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# ABB Ability™ System 800xA

More efficiency and flexibility with the new version 6.1

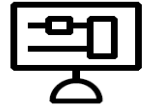


# ABB Ability™ System 800xA

## Our Principles



**Collaboration Enablement**



**Safe & Secure Operations**



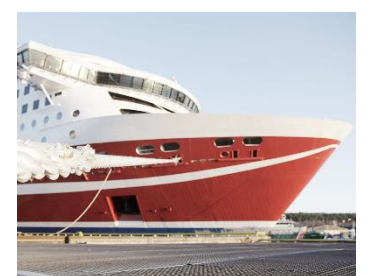
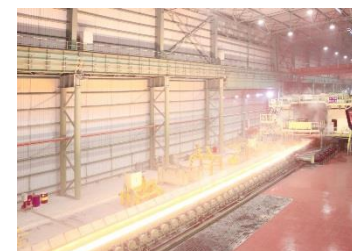
**Intelligent Engineering**



**Flexible I/O Solutions**



**Support for life**

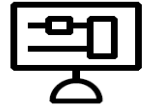


# ABB Ability™ System 800xA

## Our Principles



Collaboration Enablement



Safe & Secure Operations



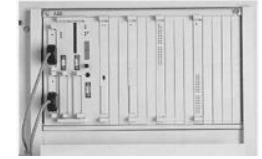
Intelligent Engineering



Flexible I/O Solutions



Support for life



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# ABB Ability™ System 800xA

v6 Versions



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**Support for Life**

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**V6.0.0**

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**V6.0.1**

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**V6.0.2**

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**V6.0.3**

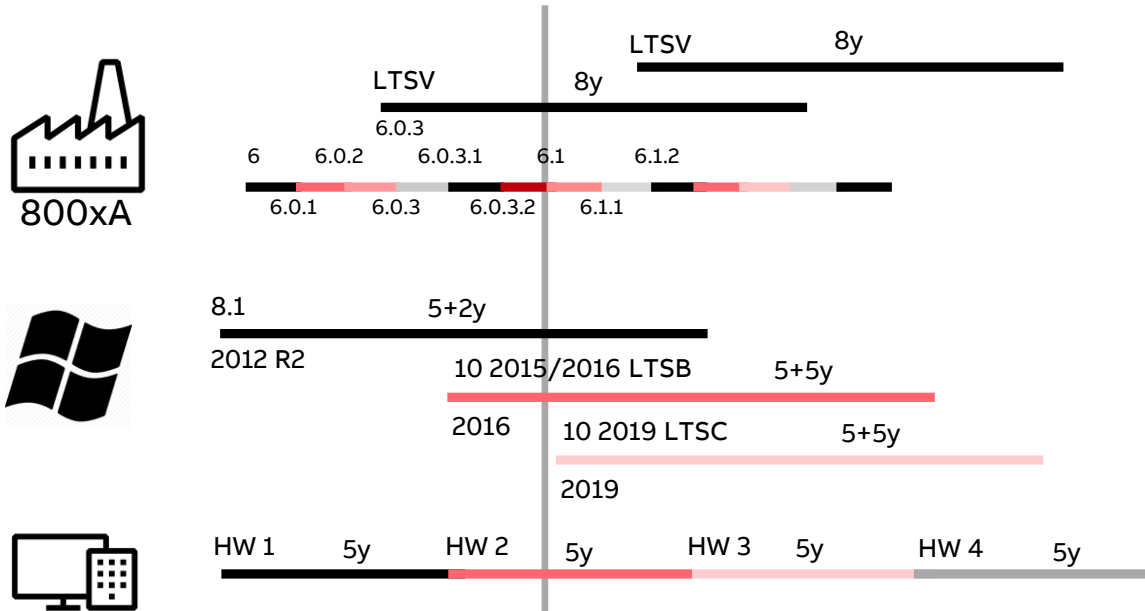
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**V6.0.3.1 /V6.0.3.2**

- New Installer & new Upgrade/Update tool
- Cybersecurity as a core functionality
- Central System Management (Configuration Console)
- Control Diagram Editor Improvements
- New Controllers (PM858 / PM862 )
- New Safety Controller for larger projects (PM867)
- Long term system version (LTSV) of System 800xA
- Dual Windows OS support concept
- Multiple Aspect Server und Auxiliary Clients
- Microsoft HyperVisor support

# System 800xA 6.0.3

## LTSV / Decoupling 800xA from Windows lifecycle



### System Lifecycle based on customer wish

- Supporting with an System 800xA current version two different windows OS
- Support for incremental software updates
- System Updates without changing Windows OS (Same IT hardware)
- Step-wise HW replacements based on customer HW lifecycle strategy (including WinOS)
- Expansions of system nodes based on new hardware and software without needing to modify existing installation. Easy expansions.
- Online, Easy expansions, Easy updates
- Online Update - No need anymore to upgrade the 800xA System

**Hardware and OS lifecycles updates are decoupled from 800xA Software updates!**

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# ABB Ability™ System 800xA

V6.1



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**Intelligent Engineering**

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**Flexible I/O Solutions**

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**Collaboration Enablement**

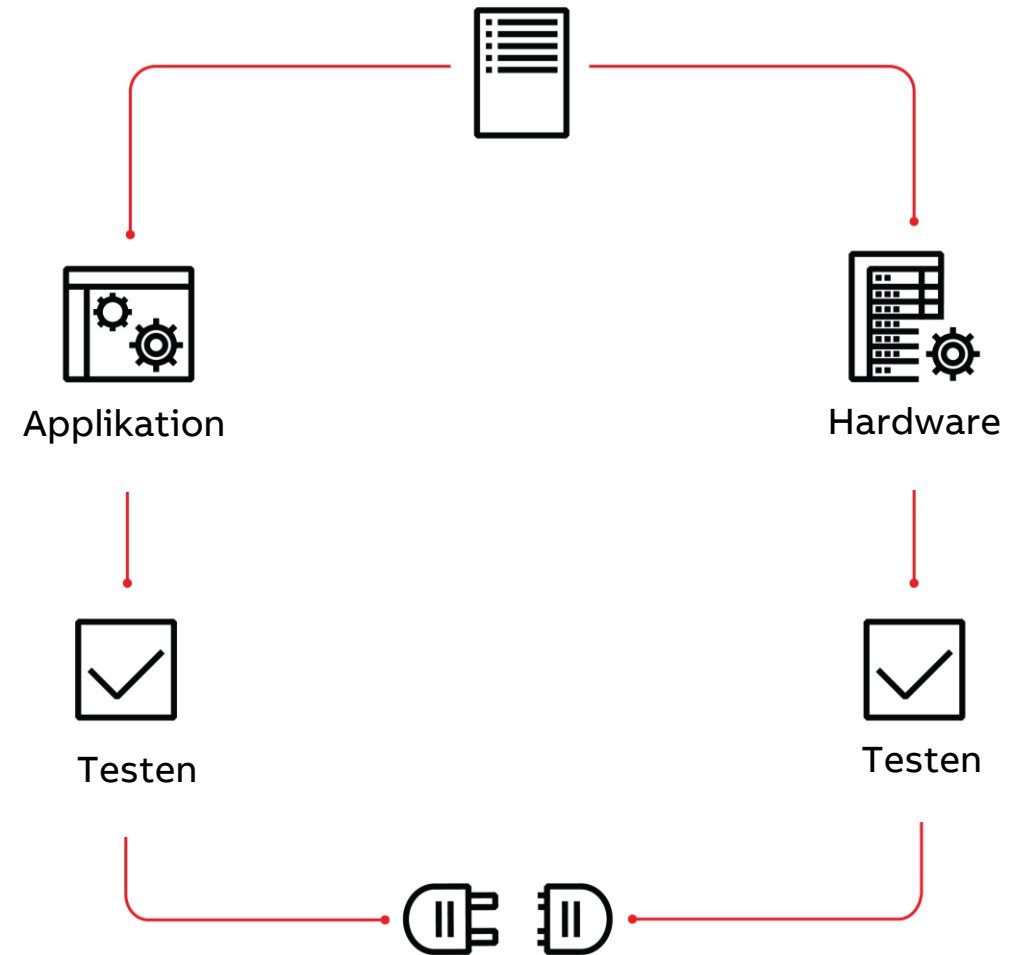
- xStream Engineering is the efficient and cost-effective process to implement big projects in a simpler and more efficient manner adapting easily to late changes and as a result faster commissioning of the plants.
- BDM2 support for Control Diagram Editor (CDE)
- IEC61850 Edition 2 Support
- New Safety Controller (PM857 / PM863)
- Introduction of Flexible I/O Solutions
  - Local, Remote, Fieldbus I/O
  - Multichannel I/O based on Ethernet
  - Single channel I/O (Select I/O)
- Support for S500 in AC 800M
- PNSM 2.0
- FIM Device Management

# xStream Engineering

Enabling parallel process execution

## Key Elements:

- Take time to prepare your projects well
- Fast-Track your Projects
  - Perform activities in parallel instead of sequential
    - Configure and check software in house
    - Have hardware be configured and checked at site early
    - Bind software and hardware as late as necessary at site
    - Bind I/O Hardware via signals to software



# Flexible I/O Solutions



800xA Engineering

Control Network

AC 800M



Central I/O

AC 460



S800 I/O



S800 I/O



Remote I/O



S500 I/O



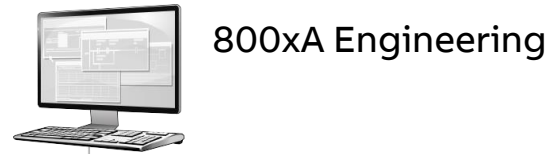
S900 I/O



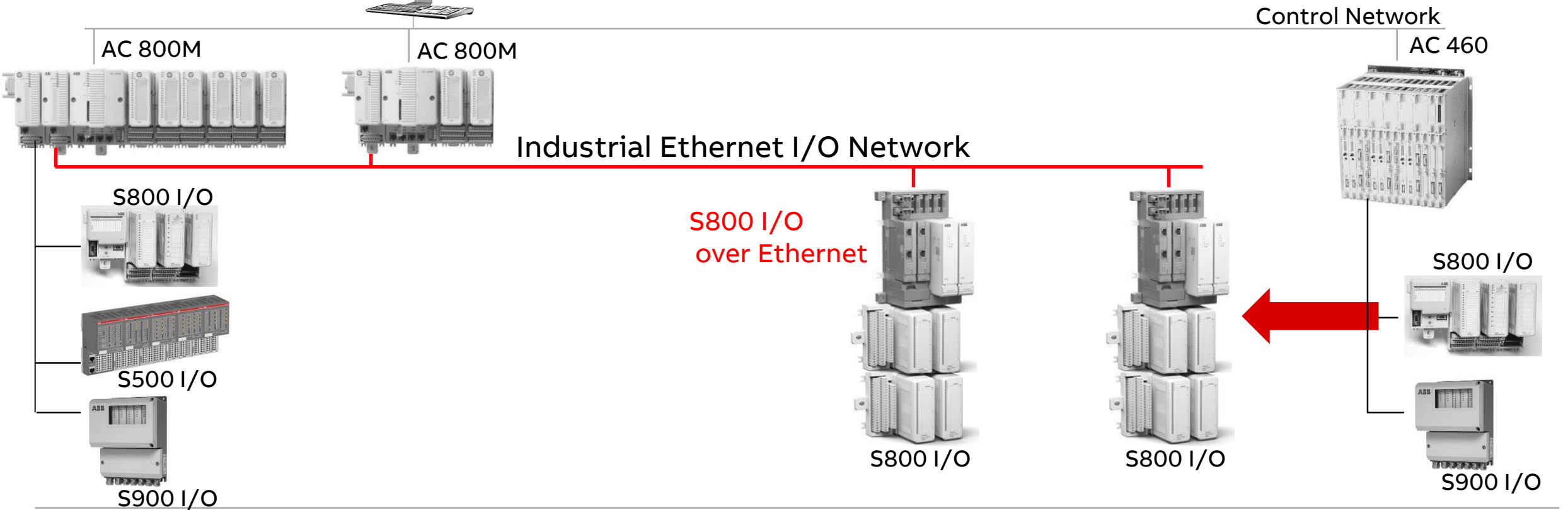
S900 I/O



# Flexible I/O Solutions



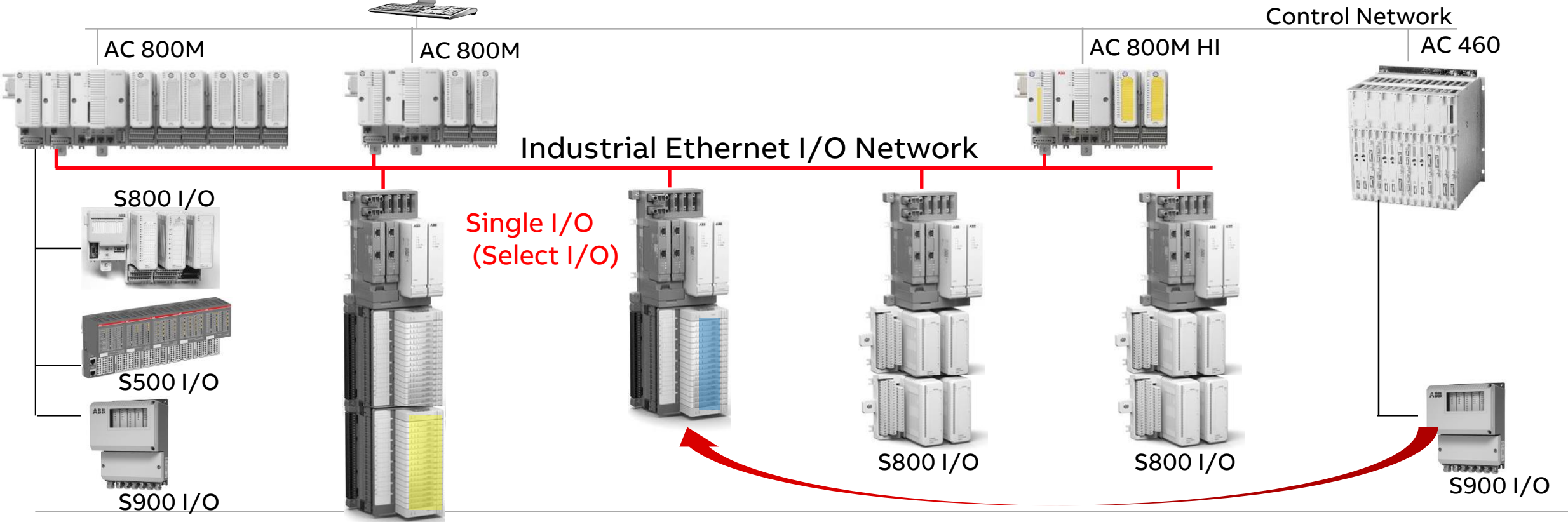
800xA Engineering



# Flexible I/O Solutions



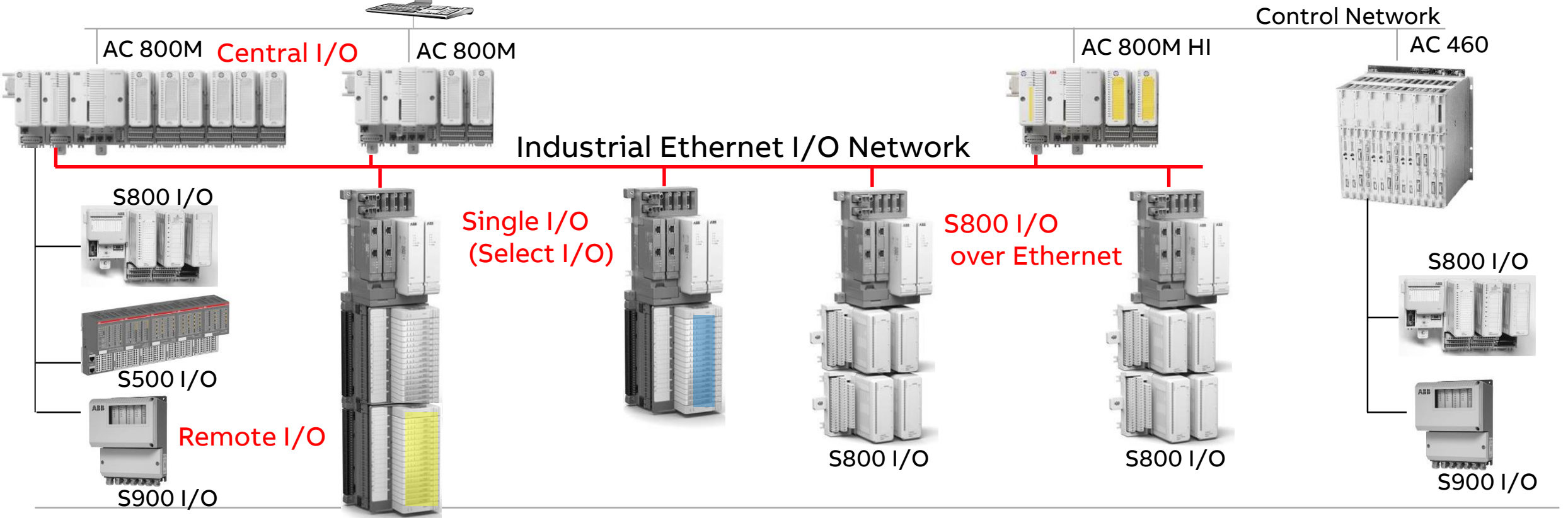
800xA Engineering



# Flexible I/O Solutions



800xA Engineering



# Flexible I/O Solutions

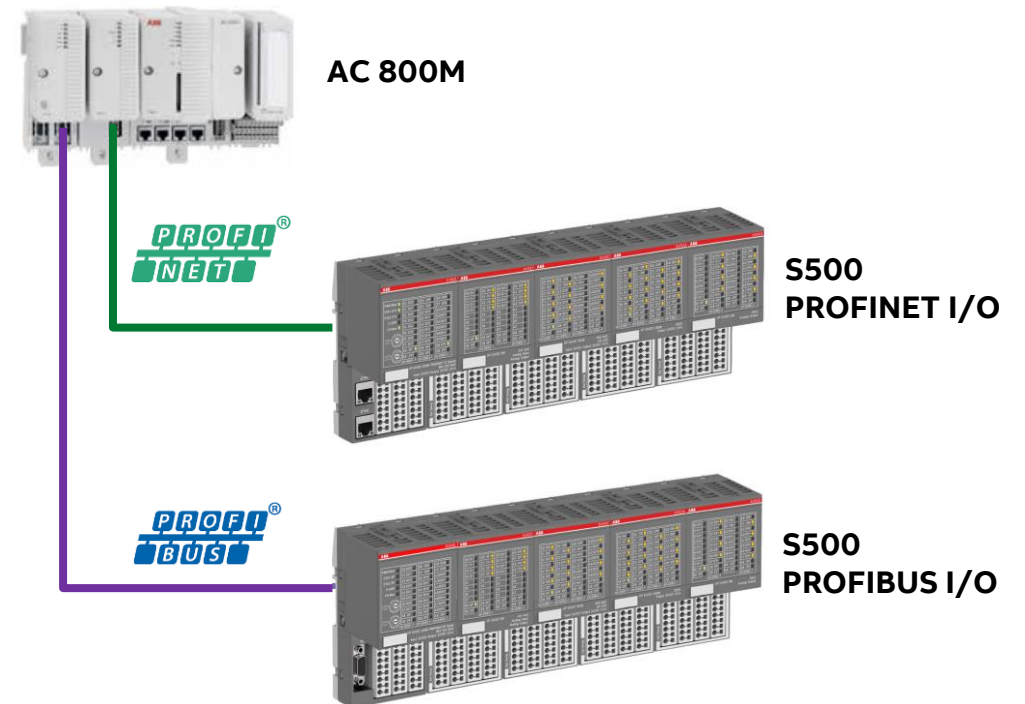
## Support for S500 in AC 800M

### Vorteile von S500 I/O:

- Cost-effective I/O ideal for Hybrid markets
- High channel density in small footprint
- Hot-Swap Support
- Availability of variants for extreme conditions
- Certificates CE, cUL, Class I Div 2, marin

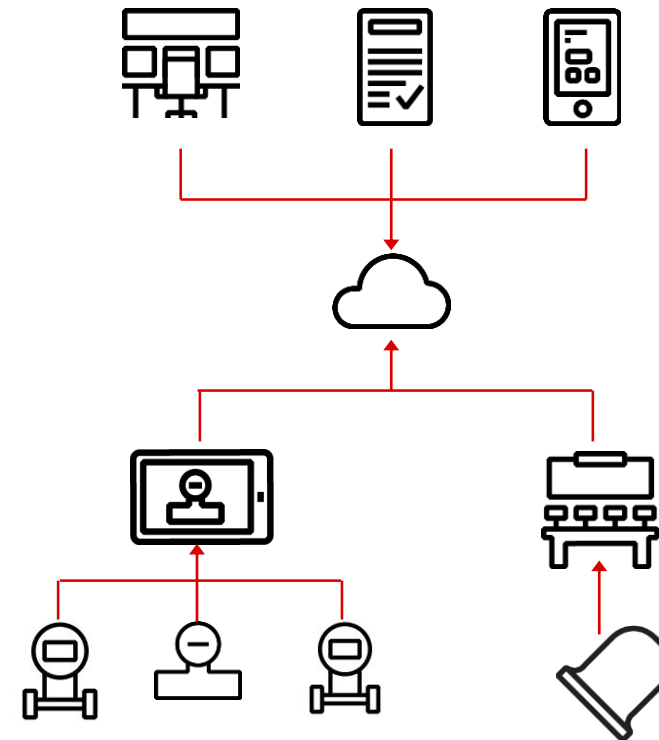
### Hybrid applications

- Infrastructure, tunnel, building, water & waste water
- Cement, open pit mining, metals
- Pulp and paper – entry level applications e.g. tissue paper
- Batch processes (pharma, chemistry and F&B)
- Data center – a lot of analog inputs are needed
- Package units and packaging machines



# Field Information Manager (FIM 1.4)

- FIM is based on FDI, that uses Device Packages & benefits from the simplicity of EDDs as well as offers graphic capabilities of DTMs
- Enables easy and efficient bulk device configuration of HART and PROFIBUS devices from a central location, enabled via device connectivity through System 800xA
- One tool for all needs - can be used in the Engineering station, in the Field, back of the panel or in maintenance workshop
- Quick to start – installs on Windows tablets and workstations, scans, identifies & enables access to device within 3 mins
- Connects to Online drivers repository – eliminates the trial & error search of Device drivers
- Fleet management and Asset management opportunities enabled via Connectivity to ABB Ability™ through OPC UA



**Opportunities:**  
Remote service  
Fleet Reporting  
Remote Verification

ABB Ability™  
through OPC UA

ABB System 800xA  
and FIM

Devices & Sensors

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# ABB Ability™ System 800xA

Even more functionalities

## New Bulk Data Manager (BDM2)

- Support of older templates from BDM Classic (Excel)
- Allows Control Diagram Editor Bulk Engineering
- MS Excel independent

## IEC61850 Edition 2 Support

- OPC Server and CI868 Edition 2 conform - new Signal types are included
- OPC Server with PRP-Support (Redundancy)
- CI868 as a SNTP-Server
- CI868 reconfiguration with no reboot needed
- Sending of MMS diagnostics through signal types
- Alarm and Events with external timestamp for every signal type



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# ABB Ability™ System 800xA

Even more functionalities

## New Safety Controller

- Select IO support
- For small and medium applications
- **PM857/SM812** for small applications, limited to <128 channels (single or redundant)
- **PM863/SM812** same functionality and performance as the former PM865/SM811

## PC, Network and Software Monitoring (PNSM 2.0)

- PNSM 2.0 is based on a own developed SNMP Poll Driver Component which improves ist capacity and performance
- Allowing, more than 100+ IT devices to be monitored with a server
- New objecttypes for full integration of ABB Networking equipment
- Improved SNMP cybersecurity including encryption of the SNMP-Community-Name
- Support of SNMP V3

# ABB Ability™ System 800xA

## Summary



Intelligent Engineering



Flexible I/O Solutions



Collaboration Enablement



A Release focused on efficiency and flexibility

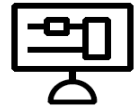


# ABB Ability™ System 800xA

to come...



**Collaboration Enablement**



**Safe & Secure Operations**



**Intelligent Engineering**



**Flexible I/O Solutions**



**Support for Life**

- Mobility Solutions
- Integrated FIM Asset Management
- Process Recall
- OPC UA Client/Server für 800xA
- OPC UA Client für AC 800M
- Profisafe
- Select I/O - Phase 2
  - New SCM types
  - Fiberoptic for Ethernet
  - Power Injector Block enhancements
- Win 10 2019 LTSC & Server 2019
- EDSA Certificate for AC 800M
- IEC 62443 Certification

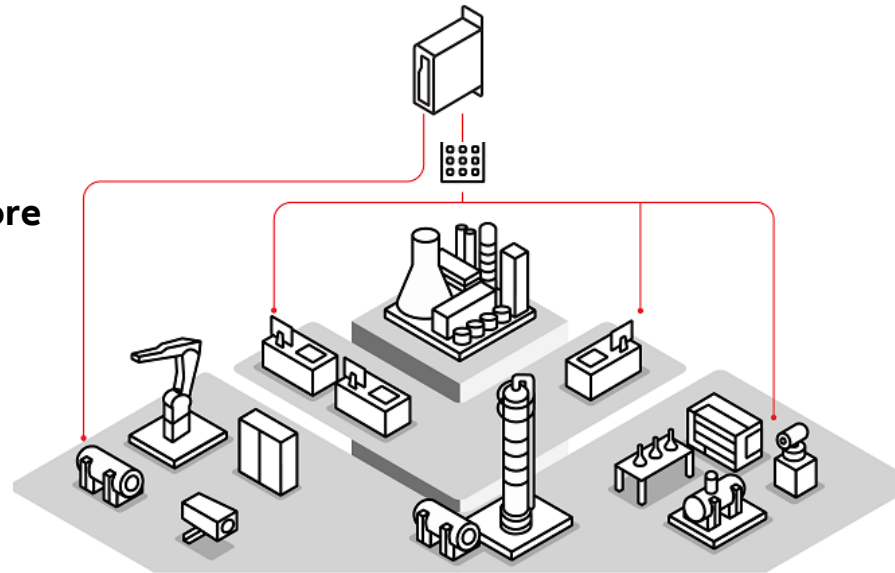


# ABB Ability™ System 800xA

## Control Systems Digital Journey

### Focusing on Control System Core

Mixed Systems (Connects)  
Compatibility (LTSV)  
Availability ( Multiple AS & AC)  
Select IO



### Digital future in Real-time

Collaboration (FIM)  
Optimization (Xstream)  
Prediction (Fleet Asset Management)

ABB Ability™ is how we harness the power of digital to drive progress with our customers every day.

#### Know more

Utilize your industrial data through sensors, devices and software to know more about your business in real-time.

#### Do more

Monitor, control and manage your devices, processes and operations on-site or remotely.

#### Do better

Simulate, predict and optimize through tools, insights and analysis.

#### Together

Work hand-in-hand with our experts and engineers anywhere around the globe for business transformation.

**ABB**