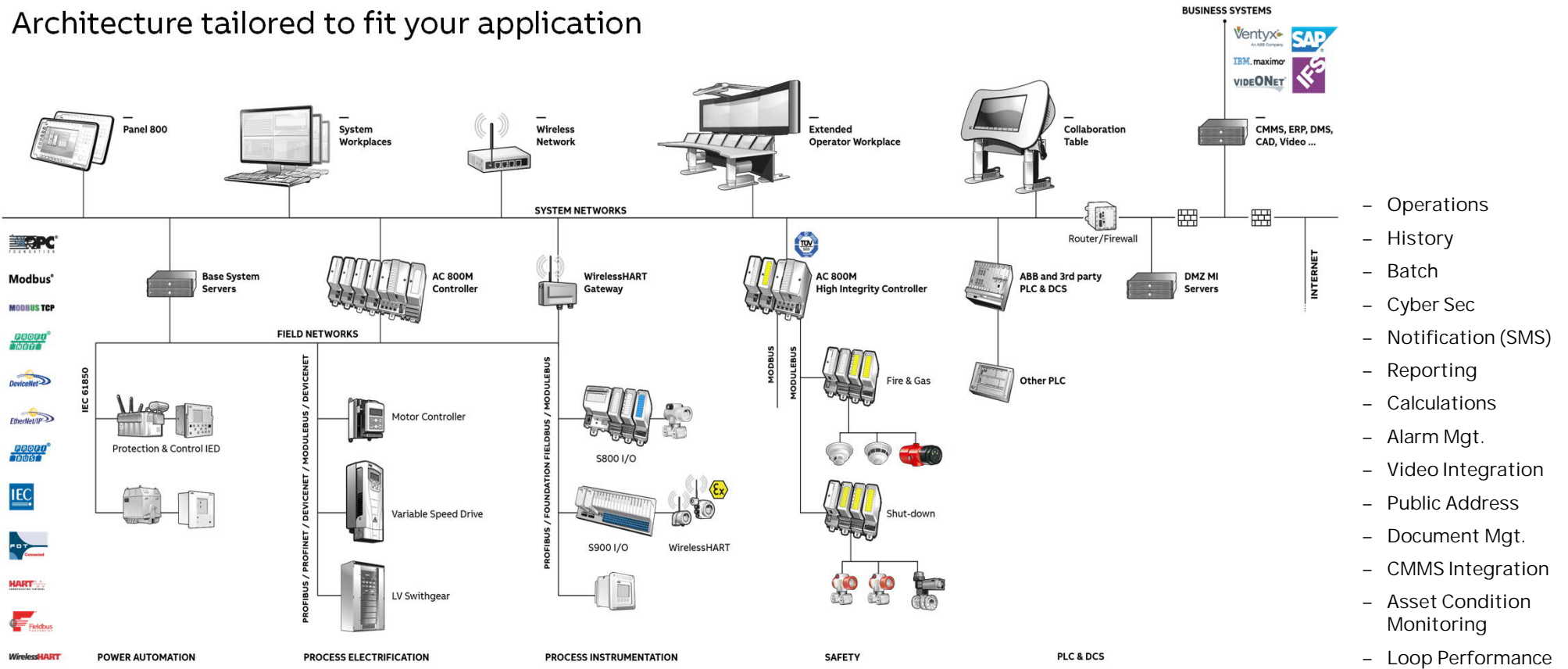


ABB Ability™ System 800xA

Architecture tailored to fit your application



- Operations
- History
- Batch
- Cyber Sec
- Notification (SMS)
- Reporting
- Calculations
- Alarm Mgt.
- Video Integration
- Public Address
- Document Mgt.
- CMMS Integration
- Asset Condition Monitoring
- Loop Performance

ABB Ability™ System IIT 800xA

Typical Topologies

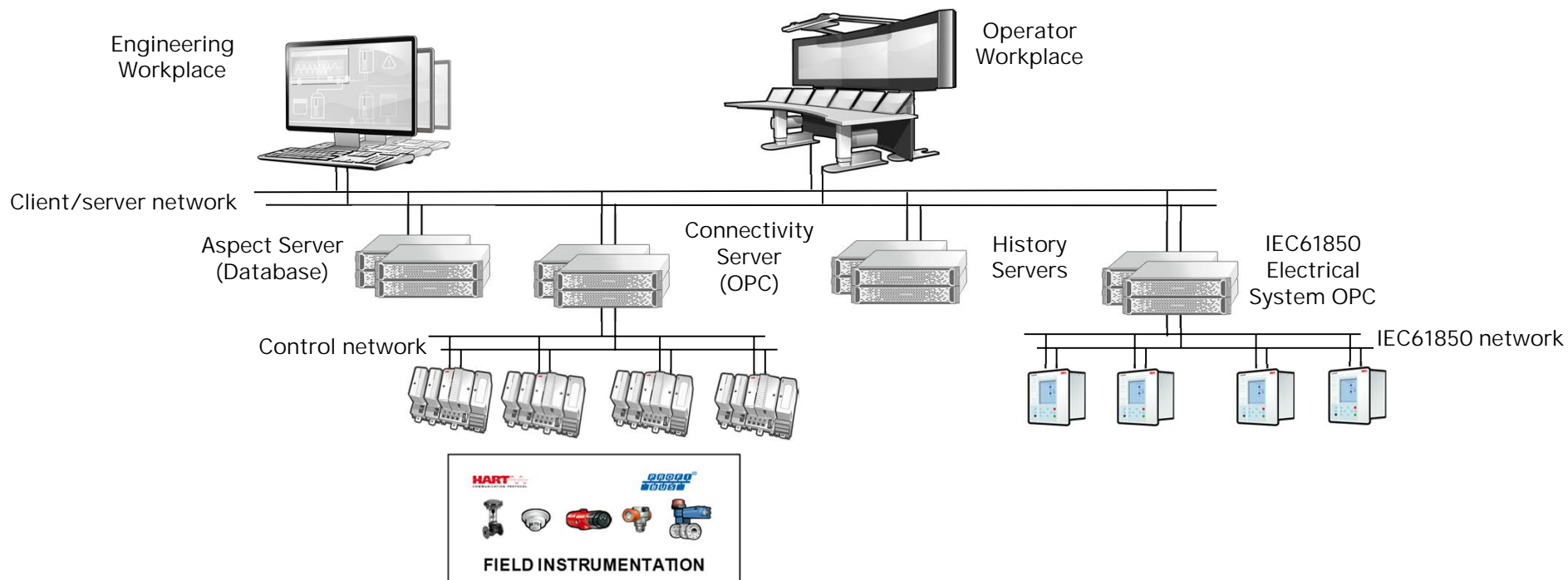


ABB Ability™ System IIT 800xA

Virtualized Topology

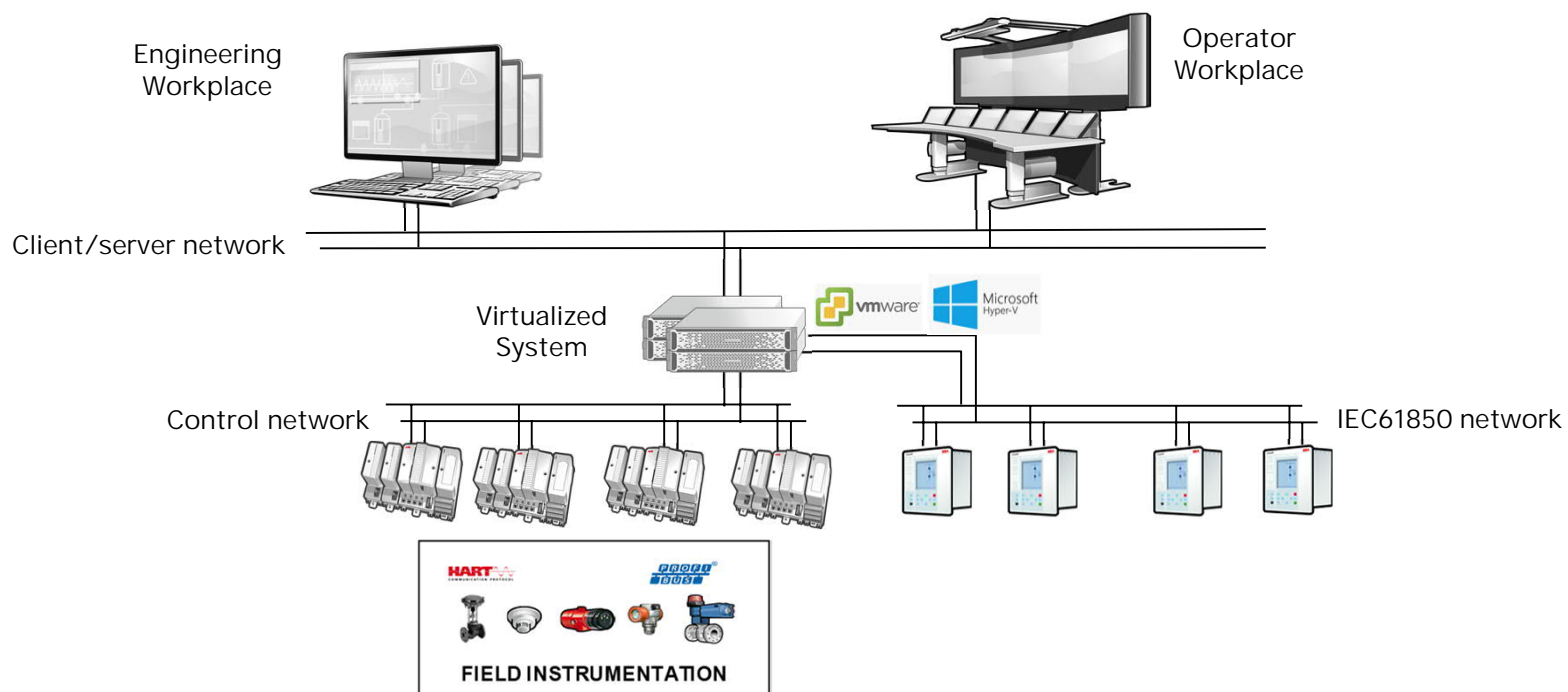


ABB Ability™ System 800xA

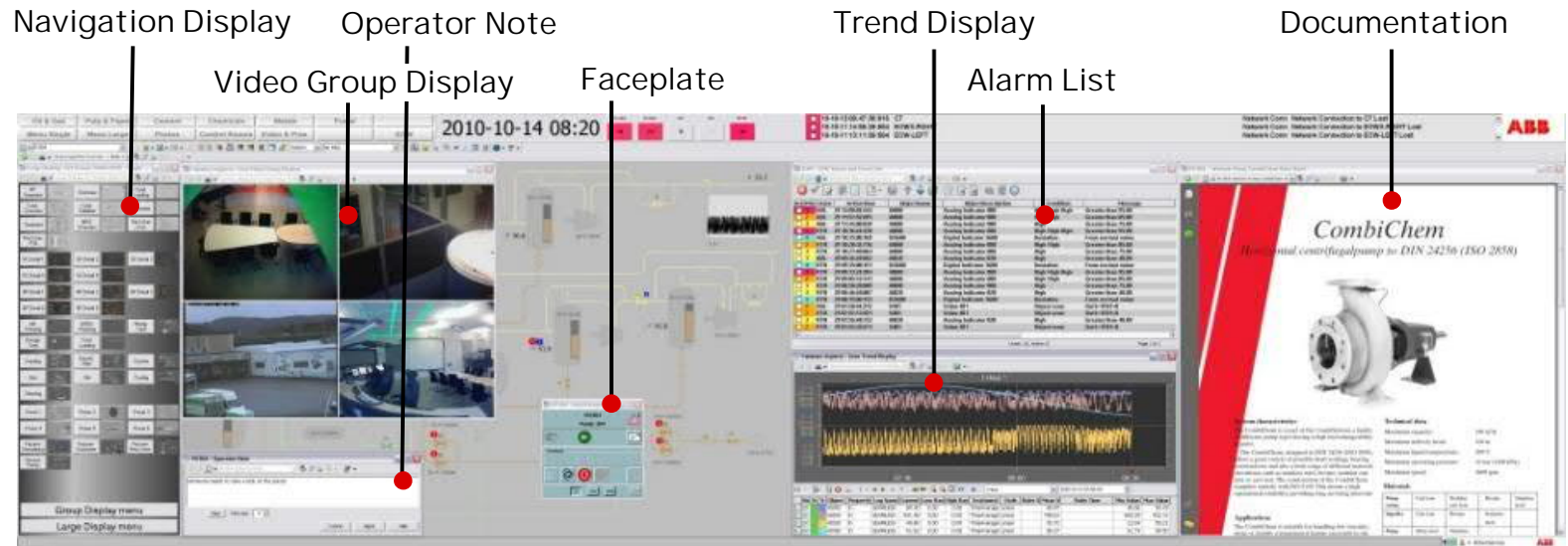
Integrated view of equipment and systems



Powerful workplaces with embedded functions

The most feature rich operator interface available

- All information in one window
- Switch information context with just on mouse click



Aspect Object Technology

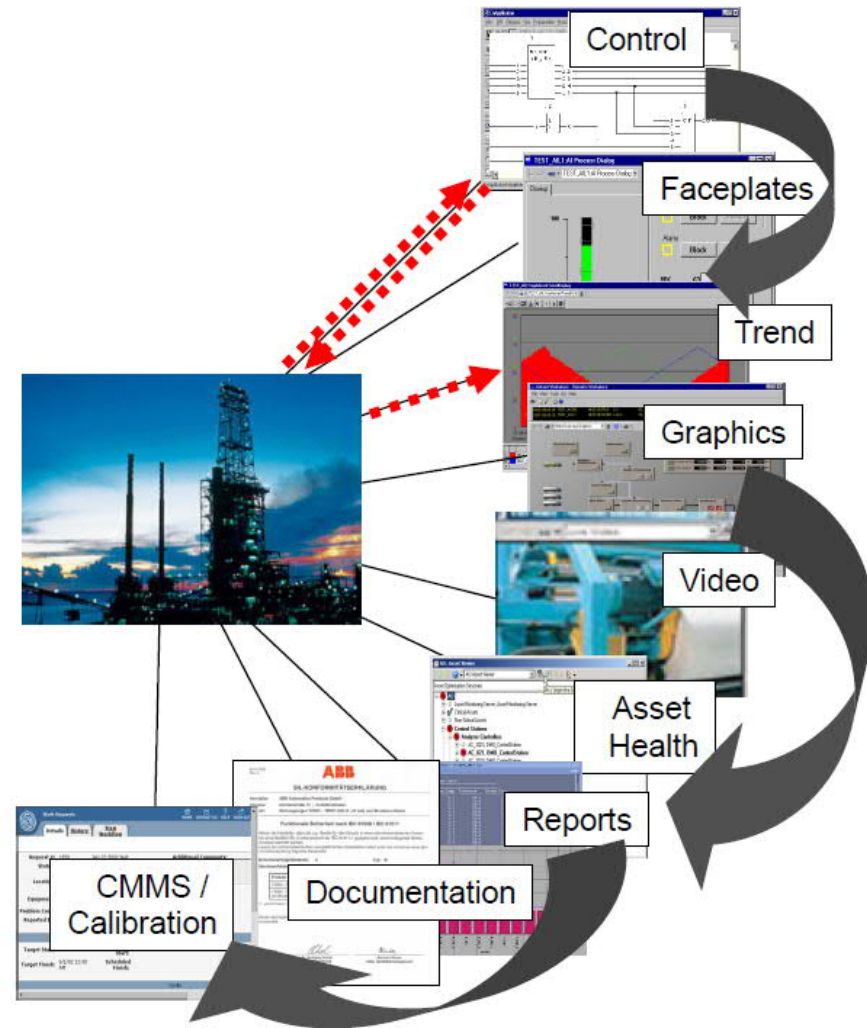
Operations/Maintenance Efficiency

The System 800xA platform lets you monitor, control, optimize, and maintain from one powerful interface.

Zoom in to any level for fast answers, action, or asset management

Logical, object-based access to every component

Attach information just once for instantiation across multiple systems



Aspect Object Technology – Device/Unit Centric Information

Aspect Objects provide

- Control Logic
- Faceplates, Trends, Graphics
- Documentation/Drawings
- Asset Management
- Etc....

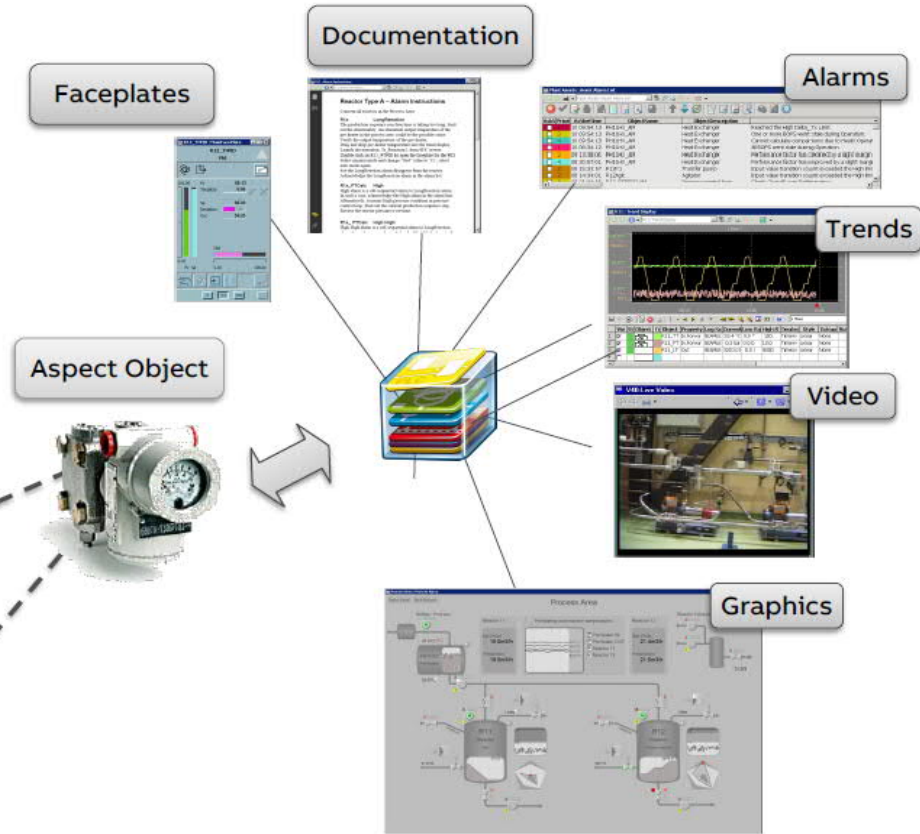
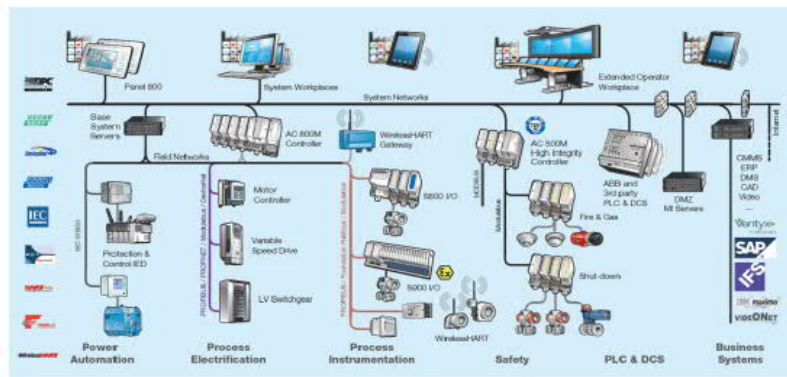
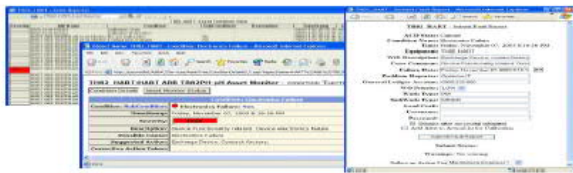


ABB Ability™ System 800xA – an Integration Platform

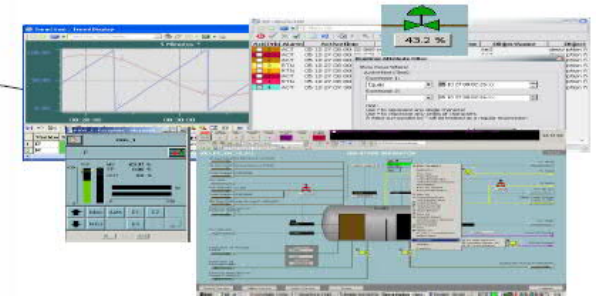
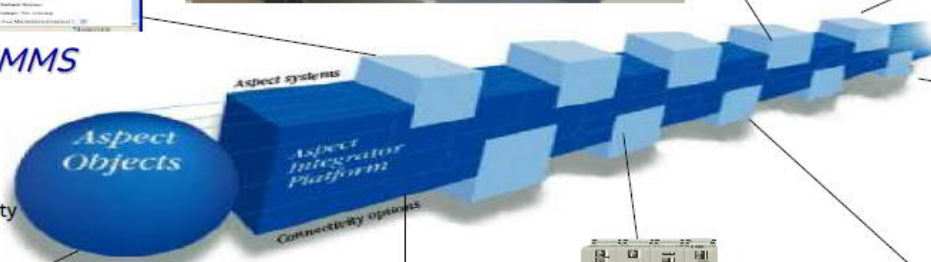
Ergonomics



MCC's – PMS – HV/LV/MV – IEC61850



Asset Management / CMMS



Graphic Displays



Control Layer

- Process Analyzers
- Laboratory Analyzers
- Chemometrics Servers

Analytics

3rd Party DCS, PLC's, RTUs/Scada Systems

Telecoms



800xA Multisystem Integration

Offshore/Onshore



Local control rooms

Central control room

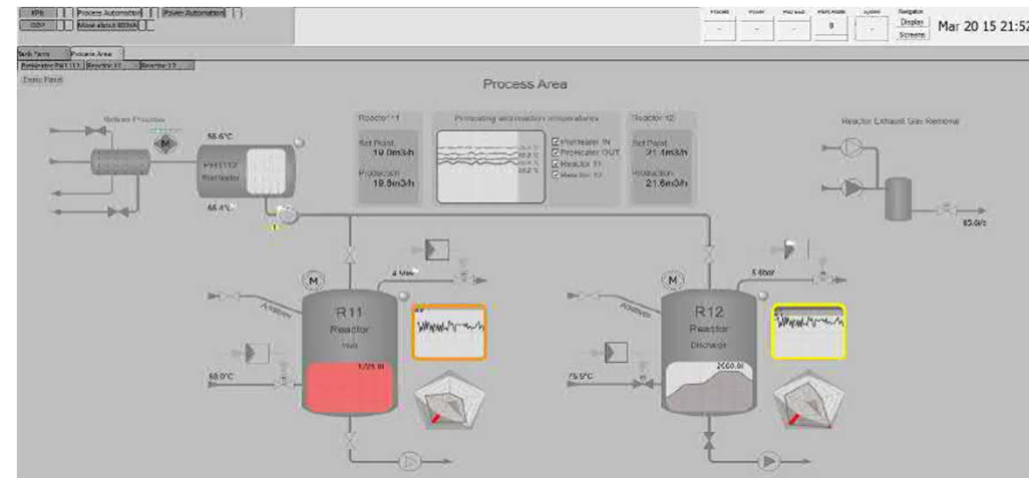


- Remote operations can access the same maintenance data as local operations
- Retains a common maintenance workflow throughout multiple sites and systems
- System Independence

ABB Ability™ System 800xA

High Performance HMI

- Providing the best operator interface can be challenging.
- Focus on critical alarms
- Based on ISA101 Standard
- Easy Adaptability
- 800xA Library with standard graphics



Using High Performance HMI help operators to make better decisions

Alarm system analysis and optimization

Built-in alarm management analysis tools

- A tool that assists in analyzing and optimizing the alarm system
- Analysis according to EEMUA 191 of the performance of the alarm system
- An alarm analysis service performs continuous calculations of metrics according to ISA 18.2 and EEMUA 191
- Very simple configuration, just add an alarm analysis object to an object with an alarm list
- Use pre-made graphic elements to visualize the metrics.

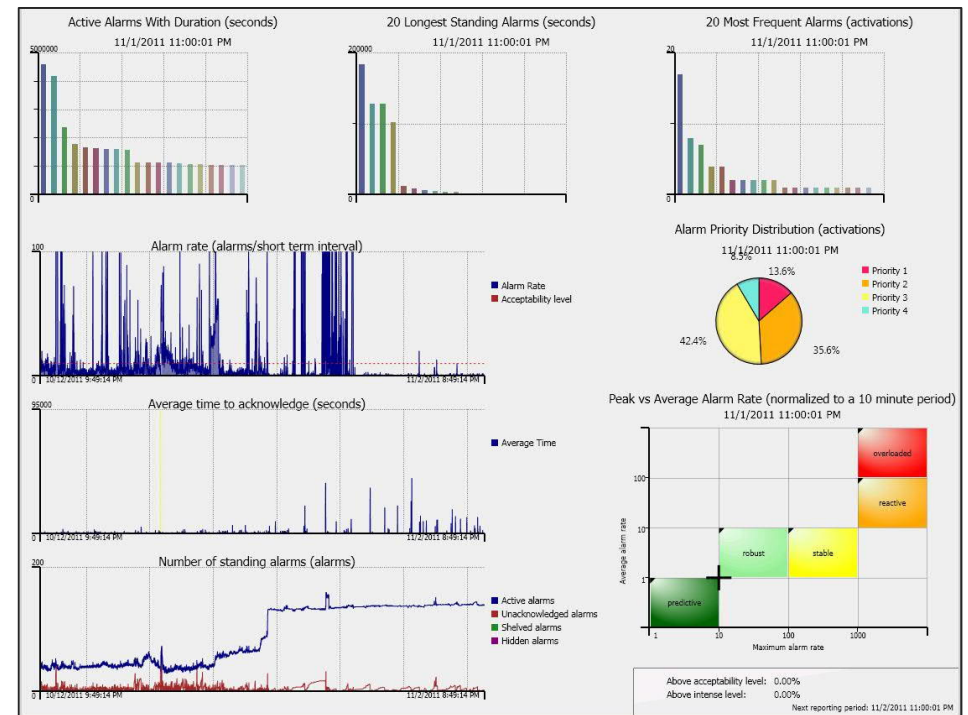


ABB Ability™ System 800xA

Control room solutions that put people and productivity first

Everything you need to operate more effectively
High Performance Control Room Design with Extended
Operator Workplace (EOW)

Best-in-class control room design

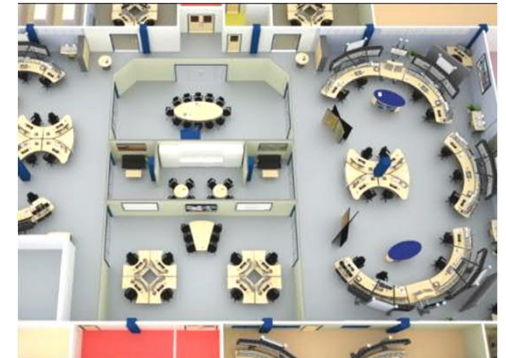
- With attention to human factors

Integrated Plant Systems

- For effective decision making

High Performance HMI

- For improved situation awareness and abnormal condition handling



800xA Safety Integration

Integrated Safety

ABB Ability™ System 800xA HI – High Integrity

Improved Safety

- Integration enables operators to effectively respond to abnormal conditions in the plant
- Improved event visibility and information contextualization

Fulfill Functional Safety requirements

- SIL 3 capable
- Independent execution of Safety Instrumented Functions
- Physical and Logical Separation
- Access Control and Protection of SIF

Reduced lifecycle support

- Consistent engineering and troubleshooting environment
- Integration eliminates need for custom-made interfaces

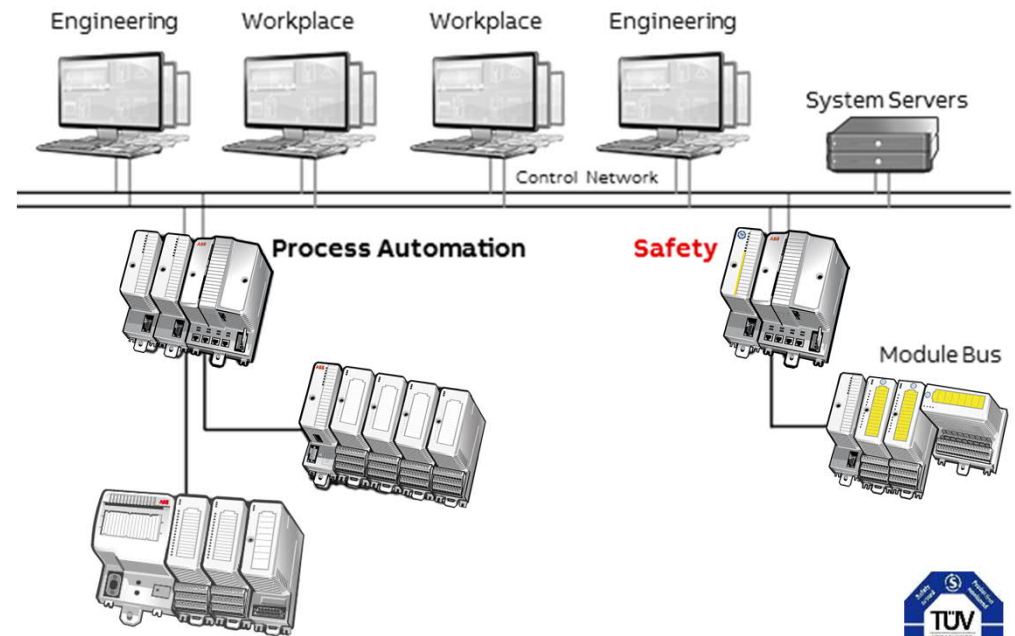
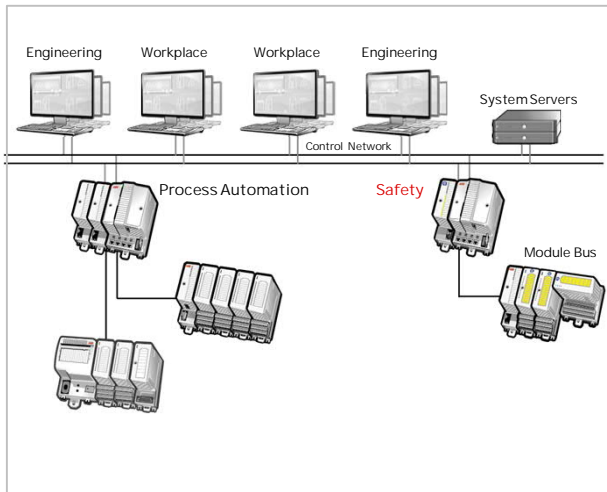


ABB Ability™ System 800xA High Integrity

Freedom of Choice - Flexible architecture

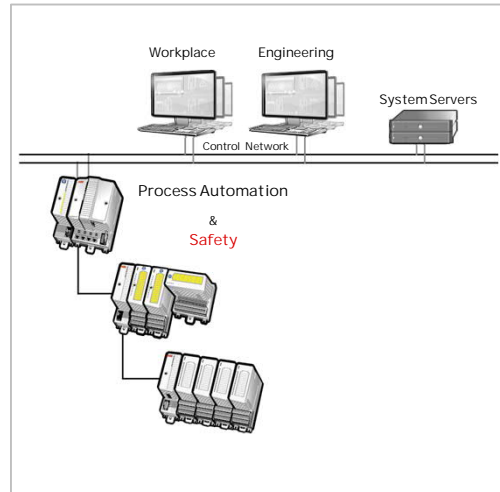


Integrated control and safety



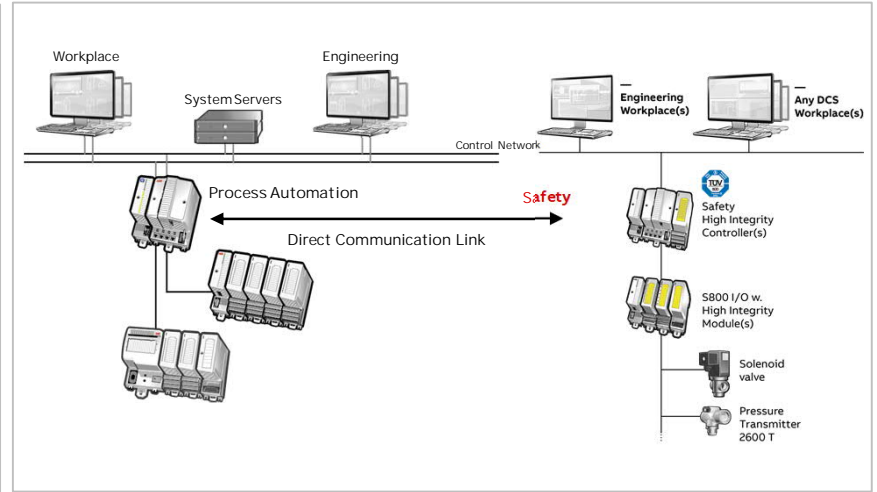
Ability to connect and interoperate process control and safety systems without the need of gateways or data mapping between the two systems

Combined control and safety



Ability to perform process control and safety functions within the same platform

Separate control and safety



Ability to connect and visualize the safety systems from the process control with limited interoperability typically needing gateways or data mapping between the two systems

ABB Ability™ System 800xA High Integrity

Flexible architecture

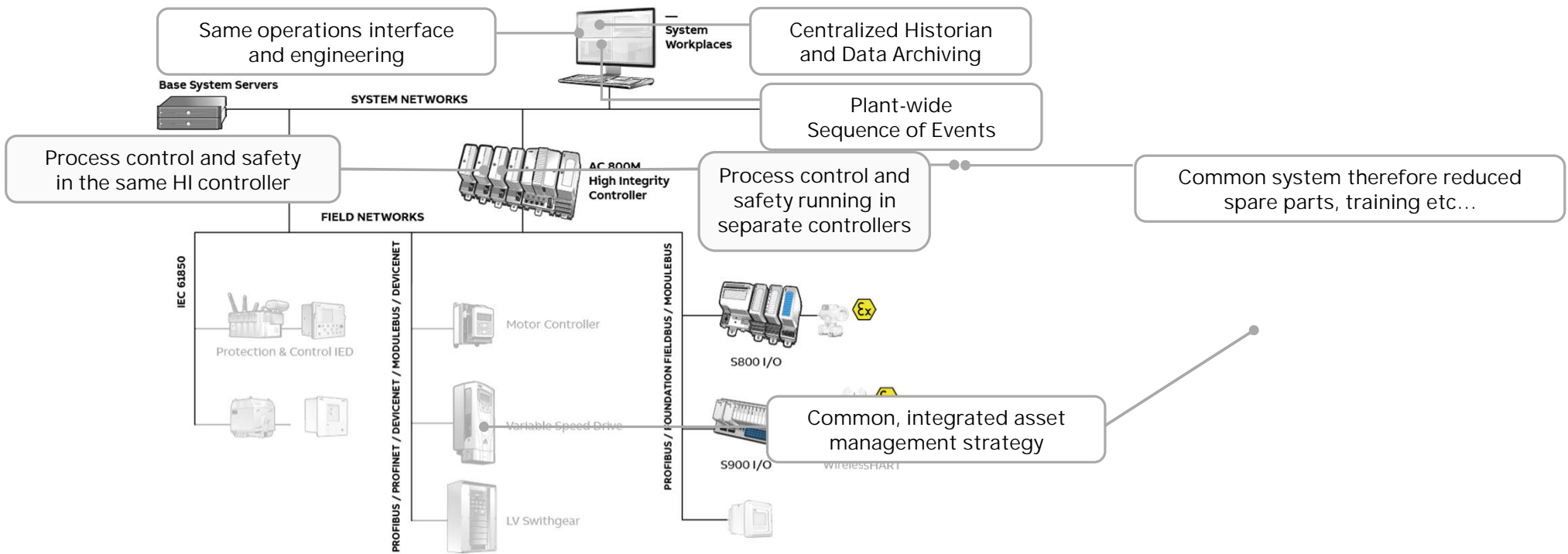
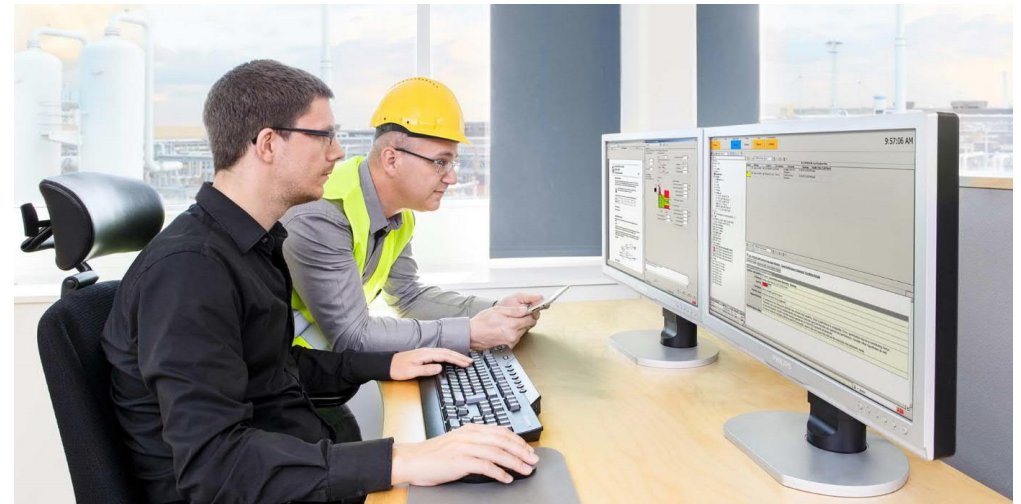


ABB Ability™ System 800xA Plant Asset Management

ABB Ability™ System 800xA Plant Asset Management

Take advantage of hidden opportunities in your plant

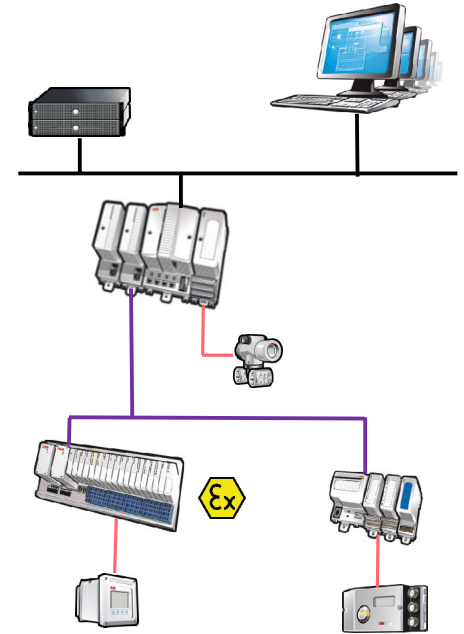
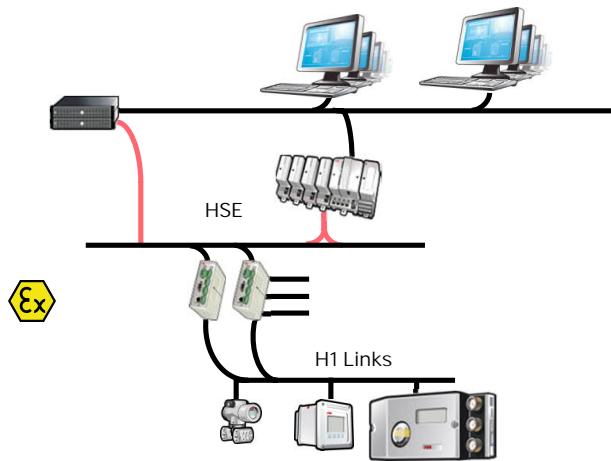
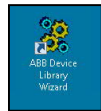
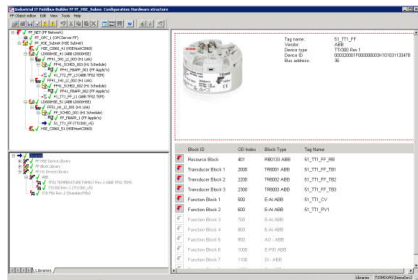
- Increased asset availability and performance
- Optimized Operations and Maintenance
- Reduced Time to Repair
- Improved collaboration between operation, automation and maintenance personnel
- Plant-Wide Adoption of Predictive and Proactive Maintenance Strategies
- Consistent Reporting of Plant Asset Health Visualization of current health conditions with



System 800xA Asset Optimization one single interface for operations, maintenance, engineering and management to optimize asset availability and utilization.

ABB Ability™ System 800xA Plant Asset Management

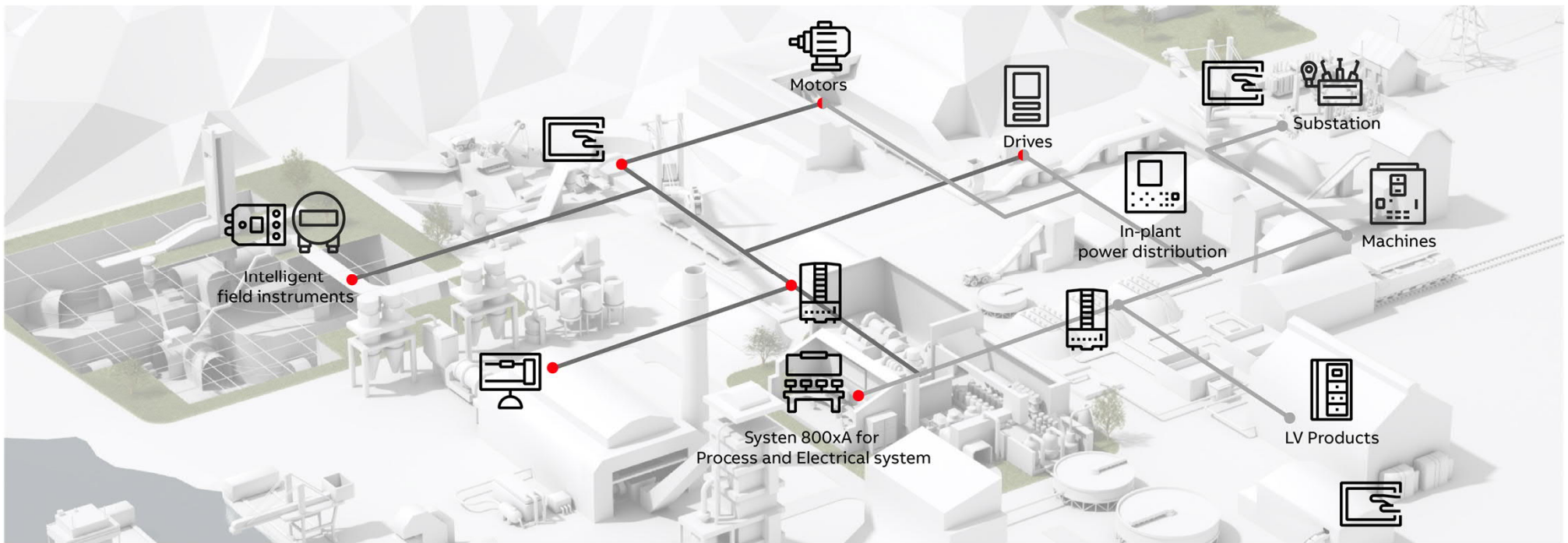
Take advantage of hidden opportunities in your plant



800xA Electrical Integration

Electrical Integration

Complete system for electrical, and process control



Features

ABB Ability™ Process Power Manager



Integration...
with ABB System 800xA
process and electrical
control systems



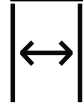
Power balancing...
and predictive planning
to avoid disturbances
or blackouts



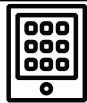
Remote access...
of plant equipment for
operation, collaboration
and diagnostics



Load shedding...
and recovery



Scalability...
to support large,
complex electrical
systems



Flexibility...
to provide automated
functions and/or
process-dependent
functions



Dynamic tripping...
of loads, which can be
preconfigured or
manually configured
to a set of priorities

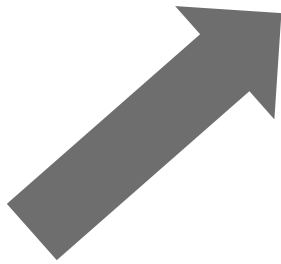
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Support for life cycle

System 800xA Updates

Two contradictive needs

New functionality

To ensure users are as competitive as possible, ABB needs to add new features to the system at regular intervals.



To not touch it, if it is working

Users want to stay on the installed version for as long as possible, touching as little of their installation as possible to keep it up to date.



System 800xA Lifecycle

Roadmap Options

Two paths

Latest Version:

New Features and Functionality

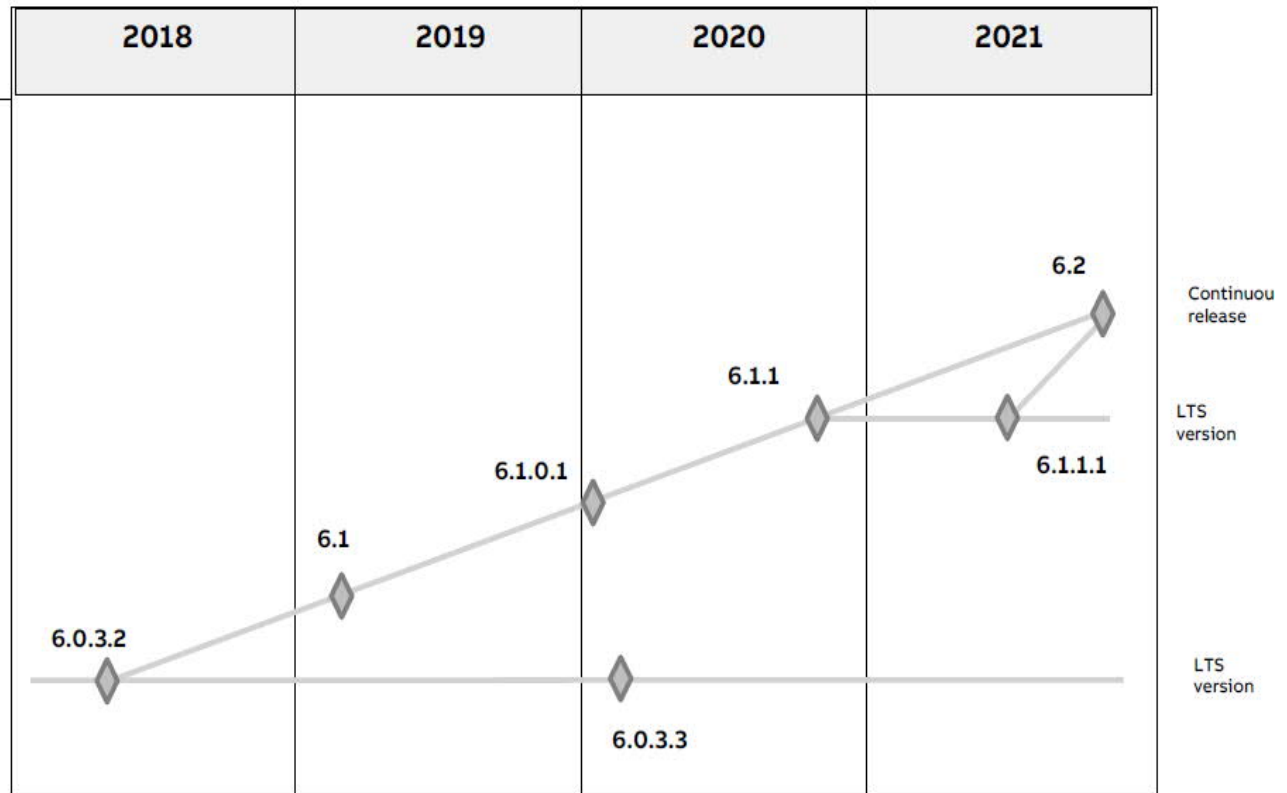
Long Term Support Version:

One Identified Version per Major Release

Focus on Updates, Security, and Patches

Both Enabled with Automation Sentinel

All Software versions support two Microsoft Operating Systems to allow for ease of updates



For more information about ABB Ability™ System 800xA

Online tools, Training, Marketing material and more

System 800xA hardware selector

ABB CONTROL SYSTEMS

System 800xA hardware selector

Select product

Communications SHOW PRODUCTS	Controllers SHOW PRODUCTS	I/O Modules SHOW PRODUCTS
Networks SHOW PRODUCTS	Panels SHOW PRODUCTS	Power supplies & Voters SHOW PRODUCTS

ABB Ability™ System 800xA support

ABB Ability™ System 800xA customer support and services

All you need to know as the owner of distributed control system 800xA to get the maximum value from your investment

ABB looks after its 800xA customers by crafting solutions that ensure the continued productivity, reliability and capability of all installed ABB assets. Managed properly, a process control system can provide continually higher levels of performance throughout its life cycle. Rather than degrading over time, it can be maintained in a way that vastly extends its longevity and continually increases its performance.

+ Is your 800xA DCS running on unsupported Windows XP?

+ How optimal are the settings of the system you are running?

↓ Contact us

Are you looking for support or purchase information?

Our offerings

Most popular services | All services by category

Automation Sentinel Software upgrades, discounts on training, spares, advanced services	My Control System Online access to information and services specific to your system	Training eLearning, live and recorded web sessions or classroom courses	Maintenance Preventive maintenance program with pre-specified easy-to-order kits	Parts services Genuine spares, inventory programs, parts testing, repair and failure analysis	Advanced Services System software and performance checks
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Questions & Answers

Questions & Answers

Learn more about ABB Ability™ System 800xA installations

Visit our reference web page

[Link to page](#)

ABB HOME + OFFERINGS + DISTRIBUTED CONTROL SYSTEMS - DCS + SYSTEM 800XA - 800XA REFERENCES GLOBAL SITE

ABB Ability™ System 800xA References

Reference case studies about ABB's Extended Automation System 800xA for continuous or batch process industries, infrastructure, energy and utilities

ABB Ability System 800xA boasts 10,000 installed systems in over 100 countries, monitoring and controlling over 50 million tags and helping ABB be the no.1 global DCS supplier for over a decade.

*System 800xA becomes part of ABB Ability digital solutions portfolio

Industry: All Solution: **ABB 800xA X** Topic: All Country: All

Case studies that match your selection

There are 151 results listed below

800xA electrical control system and automation for Chettinad Cement, India
Reducing energy and raw material consumption, while keeping vital processes running without interruption

Service contract for NOVELIS, Germany
Migration from Advant Master to System 800xA enabling to retain existing MP200 and AC450 RMC controllers without changes. Novelis also signed a long-term, tailored service contract.

Honeywell TDC 3000 DCS migration to ABB's 800xA at Arkema chemicals in France
ABB has a unique capability to carry out third party system modernizations on-line, with no interruptions to production

ABB