Dominion Energy®

Time Series Data Management Platform & Service Provider

Request for Information

Dominion Energy, Electric Transmission, Constellation Program

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1. Introduction

We are seeking responses from technology platform providers and systems integrators to provide information regarding data historians that will help support the future-state needs of the electric utility. Our goal is to identify providers who are not just at parity with existing solutions but have the vision and capability to push the envelope in time series data storage, data visualization, security, among other spaces where we have seen stagnation from the status quo providers. The opportunities offered by various resolutions of data (SCADA, Synchrophasor, Point on Wave) will require improved technology capabilities and a robust understanding of the engineering work that will lead the industry into the next era of grid reliability.

2. Objective

The purpose of this RFI specifically is to gather detailed information on the capabilities, services, and solutions offered by potential providers. We are particularly interested in solutions that excel in the following areas that we hope to better understand from the perspective of PaaS providers as well as systems integrators that may provide more tailored solutions as they see fit:

Time Series Data Optimization for Sensor Data

- Describe your approach to optimizing time series data specifically for sensor data.
- Highlight any unique features or technologies that set your solution apart (including any pre-built interfaces to well-known vendors and technologies).
- Provide examples of sensor data types your technology has supported in typical utility implementations.

Cloud and/or On-Premises Solutions

- Provide details on your cloud-based and/or on-premises offerings or preferred method of implementation; discuss the advantages and disadvantages of each option.
- Explain how your solution can be tailored to meet specific utility requirements.

Platform/Software as a Service (P/SaaS)

- Explain your P/SaaS model and how its scalability helps support the needs of your utility customers.
- Include information on subscription plans and support including typical pricing.

Cyber Security Requirements

- Outline your cybersecurity measures and compliance with industry standards.
- Describe how you protect data integrity and privacy.
- Provide details on your approach to securing time-series data in utility environments.

Built-in Custom Analytics Environments

- Describe the visualization tools included with your solution and how they are geared towards engineers with varying data skills.
- How does your solution support operationalizing data innovations created by front-line engineers?
- What tools and capabilities should be afforded to non-expert data consumers including low-code/no-code analytics?
- What programmatic analysis tools should be included for data-science focused engineers?
- Provide information on any GIT capabilities that may support the environment

Ingress/Egress Management

- Explain your data ingress management capabilities, specifically, around industrial systems such as an EMS, ADMS, or OpenPDC.
- Provide details on your API capabilities.
- Include information on data transfer speeds, security, and reliability.
- Describe how your solution handles large volumes of sensor data in utility settings.
- What options do you have for bulk egress and what are associated costs?
- How does your systems handle out of order events?
- Provide examples of use cases and supported protocols.

User-Based Authentication and Access Reporting

- Describe your user authentication mechanisms and reporting features.
- Provide examples of how user roles and permissions are managed across your solution (front-end, back-end, API).
- Explain how your solution supports user-based reporting.

Backup Capability

- Outline your backup solutions and disaster recovery plans.
- Highlight the frequency and reliability of backups.
- Provide details on how your backup capabilities ensure data integrity for utilities.

Reliability

- Provide metrics on system uptime and reliability.
- Discuss any redundancy mechanisms in place.
- Explain how your solution ensures continuous operation in utility environments.

Meta Data Management

- Explain how your solution handles metadata, including any specific limitations (i.e. character limits).
- Include information on metadata tagging, searching, and management.
- Describe how metadata management supports utility operations.

Volumetric and Horizontal Scaling

- Discuss your solution's ability to scale both in terms of performance (volumetric) and size (horizontal).
- Provide examples of how your system handles high-frequency data (minimum 1 kHz sample rate).
- Explain how your scaling capabilities support large-scale utility deployments.

Vendor Viability

- Provide information on your company's size, business model, and market presence.
- Discuss your approach to turnkey solutions and long-term support.
- Describe your maintenance and support model, including response times and service levels.
- Provide your vision for the industry and your role in creating that vision.

Implementation & Support Model

- Provide details around implementation strategy for a large scale utility such as Dominion. How can Dominion re catalog nearly five million digital/analog signals with as much as 10 years of stored historical data?
- Post implementation: what does continuous support look like? In your response, consider whether support model is turnkey vs adhoc. Also consider items such as: fixes vs enhancements, patching/upgrades, and training.

3. Submission Requirements

Please include the following in your response:

- Company overview and contact information.
- Detailed responses to each of the topics listed above.
- Case studies or examples of similar deployments, particularly in utility settings.
- References from current or past clients.

Deadline for Submission

All responses must be submitted by **May 31, 2025 by 5:00PM Eastern**. Please send your responses to Halida Catic at halida.catic@dominionenergy.com.

Contact Information

For any questions or clarifications, please contact: Halida Catic at halida.catic@dominionenergy.com.