



Sandia National Laboratories

NLYTE PREDICTIVE CAPABILITIES ENHANCE SITUATIONAL AWARENESS

Quote:

"Working with the team at Nlyte as we implement Nlyte Insight has been a very interactive and educational process. We are learning more and more about our critical infrastructure every day" Martinez said. "It's this kind of interaction that makes this potentially challenging journey more rewarding."

Dave Martinez
Manager of Computing Infrastructure
Sandia National Laboratories

For more than 60 years, Sandia has delivered essential science and technology to resolve the nation's most challenging security issues. As a Federally Funded Research and Development Center (FFRDC), Sandia has the vision "to be the nation's premier science and engineering laboratory for national security and technology innovation." The Laboratory maintains 4 data centers with 6,000, 14,000, 27,000 and 30,000 square feet, respectively, to include High Performance Computing (HPC) systems.

"Before we implemented Nlyte Insight, sifting through our warnings and alarms to determine where we had a machine telling us of an impending failure, was like looking for a needle in a haystack"

- Dave Martinez
Manager of Computing Infrastructure
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Given the volume, velocity, variety, and veracity of data collection within data centers, Sandia needs to balance information ingestion with actionable intelligence, e.g., determining which warnings, alerts, and alarms require specific attention.

- Sifting through alarms and warnings for one particular device to try to correlate the warning to a particular event
- Hours of manual labor to dig deeper into their systems
- Going onto the data center floor to investigate the equipment

Quite often, Sandia technicians recognize that alarms are not indicative of significant problem(s), but without additional insight and automated processing manual investigation is necessary.

Using Nlyte Insight, Sandia can:

- Run reports for devices or zones
- Identify which issues are simple anomalies
- Distinguish those anomalies from serious and long-lasting problems

In addition to anomaly detection, Sandia can forecast and predict how high value assets will perform into the future, and the reports provide confidence scores in those predictions. This is Nlyte providing insight into predictive failures of critical infrastructure.



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Nlyte Machine Learning Ensures Compliance To Federal Mandates

Nlyte Machine Learning is a simple choice for Sandia as it addresses the primary strategies outlined in the National Artificial Intelligence Research and Development Strategic Plan. By choosing Nlyte, Sandia has positioned themselves on a clear and proven trajectory for success. In addition, Sandia has gained peace-of-mind knowing that compliance with key federal initiatives, legislation, and orders, e.g. National Artificial Intelligence Research and Development Strategic Plan, is tracking. Namely, Nlyte supports the following strategies:

- Make Long-term Investments in AI Research
- Ensure Safety and Security of AI Systems
- Measure and Evaluate AI Technologies through Standards and Benchmarks

Investing in proper data preparation for internal artificial intelligence projects ensures success, and Nlyte's DCOI offering delivers proven and rapid return on the investment for Sandia.

Benefits Of Nlyte Machine Learning

- Federal Compliance
- Risk avoidance
- Overhead reduction
- Performance optimization
- Improved maintenance strategies

The Nlyte Solution

Nlyte Insight, part of the Nlyte Machine Learning suite of applications, ingests raw, rich data captured by Nlyte Energy Optimizer and Nlyte Asset Optimizer to actively perform advanced analytics throughout the data center environment. Insight assembles a unique combination of analytical capabilities, moving up the technology stack, shifting the conventional analytics questions including 'What happened?' to 'What will happen?' and 'Why did it happen?'. Nlyte Insight transforms the world of Descriptive Analytics into Diagnostic and Predictive Analytics.

Moving Forward With Nlyte Machine Learning

Implementing machine learning to distill advanced analytics requires a continuous and iterative approach. The Nlyte-Sandia collaboration is producing both actionable and applied intelligence in an effort to produce a secure, sustainable, and resilient data center footprint.

Leveraging the Nlyte Insight application, Sandia proactively garners situational awareness resulting from myriad datasets to include anomaly detection, predictive operational performance forecasting, and improved maintenance strategies across its critical data center infrastructure. Moreover, Nlyte Insight ensures proper operation of their data centers and greatly reduces the amount of manual labor that Sandia technicians must perform, which, in turn results in efficient data center operations.

Sandia National Laboratories
Albuquerque, NM, USA
Science and engineering for national security
US national security
\$3.8 billion (€3.5 billion) / 2019
10,000+
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Nlyte Software helps teams manage their hybrid infrastructure throughout their organization – from desktops, networks, and servers to IoT devices – across facilities, data centers, colocation, edge, and the cloud. Using Nlyte's monitoring, management, inventory, workflow, and analytics capabilities, organizations can automate how they manage their hybrid infrastructure to reduce costs, improve uptime, and ensure compliance with organizational policies.

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