estrat

THIS WEST AUSTRALIAN MINING POWERHOUSE is the new force in the global iron ore mining industry. It has grown steadily and today is ranked within the ASX's Top 30 list. Shipping 170 million tonnes a year, our client is recognised worldwide for the quality of its product, its safety performance, strong culture and effective cost control.

VISION

An ambitious challenge was laid down to dramatically improve access to vast amounts of business-critical data to support growth plans, enhance safety and hone competitive advantage.

This required the accelerated implementation of an enterprise data lake and analytics platform leveraging best of breed digital technologies. The client looked to estrat as an agile technology partner with deep experience in building mining related Amazon Web Services (AWS) cloud solutions.

estrat worked with the customers' data analytics team to design an enterprise grade platform which would provide cutting edge data transformation, warehousing, analytics and visualisation services quickly and securely.

With AWS selected as the global platform provider, estrat was appointed as the implementation and managed services partner and quickly set about delivering, expanding and supporting the solution.

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> Today, and increasingly in the future, data is the greatest competitive asset in the mining industry. We knew we needed to move quickly to establish an integrated platform that would power critical business initiatives such as autonomous devices, IOT and data analytics for our client.
> "

STUART STAFFORD
CHIEF TECHNOLOGY OFFICER
ESTRAT

AWS Landing Zone provides platform for strategic real-time analytics capability

aws partner network

Advanced
Consulting
Partner

CONSULT   IMPLEMENT   MANAGE   CLOUD

TRACTION

Collaborating with the organisation's applications, infrastructure and security teams, estrat took care to fully understand their respective needs while driving with a sense of urgency to deliver functionality from the outset. The build of the AWS infrastructure and network elements was fast tracked so that user-facing components could be deployed to extract benefits from the new platform almost immediately.

The production environment was built according to the AWS Well Architected Framework with adherence to the client's strict data security standards. DevSecOps operating principles were applied to relevant aspects such as build automation, and extended as the support structures matured. Secure, high-performance connectivity was achieved using AWS' Direct Connect, Private Link and Route 53 services, as well as a highly-available Check Point solution.

AWS VPC and associated elements such as IAM, EC2, S3 and ELB underpin the hosting platform. Matillion (ETL), Snowflake (data warehouse), Tableau (analytics and visualisation) and SageMaker (machine learning) components completed the design envisioned by the data analytics team.

Ongoing curation and support of the infrastructure is provided by estrat via its managed services team. While monitoring the health and performance of the platform is the 'ticket to play', the continuous optimisation of resources provides strategic value by ensuring that the solution delivers consistently and cost effectively.
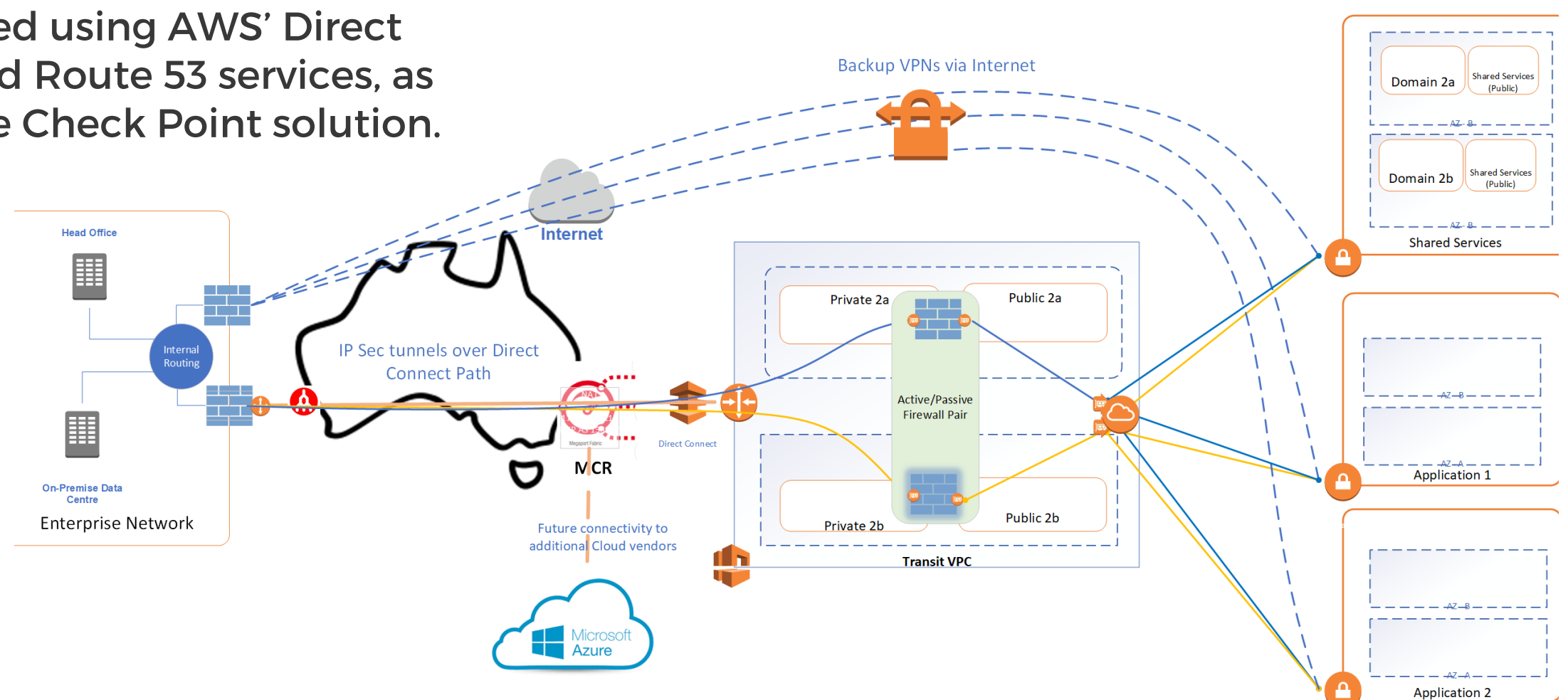
RESULTS

With over 100 people already accessing the platform, there is a growing number of use-cases and applications being injected constantly. The analytics platform has quickly become a strategic asset to the organisation and is now being used on every site to improve work management performance.

A key objective of the analytics platform is to allow the customer to easily scale the solution to test and deploy new use-cases, data feeds and technologies. This capability has been proven many times with the rapid addition of services such as SageMaker and Dynatrace.

Having delivered the 'Day 1' solution, the project continues to evolve to meet the client's ambitious goals. Insights currently delivered by the platform are just the first step in empowering a deeper awareness of the true potential that will be realised as the capabilities of the platform are fully discovered.

Powering new insights from disparate IT and OT data sources for hundreds of users