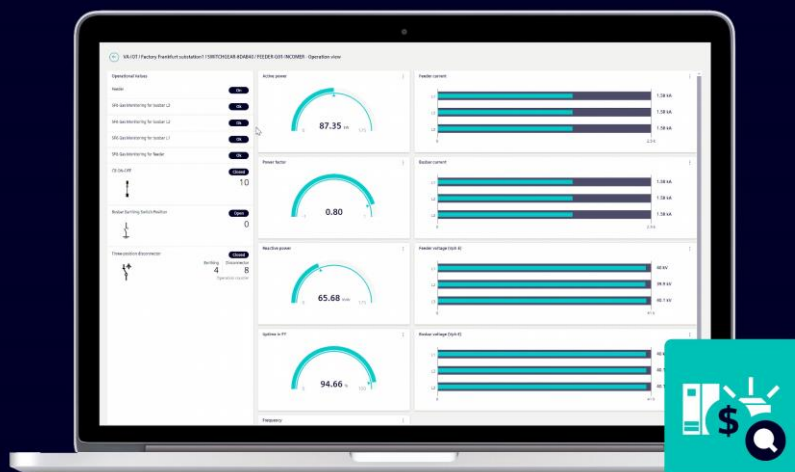# SIEMENS

Asset Management

Digital caretaker for your energy distribution, automation systems and networks at the medium- and low-voltage levels

Your digitalization journey from data to value to action

The Industry 4.0 revolution based on the Internet of Things (IoT) is motivating many organizations to begin their digital journey across different industry verticals.

The first step is to connect industry assets like electrical distribution equipment at the field level to a common remote IoT platform through a secure and reliable IoT connectivity device popularly known as "IoT gateway." The second step is to access, visualize, and analyze the data using an IoT application hosted in a secure and reliable cloud environment. The goal of the journey is to help industry acquire real value by obtaining the necessary assets and business transparency and establishing continuous improvement and optimization processes.

The challenges are getting more and more complex. Networks will be loaded and challenged in a different way by more and more integration of renewables, higher loads in distribution networks and the general call for action regarding sustainability. The resiliency has to be increased. The analysis of data enables targeted service actions and will increase safety and availability.

Electrification X - Asset Management is a cloud-based solution that will launch and accompany your digital journey in energy distribution and automation.

Top-notch cybersecurity

Highest priority for Electrification X and SICAM GridEgde is authentication and encryption, so your data are safe in motion and in rest. Thereby, with a Certificate Authority in the cloud and X.509 certificates per device it is assured, that only authorized devices are onboard.

Automatic onboarding – effortless Engineering

Once authenticated the asset and signals of the station will be sent to Electrification X and create the database automatically. No typing faults, no false assignment during engineering, but after a moment and you'll have everything at your fingertips.

Additionally, the flexibility of Electrification X - Asset Management allows you to create your own screens in combination with the automated onboarding assets.

That's the way to combine secure automated onboarding with flexibility **to effortless configuration.**

Your benefit

Electrification X - Asset Management is a browser-based application that collects health status of electrical assets in a substation, sends real-time information for fast incidence handling, and visualizes monitoring data for an efficient asset management.

- Fast fault notification increases availability and support fault clearance

- Continuous monitoring with online health status increases the availability of connected equipment

- Condition Monitoring provides better risk management by identifying potential asset breakdowns and failures before they happen

- Reduced OPEX by preventing unplanned shutdowns and avoiding unnecessary trips to substations

- Electrification X, in combination with SICAM GridEdge, provides cybersecurity at the highest level

Electrification X - Asset Management

Electrification X - Asset Management provides different views for visualizing and monitoring electrical assets in a substation or substations across multiple locations from anywhere in the world at any time.

Transparency thanks to asset summary and Operations

The asset summary offers you key performance indicators, which allows you to monitor your assets and helps you to identify optimization potentials for improving availability, energy consumption, CO_2 emission and cost savings. An overview of the status of the individual feeders help to get fast information what is going on. The additional energy monitoring view allows you to monitor the energy consumption of critical loads on a time-series basis and compare it with similar loads at the same location or across different locations. This enables you to optimize both your energy costs and your CO_2 footprint. The included documentation view allows you to create your own asset-related central document repository system that will bring you even more peace of mind. Important documents will be always available from anywhere at any time.
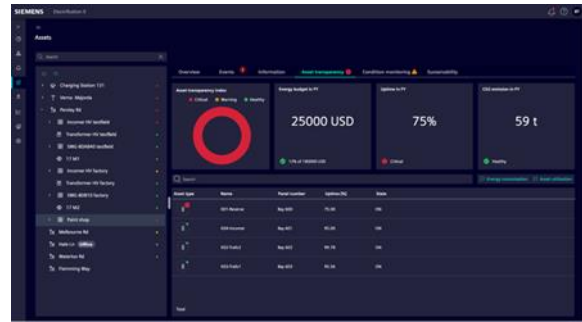
Condition Monitoring (optional)

The condition monitoring allows you to monitor the health status of your asset remotely. This allows you to manage your risks better, improve operations and maintenance schedules based on the actual status of the assets rather than their theoretical condition. The electrical assets can be e.g. a switchgear, a motor and transformers. The switchgear monitoring on medium voltage side is based on temperature monitoring, humidity monitoring, circuit breaker monitoring and partial discharge monitoring. User can select individual type of monitoring based on availability of respective sensors. The medium voltage switchgear can be air insulated or gas insulated. The transformer monitoring is based on winding temperature, oil temperature as well as cooling system monitoring based on availability of respective sensors on transformer side. The motor monitoring provides you a health status of your motor via selected partner API provided that you contract with the respective partner separately. The grid-spanning event and alarm list allows you to visualize all alarms along with their status and details. It also initiates an e-mail notification to your designated maintenance engineers with details on the alarms. This saves them time when it comes to defining the necessary corrective actions. Through these features most of the time manual processes which calls for visits at site can be drastically reduced. Unplanned asset breakdowns will be avoided by detecting failures before they lead to a problem. This increases asset lifetime.
If you need to know, how much will be the ROI for digitalization for your specific case, please contact us.

Asset Transparency overview

Operations of the connected feeder
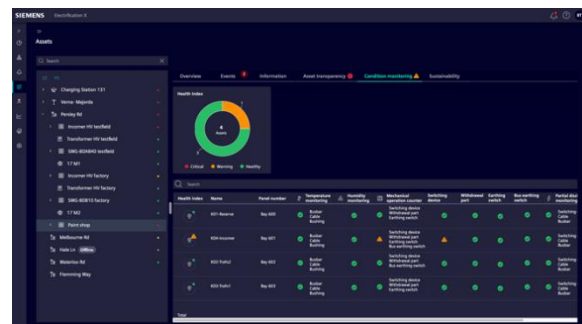
Condition Monitoring

Grid-spanning event and alarm list