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BROCHURE

Swarm-IoT-Gateway

Dynamic Ratings

Distributed by AKRIBIS

DYNAMIC RATINGS

ConnectGrid™ Smart Infrastructure Solution

- Improved Connectivity
- Cost-Effective
- Flexible Architecture

RESPONSIVE
ASSET HEALTH SOLUTIONS

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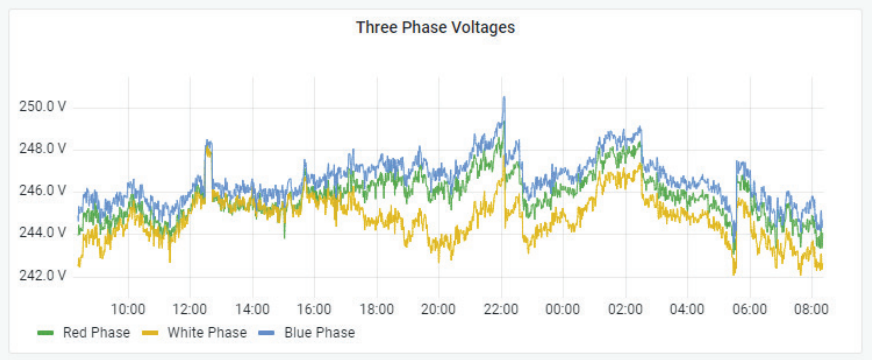
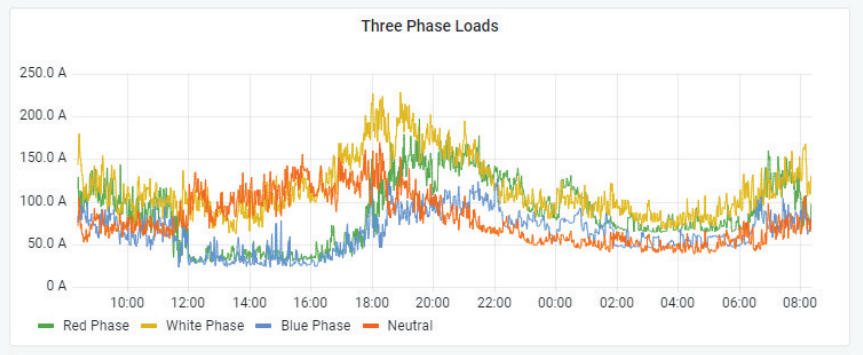
System Monitoring Made Easy

The distribution system (electric power grid) represents the largest interconnected machine in the world. It is ideally suited for the ConnectGrid™ Smart Infrastructure Solution with distributed assets, big data, machine to machine communications and a need for more sophisticated analytics. The IoT platform can bridge operational technology hardware such as transformer monitors and line sensors with energy business systems such as PI. This ensures the data is securely and easily transmitted to all the stake holders within a large organization so planning, construction and maintenance and asset management can all operate seamlessly with cooperation.



Gain real-time visibility to voltage excursions and potential down conductors throughout the entire grid.



Track equipment location and visualize network status with geospatial views that support data layers imported from utility GIS systems.

Monitor transformer loading for model verification and improved system planning.

Improved Connectivity

The Dynamic Ratings ConnectGrid™ Smart Infrastructure Solution (SIS) is an agile technology stack that enhances connectivity to grid edge assets for better management. The system is tailored to meet varying security, scalability and availability requirements and has many options available in architecture and communication technology.

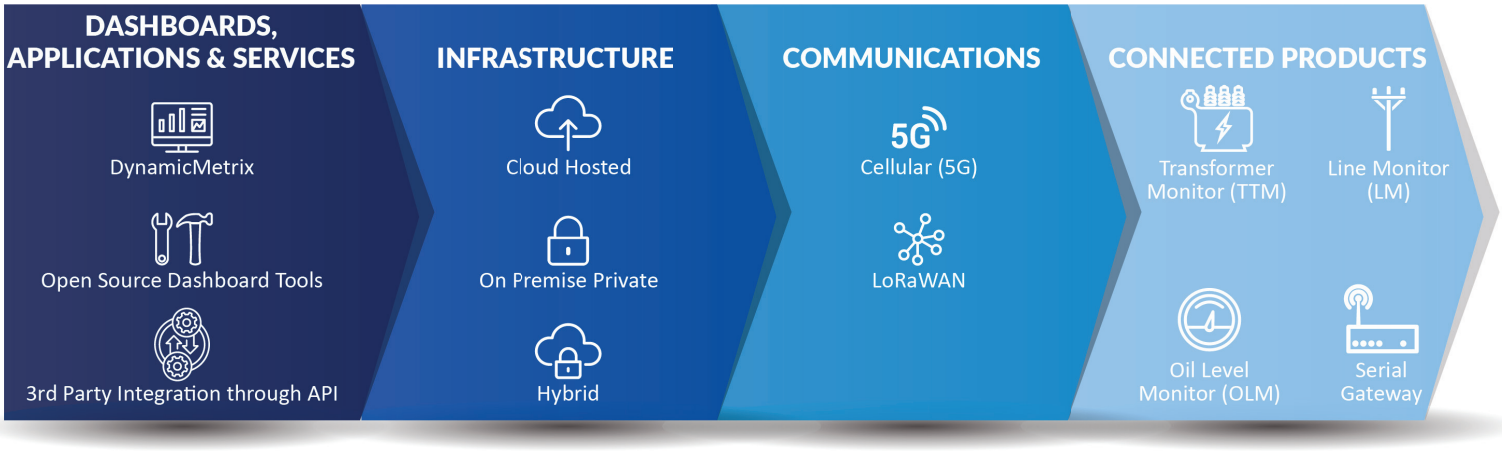
Cost-Effective

Many utilities and organizations are challenged with communication architectures that are an extension of what was used to modernize substation assets. SCADA equipment such as RTU's and data concentrators consolidate IED information and transmit it back to an enterprise system. This approach does not extend well beyond the substation fence or across many production locations. Traditional communication architectures require significant power requirements, substantial bandwidth, and extensive point mapping to parse and transmit data. This drives cost and requires heavy resources to commission and maintain.

Flexible Architecture

Not all utilities or organizations operate the same. The owner and operator of sustainable clean energy with a mix of solar and wind plants will have different business needs than a large organization with a global manufacturing footprint of paper pulp mills. Both have distributed assets and need a cost-effective way to manage their assets and electrical systems. Dynamic Ratings' system is scalable and elastic enough to meet their objectives.

ConnectGrid™ IoT Platform



Dashboards, Applications and Services

After the initial investment is approved, many organizations fall into the trap of analyzing technical details while losing site of how all the data will be turned into actionable information. Staying focused on the business' needs helps define which dashboard solution will best meet organizational goals.

This may mean a combination of DynamicMetrix™ for fleet management of transformer monitors and a PI server integration to populate custom built asset management dashboards. ConnectGrid™ can also utilize open-source dashboard solutions for a lightweight and easy-to-maintain visualization package for trending and other analytics.

Infrastructure

The infrastructure to host these applications and services will depend on organization security requirements, resource availability and financial structure. Will cloud hosting with its rapid scalability and low capital investment be more attractive or will an on-premise secured dedicated server? Different businesses and different applications within the same organization may require different infrastructures, and the ConnectGrid™ can leverage them all.

Communications

Wireless communications technology is abundant across all industry segments. Organizations with multiple sites and distribution assets have been using various technologies to reach those end points for years. The ConnectGrid™ Smart Infrastructure Solution has been designed to take advantage of the latest Low-Power Wide-Area Network (LPWAN) communication technologies. This includes the ability to leverage your existing AMI communications investment or take advantage of the latest cellular provider offerings including Cat M1 or NB IOT. LPWAN technologies offer decreased power usage, increased range and lower capital and operational costs than traditional communication technologies.

Connected Products

Dynamic Ratings offers several monitoring devices that natively integrate into the ConnectGrid™ Smart Infrastructure Solution. There is also a serial gateway to integrate third party devices that support an RS 232 or R485 connection. This allows all customers to maximize the benefits of this exciting technology to improve grid edge connectivity and analytics for their entire system.

DYNAMIC RATINGS

An ISO 9001, ISO 14001, ISO 27001, ISO 45001 Certified Company.

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