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

1. Deploy an 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.