

# How **Essex Centre for Data Analytics (ECDA)** is achieving data sharing and advanced analytics with a secure, governed data platform

## Executive Summary

ECDA is a partnership between 3 major public sector organisations - Essex County Council, Essex University and Essex Police. ECDA has been created to push the analytics across different organisations and securely share data between organisations. ECDA wanted a cloud based solution for - RBAC, Security (authorisation and authentication), Encryption, Governance - that can be managed by a 3rd party. No partner has complete ownership of the platform.

## Customer Challenge

- 1 Security and Governance are key concerns for customers in the public sector, and similar was the case for ECDA. Particularly for ECDA, as they have partnership between different public sector organisations, core principle is that each partner is a controller of their data.
- 2 The solution needed to be managed by a 3rd party, with an SLA.
- 3 They required the capability to handle structured, semi-structured and unstructured data
- 4 ECDA wanted to speed up the pace of delivery of use cases to demonstrate the results of joint insights

## Why AWS?

Although AWS was working with the customer for 6-9 months before our introduction, it was Amorphic as-a-solution, which led them to choose AWS as a preferred cloud provider.

ECC and other partner organisations are Azure heavy - we had competition from two other organisations, which were proposing to build on Azure. Due to Amorphic's maturity and managed nature, it was chosen as a preferred solution.

## Why did ECDA select Cloudwick as their AWS partner?

Cloudwick is an 'Advanced Partner' for AWS. ECDA selected Cloudwick as we offer:



Experience within the public sector (local government, central government, NHS etc.)



Integration with analyst's tool of choice - QuickSight, RStudio, Tableau, PowerBI etc..



Solution based approach



Production readiness



Serverless Solution - lower cost of operation

## What solution did Amorphic provide to the customer?

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Managed SaaS offering was provided to the customer with Professional service offering - this enables ECDA to deliver up to 8 projects per year.

The solution allowed the ECDA to onboard multiple public sector partnering organisation, which included - Essex University, Essex Police and Essex County Council - at first. This has further expanded to different NHS trusts coming together to share the data necessary for different projects that aim to solve mental health challenges, predicting the use of A&E by youth and adults.

As a part of data acquisition, organisations connect to a secure SFTP service from where the Amorphic solution automatically ingests the data to the storage layer - encrypting the data in transit and at rest. Further transformation and enrichment on data is performed and data is prepared for it to be consumed by the tool of choice by the analysts such as - QuickSight, RStudio, Tableau, PowerBI etc..

## What benefits did the customer get from the Amorphic solution?

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From the Amorphic solution ECDA was able to achieve the following:

1

They can bring multiple partners onboard while maintaining the ownership of the data with the partner sharing the data.

2

ECDA is able to focus on partnerships with the other public sector organisations, and work on joint insights to further benefit the residents (and visitors) of Essex County.

3

Implementation time for a project from when the data is acquired is 7-10 working days which is a huge improvement over the previously used solutions.

## AWS Services Used

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The Amorphic solution is deeply integrated with the AWS ecosystem, leveraging over 60 native AWS services. Some of the key AWS services used include:

Amazon S3, AWS Glue, Amazon Athena, Amazon QuickSight and AWS Bedrock. In addition to these, the Amorphic platform utilizes a wide range of AWS services across categories like compute (Lambda, Step Functions), analytics (Redshift, Kinesis), security (IAM, KMS, CloudTrail), and monitoring (CloudWatch, X-Ray), ensuring a robust and enterprise-grade architecture.

## About ecda

ECDA is a partnership venture between - Essex County Council, Essex University, Essex Police and NHS partners - which is aimed at improving the lives of the people of Essex (and visitors).

The projects undertaken by ECDA are across different thematic areas – to better predict the drivers and aggravators for committing knife-enabled crime, or to better understand the availability of mental health services against the actual demand, or to establish the nature and scale of factors affecting businesses in Essex.

## About Cloudwick

Cloudwick is an AWS certified Advanced Consulting Partner that specializes in building native data lakes that power faster, cheaper and more agile cloud analytics for IT, business users and data scientists.

Whether you need to migrate your analytics to the cloud, add decision automation to your business intelligence, improve customer experience with machine learning or want to build or buy a data lake Cloudwick has a complete portfolio of services and solutions.

## Next Steps

Start small, achieve quick wins, and build a scalable foundation for public health data management. Contact Cloudwick at [sales@cloudwick.com](mailto:sales@cloudwick.com) for a consultation or demo.