

IEC 61850

Main features & **benefits**

Today's global business relationships between utilities and substation automation vendors calls for a global communication standard providing full interoperability and supporting optimized solutions.

IEC 61850 meets these demands on an integral and future-proof base.



— **Increased efficiency**

through interoperability of IEC 61850-compliant devices and tools ensuring optimized solutions

— **High flexibility**

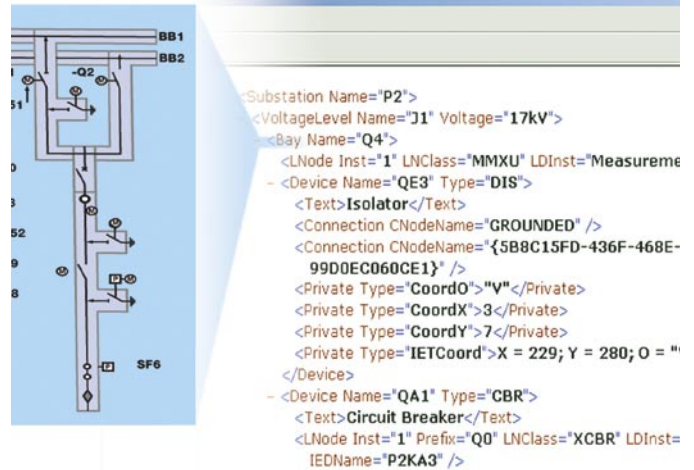
by supporting all physical and functional architectures as well as future extensions

— **Safeguarded investments**

by the comprehensive object model and choice of mainstream communication technology

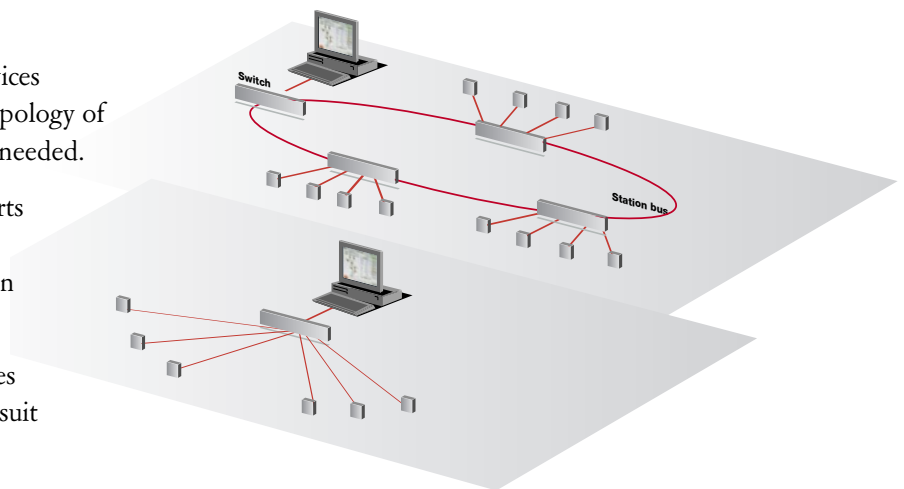
Increased efficiency

- The Substation Configuration description Language (SCL) provides formal descriptions of device capabilities, the communication structure and the interaction with the switchgear. These descriptions can directly be used by compliant tools for efficient system engineering and facilitate both the maintenance and extensions of SA systems.
- Standardized communication links with peer-to-peer data exchange for interlocking and automated functions reduce wiring to a minimum.



High flexibility

- The incorporation of interoperable devices allows solutions for any type, size and topology of substation with exactly the functionality needed.
- The object-oriented data model supports user-specific operational philosophies by allowing different device designs, function allocations and system architectures.
- Ethernet-based communication provides flexibility in selecting the architecture to suit availability requirements and topology.



Safeguarded investments

- The combination of mainstream communication means with the object-oriented data model allows communication upgrades whilst maintaining database and functions.
- Well-defined rules facilitate functional as well as system extensions whilst maintaining interoperability.
- The use of SCL warrants reuse of configuration data for extensions or replacements at any time during the substation life cycle.

Cycles of innovation

Application data model

Methods, languages, interfaces

System life-time

Innovation of technology



ABB Switzerland Ltd
Utility Automation Systems
Brown Boveri Strasse 6
CH-5400 Baden/Switzerland

Phone +41-58-585 77 44
Fax +41-58-585 55 77
e.Mail substation.automation@ch.abb.com

www.abb.com/substationautomation