



**CLEAR VISION
INTO YOUR GRID**



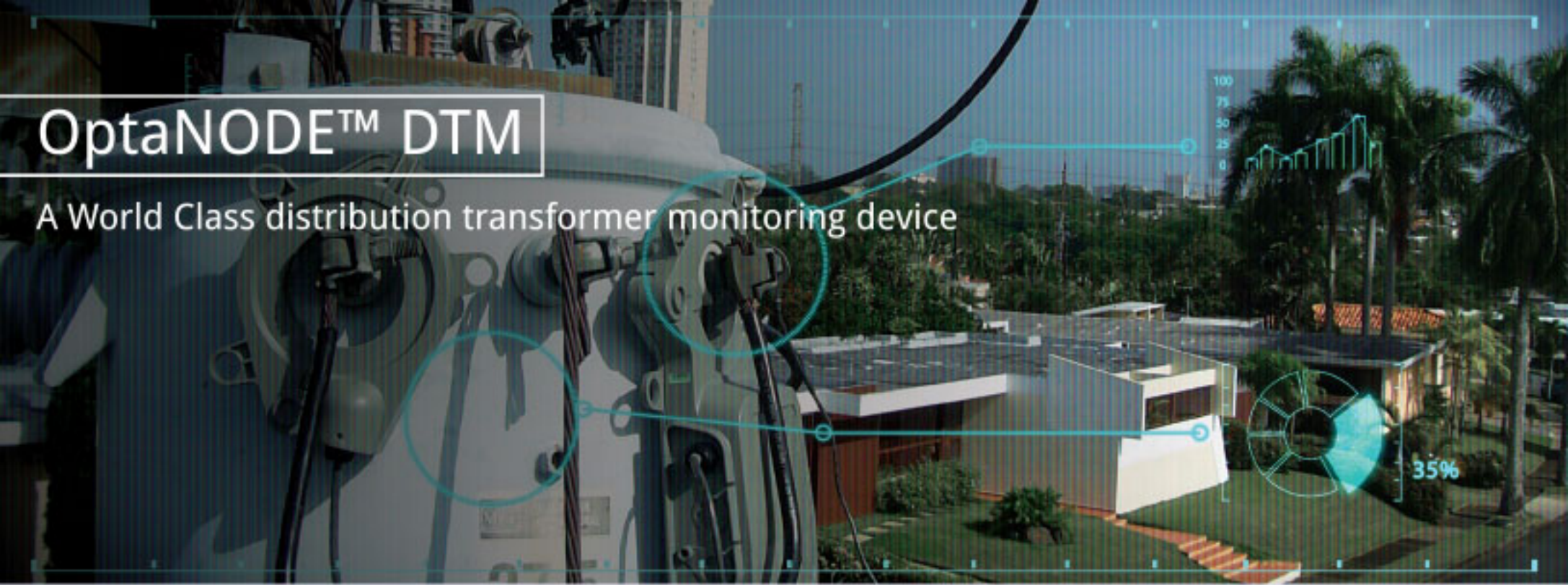
Distribution Transformer Monitoring Solutions: OptaNODE™



In a world where electricity demand is rapidly escalating, and generation costs are increasingly burdensome, it is imperative that utilities identify effective methods to improve efficiencies and lower costs. GRID20/20 evolves distribution transformers from simple service assets into invaluable smart nodes. The end-result is **Advanced Grid Intelligence for utility operators.**

OptaNODE™ DTM

A World Class distribution transformer monitoring device



Ease of Installation

The GRID20/20 suite of devices was created FOR utility personnel, with input offered BY utility personnel. Our patented form factor provides linemen with a simple, safe, and rapid deployment solution, and is just one reason why the GRID20/20 OptaNODE™ is truly a best-in-class device. This important design consideration enables utilities to dramatically reduce installation costs and experience rapid deployments.



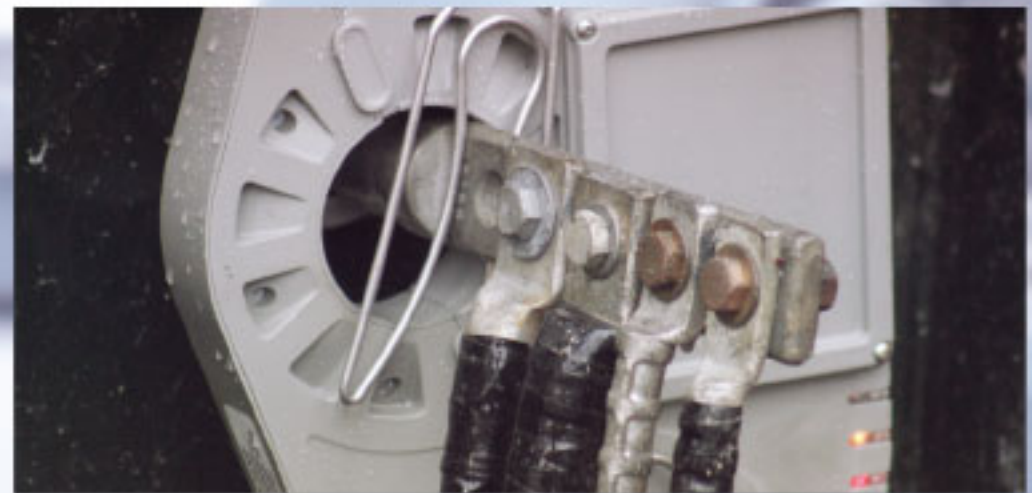
Accuracy of Data

Through a patented sensing approach, the GRID20/20 OptaNODE™ devices measure Whr at a 0.5% class of accuracy based upon ANSI C12.20 standards. Among a host of possible data points, OptaNODE™ devices foundationally gather Power (delivered), Reactive Power (delivered), Instantaneous Watts, Voltage, Current, and Temperature (ambient) using routine intervals.

Communications Flexibility

Built on a platform that allows for maximum integration into existing networks, the GRID20/20 OptaNODE™ devices provide agnostic communications capabilities. To ensure rapid deployment opportunity, the foundational communications platforms are based upon GSM, RF Mesh, and PLC methods of transmission. Additional iterations may be possible.

OptaNODE™ devices communicate via industry standard DNP3 protocol with existing SCADA masters, or with the GRID20/20 Head End Server System (OptaNODE™ HESS). Key data is then securely accessed and processed via our OptaNODE™ INSIGHT advanced analytics software.



Future Proofing

Realizing that technology is consistently evolving, the OptaNODE™ device carries a remote upgrade capability to ensure ongoing services expansion. GRID20/20 offers a versatile, future proof solution.

Durability

The OptaNODE™ device will withstand the test of time. Considerations for extended UV exposure, salinity elements, and submersible demands have been factored into the device. In general, there are no maintenance needs required for the OptaNODE™ to fulfill its role for many years.

OptaNODE™ INSIGHT powered by GRIDiant

Designed to improve a utility's vision throughout the distribution segment, GRID20/20's introduction of OptaNODE™ INSIGHT initially targets three key areas:

Energy Diversion Analytics

OptaNODE™ INSIGHT allows utility operators to identify potential non-technical losses. Our advanced analytics enable the detection of users who are not paying for electricity service.

Whether an AMI, AMR or other metering system is deployed, OptaNODE™ INSIGHT allows utility operators to reconcile energy "leaks" from the grid. By locating, and remedying the system leaks, utilities are able to accelerate their Return On Investment (ROI) concerning the deployment of GRID20/20's best-in-class OptaNODE™ devices.

Powerful Advantages

- Eliminate non-paying energy consumers.
- Quickly identify recurring pilferage occurrences.
- Lessen generation and transmission demands caused by unpaid power consumption.



Asset Loading Analytics

OptaNODE™ INSIGHT allows utility operators to proactively monitor and evaluate a critical segment of the grid; the distribution transformer. OptaNODE™ INSIGHT enables key distribution transformer data to be converted into usable information. This data helps to improve efficiencies, lower operating costs, and extend the life of transformers.

Whether a distribution transformer is under-sized or over-sized, inefficiencies, power surges, insufficient performance and unnecessary costs are the end result. Through our advanced analytics, OptaNODE™ INSIGHT offers important, granular information so that utility personnel can fine-tune the effectiveness of their distribution transformer assets.

Powerful Advantages

- Predictive maintenance benefits can be leveraged to prevent costly outages.
- Power quality monitoring to ensure superior customer service and to locate outages.
- Detection of demand spikes such as Electric Vehicle charging stations to prevent shortened life cycles for under-sized assets.

Capacity Contribution Analytics

OptaNODE™ INSIGHT ranks system capacity contributors from highest to lowest. This unique feature enables utility operators to identify specific customers who may be ideal for a targeted Demand Response program. Our approach alleviates the excessive costs, and frustrations associated with grid-wide Demand Response deployments.

Through OptaNODE™ INSIGHT, utilities will know which customers are consuming power most heavily, and at what times of the day they are doing so. This knowledge allows utilities to propose targeted solutions for the reduction of specific customer's electricity consumption.

Powerful Advantages

- Demonstrate a proactive interest in helping your largest customers reduce their power costs.
- Reduce load consumption to lessen excessive peak load costs.
- Avoid grid-wide Demand Response efforts which can be fraught with expense and challenge.



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Steps to Advanced Grid Intelligence

Developing a proper understanding of the distribution management challenges you face is our fundamental interest. Working together to create and implement a best solution for you is our genuine focus.

1

Meet with GRID20/20 to discuss your specific needs.

2

Mutually develop a suitable, sustainable solution plan.

3

Implement OptaNODE™ devices and OptaNODE™ INSIGHT.

4

Enjoy a new dimension of information access.



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