



Architecture diagrams for manufacturing

Accelerate Industrial Machine Connectivity on AWS



Accelerate Industrial Machine Connectivity on AWS: Architecture diagrams for manufacturing

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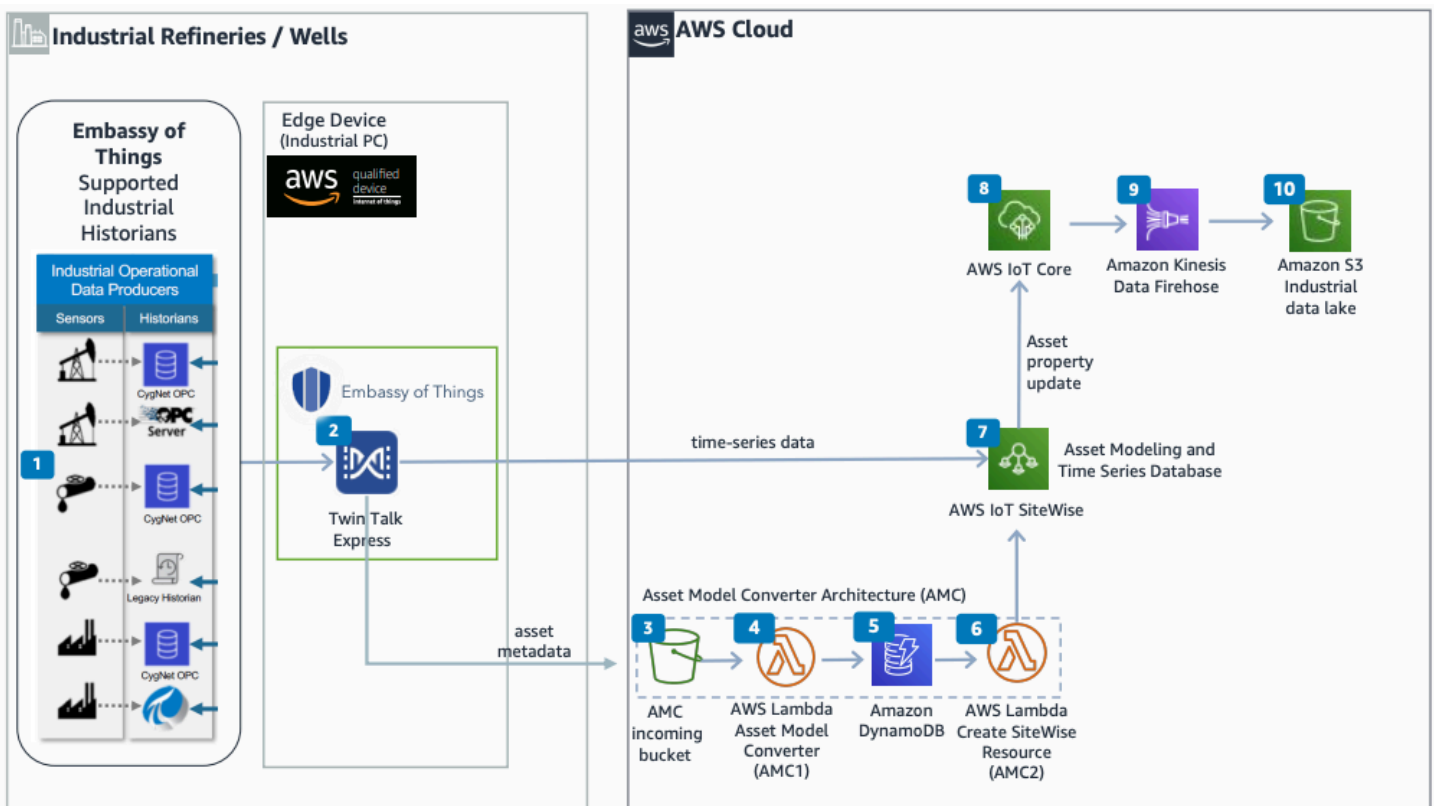
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With this architecture, you can provision asset models and ingest real-time sensor data from industrial historians, OPC servers, and Supervisory Control and Data Acquisition (SCADA) platforms into [AWS IoT SiteWise](#). You use the Embassy of Things (EOT) Twin Talk Express data sharing platform to connect to OSIsoft PI and CygNet SCADA systems. For more information about Twin Talk, see [Twin Talk platform](#) on the Embassy of Things website.

Industrial machine connectivity architecture diagram



The following steps describe the architecture:

1. The OSIsoft PI system, legacy historians, and CygNet SCADA platform collect real-time data from industrial devices and sensors.
2. The EOT Twin Talk data management platform on an AWS Certified industrial PC ingests real-time sensor data and the asset model from supported historians.
3. Enriched data from Twin Talk goes to [Amazon S3](#), which triggers a [AWS Lambda](#) function.

4. The Lambda function normalizes incoming files to an AWS IoT SiteWise compatible format.
5. Store asset model and definitions in [Amazon DynamoDB](#).
6. DynamoDB Streams triggers a Lambda function to create and update assets in AWS IoT SiteWise.
7. AWS IoT SiteWise filters, transforms, and processes incoming data. It publishes an MQTT message to [AWS IoT Core](#) on each property update.
8. An AWS IoT Core rule publishes asset property update messages to [Amazon Data Firehose](#).
9. Amazon Data Firehose captures data from AWS IoT Core, transforms it, and delivers the data to Amazon S3.
10. Once data is in Amazon S3, ML and third-party applications can consume the data for reporting, analytics, and model training.

Further reading

For additional information, see the following resources:

- [AWS Architecture Icons](#)
- [AWS Architecture Center](#)
- [AWS Well-Architected](#)
- [Industrial Machine Connectivity Quick Start](#) on the AWS website
- [Manufacturing on AWS](#)

Diagram history

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