

DEFENDER

Transmission SCADA Protocols Hardener

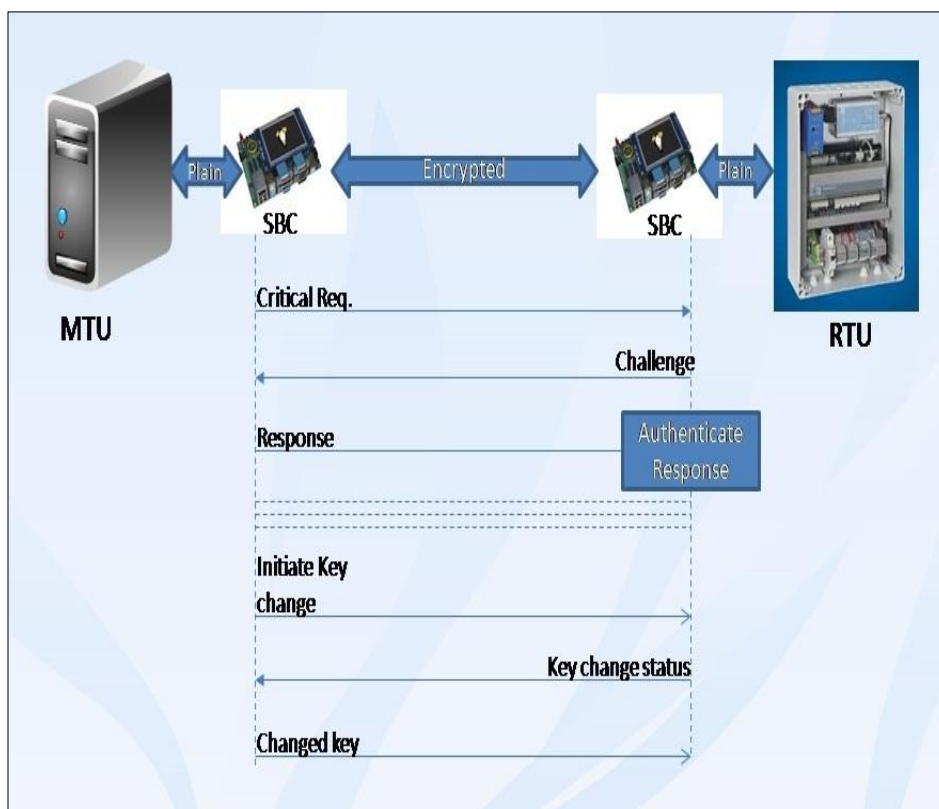


About Product

C-DAC's COPS Defender is a protocol hardening solution intended to address the vulnerabilities in transmission SCADA protocols like IEC 60870-5-101 and IEC 60870-5-104 in the power systems. The solution offers to authenticate any control from the control center towards RTUs and prevent any malicious events that may take place due to man-in-the-middle attacks. This also provides an encrypted channel between a control center and the RTUs connected to it. This is aimed to address the security concerns like data spoofing, data modification, replay attack and non-repudiation.

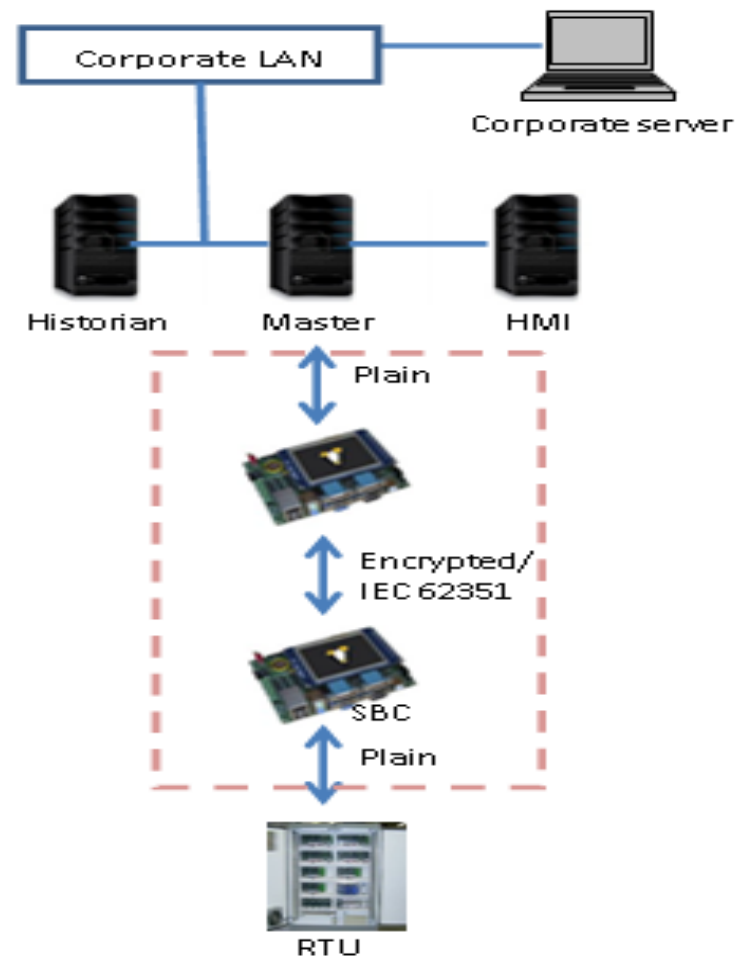
Features

- Hardening of the following protocols:
 - IEC 60870-5-101
 - IEC 60870-5-104
- Deployable with existing SCADA environment
- Implements encrypted channel between RTU and control center.
- Adherence to IEC 62351 standard for providing application layer security.
- Identifying possible man-in-the-middle attack and preventing consequent attacks like data spoofing, data modification and replay attack.



Product Highlights

- Product field tested at Karnataka Power Transmission Corporation Limited (KPTCL), Bangalore and Southern Regional Load Despatch Centre (SRLDC), Bangalore.
- Highly interoperable due to the strict adherence to the standards.
- Tolerable impact on the response times.



Product Details

- Adopting Bump In the Wire methodology to protect third party Master Terminal Unit and Remote Terminal Unit
- Application layer security adhering to IEC 62351 standards
- Secured mutual authentication
- Protects communication channel between RTU and MTU
- Encryption of data over communication channel
- Secured key exchange
- Prevents various attacks like Man in the middle, Replay, Data Modification, Non Repudiation etc.
- Latency within limits



Center for Development of Advanced Computing
Real time systems & smart grid
 C-DAC Knowledge Park, No:1, Old Madras Road,
 Byappanahalli, Bangalore. Ph: +91-80-66116400/01/02/03