



# Amorphic Enables SGN to Realize Over £3 Million in Cost Savings

How Amorphic helped an oil and gas leader implement self-service analytics for both its IT and data teams

## SGN needed access to better analytics for their IT and fleet management teams

As a highly regulated business, SGN needed to maintain a high level of customer service standards and reporting to the stakeholders and the regulator while maintaining a cost-effective, insightful data operation. This includes transforming the business systems and processes, and adopting an operating model for a reduced time to analytics, providing more agility in the journey towards insights. They wanted to focus less on the tools, and more on the outcomes. SGN's specific focus was on the IT team technology stack and the fleet management team, where unlocking the data at scale for both use cases would have a big impact.

SGN's fleet management wanted to leverage data that would encourage safer driving and implement cost saving measures. Challenging this was that the data was too buried to leverage easily. SGN used top systems as part of their technology stack, including Maximo for Asset Management, Oracle e-Business Suite as an enterprise resource planning (ERP) tool, and a survey gathering application. With this approach the business faced the challenge of bringing the data together from these different composite applications into a single place. Further digital initiatives would be implemented in silos and managing security and governance would be a challenging task. SGN needed to bring them together, and these silos prevented them from having a unified view for better analytics.

With customer experience in mind, SGN created a plan to tackle these challenges. The plan allowed the business to progress its artificial intelligence (AI) and machine learning (ML) journeys, as part of their Gas Distribution Pricing Control Plan (GD-2) regulatory commitments.

## Summary

SGN adopted a data-driven approach to increase safety, reliability, and efficiency in managing gas distribution to 5.9 million homes. They chose Cloudwick's Amorphic data platform-as-a-solution to power the next generation cloud analytics for faster time to insight across multiple business units. They effectively transformed their business intelligence (BI), management information (MI), AI and ML capabilities, while saving over £3 Million (US \$4.2 Million).

## About SGN

SGN is the second largest gas distribution network in the UK, managing 75,000 kilometers of gas pipeline across Scotland and Southern England. SGN is a highly regulated business responsible for managing the Critical National Infrastructure (CNI), providing quality gas service, and delivering exceptional customer service. SGN has been recognized for its outstanding customer service and stakeholder engagement and they are committed to continuing their track record through use of analytics.



## SGN's CTO needed to provide self-service data and analytics-as-a-service for IT and data teams

SGN was looking for an AWS-native, self-service, scalable, and secure cloud data analytics platform which could allow SGN to decentralize access to data and allow business users to self-serve. The solution would further allow the current BI and MI reporting to run effectively, modernizing the data warehouse traditionally powered by Oracle databases on Amazon EC2 instances. The SGN team also wanted to reduce the overall technical debt that had built up within the BI database. The team needed a platform to support multiple ingestion mechanisms, with data coming from different sources including CSV files, databases, and APIs.

### SGN needed a platform to:

- Allow users to discover data, then analyze that data using tools that are integrated with the platform to provide a seamless user experience
- Provide robust role-based access control
- Profile and explore data easily
- Provide a mechanism to scan the data being ingested for malware
- Provide capability to have regular, comprehensive reporting on platform usage and costs
- Audit users, access permissions, and data sources
- Provide admin capabilities to perform bulk management of users and metadata tagging
- Allow data access to perform ad hoc reporting on top of standard reporting
- Engage data backup, disaster recovery (DR), recovery point objective (RPO), and recovery time objective (RTO)
- Provide all of the above in a secure and manageable manner

### Why did SGN choose Amorphic?

SGN is one of the top innovators in its industry and had a clear cloud strategy. It wanted to take its systems and applications to the public cloud to increase its agility and pace of innovation that the cloud provides. Although SGN had a large cloud transformation project underway, the idea of making data available to the business and letting the business 'own' the insights was missing. After careful consideration of products and solutions, SGN chose Cloudwick and Amorphic because it needed an AWS Partner and certified data platform that would provide SGN with a data platform-as-a-solution inclusive of modernization consulting, and professional and managed services.

### SGN wanted to leverage Amorphic to:

- Enable their business users to self-serve the analytics with little assistance from the data and analytics team.
- Be ready for the future of analytics and enable ML, Internet of Things (IoT), and other predictive analytics use cases to deliver the various outcomes per the GD2 submitted to the regulator.



### How has SGN used Amorphic ?

With the Amorphic platform in production and with the help of Cloudwick's professional services, SGN set out to deliver two key use cases: fleet management, owned by the depot and finance teams, and the other with the data and analytics (D&A) team transforming their Oracle DB to Amazon Redshift for their BI and MI reporting.



In the age of digitalization, driving ROI from data at speed is essential. SGN wanted to focus on data science for the future of our business. To do so, we needed a platform that requires less technology engineering but delivers high levels of data-driven insights. Amorphic on AWS gave us the opportunity to do just that with speed, security, and scale. In the process, the solutions helped our business realize savings in excess of £3M.

#### SHUCHI N NAGAR

*Head of Architecture and Data, SGN*



**The AWS Data Lake** is a single repository for all streaming and historical data in one place.

SGN is using the Amorphic platform and its advanced analytics capabilities to enable their business users to self-serve on their analytics use cases and provide a secure and governed platform to meet the security requirements set out by the SGN's security team.

### FLEET MANAGEMENT USE CASE

#### The objective of the fleet management use case was to:

- Put safety first and encourage better driver behavior by raising awareness of both good and poor practices
- Empower the fleet teams to save on transport costs through route optimization
- Replace the current reporting service which allowed further cost savings for SGN

### ORACLE MIGRATION TO AMAZON REDSHIFT

#### The objective of this migration was to:

**Modernize and replace existing Oracle-based Business Intelligence to allow further cost savings:**

- Simplified orchestration and automation of analytics data pipeline and workflow
- Effective use case monitoring via data load success/failure alerts and notifications to users
- Role-based access control (RBAC) and secure data sharing
- Ad hoc reporting using Amazon Simple Storage Service (Amazon S3) as a data lake for users with relevant data access
- Resilience and recoverability across the platform

**Manage the gas demand and supply with operational excellence.**

**Track operational metrics via feedback surveys to assess and manage the health of their gas operations. The customer feedback surveys are delivered to the business within five minutes of being captured by the engineer onsite, allowing other business units to take corrective steps to ensure high levels of customer satisfaction.**

**The metrics tracked include:**

- Customer satisfaction
- Interruptions
- Gas escape attendance
- Customer complaint volume reduction
- Business carbon footprint percentage reduction

## Amorphic: Self-service data platform built on AWS

Amorphic is a production-ready, fully managed data and analytics platform that deploys directly into the customer's AWS account. Within just 90 minutes, it removes the IT barriers that exist for most organizations so they can develop and operate an advanced data analytics platform.

- Remove coding and access barriers for data teams with drag and drop extract transform load (ETL) and orchestrated workflow management
- Remove IT and DevOps barriers with little platform development and ongoing platform engineering and management
- Enable faster time-to-data and analytics on AWS, leading to improved business performance at lower cost.

Additionally, being open and extensible with 400+ APIs, Amorphic makes it easy to custom develop or integrate with third-party applications. Amorphic seamlessly unifies the AWS and third-party services providing one unified platform for the AWS data analytics and infrastructure services including:

- AWS Glue
- Amazon Redshift
- Amazon Athena
- Amazon ElasticSearch
- Amazon Comprehend
- Amazon Rekognition
- Amazon SageMaker
- Amazon CloudTrail
- Amazon CloudWatch

## The Benefits for SGN

**Data analysis:** SGN now analyzes raw streaming data, such as IoT sensors, and traditional historical data at the same time. The data is transformed and moved to an Amazon Redshift data warehouse for reporting and dashboarding.

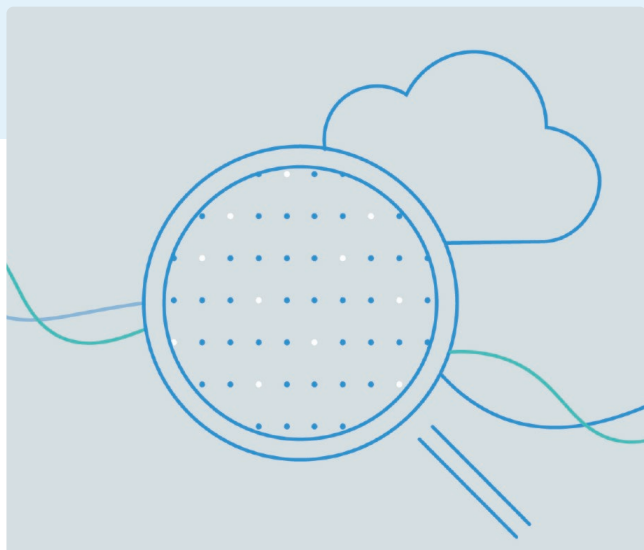
### Data governance and compliance:

- Amorphic helps SGN manage the access centrally and the access can be audited. SGN can easily report who had access to a data set and why.
- Amorphic enables secure cloud analytics with governed data sharing and governed data search, providing public and private views of data sets.

**Cost efficiencies:** Amorphic allowed SGN to buy a data warehousing solution and invest valuable resources into modernized serverless cloud infrastructure rather than into sunk maintenance costs.

### Self-service access: Amorphic allows SGN to implement a 'bring your own data' operating model which enables the:

- Line of businesses (LoBs) to have control over their own data—data owners have control including permissions and monitoring
- Users to directly and securely search the data catalog, identify data sets, and request access, thereby reducing time to analytics





## Amorphic: simplify analytics with the Cloudwick-managed data platform

Amorphic is a data-platform-as-a-solution for production-ready AWS ML, AI, and BI decision automation. Amorphic requires no software installation, performance tuning, software upgrades, AWS infrastructure monitoring, or management. It's a turnkey solution designed to make it easy for IT, business users, and data scientists to use AI and ML to gain a competitive advantage from cloud analytics.

### With Amorphic your business can achieve:

- Data warehouse platform delivery in one month or less
- 92% faster time to production than building a solution
- Advanced data analytics for all users, teams, and organizations
- Self-service analytics with drag and drop ETL and workflows

### ABOUT CLOUDWICK

Cloudwick is an AWS Advanced Consulting Partner that specializes in building native data lakes that power cost-effective 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, or improve customer experience with machine learning, Cloudwick has a complete portfolio of services and solutions.

[Learn more about Cloudwick](#)

