SIEMENS Gamesa
RENEWABLE ENERGY

Customer Background

Siemens Gamesa, part of Siemens Energy, is a leader in the renewable energy industry, providing offshore and onshore wind turbines and services.
Siemens Gamesa was formed in 2017 as the merger of Siemens's Wind Power Division with Gamesa Corporación Tecnológica, S.A. It is the world's second largest wind turbine manufacturer, with over 40 years in operation and 130 GW installed across the globe.

As a result of this merger, Siemens Gamesa experienced difficulties integrating their own systems and architectures with those of Siemens Energy, their parent company. Siemens Gamesa needed an architecture that could scale, adapt to diverse data sources, and meet the requirements of evolving Industry 4.0 use cases.

Company Profile

Name Siemens Gamesa
Industry Energy
Headquarters Zamudio, Spain
Website www.siemensgamesa.com

> *"We needed a product that was independent of the cloud provider, independent of the edge device it runs on, and able support many different protocols. We needed the ability to use store and forward because we don't always have a stable network connection. And we needed to standardize all of that into a common data layer. For us, HighByte solved this case."*

Henrik Birk Industrial Solutions Architect at Siemens Gamesa

CHALLENGE

- Mismatched processes across business units and plant operations.
- Unstandardized data models from custom tooling at different plants.
- Disparate protocols across devices and applications, complicating integrations.

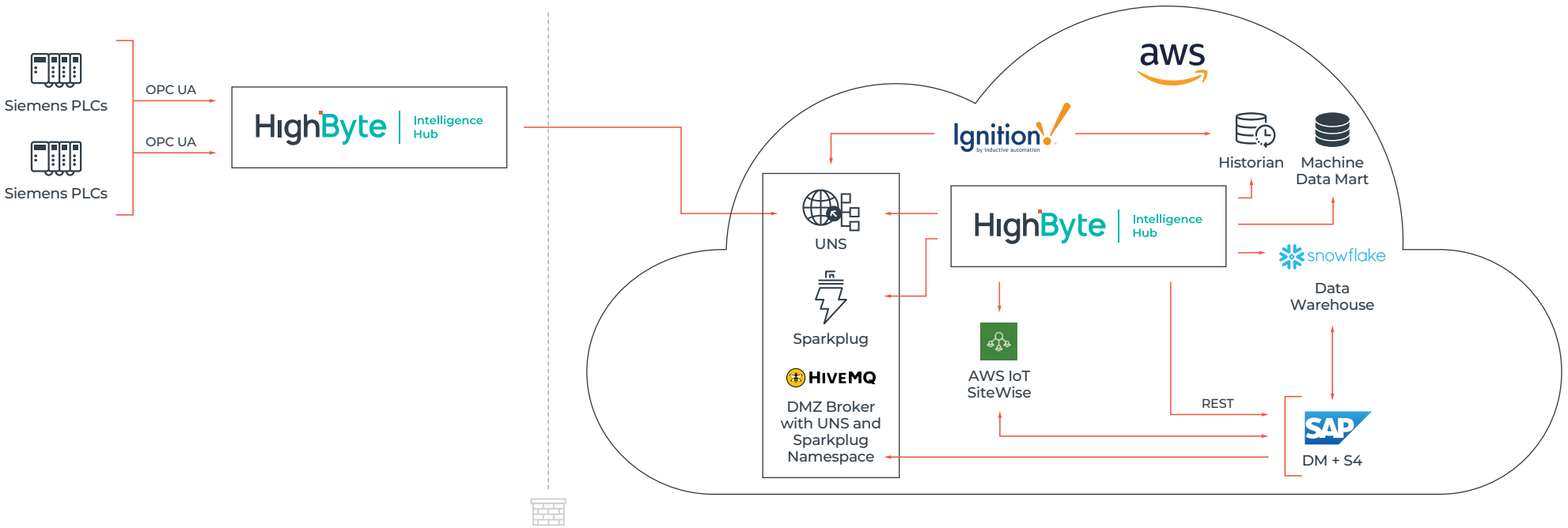
APPROACH

- Use HighByte Intelligence Hub to curate, orchestrate, and model data from multiple sources at the edge to create custom payloads that meet the needs of diverse target applications.
- Create a local unified namespace (UNS) by using the Intelligence Hub to condition and model data to fit the semantic requirements of the UNS, making it accessible via an MQTT broker.
- Use the Intelligence Hub to subscribe to this MQTT broker, model data into purpose-built payloads, and flow data to a SQL-based data mart so it can be visualized.
- Begin developing an enterprise UNS to make plant data accessible in the cloud to a wide variety of consumers.

BENEFITS

- Improved alignment between people, process, and technology across sites and what was once two separate companies.
- Built and leveraged a successful local UNS that enables engineers to easily track trends and view real-time statistics to consistently monitor the blade casting mold control system.
- Laid the foundation for an enterprise UNS to further unite disparate architectures and systems into a single structure with HighByte Intelligence Hub serving as the abstraction layer.

Siemens Gamesa Enterprise UNS



WHAT'S NEXT

- Scale HighByte Intelligence Hub across additional sites to create an enterprise-wide abstraction layer at the edge.
- Curate and deliver data for use in multiple cloud solutions, including SAP, the Snowflake Data Cloud, and AWS IoT SiteWise.
- Leverage AWS IoT SiteWise to collect and store large-scale industrial equipment data, monitor and analyze this data to prevent costly equipment issues, and land actionable information in SAP.
- Migrate cloud services from Microsoft Azure to AWS.

"HighByte Intelligence Hub provides the foundational, agile architecture that Siemens Gamesa needs to complete a wide range of Industry 4.0 use cases at scale and pace across their organization. It's been exciting to watch their growth and work alongside partners in our ecosystem—like Novotek and AWS—to help ensure the long-term success of the company's enterprise architecture."

Carolyn Baron Partner Success Director at HighByte

About HighByte

HighByte is an industrial software company in Portland, Maine USA building solutions that address the data architecture and integration challenges created by Industry 4.0. HighByte Intelligence Hub, the company's award-winning Industrial DataOps software, provides modeled, ready-to-use data to the Cloud using a codeless interface to speed integration time and accelerate analytics. Learn more at https://highbyte.com.