

TRANSMISSION LOSSES MONITORING SYSTEM (TLMS)

Overview of TLMS

TLMS is software tools that is capable to gather and transmit data from substations and to perform data handling and data analysis for transmission losses and power quality.

The software supports data collection, validation, data editing and perform data analysis from the central server.

Benefits

- Dynamic Loss Calculations and comparisons of Plan-Estimate Actual with anomaly detection facilities
- Energy Quantity Metering: MW, power factor, MWh and MVar
- Web enabled capabilities and reporting
- Provides data analysis which calculates hourly, daily, and monthly of the transmission losses compared to the system loads.
- Provides power quality management system includes flicker and harmonic monitoring.
- Provides daily and monthly energy auditing.

System features

DATA COLLECTION

Collection of data at substation is performed by Data Acquisition Unit (DAU) that is capable to connect to 1 or more energy meters. It is also capable to provide minimal storage. These data then will be collected by MDC at a certain interval. The TLMS System is also capable to collect data from other system such as PMU, SCADA and other supported communication protocol system.

Among other functions and features of DAU:

- Connect and retrieve metering data from energy meters
- Provide web-based interface for DAU administrators
- Data collection every minute.
- Storage available for 7 days of minutely data

Supported protocols: MODBUS, DNP3, IEC60870-101, IEC60870-103 etc.

System features (Continued)

DEVICE AND PROCESS HEALTH STATUS

Provides real-time device or process statuses at the HMI to quickly resolve any issues.

DAU RELATED HEALTH STATUS

Time synchronization - Sync Status to the time server

Data availability - Smooth transition in optimal scenario free of any interruption

Database status - Database connection service, database running or not

Collector's Status - Collector connection service, collector's running or not

HISTORIAN RELATED HEALTH STATUS

Time synchronization - Sync Status to the time server

Data availability - Smooth transition in optimal scenario free of any interruption

Database status - Database connection service, database running or not

Collector's Status - Collector connection service, collector's running or not

COMMUNICATION HEALTH

Meter communication, DAU communication

REPORT GENERATION

TLMS provide tools to generate these reports based on the data collected:

1. transmission losses report
2. historical data report
3. generation output report
4. transformer load report

Reports can be generated based on minutely, hourly, daily, monthly, or yearly data.

Export Format: Standard windows formats, PDF & CSV

DATABASE MANAGEMENT

TLMS uses state-of-the-art database system that is capable to handle large amounts, providing high availability with no single point of failure.


Our experience


Bakun Sejati Sdn. Bhd. (BSSB) has been engaged with the TLMS contracting works since the year of 2012, from the first TLMS was introduced in Sarawak Energy Berhad (SEB) until now. We have been working together with our software partner Utility Automation Sdn. Bhd. for more than 8 years to design, build, installation, integrate, testing and commissioning of the TLMS in SEB system. Up to now, there are already 3 phases of TLMS work that has been rolled out and commissioned by us throughout the years. We are also the TLMS system maintenance contractor to provide the TLMS system maintenance works and system health upkeep works. Our team is formed by a group of professional and knowledgeable members to undertake all TLMS engineering work.

Contact Details

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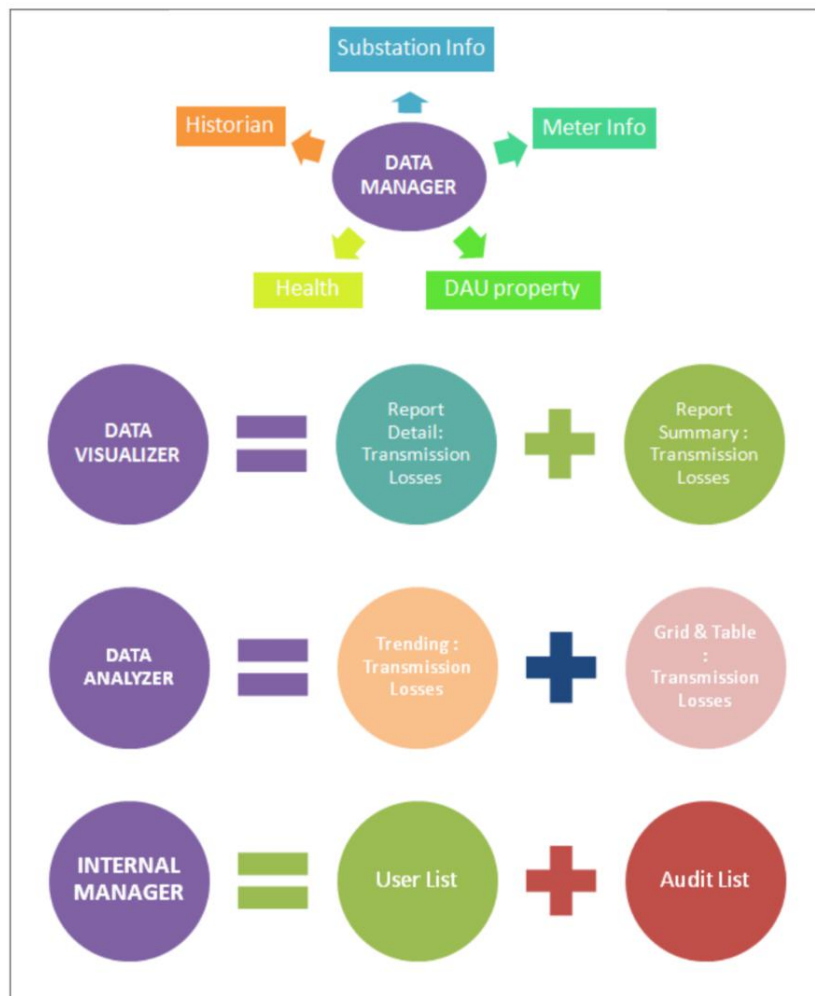
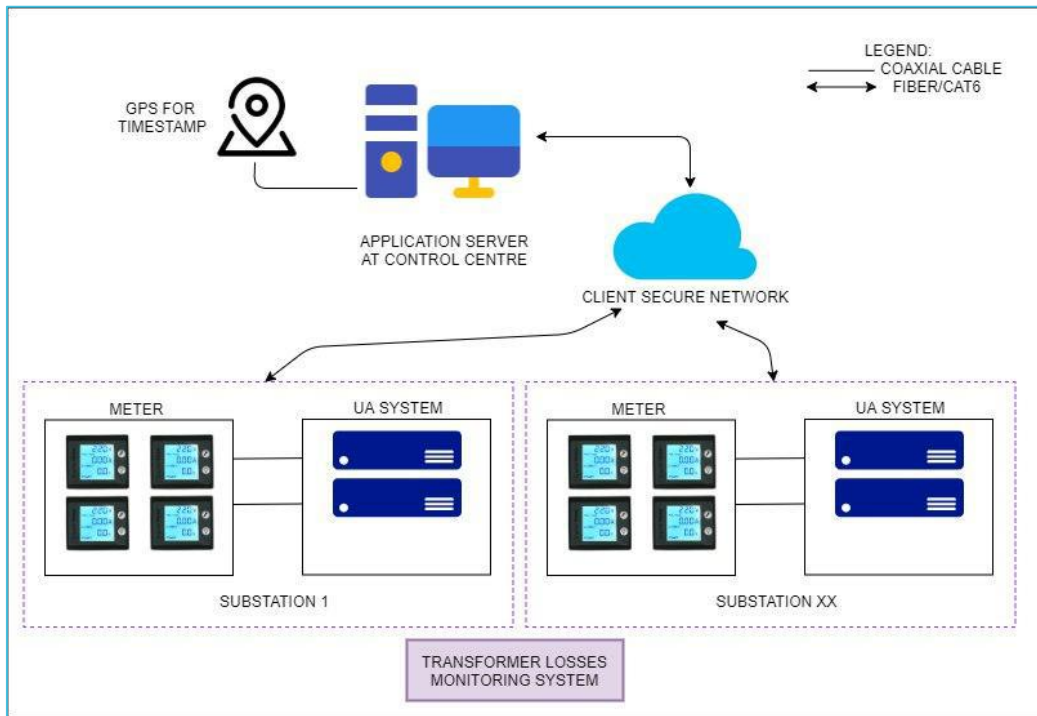
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Bakun Sejati Sdn. Bhd.

General System Architecture



TLMS at substations

