

Realtime DSM Monitoring System

Powered by **SHARAJMAN** Technologies



GenSOM DSM is a centralized, web and mobile-based real-time system designed specifically for thermal power generation companies. It streamlines operations by enabling accurate monitoring of schedules, deviations, and frequency estimation, along with automated DSM charge calculations and compliance management.

With real-time dashboards, intelligent alerts, and seamless integration with metering and scheduling data, GenSOM DSM enhances operational efficiency, minimizes financial penalties, and ensures regulatory compliance with grid discipline—at scale.

Feature Highlights

✓ Real-Time DSM Monitoring

- Track scheduled vs. actual generation continuously
- Monitor grid frequency trends to assess deviation risks
- Minimize DSM liabilities with instant corrective insights

✓ Data Ingestion & Integration

- Seamless integration with SCADA, ABT meters, and exchange and rldc APIs
- Supports OPC (DA/UA), FTP, and multi-logger connectivity
- Ensures accurate, real-time acquisition of generation data

✓ DSM Dashboard

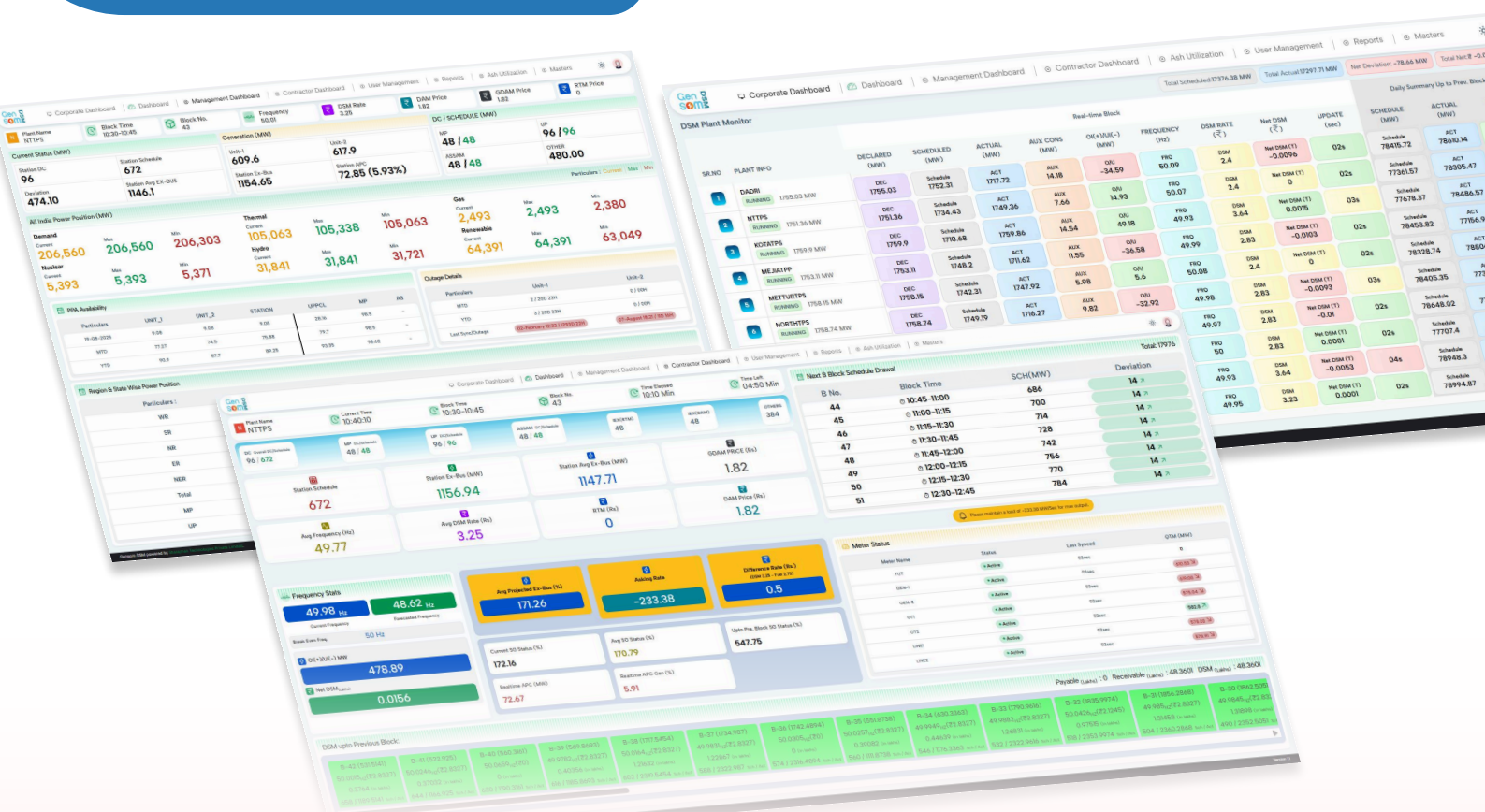
- Visualize schedule adherence and deviation blocks
- Get block-wise DSM payable/receivable insights instantly
- Access predictive deviation alerts for timely action

✓ Smart Alerts & Notifications

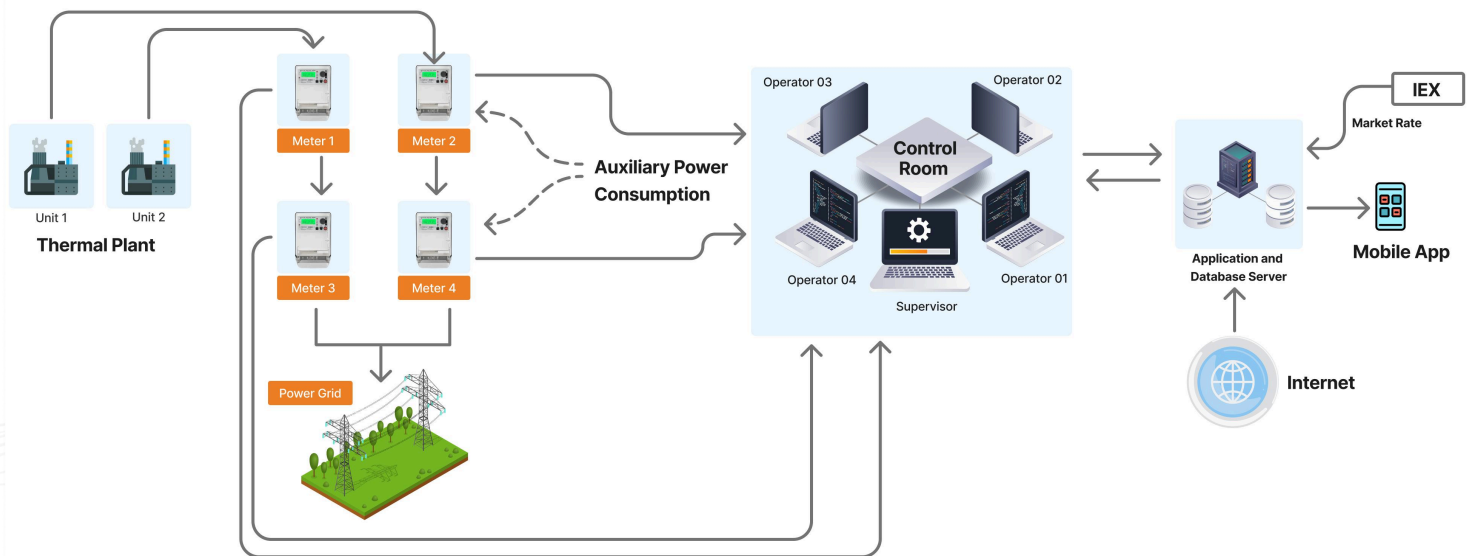
- Receive configurable alerts for deviation thresholds
- Instant notifications on mobile, email, or SMS
- Act quickly to reduce financial exposure and penalties

✓ Reports & Compliance

- Generate regulatory-aligned DSM reports automatically
- Access detailed block-wise deviation and settlement logs.
- Ensure full compliance with grid and CERC guidelines.



DSM Solution Architecture



Challenges Solved

Predict and meet schedules with real-time asking rate

Monitor and estimate grid frequency

Automate daily, weekly, and monthly charge calculations

Provide real-time operator support

Generate regulatory and deviation reports

Automatically fetch real-time market rates and schedule

Compare performance before and after DSM

Quantify savings and effectiveness

Key Stats at a Glance

Integrated Units

Monitors multiple thermal power units and their components

Data Sources

Gathers real-time data from plant SCADA, OPC, APIs, and FTP

Update Frequency

Provides critical data updates as fast as every 2 seconds

Remote Access

Enables secure remote monitoring from any location via mobile app

Visualization

Offers real-time dashboards with component-level drill-down

Alert System

Delivers live alerts via App, SMS, and Email for operational issues

Future Scope

Automatic Backup Meter Switching

Seamless fallback for meter failures
AI-Powered Frequency Estimation

Smarter grid stability insights
Contract vs Market Analytics

Optimized performance and trading decisions
Advanced Analytics & Reporting

Enhanced visibility and actionable insights