

# IEC 61850 Application Examples First projects

Welcome to

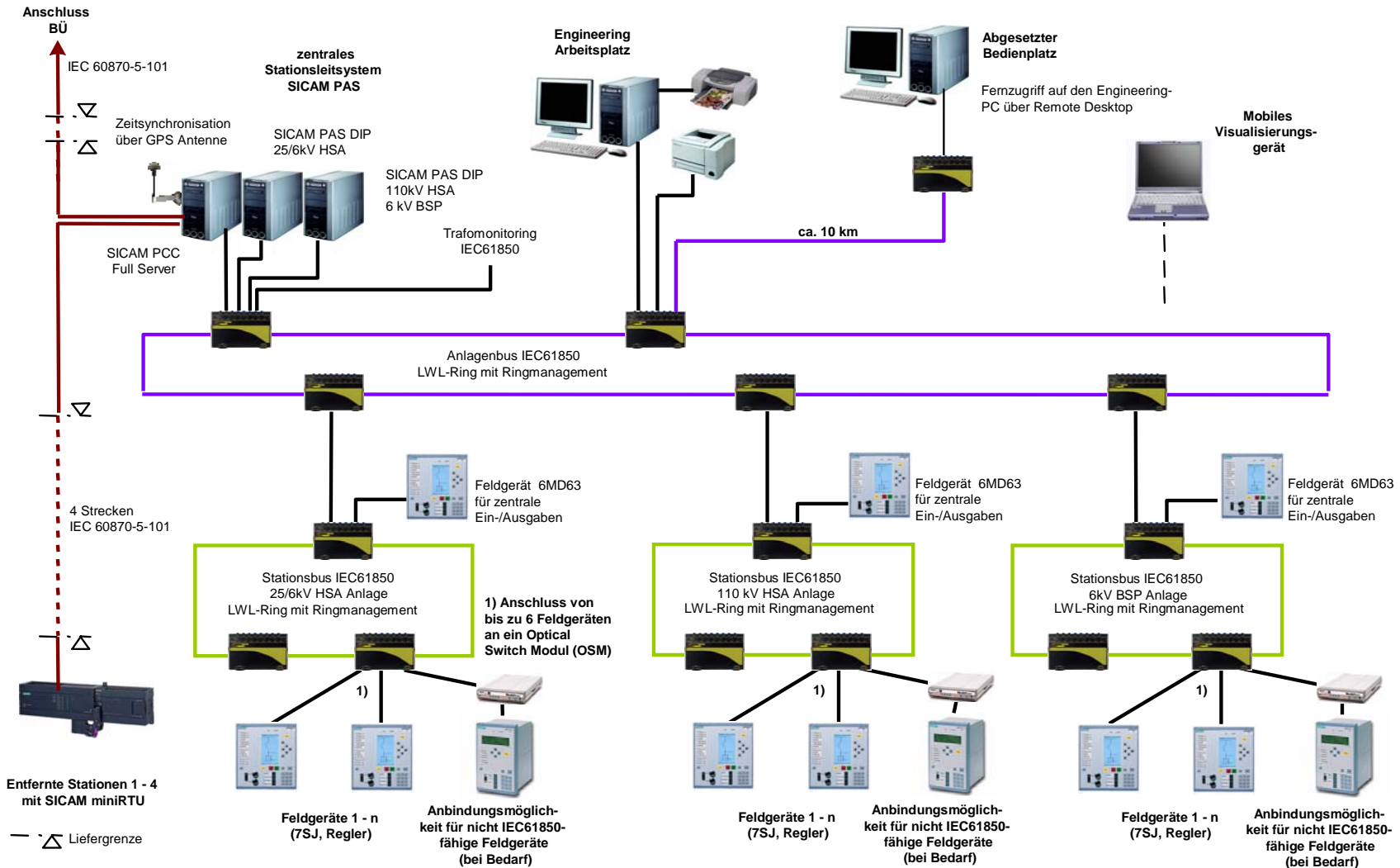
2004



# Pilot project: RWE Rheinbraun – Garzweiler II

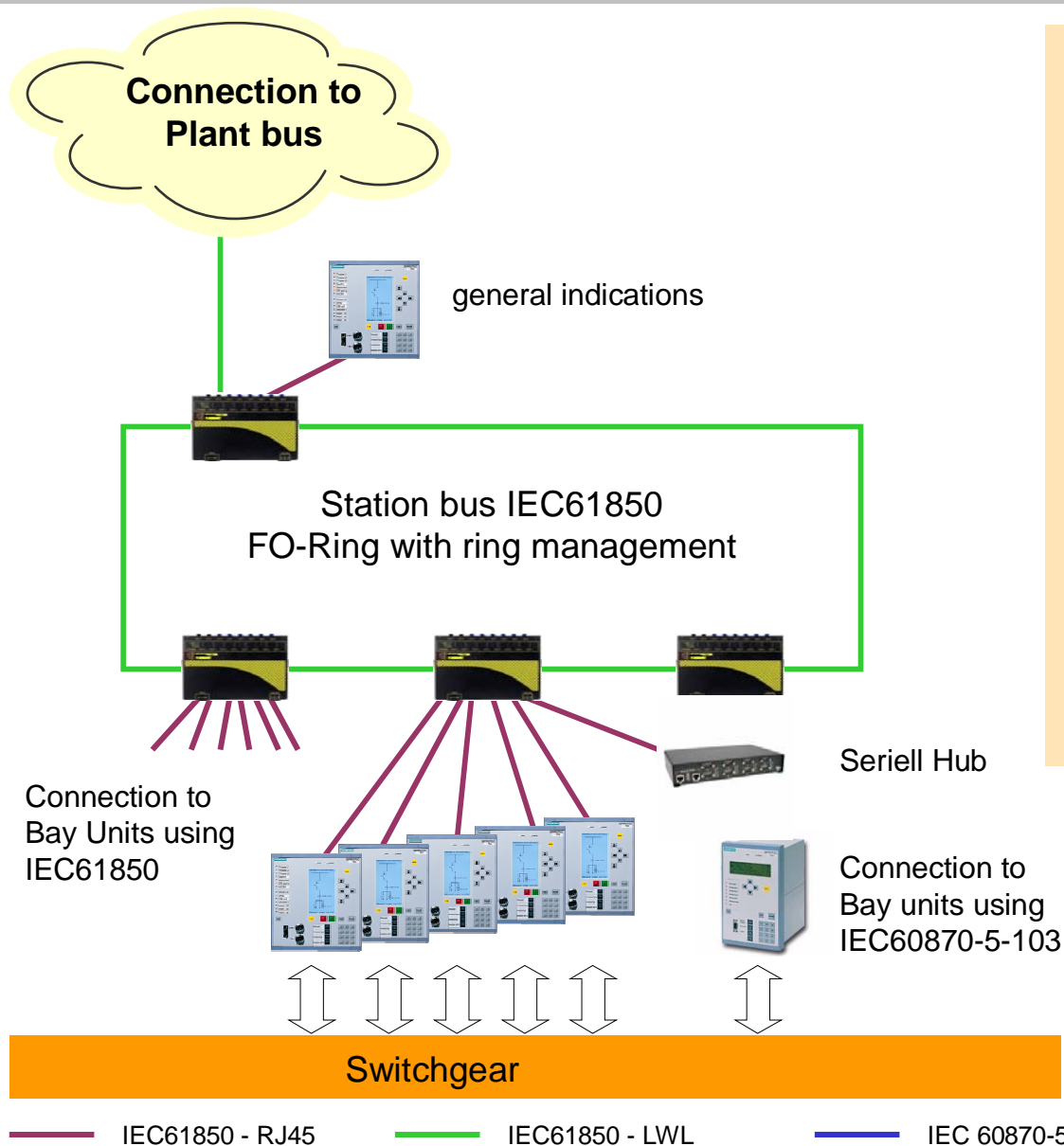


Power Automation  
Progress. It's that simple.



# Pilot project: RWE Rheinbraun – Garzweiler II – Station bus

Power Automation  
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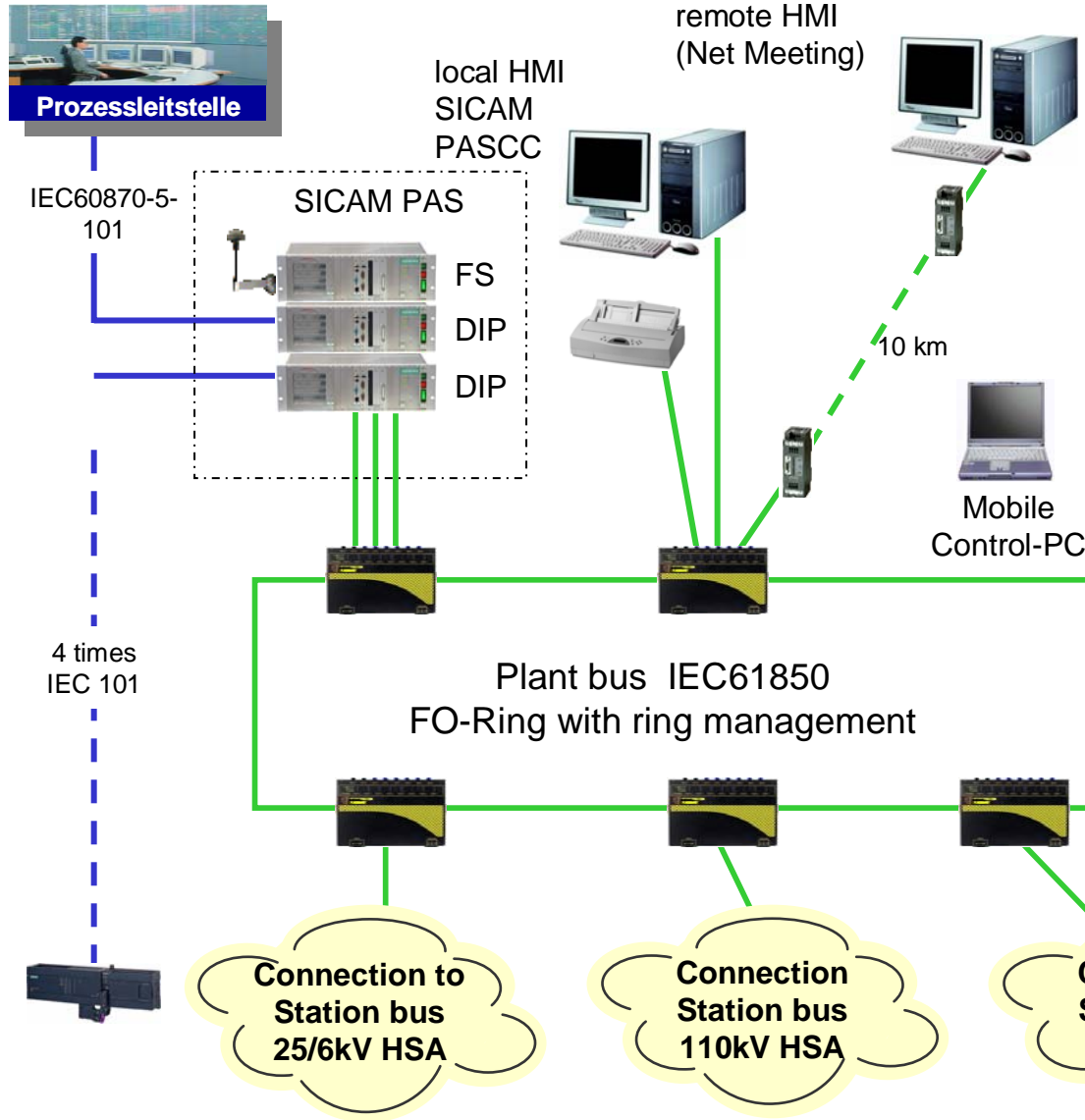


- Three independent Station busses:
  - 110kV – Section (HSA)
  - 25/6 kV- Section (HSA)
  - 6kV – Section (BSP)
- In summary 180 Protection and Bay Units.
  - 7SJ63, 7SJ64, 6MD66 and 7SJ62: IEC61850
  - 7UT6: IEC60870-5-103
- Connection to Transformer Controller using IEC61850
- High Availability due to automatic Ring management using intelligent Switch modules

# Pilot project: RWE Rheinbraun – Garzweiler II – Control room



Power Automation  
Progress. It's that simple.



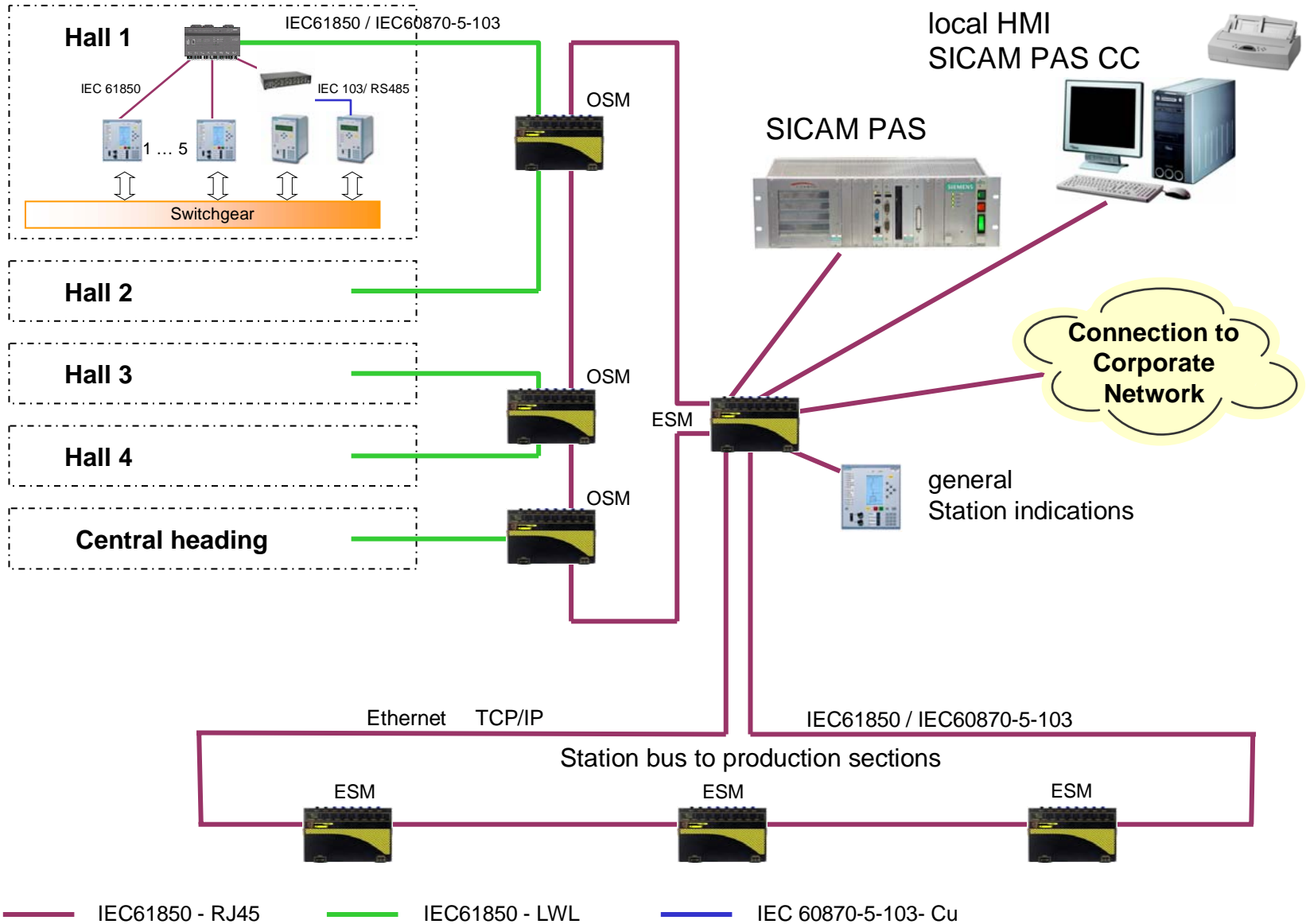
- SICAM PAS-System, consisting of:
  - Full server
  - 2xDIP (Device Interface Processor)
  - SICAM PAS CC
  - remote Control PC
  - Mobile Control PC
- Bay controller via IEC61850 IEC 60870-5-103
- Sub station connection IEC60870-5-101
- Control center connection IEC 60870-5-101
- Notebook as mobile Control PC useful at every switch.

— IEC61850 - RJ45    
 — IEC61850 - LWL    
 — IEC 60870-5-xxx- Cu

# Pilotprojekt: VW Salzgitter Control room



Power Automation  
Progress. It's that simple.



# Pilot project: VW Salzgitter - 20 kV switchgear



Power Automation  
Progress. It's that simple.

Switchgear 20kV  
3 sections with 12 Feeder each  
Bay Units 6MD63/7SJ63 using IEC 61850  
Protection Units 7SD61 using IEC 103  
Due to short distances a  
RS 485 cooper bus will be used

