

nClouds | AWS Case Studies

QuickSight

How nClouds used Amazon QuickSight to enhance project management and gain actionable insights into team performance.

About nClouds

nClouds is a deeply-credentialed, award-winning provider of AWS and DevOps consulting and implementation services. nClouds' mission is to partner with customers, as extensions of their teams, to build and manage modern infrastructure solutions that deliver innovation faster.

The company specializes in AWS Well-Architected, CI/CD pipelines, containerization, infrastructure automation, cloud migration, data & analytics, machine learning, and 24x7 support.

nClouds is a certified APN Premier Consulting Partner and has achieved AWS DevOps Competency, AWS Migration Competency, AWS Managed Services Provider (MSP) Partner status, AWS Well-Architected Partner status, in addition to being an AWS Authorized Reseller. To learn more, go to www.nclouds.com.

Benefits Summary



Enhanced productivity



Actionable insights



Pay-per-session pricing

CHALLENGE

nClouds wanted to enhance project-management productivity and gain actionable insights into the performance of their service delivery teams.

nClouds' project managers were using Airtable, a database with a spreadsheet-like interface, to manage the projects of their teams. However, when they needed to create a report for senior management on the progress of these projects, the report had to be created manually, impacting productivity.



Industry

Cloud Computing, Cloud Infrastructure, AWS Consulting, Professional Services

Location

San Francisco, CA

Challenge

nClouds wanted to enhance project management productivity and gain actionable insights into the performance of their service delivery teams.

Featured Services

Machine learning (Amazon SageMaker), Amazon Simple Storage Service (Amazon S3), AWS Glue, AWS Lambda



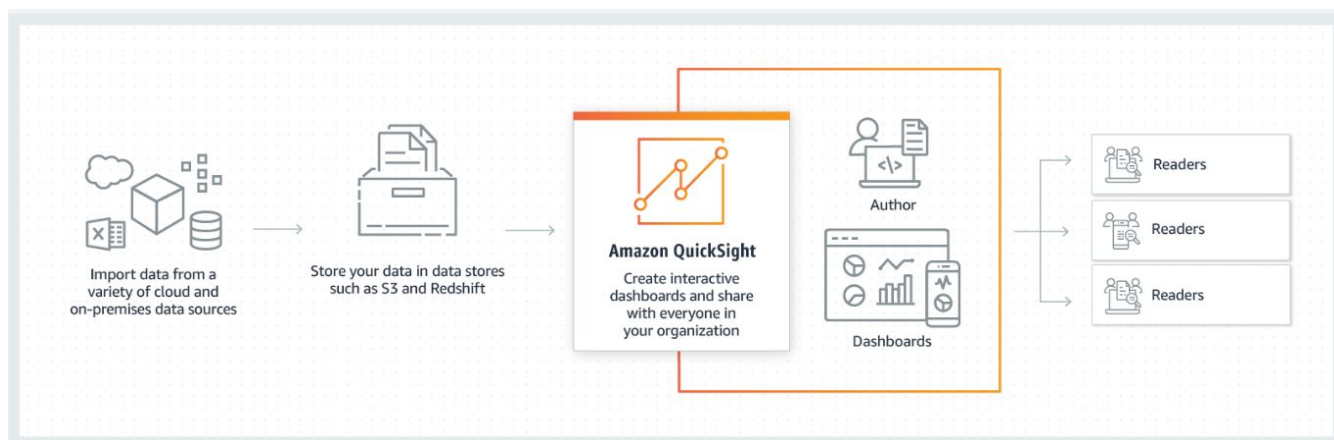
At nClouds, we focus relentlessly on making our clients successful. With Amazon QuickSight, we can quickly gain insights into the productivity and performance of our teams to support our clients' success.”

— **JT Giri,**
Co-Founder & CEO, nClouds

nClouds wanted to enhance productivity by automating analysis and reporting of project management data. They also wanted to seamlessly transform and analyze this data to gain actionable insights into the attainment of project performance goals and quarterly AWS certification targets.

nClouds decided to implement Amazon QuickSight, a fully managed service to create and publish proactive, interactive dashboards to analyze and visualize their data. Dashboards can be accessed from any device and embedded into applications, portals, and websites.

See this high-level overview of how it works:



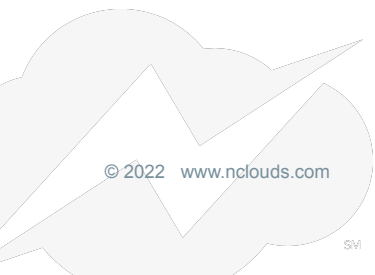
Source: Amazon Web Services, Inc. Amazon QuickSight. [online] Available at: <https://aws.amazon.com/quicksight/>

nClouds leveraged several Amazon Web Services:

- **Amazon API Gateway** - Makes it easy for nClouds' developers to create, publish, maintain, monitor, and secure APIs at any scale.
- **Amazon Aurora Serverless** - An on-demand, auto-scaling configuration for Amazon Aurora (MySQL-compatible edition), where the database will automatically start up, shut down, and scale capacity up or down based on your application's needs. It enables nClouds to run their database in the cloud without managing any database instances.
- **Amazon DynamoDB** - A key-value and document database that delivers single-digit millisecond performance at any scale.
- **Amazon QuickSight** - A fully managed, serverless cloud business intelligence service. It enables nClouds to easily create and publish interactive dashboards that include actionable insights. Dashboards can then be accessed from any device and embedded into nClouds' applications, portals, and websites.
- **Amazon Virtual Private Cloud (Amazon VPC)** - Enables nClouds to provision a logically isolated section of the AWS Cloud where they can launch AWS resources in a virtual network that they define.
- **AWS Lambda** - Enables nClouds to run code without provisioning or managing servers.

nClouds' solution stack also includes additional, essential third-party tools and services:

- **Airtable** - A tool to create a database with a spreadsheet-like interface. Its API can be used to connect to other web services by which information can be exchanged between external web applications and Airtable.
- **Slack project management app** - Enables nClouds' project managers to update project information by using Slack.



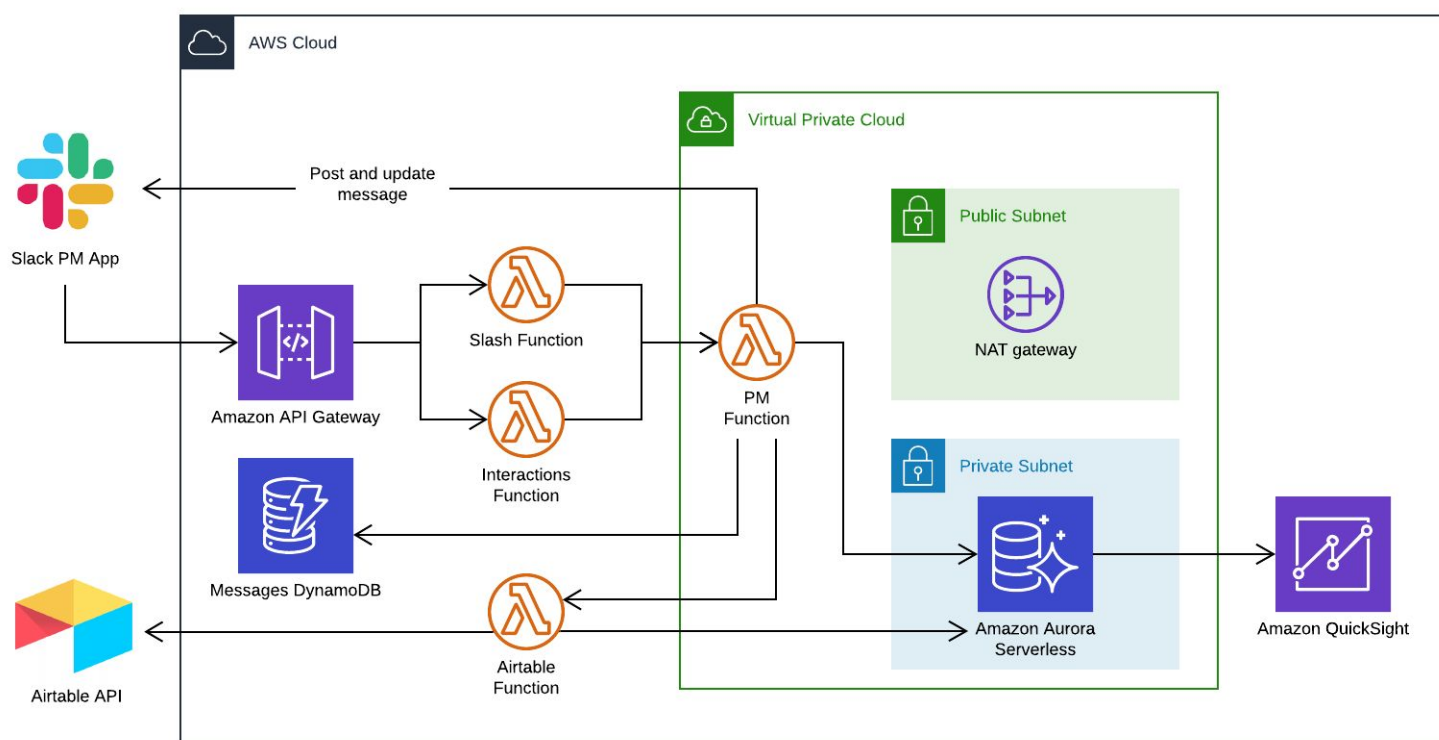
nClouds' Solution Architecture:

nClouds wanted to continue to use Airtable to input project management data (as they liked its ease of use) and connect it to Amazon QuickSight to perform the analysis and generate automated reports. They used an AWS Lambda function and the Airtable API to synchronize the Airtable data with the Aurora Serverless database. Amazon Aurora Serverless has native integration with Amazon QuickSight.

nClouds built a Slack application using AWS Lambda and Amazon DynamoDB, to enable their project managers to update project information by using Slack. Slack data flows to an Amazon API Gateway and from there to Amazon Aurora Serverless. The AWS Lambda Project Management function also sends the Slack data to serverless DynamoDB to store and manage that stateful data.

Within the AWS Cloud is an Amazon Virtual Private Cloud (Amazon VPC). Residing in the Amazon VPC are the AWS Lambda Project Management function, a Public Subnet, and a Private Subnet. Amazon Aurora Serverless is in the Private Subnet to enhance security. A network address translation (NAT) gateway managed service within the Public Subnet enables instances in the Private Subnet to connect with the Airtable API and Slack Project Management App that are located outside of the AWS Cloud.

High-level architecture diagram:



Below are illustrations of our process to generate QuickSight dashboards:

- Our first step is to set our certification targets by type of certification and calendar quarter it is to be met.
- We enter the results at the end of the quarter.
- Amazon QuickSight confirms the targets set and results achieved.
- QuickSight produces a dashboard that visualizes our results against those targets.

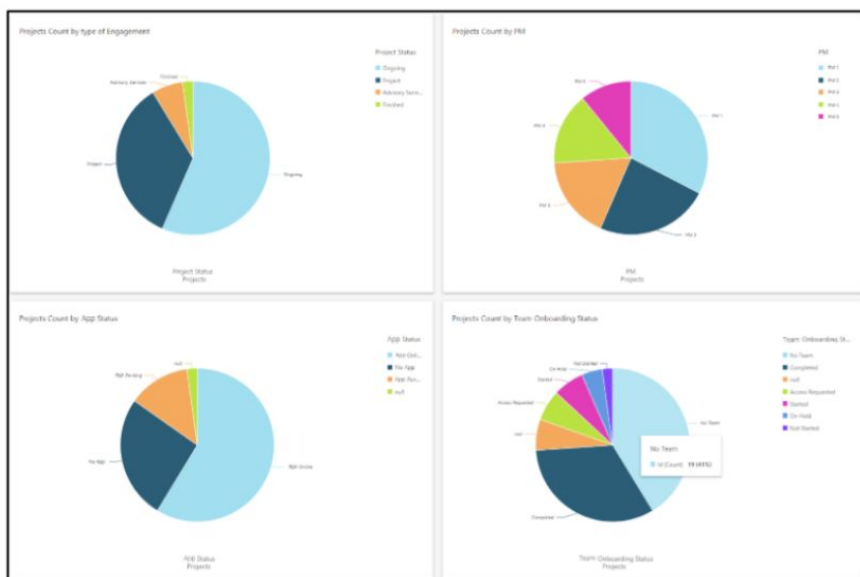
Here we have one of our managers interacting with Slack to set one of our quarterly metrics.

Once the calendar quarter is completed, we enter our results against the targets.

Then Amazon QuickSight confirms the targets set and results achieved.

Our seamless integration with Amazon QuickSight allows for instant tracking in three visualizations against the metric for all certifications logged.

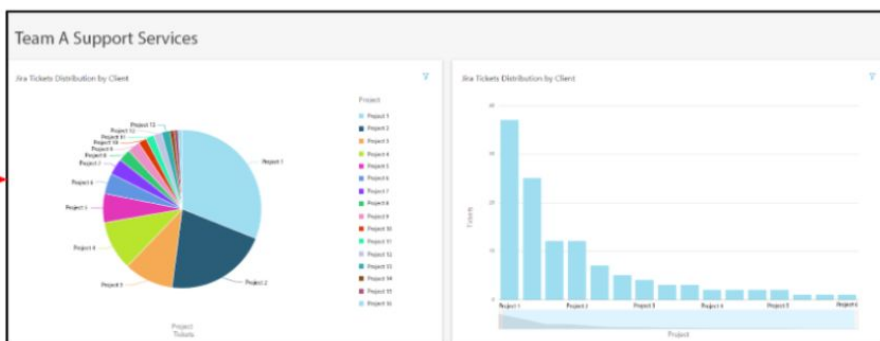
Here are examples of the visualizations that nClouds created using Amazon QuickSight:



In this Amazon QuickSight visualization, we see:

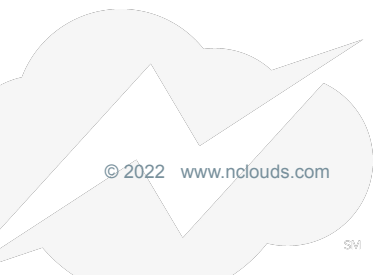
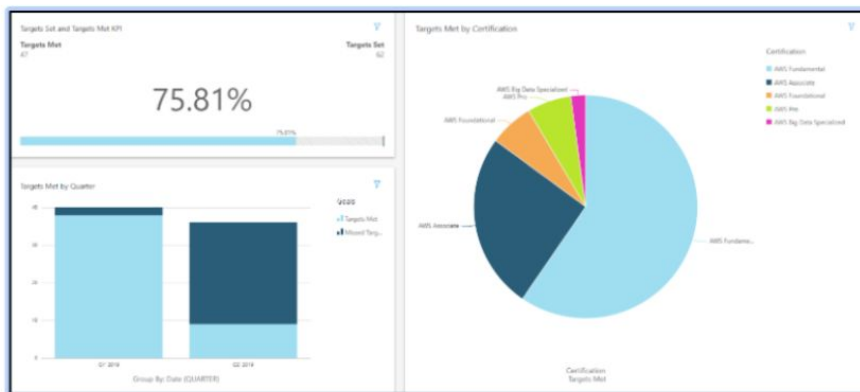
- Types of projects based on type of client engagement.
- How many projects each project manager is handling.
- Projects by application status.
- Team onboarding status for a project lined up in the pipeline.

This Amazon QuickSight visualization shows the distribution of Jira tickets for a team's projects



In this Amazon QuickSight visualization of a team's attainment of AWS certification targets, we see:

- Certification targets set and met to date.
- Certification targets set and met per quarter.
- Targets met by type of certification.



The Benefits



Enhanced productivity.

Using QuickSight, nClouds' project managers can be more productive as they no longer need to spend time manually investigating and analyzing data to create reports for senior management.



Actionable insights.

nClouds gains actionable insights on the performance of their teams instantly and effortlessly. QuickSight's interactive dashboard visualizations reveal trends and key business drivers.



Pay-per-session pricing.

nClouds now has access to rich, interactive dashboards on a pay-per-session basis with no upfront costs or complex capacity planning.

About nClouds

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