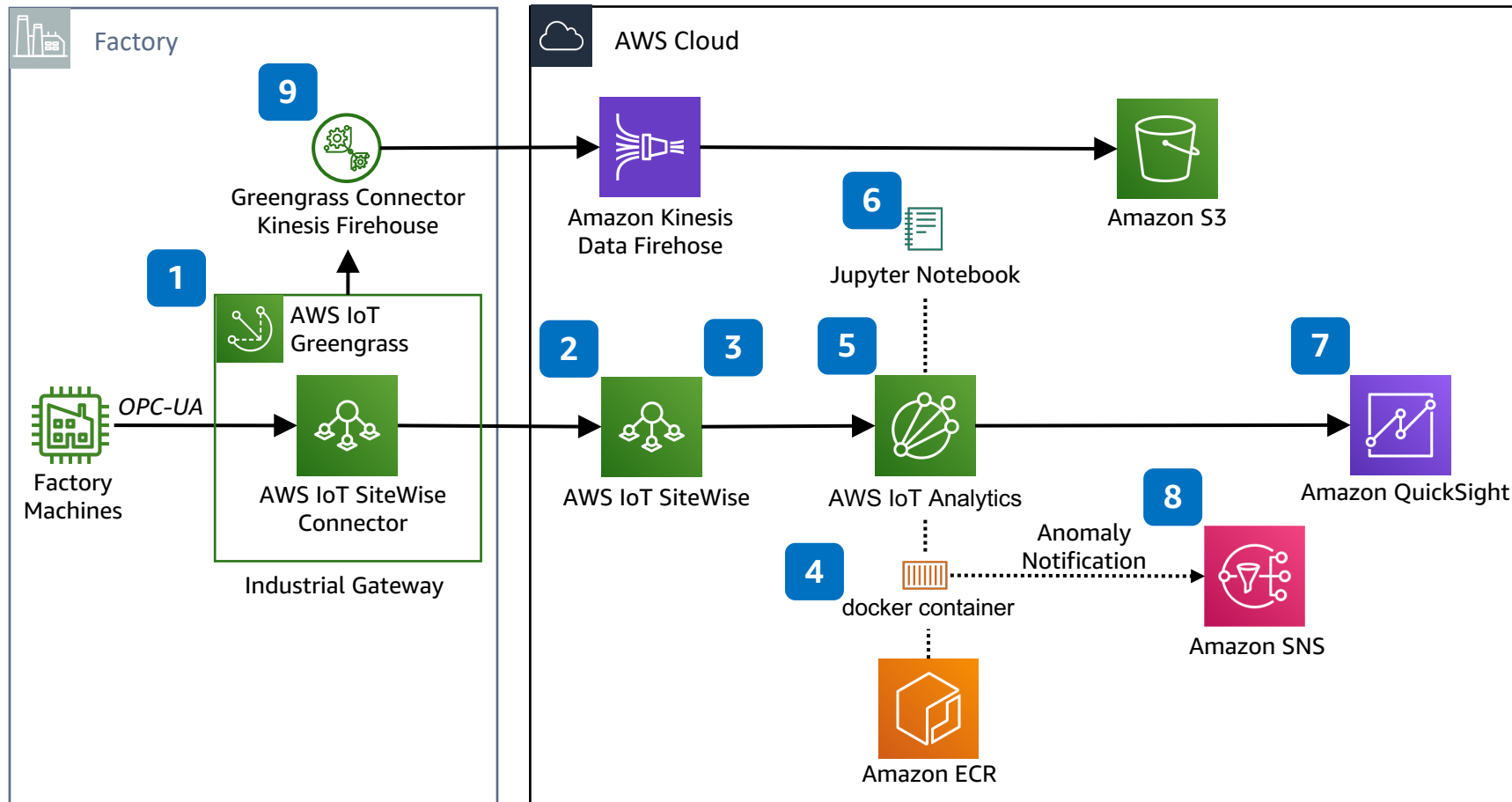


AWS Industrial IoT

Predictive Maintenance Reference Architecture

This reference architecture enables you to do Predictive Maintenance using AWS IoT SiteWise and AWS IoT Analytics.



Description

1. Deploy a **AWS IoT SiteWise Gateway** to connect to the Factory Machines OPC-UA Servers.
2. Create a View in **AWS IoT SiteWise** and define the Factory Machines as Assets.
3. Define the Metrics to be monitored for the Factory Machines.
4. Build a **Docker** image and add it to **Amazon ECR**.
5. In **AWS IoT Analytics** create a Container Data set from the **AWS IoT SiteWise** Data store and link it to your **Docker** container.
6. From **AWS IoT Analytics** create a new **Jupyter Notebook** for the data set created from **AWS IoT SiteWise** to create a Predictive Maintenance Machine Learning Model.
7. Visualize your analysis using **QuickSight** on the **AWS IoT Analytics** data source.
8. Create a topic for **anomaly detection** notifications in **Amazon SNS** and configure the trigger in your model.
9. Configure a **Kinesis Firehose Greengrass Connector** on **AWS IoT Greengrass** to send non OPC-UA Tags data to **Amazon S3**.



AWS Reference Architecture