



Executive Summary

Te Whatu Ora and other vendors have been delivering a data platform product to collect all data across the New Zealand Health Sector. The NDP core platform will go live in 2024, with the first two data sets, Medicines Data Repository (MDR) and Cardiovascular Disease Risk Assessment (CVDRA)

The Te Whatu Ora Data team required deploying the NDP platform into the production AWS tenancy, reworking how to containerize certain applications, integrating Snowflake with the existing AWS tenancy, and uplifting the deployment mechanisms to achieve better “DevOps” outcomes.

Customer Challenges

The team was preparing for the NDP launch and was focused on ensuring that the people, the processes, and the technology were all in place and ready as NDP opened for business. There was a missing “DevOps” lead agency that could be the go-between for product teams, data teams, and AWS infrastructure. In additionally the deployment was slowing down the delivery cycles.

National Data Collection

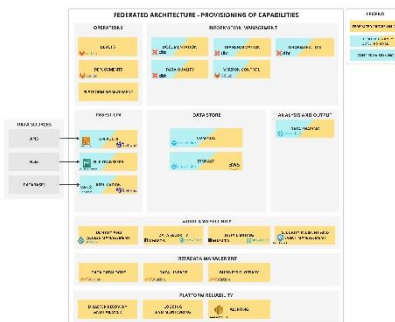
Te Whatu Ora have existing services and DHBs using AWS Cloud, the Data Platform was architected for Snowflake on AWS.

Koan have been working with Te Whatu Ora people and AWS tenancy since July 2023, and were able to join with Te Whatu to both back fill in certain cases, and streamline the delivery of the platform.

Koan have been working with the National Data Platform team who are started the build phase in Te Whatu’s new AWS tenant beginning 2024, initially establishing the foundation to deploy the services into the uplifted AWS tenancy such as AWS accounts, and ended up leading the DevOps delivering both containerized applications and increased deployment times.

Connecting the Regions

Following this we have been addressing networking connectivity with regions including systems and DBH regions systems, both on-prem and in the cloud starting with Canterbury, including on-prem, and then rolled out to the regions to enable go-live and data collection.



Te Whatu Ora
Health New Zealand

Te Whatu Ora Health New Zealand is the a public health agency managing all health services, including hospital and specialist services, and primary and community care. Hospital and specialist services nationally.

The National Data Platform (NDP) project aims to connect the health system’s multiple data environments into one common national platform for data management.

Solution

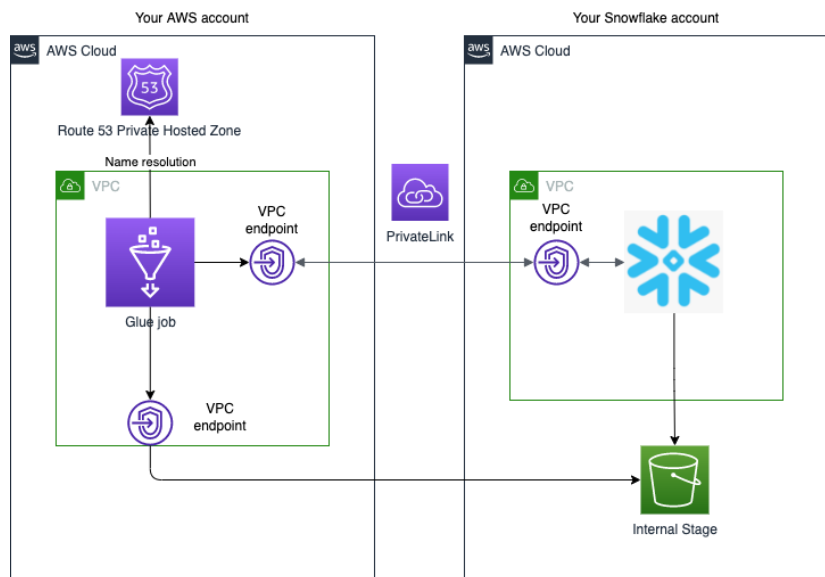
Koan Delivered foundational elements to AWS tenancy, including, RBAC, Security guardrails, logging into SIEM, networking and general guidance.

Koan worked with product teams to setup NDP infrastructure, AWS Networking, VPC, security groups, DNS, SES, IAM, KMS on AWS and GitLab for deployment pipelines. There were cases where changes were required within the TWO tenancy to support NDP, included changing the networking with Terraform code, with regard to ingress limits.

The scope of the engagement increasing during this time, with our engineers contributing to the product team in a “DevOps” capacity, including containerizing applications into ECS. This included identifying a tool used for deployment CloudFormation as not being fit for purpose that was slowing product team’s velocity, and therefore the project. A migration from CloudFormation to Terraform was delivered,

Architecture

Snowflake architecture, for AWS deployment, including private connectivity to a within AWS account Snowflake instance:



Results and Benefits

Koan technical lead took a role in mentoring other vendor teams and internal TWO people, Architecture and design changes requiring change were updated. The DevOps process and toolset was migrated from CloudFormation to the organisation standard Terraform, *increasing team velocity and helped ensure delivery dates* were met.

Koan is a global cloud and software development consultancy based in Wellington, New Zealand. Koan has been building and deploying secure, compliant, enterprise applications for Global customers for 20 years. Koan is an AWS Advanced Tier Partner providing AWS Certified resources for DevSecOps AWS Migrations, Modernizations, Data / ML / AI.

