

Evolution of Process Interface

Committee B5 – Question 2.02 What are the expected benefits of using digital substation concepts and how to meet these benefits during industrial application?

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Evolution of Process Interface

- The use of process bus in fully digital substations leads to an evolution of the interface between the process level and the PACS.
- Digital interfacing of the process recent – driven by IEC 61850
- This digital interface that constitutes the “process bus” and replaces the hardwiring of HV equipment (instrument transformers, breakers, disconnecter switches) to protection and control IEDs.
- **New digital “process” interface** based on interface IED
- Benefits:
 - Enables geographical separation of HV equipment and the IEDs hosting the protection and control functions.
 - New flexibility for architecture of PACS
 - PACS can be replaced independently from interface IED and vice versa
 - Synergies for monitoring of HV equipment

