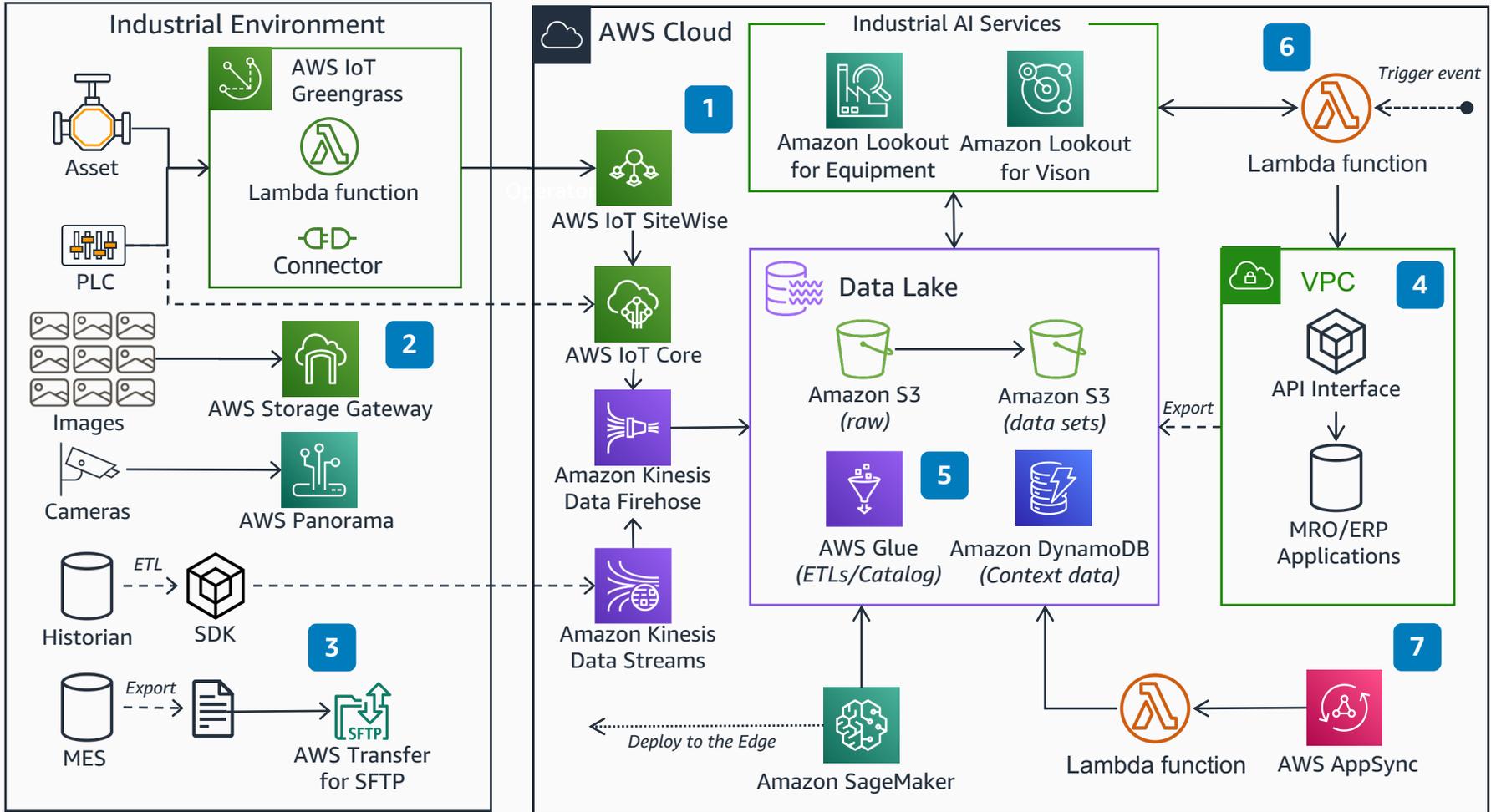


# Industrial Data Platform

Architectural blueprint of how to ingest and store data from industrial equipment and enterprise applications, contextualize data, and build datasets. This approach includes machine learning predictions integrated with industrial systems of record.



- Asset, machine, and PLC data is ingested and transformed using **AWS IoT Greengrass connectors** and **AWS Lambda functions** running on **AWS IoT Greengrass** at the Edge. Industrial Internet of Things (IIoT) data can then be streamed into the data lake from **AWS IoT SiteWise** via **AWS IoT Core** and **Amazon Kinesis Data Firehose**.
- Images can be synchronized to the data lake using **AWS Storage Gateway**. For IP cameras, **AWS Panorama** can be used to transfer the images into the data lake.
- Manufacturing application data can be streamed into the data lake using **Amazon Kinesis Data Streams** or exported and transferred using **AWS Transfer for SFTP**.
- Industrial enterprise application data can be exported to the data lake using the application interfaces. Historical records can be stored in **Amazon S3** and reference data can be stored in **Amazon DynamoDB**.
- AWS Glue** can be used for data engineering and cataloging data sets in the data lake.
- Machine Learning (ML) models can be built using **Amazon SageMaker**, or **AWS for Industrial AI** services can be used to detect anomalies. The ML Inference can be initiated from a **AWS Lambda function** and results can be sent to the enterprise application using the applications API interface.
- Data sets and results can be accessed by dashboards and applications using **AWS AppSync**.

