System 800xA

ABB's award winning System 800xA provides you with a better way to achieve measurable productivity and profitability improvements. System 800xA extends the scope of traditional DCS systems to include all automation functions in a single operations and engineering environment; enabling your plants to perform smarter and better at substantial cost savings.

Embracing the principles of open, real-time networking, System 800xA provides a scalable solution that spans and integrates loop, unit, area, plant, and inter plant controls. From providing a secure foundation with robust, but flexible, base level regulatory and sequence control to higher level management and advanced control functions that include safety controls,batch management, maintenance management, information management, and network management solutions, System 800xA meets the application needs of a wide variety of industries.

System 800xA provides you with a secure, reliable control environment with minimum effort through built-in security features such as access control, user authentication, and audit trail capability. ABB enhances secure system operations by actively participating on security standards committees, conducting threat-modeling studies, and incorporating "safe design" practices into product development.

Based upon the Aspect Object technology and a common set of hardware, System 800xA seamlessly integrates traditionally isolated DCS and Safety systems. SIS realization is achieved by either utilizing individual controllers or through dedicated applications within the same controller. With this embedded control and safety architecture, System 800xA reduces costs significantly; achieving the objectives of both systems – maximum plant availability at minimum risk.

For more information about System 800xA please visit our web: **www.abb.com/800xA**

System 800xA
System Capabilities

System 800xA from ABB is a control system that enables plant wide collaboration between people, systems and equipment. System 800xA utilizes a system architecture built for collaboration in a fully redundant, reliable environment.

Removing the barriers in traditional distributed control systems, System 800xA provides a collaboration environment that is required to increase productivity while reducing risk and total cost of ownership.

System 800xA Capabilities	
Tags	120,000
Total number of Clients, normal or remote (nodes with one or several workplaces)	80
I/O channels	From a hundred to over 1,000 per controller depending on CPU type and application.
Operator screens per system	160
Operator screens per Operator Workplace	4
Operator Workplaces, normal or remote	80
Engineering Workplaces	20
Remote Engineering Workplaces	5
Information Management Workplaces	80
Desktop Displays for trends and events	150
Batch Workplaces	40
Nodes in one control network segment (excl. domain server and controllers)	100
Aspect Services redundancy	1 (single, redundant 1oo2 or 2oo3)
AC 800M Connectivity services	8 (16 if redundant)
AC 800M controllers per connectivity services	48 (Application Dependent)

System 800xA Capabilities	
PROFIBUS Connectivity services	8 (16 if redundant), 2,500 devices per server
HART Connectivity services	8 (16 if redundant), 2,500 devices per server
Foundation Fieldbus Connectivity services	8 (16 if redundant), 4,000 devices per server
PLC Connect services	3 (6 if redundant), 25,000 signals per server
Asset Optimization services	4
Multisystem Integration Subscribers	2
Multisystem Integration Providers	20
Connectivity servers, total	12 (24 if redundant)
Application servers	10
Batch servers	1 (single or redundant 1oo2)
Information Management servers (used as single, redundant, or consolidating servers)	6
Supported Fieldbuses	Foundation Fieldbus, PROFIBUS, PROFINET, HART
Electrical Integration	IEC 61850
Standard Serial Protocols	RS232C: MODBUS RTU/TCP, 3964R, Comli
External application communication	OPC, OLE-DB, ODBC
Network	Ethernet TCP/IP Redundant
Network device supervision	SNMP
Operating System	Server: Windows Server 2012 R2 or Windows 8.1 Professional/Enterprise (64 bit US English Version), depending on node type
	Client: Windows 8.1 Professional/Enterprise (64 bit US English Version), Windows 10 Enterprise or Windows IoT Enterprise, Long Term Servicing Branch