Itron Introduces Distributed Intelligence Enabled Applications to Optimize Capacity at the Grid Edge

February 27, 2024

New Novel Real-time Transformer Load and Voltage Monitoring Applications Help Utilities Plan for and Manage the Impact of Distributed Energy Resources on the Distribution Grid

LIBERTY LAKE, Wash.--(BUSINESS WIRE)--Feb. 27, 2024-- Itron, Inc. (NASDAQ: ITRI), which is innovating new ways for utilities and cities to manage energy and water, is introducing its Active Transformer Load and Voltage Monitoring (ATLM/ATVM) applications which give utilities more visibility into the low-voltage distribution grid enabling them to optimize capacity and resolve issues, therefore extending the usable life of transformers.

These distributed intelligence (DI)-enabled, first-of-its-kind applications are part of Itron's Grid Edge Intelligence portfolio. As the grid becomes increasingly complex due to the adoption of distributed energy resources (DERs), including electric vehicle (EV) charging and residential solar generation, utilities benefit from real-time awareness of transformer performance. Without ATLM/ATVM applications utilities lack real-time visibility of asset performance at or below the transformer.

The ATLM/ATVM applications analyze data from service points to calculate transformer loading and voltage statistics in real-time and relay information and events to utilities through DI-enabled endpoints. **The greater visibility provided by ATLM/ATVM enables utilities to quickly identify and anticipate transformer loading and voltage issues**.

The ATLM/ATVM applications leverage the direct peer-to-peer capability of Itron's DI-enabled meters along with the Location Awareness application that provides an accurate picture of the connectivity between a utility's meters and transformers. This enables real-time information on distribution transformer voltage and loading at scale which is made available through a standard API. In addition to capturing real-time data from the transformer, the application generates configurable threshold-based alarms to notify the utility operator of issues or problems associated with a transformer. Furthermore, historical data is archived and made available to the grid operator through APIs. With more visibility and control at the grid edge, utilities can better manage the integration of intermittent loads with the rising energy demand.

Benefits of ATLM/ATVM for Utilities and Cities:

Beyond monitoring distribution transformer loading and voltages in real-time without the need for dedicated transformer sensors, ATLM/ATVM offers many additional benefits.

- **Low-Voltage Grid Insights**: Increased awareness of how distributed energy resources impact the grid in near real time to help improve grid efficiencies.
- **Transformer Lifespan Extension**: With visibility into loading and voltage statistics, utilities and cities can better identify transformers that are overloaded, balance out the power flow and extend their useable life.
- **EV and Solar Readiness**: As solar generation and EV deployments rise, the severity of overloads increases. Insight into the effects of these DERs can help utilities prepare for the hosting capacity constraints on the grid and help speed the approval of new interconnection requests.
- **Unplanned Outage Reduction and Enhanced Operational Efficiency:** ATLM helps with decreasing customer outages by reducing the number of premature transformer failures driven by overloading conditions that have historically been unmonitored. ATLM/ATVM insights can also be used for phase balancing, leading to operational efficiency improvements.
- **Reduced Costs**: With proactive identification of problems, utilities can reduce truck rolls for transformer analysis and conserve resources like fuel.

"Solar energy plays an important role in Tampa Electric's future – and our present. About 10% of our energy mix comes from the sun, up from zero in 2013 and growing rapidly. With several solar options for our customers, harnessing the power of the sun allows us to deliver the most solar per customer in Florida," **said John Peurrung, director of OT, AMI, Lighting & Meter Services at Tampa Electric Company**. "To help monitor our transformer loads and voltages in real-time without the need for dedicated sensors, we are deploying Itron's ATLM/ATVM applications. This will help us to ensure our solar generation and deployment improves grid efficiencies."

"Without the right tools, it can be difficult to optimize capacity at the grid edge. For example, without real-time grid insights, if too many electric vehicles are charging under the same transformer at the same time, the transformer could be overloaded or its lifespan could be dramatically reduced, causing outages and costly upgrades. With our DI solution, utilities can optimize capacity at the edge of the grid efficiently and cost effectively. Taking advantage of Itron's Grid Edge Intelligence portfolio, utilities can prolong the life of their transformers and delay the need for infrastructure updates," **said Don Reeves, senior vice president of Outcomes at Itron**. "By leveraging ATLM/ATVM within our Grid Edge Intelligence portfolio, customers like TECO Energy have more control at the grid edge so they can better manage the increasing rise of solar generation and EV deployments."

To learn more about ATLM/ATVM, visit Itron booth #2200 at DISTRIBUTECH International from Feb. 27-29, 2024, in Orlando, Florida.

About Itron

Itron is a proven global leader in energy, water, smart city, IIoT and intelligent infrastructure services. For utilities, cities and society, we build innovative systems, create new efficiencies, connect communities, encourage conservation and increase resourcefulness. By safeguarding our invaluable natural resources today and tomorrow, we improve the quality of life for people around the world. Join us: www.itron.com.

Additional Resources

- LinkedIn: https://www.linkedin.com/company/itroninc/
- X: https://twitter.com/ItronInc
- Newsroom: www.itron.com/company/newsroom
- Blog: https://blogs.itron.com

View source version on businesswire.com: https://www.businesswire.com/news/home/20240227913607/en/

Itron, Inc.
Alison Mallahan
Senior Manager, Corporate Communications
509-891-3802
PR@Itron.com

Paul Vincent
Vice President, Investor Relations
512-560-1172
Investors@itron.com

Source: Itron, Inc.