

X - Force

**IIOT - Energy Management System with
Compliance with ISO 50001**

Overview

Our Industrial X-Force IoT-based Energy Management System (IIoT-EMS) is engineered to serve energy-intensive sectors such as Oil & Gas, Manufacturing, Power, Steel, and more. Built on a Cloud-First Data Lake and Analytics architecture, it enables seamless management of utilities like Electrical, GAS, FO, Steam, Water, and AIR. The system integrates advanced features including analyzer management, condition-based monitoring, and AI/ML-powered anomaly detection. With capabilities for predictive and prescriptive analytics, IIoT-EMS empowers industries to optimize energy consumption, reduce operational costs, and drive sustainability through intelligent decision-making.

Value delivered with X-Force IIoT -EMS



Optimized Energy Consumption

Real-time monitoring and analytics help reduce energy wastage, ensuring efficient usage across utilities.



Cost Reduction

Minimized energy bills and maintenance costs through anomaly detection, predictive insights, and condition-based monitoring.



Improved Operational Efficiency

Centralized visibility into multiple utilities (Electrical, Gas, FO, Steam, Water, Air) enables better control and coordination.



Reduced Downtime

AI/ML-driven anomaly detection and predictive maintenance prevent unexpected equipment failures and production halts.



Sustainability and Compliance

Supports ESG goals with data-driven reporting and reduced carbon footprint through smarter energy practices.



Scalability and Integration

S-Cloud-first architecture ensures easy scalability and integration with existing industrial systems and platforms.



Informed Decision-Making

Prescriptive analytics and intuitive dashboards empower teams to make strategic, data-backed operational decisions.



Centralized Data Lake for Unified Insights

Aggregates data from disparate sources into a single cloud-based platform, enabling holistic analysis and cross-utility correlations for deeper operational intelligence.

X-Force IIoT - EMS Architecture

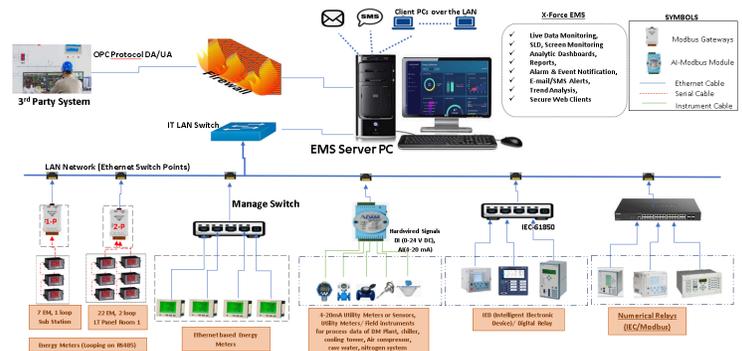
• Data Acquisition & Monitoring

Seamlessly acquire and monitor data from Energy Meters, Utility Meters, Sensors, Numerical Relays, SCADA, and DCS systems using a centralized EMS platform. Supports industry-standard protocols (Modbus, IEC, DLMS, MQTT, OPC, etc.) with wired/wireless connectivity, virtual tagging, and ERP/SCADA integration for scalable, easy-to-configure deployments.

• Alarm & Event Management system

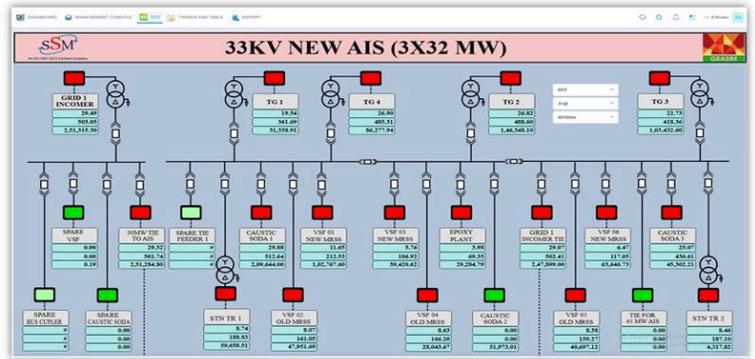
Advanced Alarm & Event Management system with real-time critical alarm display, rationalization, and acknowledgement. Supports setpoint violation alerts (H/H-H/L/L-L), SMS/email notifications, electronic annunciator interface, and comprehensive alarm logging for operational safety and compliance.

Architecture – X-Force EMS System



Key Functionalities

- Energy Management & Analysis
- Strategic Planning & Optimization
- Visualization & System Integration
- Performance Tracking & Audit Readiness
- Benefits of Compliance ISO 50001
- Benefits Across Industry Verticals



• SLD/Dashboards & Reporting:

Visualize plant, area, or department-level operations with dynamic SLDs and customizable dashboards. Track energy balance, load flow, KPI/EnPI metrics, and generate detailed reports on equipment efficiency, availability, and consumption trends.

• Reporting System:

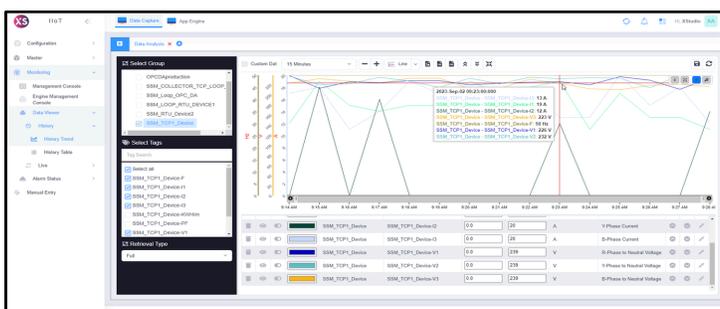
- Standard Consumption Reports
- Shift Wise, Hourly, Daily Monthly and Yearly Reports
- Customized Reporting as per end user requirements
- Automatic Report Generation and E-mail Notification of Reports
- Energy Balancing Report, MIS Reports
- Automatic Schedule Creation



X-Force IIoT - EMS Dashboard



X-Force IIoT - EMS - Trend Analysis



Industry based Our Valued Customer

Oil and Gas	Chemical & Fertilizers	Power	Cement	Metal & Manufacturing	FMCG & Pharma	OTHER
 	 	 	 	 	 	<p>And many more...</p>

Summary

Empower operations with plant, area, and department-wise SLDs and user-configurable dashboards. Visualize energy balancing, load flow, and monitor KPI/EnPI metrics in real time. Generate customized reports on equipment efficiency, availability, and consumption. A scalable solution for data-driven decision-making and performance optimization.