

INX - Intelligent Workforce Software

Case Study



MECHANICAL
ROCK

The Client

INX develops intelligent workforce management software and services. Today, INX Software has hundreds of customers across four continents, working in multiple languages, managing hundreds of thousands of employee records.

Workforce Systems

The systems are used in energy, mining, construction, transport and health to make a difference in the working lives of men and women by helping to identify and reduce risk, improve communication and raise productivity.

With a strong track record in enterprise systems, INX wanted to branch out into a mobile application, to extend the reach of its solutions to the small-to-medium businesses that service blue-chip enterprises.



The Problem

Recognising the potential of a cloud based mobile solution, INX turned to Mechanical Rock as cloud native application development specialists.

The brief was to develop a mobile portal where providers of goods and services can upload and maintain evidence of prequalification requirements which enable them to work with INX enterprise customers.

With an aggressive timeframe and ambitious requirements, Mechanical Rock partnered with Amazon Web Services to deliver a responsive cloud native web application.

Simplify, centralise and streamline the pre-qualification process.

Experience greater quality control, safety and hiring of only the best suppliers for the job.

Mechanical Rock delivered:

- A modern, light-weight single page web application, hosted on the AWS public cloud.
- A secure online authentication system that allows users to self register and self manage their credentials.
- Automated build and deployment pipelines for infrastructure and applications, allowing software to be deployed on demand.
- An automated testing framework to ensure continued quality and allow updates to be deployed with confidence.

The Solution

The INX Connect solution utilises a responsive web application (react.js) supported by a set of AWS managed services to provide a lightweight, low cost mobile solution.

CloudFront – is a secure, global content distribution network that gives users a responsive experience no matter where they are.

Cognito – an authentication and authorisation service that protects the application and allows users to register themselves.

Simple Email Service – handles email confirmation of registrations and notifications from the application on pre-configured triggers.

Simple Storage Solution – is used to host the web application without requiring servers and to securely store pre-qualification documents uploaded by the user.

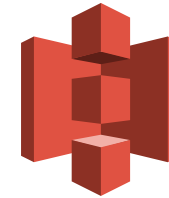
AppSync – provides a GraphQL API layer that securely handles all the data access from front-end to back.

DynamoDB – stores the application state data in a noSQL managed database service that is infinitely scalable.

Elastic Search – provides rich reporting and analytical capability on user and application data, again as a managed service.



Cognito



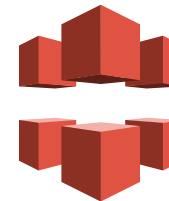
S3 (hosting)



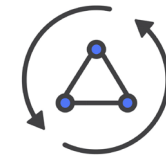
Serverless backend



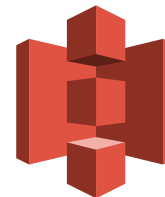
SES



CloudFront



AppSync



S3 (document storage)



DynamoDB



Elastic Search

The Benefits

- An optimised AWS account model with cross account security and permissions so that services can be deployed as code.
- Automated continuous delivery (CD) pipelines to deploy the application and infrastructure to AWS in non-production (staging) and production environments.
- Continuous integration (CI) with automated unit and API tests to ensure that changes can be deployed with confidence. This allowed INX to achieve multiple production deployments per day (on average 3 deployments per day).

Further, Mechanical Rock were able to introduce INX Connect to Behaviour Driven Development (BDD) which led to faster delivery and clearer understanding of the desired system behaviour.

Better Software, Faster

Using our advanced software delivery techniques and AWS Managed services, Mechanical Rock managed to deliver the Minimal Viable Product (MVP) for INX Connect in only three months. INX now continues to expand and evolve the product, based on the strong foundations we built for them.





Think we can help with your project?

Get in touch so we can chat about your plans over a coffee

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www.mechanicalrock.io