

E163

Cyber Security for System 800xA

Workshop goal

Customers increasingly develop cyber security awareness for control systems and demand security solutions from ABB. Students learn different approaches to cyber security for a careful planning and implementation of security measures. They get an understanding of cyber security mechanisms and solutions for control systems and explore in depth the System 800xA security model. As a result of this workshop the student will be prepared to address control system security solutions.

Learning objectives

Upon completion of this workshop the participants will be able to:

- Be a good speaking partner for customer IT people.
- Describe the security goals, change management and the standard guidelines (like IEC/ISO 27000 and ISA 99).
- Describe attack mechanisms, the vulnerability exploit cycle and intrusion detection.
- Be able to use various IT tools to test a systems robustness to identify possible vulnerabilities and more important test the mitigating measures.
- Configure group policies in an Active Directory, harden the Microsoft operating system and harden networking equipment (like switches).
- Create backup/restore- and rebuild procedures.
- Describe basic and advanced network architectures including security zoning, VLAN techniques and secure communication.
- Create secure interconnection between networks using firewalls.
- Describe how security updates are applied to System 800xA.
- Install and configure a McAfee ePO server.
- Install and configure a Microsoft WSUS server.

- Utilize the System 800xA security model and apply its security mechanisms (user roles, permissions, passwords, audit trail, authentication, digital signatures, and security reports).
- Describe and utilize remote access solutions.
- Describe whitelisting solutions.

Participant profile

This Expert Workshop is targeted to project lead engineers, system administrators and service & support engineers.

Prerequisites and recommendations

Students should have attended either the Basic Configuration course T314 or the Engineering course T315 or have knowledge and experience associated with the content of these courses. In addition, they should have basic knowledge about networking (switches, routers) and Microsoft operating systems.



Workshop type and methods

This is an instructor led workshop with short presentations and demonstrations, extended exercises, hands on sessions and discussion.

Duration

The duration is 4 days.

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