

Farm

PLC

Real-Time Control

Data Hub & Interfaces

Edge Compute & Gateway



HMI

← Ethernet →



Automation
Program
(Valmetal)



OPC-UA Server



REST API



Agent
(Ingeno)



Balena Engine



Node-RED
(Ingeno)



Farming
Equipment

← I/O
Module →

Internet
(MQTT)
(HTTP)

Cloud

Security, Monitoring & Governance



IoT Device
Management



IoT Core
Policies



CloudWatch



IAM



App Config



Cognito

Ingestion



IoT Core
Topics



IoT Core
Rules



Kinesis
Firehose

Storage



IoT Core
Device Shadow



Timestream



DynamoDB



S3



RDS

Processing



EventBridge



SQS



Step Functions



ECS Fargate



Lambda

Applications



Admin Web App



Client Web App



Client PWA

Notifications



SNS



SES