

# Modern Data Architecture to Enable Trusted Insights



## Executive Summary

National Guardian Life Insurance Company (NGL) is an insurance company that markets preneed and individual life and annuities, as well as group markets products. Inspire11 and NGL initially engaged on a data digital strategy assessment that identified multiple opportunities to improve their processes and add value but found that the identified initiatives hinged on building a foundation for data management.

After assessing several cloud providers, NGL chose AWS to implement their new Modern Data Architecture (MDA). The MDA solution provides a single source of truth for all reporting, addresses their business needs, instills stakeholder trust in the data, saves users from doing countless hours of manual work, and will enable future initiatives to find new revenue streams and optimize operations.

## Customer Challenge

Given the siloed nature of the current data environment, NGL technologists spent a lot of effort developing and maintaining reports. To drive meaningful insights, NGL needed to evolve from the manual, ad hoc nature of reporting to something that was less time consuming to maintain. In addition to complicated infrastructure, NGL hosted many of their reports in Excel, creating an unstable foundation to build out enhanced analytics in the future.

Continuing to use a segregated data structure across multiple environments would prevent NGL from creating the data-driven culture they aspire to achieve. By centralizing their data, NGL would be able to leverage a single source of truth for reporting, reduce the time spent accessing data, and enhance overall data governance. To alleviate the challenges of the current environment, NGL sought to identify the right cloud platform to host and unify their data.

## Why AWS

Using AWS as its cloud platform will allow NGL to create a modern data architecture that addresses all their business needs. NGL selected AWS because of its broad and mature range of service offerings, its large ecosystem of vendors and partners, and competitive pricing. AWS also has clear advantages in storage, security, and streaming compared to its competitors. Leveraging the various storage options available allows NGL to maintain compute efficiencies and optimize pricing.

NGL will leverage AWS Redshift to run efficient queries with its columnar storage and enhance its data refresh frequency with its mature streaming architecture. The access to data and agility for new data introduction will also drastically improve with the cloud data warehouse from AWS Redshift. Further, the Kinesis platform allows for seamless streaming of data from multiple sources, which is an advantage using AWS.

## About National Guardian Life Insurance Company



Established in 1909 National Guardian Life Insurance Company (NGL) is an insurance company headquartered in Madison, Wis. Licensed to do business in 49 states and the District of Columbia, NGL markets preneed and individual life and annuities, as well as group markets products.

Information about NGL can be found at [www.nglic.com](http://www.nglic.com);

LinkedIn: <https://www.linkedin.com/company/national-guardian-life-insurance-company>.

## Why Inspire11

Inspire11 has deep and multi-dimensional expertise and a proven track record of helping clients identify transformational opportunities. Throughout a strategic assessment we identified many opportunities within NGL's distribution channels to drive revenue, improve operational inefficiencies, and subsequently cut costs. These initiatives hinged on proper data management and getting this data into the cloud was the first step in enabling their digital capabilities.

In addition to Inspire11's extensive experience designing and implementing modern cloud data architecture designs for other partners, NGL opted to continue to partner with Inspire11 through the implementation of their modern cloud data architecture because of our knowledge gained and trust built during the digital strategy assessment.

## The Solution

Inspire11 mapped the current state of NGL's data environment, highlighting the ways that the three sources of data were causing a large volume of manual work as users attempted to build reports with a blend of all three. With this context, we proposed a future state data architecture. Our proposal included three layers: a Staging and Data Lake layer, an ODS and Sandbox layer, and an EDW layer.

Ultimately, we recommended AWS as the platform's strengths best aligned with the customer's needs. The AWS implementation leveraged four accounts, an AWS networking account and three workflow sub accounts, Dev, QA, and Prod. From the client's on-prem environment, data flows through the AWS networking account, through a Palo Alto network firewall, into the workflow sub accounts.

Data is directed into an S3 bucket that is used as a data lake. A Qlik Compose tool that is hosted on a VRM cluster is used to design the warehouse. From there, the data is ready to be loaded into AWS Glue and is transformed and cleaned using Python Spark jobs. The data finally lands in a Redshift cluster where an additional set of transformations occur before the data is ready to be consumed.

Built into the MDA environment is a set of robust data operations capabilities such as versioning, pull request, and tracked changes that bring the best pieces of DevOps to the data world. A CI/CD pipeline enables teams to develop in the cloud as well as audit their processes. NGL now has visibility into their development ETL process that did not exist prior to our work.

## Results

NGL now has a single source of truth for all reporting. Data is available on a much timelier basis, and stakeholders can begin to make decisions based on reliable and trusted data. The improvements to NGL's data infrastructure save users from doing hours of manual work every time a report is needed. It will also enable a lot of future initiatives to find new revenue streams and optimize operations.

## About Inspire11

The 11 in our name is significant in that it represents going above and beyond expectations...in everything we do. Our focus is on the perfect alignment of our proven, talented consultants with your most strategic and innovative initiatives. We help our clients by altering the DNA of companies to break down barriers so that everything (and everyone) is integrated and works together beautifully.

