

AI & PRECISION AGRICULTURE

Problem

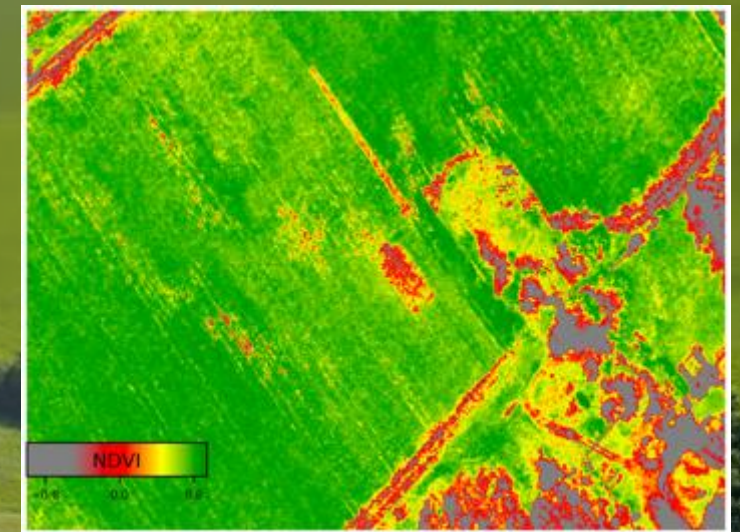
At an industrial scale, agriculture operations are generating massive amounts of data, and this is only increased with the addition of drone-based photography. The result is a wealth of data from which it can take hours and days to gain any meaningful insights.

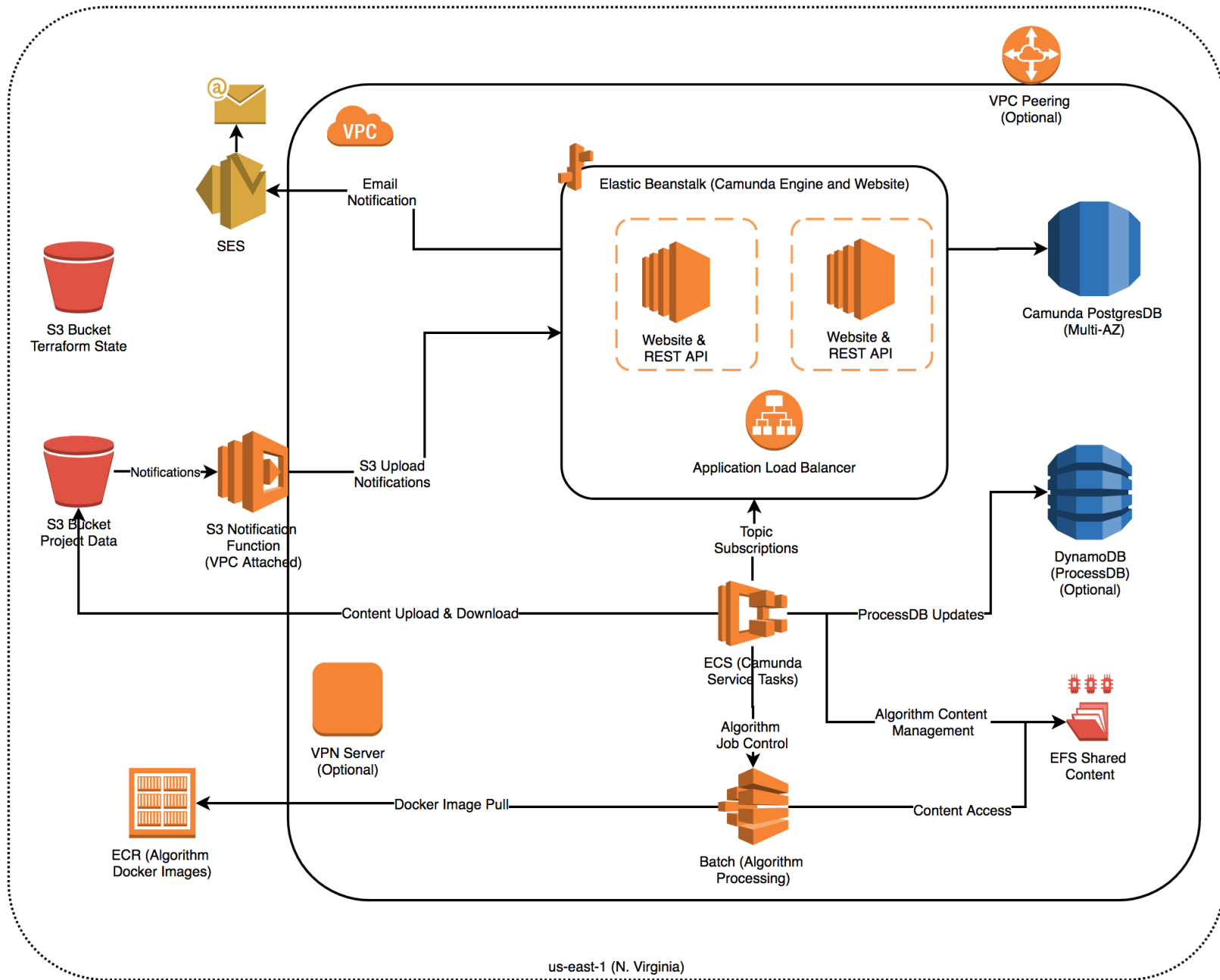
Solution

Today's farming operations succeed by harnessing the vast amounts of data available in the field, and running sophisticated analytics against that data. To address this, Valence worked with **PrecisionHawk**, a major precision agriculture drone intelligence company, to *design and build intelligent data and numerical analysis workflows, allowing for the processing of thousands of discrete aerial images of a field*. By utilizing AWS to build a modern, elastic, scalable system, Valence was able to help PrecisionHawk optimize their algorithms for speed and accuracy.

Results

By relying on a cloud-first methodology Valence designed and built a field analytics engine that *reduced processing time from 72 hours to 30 minutes*. Additionally, a *40x performance improvement was gained on specific computer vision algorithms*.





us-east-1 (N. Virginia)

AWS Services:

EC2

S3

ECS

DynamoDB

Route 53

Batch

CloudFormation

SQS

Lambda

API Gateway