



# Seagate Lyve Data Logistics for the OSDU® Data Platform and Energy Data Insights on AWS

Enabling a powerful, efficient and cost-effective path to data ingestion and insights

## Challenge Summary

Energy data workflows are full of inefficiencies and obstacles. Acquiring, storing and ingesting raw data to the OSDU Data Platform—all while enabling compatibility and visualization—presents time, infrastructure and computational challenges.

## Benefits Summary

- Cost-optimized and infinitely scalable data management
- Simplified and accelerated mass data transfer and ingest
- AI-powered data ingestion and visualization for rapid data insights
- Move data into the OSDU Data Platform in weeks, not months
- Easy, powerful platform for data QA and Visualization

Acquiring, processing, visualizing, interpreting and delivering seismic and acoustic data represents a logistical nightmare for many operators in the Energy Industry.

From first to last mile, data managers face a perfect storm of challenges, including time, infrastructure and cost bottlenecks that can stymie data storage, management and physical transfer from the field to ingest—not to mention the challenges related to managing access throughout processing workflows. Ensuring compatibility between tools and processes for OSDU standards and customer requirements is time consuming.

To simplify data management, accelerate workflows and ensure data compatibility with OSDU standards, Seagate now integrates seamlessly with Energy Data Insights (EDI) for OSDU Data Platform on AWS to solve some of the most complex data logistics challenges operators and service providers face with each project. Seagate has combined first-to-middle mile edge storage and transfer logistics with AI/ML/Generative AI-powered data ingestion and visualization tools in EDI, delivering full lifecycle data solutions for streamlined energy business operation.





## AWS Energy Data Insights: A Fully-managed Offering of the OSDU Data Platform

Seismic and acoustic processing workflows are rife with data bottlenecks. With countless tools for visualization, modeling and other forms of processing, complex datasets often end up in operational siloes, slowing down project delivery.

The OSDU Data Platform is an open-source, cloud-native data platform developed by The Open Group OSDU Forum, which is a cross-industry alliance aimed at the adoption of data solutions in the energy sector. However, the process of conversion, ingesting and cataloging the source data into the platform can be time consuming and computationally demanding.

With AWS Energy Data Insights, users can easily map their raw seismic data into an OSDU Data Platform-compatible format using the EDI IQ tool, powered by AWS's secure and reliable infrastructure. Utilizing powerful Generative AI models, EDI IQ automates metadata mapping, cutting down time to ingest data to an OSDU compatible format from months to weeks. The Energy data insights platform also provides powerful tools for QA/QC and visualization. Combined with efficient transfer, import and storage logistics, the energy data insights platform offers a powerful tool for energy data managers to cut out processing time and resources for OSDU data operations.

### Energy Data Insights for OSDU Data Platform on AWS

**Accelerated OSDU Integration with Smart Ingest and Application Integration:** AI/ML powered metadata processing allows users to quickly onboard raw seismic data and reach OSDU compatibility in weeks, not months or years

**Streamlined Access:** Enable seamless and affordable access to EDI Data Platform APIs to identify and optimize product strategies and roadmaps

**Improved Capabilities:** Refine workflows and develop more accurate roadmaps with access to the latest EDI Data Platform milestone releases

**Get Support:** Gain responsive support, identify key optimization areas, address issues and keep your team efficient



## Seagate Data Transfer and Storage Logistics

Moving data from the first mile of data acquisition in the field to the OSDU Data Platform—whether from offshore surveys or distant underground wells—is still a challenge, due to the complexities of data management in the field, transfer logistics, as well as the storage and access costs of ever-growing datasets.

Seagate Lyve provides solutions for data import at the edge and managing the costs of moving the data from first mile into EDI for OSDU. As a two-part solution, Lyve customers can accelerate field-to-ingest transfer using Data Transfer as a Service (DTaaS) and seamlessly move data from in-field acquisition processes to any cloud environment for utilizing EDI, including Seagate's own Lyve Cloud Object Storage as an initial target data lake to store raw data before ingesting specifically needed partitions to the EDI interface.

DTaaS through Seagate Lyve works using a pay-per-TB model deployment of ruggedized, mass capacity, infinitely scalable Lyve Mobile Arrays to the customer's exploration site.

Paired with the Lyve Mobile Rackmount receiver, this integrated solution eliminates network dependencies so field operators can move mass datasets in a fast, secure and efficient manner—without having to deal with stacks of drives or LTO tape in remote locations, where connectivity is nonexistent and conditions are harsh.

With Seagate Lyve's Cloud Import service, the Lyve Mobile Arrays are then transferred to a Seagate service center and ingested into Amazon S3 or any cloud storage location of choice, reducing the downtime and overhead involved in facilitating the import themselves. The Cloud Import service from Seagate allows customers to shift to an op-ex edge storage model, enabling greater flexibility to store, access and transfer data no matter the breadth of an acquisition project's timeline, all while saving on the costs of purchased storage infrastructure and resources for moving and ingesting data.

### Benefits of Seagate Lyve Services for EDI:

- **Optimized Data Logistics:** Simplify management of edge storage and ingest workflows, improve data security and reduce overhead with pay-per-TB, infinitely scalable mass capacity Lyve Mobile Arrays.
- **Transfer Scalability:** Infinitely scalable Lyve Mobile Arrays means mass datasets can be moved quickly from in-field locations, where low connectivity makes transfer to the cloud impossible.
- **Bypass Network Dependencies:** Remove transfer bottlenecks with in-field capabilities for low-connectivity locations and vendor-agnostic, universal ingestion compatibility.
- **Faster Time to Data:** Utilize the Cloud Import service from Seagate Lyve at any of the world-wide data center ingest locations, unlocking simplified logistics and reducing the time it takes to move data from the field into Energy Data Insights or OSDU Data Platform on AWS.

- **Portable, plug-and-play data storage platform**
- **Enables offline data collection, storage, processing and transportation**

**LYVE™ Mobile**



# Data Transfer & Edge Storage for AWS Energy Data Insights


**Data Transfer and Edge Storage Services**

- Unstructured Raw Data
- Field Acquisition Logistics



**Cloud Import**


Data sent to Amazon S3, Lyve Cloud or AWS EDI



**Initial Target Storage**


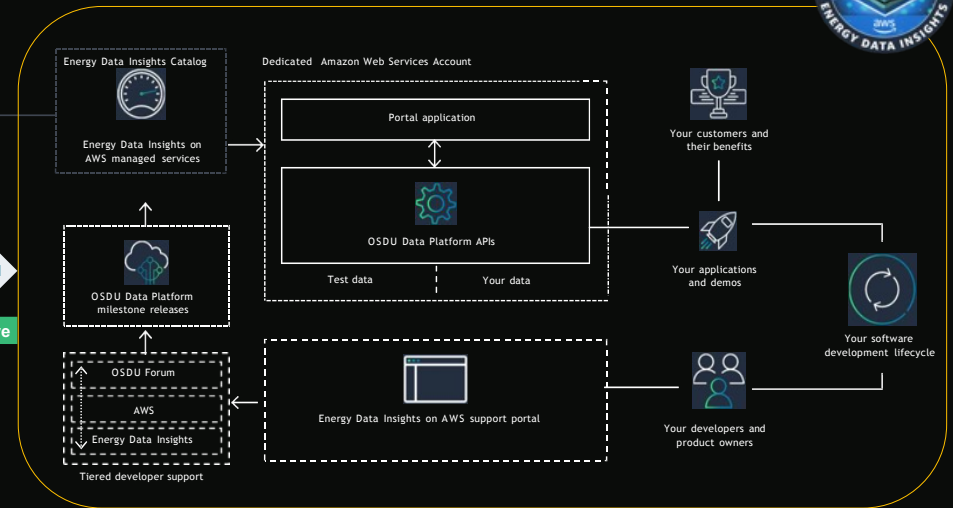
- Repository for Raw
- Freedom to egress/ingress to and from EDI
- Hot and Archive tiers

**Seagate S3 Cloud Object Storage**




**aws AWS Energy Data Insights for the OSDU Platform**

- OSDU Compatibility in Weeks, Not Months
- Fully-managed, User-friendly Data Platform
- Simplified QA and Data Visualization

## Services Used



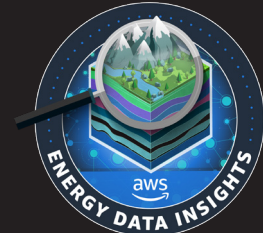
**LYVE MOBILE ARRAY**

Transfers mass data sets quickly and securely.



**CLOUD IMPORT**

Transfers mass datasets to any cloud destination of choice.



**OSDU DATA PLATFORM**

Energy Data Insights on AWS accelerates collaboration and innovation.



**Ready to Learn More?**

For more information on Seagate Lyve storage, ingest and transfer services, visit [lyve.seagate.com](https://lyve.seagate.com)

For more information about the Energy Data Insights (EDI) for OSDU Data Platform on AWS, visit [aws.amazon.com/energy-utilities/osdu-data-platform/](https://aws.amazon.com/energy-utilities/osdu-data-platform/)

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