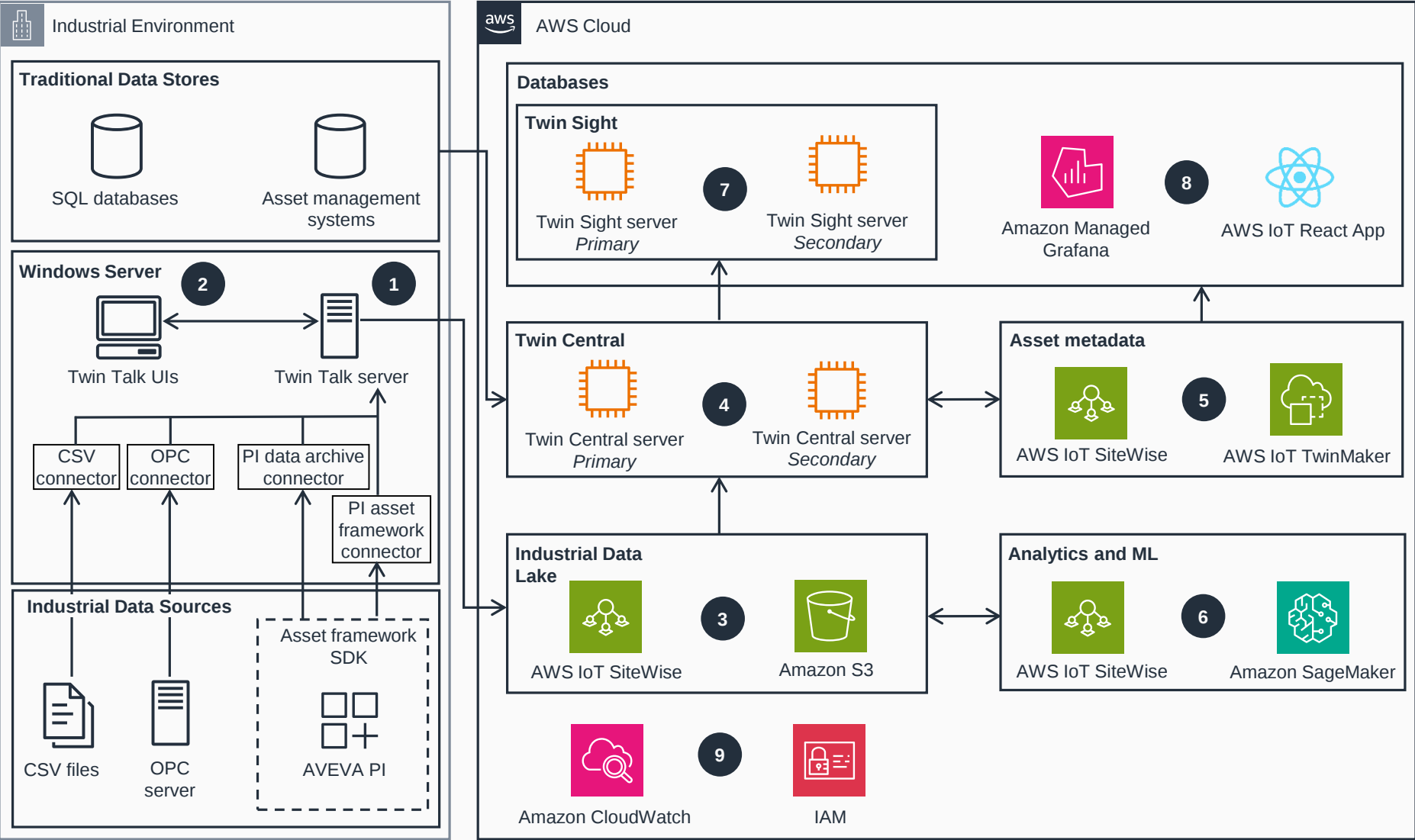


Guidance for Industrial Data Fabric with EOT on AWS

This architecture diagram shows a centralized data repository designed to store, process and analyze structured and unstructured data with components such as Twin Talk, Twin Central, and Twin Sight in addition to AWS Internet of Things (IoT) services. These services provide seamless data management, achieve operational efficiency, reduce downtime, and optimize productivity.



- 1 The Twin Talk server comes with connectors for AVEVA PI (through the asset framework SDK), all Open Platform Communications (OPC) specifications, and CSV files.
- 2 The Twin Talk user interface (UI) communicates with the Twin Talk server through REST calls. The UI allows users to configure groups (such as data sources) and timers (such as events) to pre-process and move data to AWS.
- 3 The Twin Talk server comes with adapters for **Amazon Simple Storage Service (Amazon S3)** (either in row or columnar format for compressed or not compressed data) and for **AWS IoT SiteWise**.
- 4 Twin Central can connect to SQL databases using an Open Database Connector (ODBC) to consume asset metadata and enrich time-series data with operations-specific context. All relationships are stored in **AWS IoT SiteWise** and **AWS IoT TwinMaker**.
- 5 Store asset models as **AWS IoT SiteWise** models or **AWS IoT TwinMaker** components to facilitate visualization and analytics.
- 6 **AWS IoT SiteWise** supports analysis of contextualized operational data through APIs and a unified SQL engine. Use operational data to train and run machine learning (ML) workflows on **Amazon SageMaker**.
- 7 Twin Sight is a visualization tool for fast analysis of contextualized data from all assets in the organization. Twin Sight reads semantic data from Twin Central, **AWS IoT SiteWise**, **AWS IoT TwinMaker**, and SQL databases.
- 8 Use contextualized operational data stored in **AWS IoT SiteWise** and **AWS IoT TwinMaker** to monitor applications built with **Amazon Managed Grafana** or custom web applications built with the **AWS IoT App kit**.
- 9 **AWS Identity and Access Management (IAM)** enables fine-grained access control for all the roles assumed by AWS services and by the Twin Talk server. **Amazon CloudWatch** monitors and manages health of AWS services and EOT products.

