

## A Modern Energy StartUp chooses Cloudwick's Amorphic Data Cloud for AWS to drive business insights for its solar microgrid project data



### Executive Summary

The Modern Energy StartUp is sustainable bitcoin mining and energy technology company working to solve modern energy challenges. First developed for mission critical military applications, the StartUp's energy systems today make energy generation and storage more sustainable, affordable, and abundant across business and industry, self-sustaining communities, and internet connected IoT products.

Cloudwick's Amorphic Data Cloud for AWS provided the Modern Energy StartUp with a turn-key data cloud to manage analytics and act as a central data store. The Amorphic Data Cloud consolidated structured and unstructured data from the Startup's various field projects spanning numerous teams, locations, and project management tools. With Amorphic, the StartUp obtained a one-stop summary of each of its different projects, with the ability to drill down into each projects' revenue, team structure, and timelines. The Modern Energy StartUp now easily ingests data and shares key information throughout the organization using Amorphic's role-based access controls on datasets. With Amorphic's Data Cloud capabilities, actionable data is accessible to every user regardless of assigned projects, and insights can be extracted at a finely detailed level.

### Customer Challenge

The Modern Energy StartUp's employees capture volumes of data during the pre-sales and installation phases of their field solar projects. This data is recorded in a multitude of siloed tools and documents. The StartUp lacked a central data store for teams to access, and the existing data supply chain required manual aggregation, processing, and report generation. The StartUp needed to automate its data management to:

- Build dashboards to better track data from different projects and across teams, including project completion and phase metrics
- Create readily sharable, detailed data summaries of microgrid projects

The Modern Energy StartUp did not have the skills to build or maintain a data platform on its own, and instead wanted a production-ready, fully managed system to address these challenges.

### About the customer

The Modern Energy StartUp is a sustainable bitcoin mining and energy technology company that is solving modern energy challenges. Their energy systems were first developed for mission critical military applications and provide best-in-class technology agnostic solutions that deliver low-cost energy with high-level resiliency. The Modern Energy StartUp has many successful Microgrid deployments nationally and internationally.

## The Solution: Cloudwick's Amorphic Data Cloud

With the Amorphic Data Cloud for AWS, the Modern Energy StartUp transformed its data silos into a single cloud platform that natively integrated 60+ AWS services. Using Amorphic, the StartUp cleaned and structured data formerly in silos, making it readily available and shareable across its teams. Data from external third-party Project Management tools was easily ingested and automated from heterogeneous sources like SFTP servers, AWS S3 buckets, and relational data.

To enhance its' historical analytics, the Modern Energy StartUp used Amorphic to create an archive store to trace changes made to any project, with a dashboard summary to report updates or changes across current and past projects.

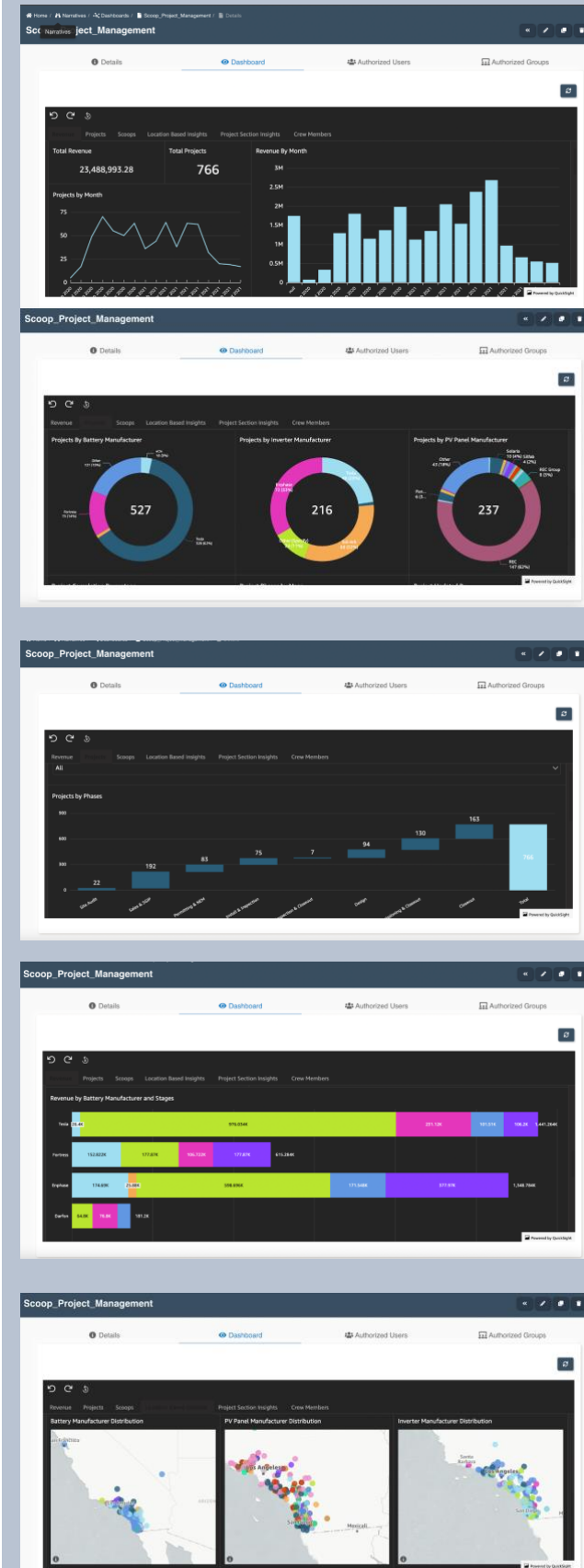
In just four weeks, the StartUp was able to centralize the availability of its data, shifting from manually curated reports to up-to-date and detailed interactive dashboards that were available to all team members. (Examples in the graphic to the right).

## Customer Success Metrics

A key criterion for success was the ability for the Modern Energy StartUp's team to be able to easily track revenue by project, by manufacturer, and by stage with near real-time data. Additionally, the StartUp needed to be able to summarize projects, revenue, and manufacturers by location, and required the ability to drill down to project phase metrics when tracking the progress of a specific project to completion. The Amorphic Data Cloud enabled the ingestion, transformation, governance, and management of data that could then be easily visualized in dashboards and reports in Amazon Quicksight and shared with users.

Additional success metrics for the Modern Energy StartUp included the Amorphic Data Cloud's ability to enable dashboards in Amazon Quicksight to track the StartUp's team leads and team members by project, and to track team members by role. For projects with Utility companies, the Amorphic Data Cloud enabled Amazon Quicksight dashboards to provide insight into the different types of batteries, PV panels, and invertors that were used and installed in each project.

## Amorphic Data Cloud for AWS Dashboards



## Key AWS Technologies

- ✓ **Amazon Redshift**
- ✓ **AWS Glue**
- ✓ **Amazon S3**
- ✓ **AWS Lake Formation 2.0**
- ✓ **Amazon SageMaker ML\***
- ✓ **Amazon Kendra\***
- ✓ **Amazon Textract\***
- ✓ **Amazon Forecast\***
- ✓ **Amazon QuickSight**
- ✓ **Amazon DynamoDB**
- ✓ **Amazon Elasticsearch Service**
- ✓ **Amazon EC2**
- ✓ **AWS CloudWatch**
- ✓ **AWS CloudFormation**
- ✓ **AWS DMS**
- ✓ **AWS Lambda**
- ✓ **AWS CloudFront**
- ✓ **Amazon Appflow 2.0\***

\* Specific AWS Services not used by customer in this use case. All Services Listed are Enabled in the Amorphic Data Cloud for AWS.

## Why AWS & Amorphic?

The Modern Energy StartUp team chose AWS as its cloud provider because of AWS' proven expertise in Data and Analytics. Cloudwick's Amorphic Data Cloud was a natural next step, meeting the requirement of a centralized data store for AWS, ready for use "out-of-the-box" by a large number of users and available from an experienced AWS partner. The Amorphic solution was also a good fit to manage data both for near real-time analytics as well as for cold archive. Amorphic provided ease of use, automation, and cost efficiency to enable all the StartUp's users - analysts, developers, and executives - to access and share data in a single location that required virtually no IT development time or support effort.

## Customer Benefits of the Amorphic Data Cloud for AWS

- No IT skills required to build and manage a production-ready data cloud on AWS
- A centralized data cloud as a single source of truth to transform and analyze data, natively integrating 60+ AWS services to enable a SaaS experience
- Easy visualization and reporting of data with Amazon Quicksight dashboards
- Department and system data from multiple sources organized into usable domains
- Support for multiple data types (CSV, Parquet, etc.) and data sources (SFTP, S3, Third-Party Rest APIs, RDBMS)
- Role-based access control for users to share and consume datasets
- Ability to transform data in multiple stages of the pipeline
- Automate end-to-end data pipelines with no manual intervention

## About Cloudwick's Amorphic Data Cloud:

Cloudwick's Amorphic Data Cloud for AWS helps organizations gain deeper insights from their data. Amorphic is an AWS ISV Certified data cloud that makes any data sharable, searchable, and analyzable by any user. Encompassing a built-in data catalog for search and sharing, enterprise-grade governance and security, and Machine Learning (ML) and AI capabilities for advanced analytics, Amorphic is a production ready, self-service data cloud for all data and all workloads, natively integrating over 60 services on AWS with "single pane of glass" simplicity for better data-driven decisions with near zero IT development or support required.

## About Cloudwick:

Cloudwick is an AWS-certified APN Advanced Consulting Partner and Technology Software Partner offering the Amorphic Data Cloud for AWS. Cloudwick's Professional Services provides organizations with trusted and high impact data and analytic migration and modernization outcomes.

Founded in 2010 in Newark, CA, Cloudwick has six AWS Competencies and 210 technology professionals with 400+ Big Data certifications and over 100 AWS Certifications serving customers throughout the US, EMEA, and APAC. Cloudwick's Amorphic Data Cloud is available direct, through the AWS Marketplace and through select resellers.

# Cloudwick

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