AWS Industrial IoT
Asset Condition Monitoring Reference Architecture

Create a solution to monitor the health of factory equipment, detect fault conditions, and respond to events using AWS IoT SiteWise, AWS IoT Greengrass, AWS IoT Core, and AWS IoT Events.

Configure the AWS IoT SiteWise Connector on AWS IoT Greengrass to connect and collect data from a factory historian using OPC-UA.

Configure Greengrass Connector for AWS Lambda functions to interface with local Modbus, MQTT, or HTTP traffic.

Configure rules within AWS IoT Core to trigger events that send messages to AWS IoT Events and AWS IoT Analytics.

In AWS IoT Analytics, set up a channel, pipeline and data store to analyze your data from the factory machines.

Derive insights from analyzed data using Amazon QuickSight on the AWS IoT Analytics data source.

Use AWS IoT SiteWise to model and create assets that represent on-premises devices, equipment and processes, and ingest their data into AWS.

Create a custom web portal using AWS IoT SiteWise Monitor functionality to visualize factory data and industrial KPIs in near real-time.

Use AWS IoT Events to detect complex events and to trigger messages for human alerts and factory response commands.

Publish Amazon SNS messages based on input events to send notifications.

Create an AWS Lambda function to send mitigation command back to asset on certain events through AWS IoT Core.

Use AWS IoT Core to forward commands to AWS IoT Greengrass to execute mitigation actions on assets.