



SMART suite of solutions

UtilitySMART

INSIGHTS & DATA



UtilitySMART is a comprehensive, next-generation, rapid cloud-deployable data platform and prebuilt business analytics solution in the network, service and customer management for utility companies aided by big data, cloud, AI, and the cognitive digital co-worker(chatbot).

Industry and business context

Energy and Utility companies are constantly looking for ways to enhance their asset performance and reliability and improve their productivity in order to pass the benefits on to their customers and ensure high satisfaction – a must in today's competitive environment – while keeping operating costs at a bare minimum.

In today's competitive and deregulated markets around the world, competition is driving players to provide the best service possible or they risk losing customers.

Assets need to be checked for reliability and health and maintained as necessary. Labor needs to be managed optimally to keep costs to a minimum. Inventory needs to be optimized to ensure material costs are low and suppliers need to be evaluated to ensure that the best products are procured. Also, asset and environmental compliance is critical as non-adherence would lead to fines and penalties.

Thus, the primary lookout for such industries is a platform that provides businesses with key insights on their assets and customers so they can make the right decisions at the appropriate time.

Key industrial problems

Utility organizations manage huge networks comprising of expensive and critical assets that need constant maintenance to ensure service levels meet customer expectations. The organizations also manage workforce, inventory, suppliers while abiding to environmental compliances. Some of the key issues include:

- Poor visibility on current energy management and usage across segments
- Proper customer segmentation and understanding of customer demography
- Key information (asset, workforce, suppliers, etc.) scattered across geographies in different systems following various standards
- Poor asset availability and reliability leading to productivity loss and increased maintenance costs
- Poor visibility on operational expenses and cost drivers
- Inability to identify the right window to decommission or renew assets based on optimal cost modelling and asset usage
- Low workforce utilization due to improper scheduling and issues faced with planning due to workforce/crew availability
- Poor supplier selection leading to poor quality and increased costs and excess or inadequate inventory stock leading to increased cost or maintenance delays
- Fines and penalty due to compliance breaches and poor visibility.



Our solution

UtilitySMART provides organizations with a holistic view of their operations, customers, assets and networks workforce, inventory, compliance, and suppliers thereby providing them with the information they need to make apt business decisions. The information is presented in vivid and self-explanatory dashboards, detailed reports, insights, recommendations, and alerts to facilitate decision making at the operational, tactical, and strategic user levels. Our packaged solution boasts of a robust, yet flexible, big data-, cloud-, and AI-enabled architecture that offers the flexibility for customization, scalability, on-premise cloud and hybrid deployment options, support and upgrade, mobile compatibility, and a faster implementation time due to the unique bundle of enablers and accelerators.

Features

The UtilitySMART solution was created with widely adopted technology to cater to all business needs from a technology, security, and compliance point of view. The features of the solution include:

- 350+ KPI's and 100+ prebuilt reports and dashboards
- Industry standard KPI's – BS PAS 55:2008, BS EN 15341:2007, SMRP, ISO 55001
- 10+ analytical models, scorecards, and what-if scenarios
- Prebuilt data model with 90+ facts and dimensions
- Prebuilt ETL engine for IBM Maximo
- Cognitive asset advisor with AI capabilities
- Big data ecosystem
- Cloud-ready
- Mobile-ready
- Customization flexibility, interoperability, and scalability
- Role-based visualization persona

Solution modules

The UtilitySMART solution has KPI's and dashboards spanning most of the key areas of network, service and customer management. The coverage areas of the solutions include:

- Generation, transmission, and distribution analytics
- Equipment reliability, renewal
- Operational cost analytics
- Smart-meter analytics
- Customer segmentation, sentiment, and feedback analytics
- Workforce analytics
- Procurement and inventory analytics
- Compliance analysis



Business benefits

The benefits that organizations can achieve through adopting the solution include:

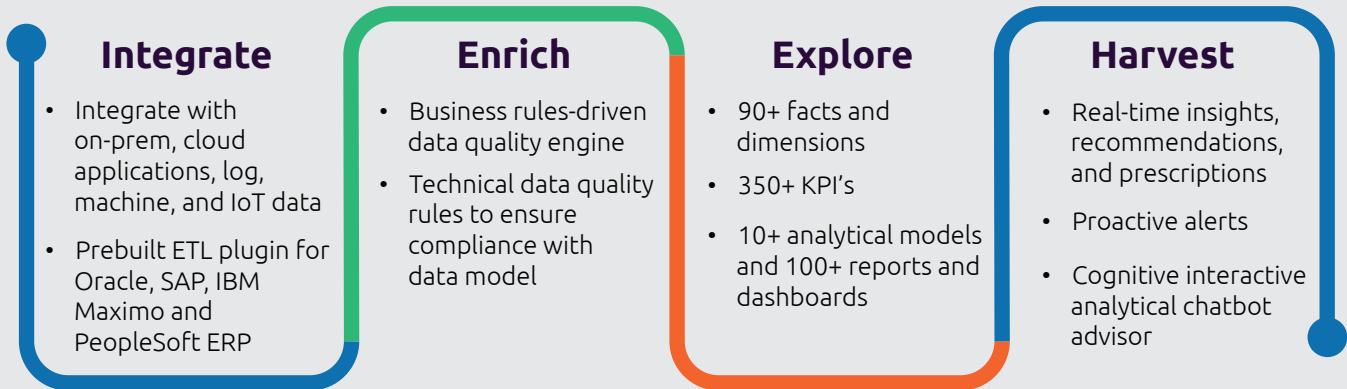
- Enterprise asset and customer visibility
- Enhanced asset health and reliability
- Predictable energy usage
- Reduced customer churn/switching
- Optimized energy usage
- Improved workforce effectiveness
- Improved inventory and supplier management
- Monitored and measured EHS compliance

Pre-built components

The prebuilt components readily available in the solution include:

- Microservices architecture-based data and analytics platform
- Insights, recommendations, and alerts
- Data model for industry standard KPIs
- Visualization components on BI tools
- Data ingestion engine
- Semantic layer for self service
- Data quality engine
- Digital co-worker (chatbot)
- Configurable analytical models

Solution foundation



Reference architecture

The solution is currently available in four different reference architectures: Azure cloud-based, AWS-cloud based, native Hadoop-based, and on-premises traditional data warehouse-based. Depending on the customer need and preference, a detailed reference architecture can be customized and provided on demand.

Contact our team to see how our Smart Asset Management team can help your organization.

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