

## Client:

Green Shield Canada (GSC), a distinguished not-for-profit benefits carrier, is committed to providing comprehensive healthcare coverage, including drug, dental, extended health care, vision, hospital, and travel benefits for groups and individuals. Additionally, GSC offers administration services to ensure seamless delivery of healthcare benefits.



## Enabling Technologies:



Amazon API Gateway



AWS Glue &



Amazon Athena



AWS SFTP



AWS Lake Formation



PowerBI Desktop



Amazon S3



AWS Security Hub



AWS CloudWatch



AWS CloudTrail



AWS Well-Architected Framework



AWS Organizations



AWS Config



AWS Key Management Service (KMS)



Amazon GuardDuty



## Business /Objectives:



GSC faced challenges in efficiently managing and analyzing a diverse range of healthcare data to enhance benefits administration and optimize healthcare delivery. The objectives encompassed streamlining data processing workflows, ensuring data integrity and accessibility, deriving actionable insights, and maintaining robust security and governance practices.

## Solutions Delivered:



In collaboration with GSC, Bourntec engineered a holistic solution leveraging GSC AWS MLOps and a suite of AWS services tailored to GSC's unique requirements:

1. Leveraging Amazon API Gateway, AWS SFTP, and Amazon S3, we orchestrated a streamlined process for securely transferring raw data from diverse sources, including benefits administration records, claims data, and member information, into the cloud environment.
2. Utilizing AWS Glue and AWS Glue DataBrew, we automated data cataloging and ETL processes, ensuring data integrity, cleanliness, and organization without the need for extensive manual intervention or coding.
3. Employing ETL processes orchestrated by AWS Glue and utilizing AWS Lake Formation for secure data lake management, we transformed raw data into a structured format suitable for analysis, ensuring compliance with regulatory standards and governance requirements.
4. Establishing the "Curated zone" within Amazon S3, we created a centralized repository for processed and refined data, facilitating easy access and retrieval for downstream analysis and application.
5. Leveraging Amazon Athena for quick data analysis and retrieval, and PowerBI Desktop for intuitive visualization and reporting, we empowered GSC stakeholders with actionable insights to drive informed decision-making and optimize benefits administration processes.
6. Using AWS CloudWatch, we have provided real-time monitoring and observability of GSC's AWS resources and applications, enabling proactive management of system performance and health.
7. From AWS CloudTrail, we have delivered a comprehensive audit trail of GSC's AWS account activity, facilitating compliance management and security incident investigation.
8. Leveraging AWS Well-Architected Framework and AWS Organizations, we provided organizational and architectural best practices guidance, enabling GSC to design, implement, and maintain a secure and well-architected AWS environment.
9. Through AWS Config, we have enabled continuous monitoring and assessment of GSC's AWS resource configurations, ensuring adherence to security and compliance standards while providing actionable insights for governance and risk management.
10. Using AWS Key Management Service (KMS), Amazon GuardDuty, and AWS Security Hub, we collectively ensured secure encryption of data at rest and in transit, as well as intelligent threat detection and continuous monitoring for suspicious activities and security threats across GSC's AWS environment.

**Results:**

The implementation of this comprehensive solution has yielded significant results, including enhanced data agility, strengthened security and governance, improved operational efficiency, and actionable insights, positioning GSC as a leader in leveraging data-driven insights to optimize benefits administration and enhance the overall healthcare experience for its members and clients.