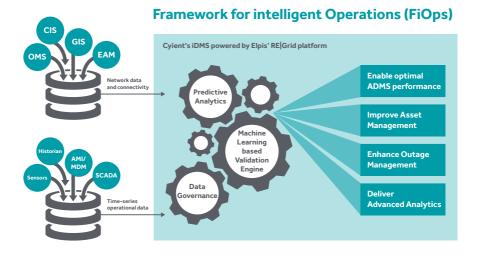


Just as driverless cars require accurate data mapping to navigate safely, modern utilities need robust, specialized data to operate effectively. Through its Framework for Intelligent Operations (FiOps), Cyient is helping transform latent data sets into powerful tools that offer insights to improve customer service and asset life, while reducing operational costs.

By harnessing powerful machine learning algorithms that harmonize grid signals such as network voltage and load, FiOps is leveraging data to solve a wide range of complex business problems including correct phasing. Through its leading-edge solutions, FiOps helps support advanced distribution management systems (ADMS), asset management, outage management, and advanced analytics to drive operational efficiencies and customer satisfaction.

Data integrity is the basis of modern grid operations and is a core component of the FiOps value proposition. Within FiOps, iDMS incorporates advanced machine learning algorithms to derive more meaningful grid insights.

The FiOps Solution



We deliver the following key solutions for the electric utility within the FiOps framework.

intelligent Outage Management Solution (iOMS)

Cyient offers utilities an agile and comprehensive framework to publish outage and restoration meter events through AMI, line sensor, and SCADA inputs. iOMS processes and filters power outage alerts from AMI and other devices to streamline outage operations to reduce notification latency and outage management responsiveness. iOMS helps reduce the time to access meter events by 60%, significantly improves the speed of restoration, and enables proactive and accurate customer communication.



The above illustration shows outage duration, in minutes, by feeder and region

intelligent Data Management Solution (iDMS)

Traditionally, utility systems depend on data generated by multiple processes driving business and operational activities. Data that is incomplete, inconsistent, and untimely is not sufficient to deliver today's modern grid requirements. iDMS overcomes these constraints through the integration of near-real-time network operating signals.



The above illustration shows a summary of feeder data issues and details of error type, category, and asset type for the selected feeder

iDMS is a configurable, cloud-based network validation solution which incorporates advanced business rules built with voltage signature validation to establish a valid network basis. Through recursive machine learning and the integration of key operational systems such as SCADA and meter data, Cyient's iDMS provides the core validation essential for utilities to drive ADMS and related voltage, load, and network management solutions—critical for modern grid service reliability and operational efficiency.

Constant machine learning algorithms for phase and transformer connectivity





The above illustrations show voltage patterns from a series of meters on a single transformer. RE|Grid algorithms process this data to improve phase- and transformer-to-meter connectivity and provide useful voltage analytics along the circuit

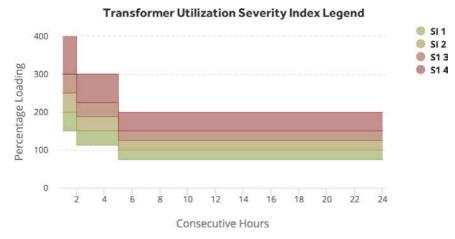
Advanced Analytics

Cyient has integrated advanced data validation and analytics components from the

RE|Grid platform (developed by our exclusive global partner, Elpis Squared) into a comprehensive solution (iDMS) for the collection, classification, analysis, and interpretation of data. iDMS reveals patterns, anomalies, key variables and relationships—leading to better insights and faster results.

Key components of iDMS include:

- Voltage and load management solutions
- · Load profile management
- Asset analytics
- Distributed Energy Resource Management (DERM)



The above illustration shows Transformer Overload Severity against nameplate rating that helps utilities to understand asset loading conditions, and prioritize maintenance activities for preventing equipment failures

Cyient and Elpis Squared are enhancing the role of data in modern grid operations by supporting electric utilities' ADMS and Asset Management programs. Cyient's engineering prowess, corporate strength, and data ingenuity in conjunction with Elpis Squared, advanced machine learning algorithms and user-friendly 'drill-down' toolsets enable utilities to move faster and operate with more agility than traditionally possible.

About Cyient

Cyient (Estd: 1991, NSE: CYIENT) provides engineering, manufacturing, geospatial, networks, and operations management services to global industry leaders. We leverage the power of digital technology and advanced analytics capabilities, along with domain knowledge and technical expertise, to solve complex business problems. As a Design, Build, and Maintain partner, we take solution ownership across the value chain to help our clients focus on their core, innovate, and stay ahead of the curve.

Relationships lie at the heart of how we work. With over 14,000 employees in 21 countries, we partner with clients to operate as part of their extended team, in ways that best suit their organization's culture and requirements. Our industry focus spans aerospace and defense, medical, telecommunications, rail transportation, semiconductor, utilities, industrial, energy and natural resources.

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