

CGI OpenGrid DERMS

Distributed Energy Resource Management Solution



Navigating towards a stable, secure, and resilient distribution system will require significant investment in grid assets and greater insights to address the impact of integrating DERs on the network.

Coping with renewable generation

The decarbonization of the energy system and the high penetration of Distributed Energy Resources (DERs) quickly transform the landscape of distribution grids. Utilities are now confronting the most transformational period of change. The pervasive adoption of DERs is driving the need to reevaluate how utilities manage their network infrastructure.

While diverse resources with different characteristics, constraints, and technologies are actively connecting to the grid, the direction of power flow is changing and will introduce new challenges to network protection, forecasting, planning, power resiliency, and more. These challenges include:

- Lack of control and visibility over independently-owned assets operating on the grid
- Inconsistent implementations of integration protocols and communication standards to facilitate monitoring and control
- Inability to support the complete customer engagement, settlement, and billing life cycle
- Insufficient optimization of DER usage to improve network reliability and performance and minimize carbon usage

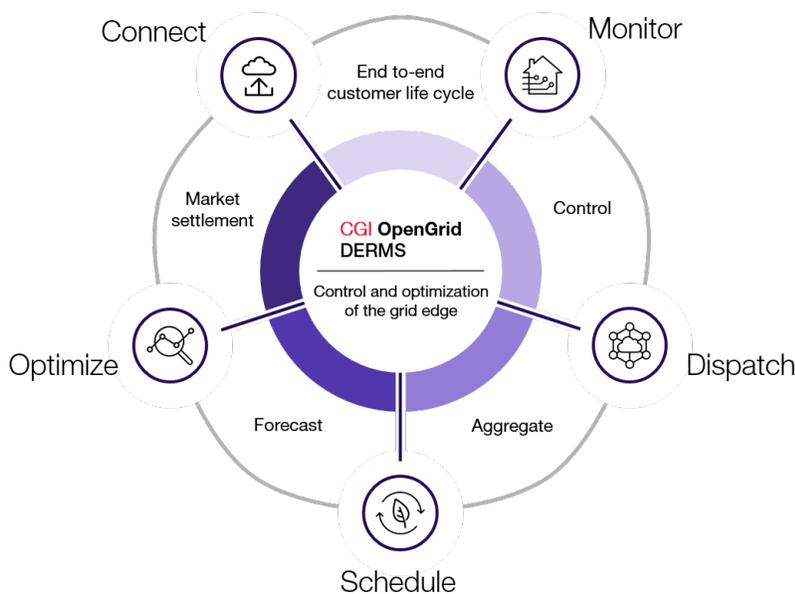
Accelerating holistic orchestration and transactive energy

To accommodate the growing expectations of prosumers participating in the energy ecosystem, CGI OpenGrid DERMS is built on a network model to help utilities orchestrate and regulate their DERs for enhanced reliability, network efficiency, and grid performance.



The benefits for your business

- Leverage complete visibility of the grid, including utility- and independently-owned DERs
- Simplify system-wide monitoring, control, and management of DERs
- Enable static and dynamic aggregation of disparate DERs
- Develop, optimize and dispatch coordinated schedules to meet forecasted demand
- Optimize the near-real-time information of DERs to ensure system reliability while maintaining customer comfort
- Encourage development of new business models and revenue streams



Intelligently and safely manage and control a variety of DERs to successfully transform challenges into operational and financial benefits.

Solution features

Connect

Independently-owned DERs are registered, validated, and connected with the existing network assets to provide a holistic view of power production and consumption across the service territory.

Monitor

Performance of connected DERs is monitored and key data such as power, Volt-Var, and voltage are visualized and aggregated by the transformer and feeder.

Dispatch

Dispatch of constraints and commands can be performed manually, scheduled based on date and time, automatically triggered based on events, or imported from external systems.

Schedule

Priority scheduling of dispatches is based on various allocation profiles that include fault proximity, connection agreement, financial goals to command control equitably, and curtailment dispatches across the available DERs.

Optimize

Network optimization allows utilities to improve forecasting of power demand and manage resource capacity to meet that demand. By equipping network operations with additional insight, utilities gain accurate visibility and control of devices operating on the grid edge while simultaneously meeting demand and minimizing reserves traditionally needed to meet in-day fluctuations.

About CGI

Insights you can act on

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We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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