YASH
Technologies

More than what you think.

Case Study

30% improvement in operational efficiency, speed of execution, and reduced manual effort with DataOps on AWS

About the Client

Compass Group plc is a British multinational contract foodservice company headquartered in Chertsey, England. It is the largest contract foodservice company in the world employing over 500,000 people. It serves meals in locations including offices and factories, schools, universities, hospitals, major sports and cultural venues, mining camps, correctional facilities and offshore oil platforms.

Engagement Snapshot

Headquarters: England, UK

Industry: Food Service

Project Type: DevOps on Amazon Web Services (AWS)

Engagement Model: Offshore

Key Technologies: AWS Cloud, Microsoft Power BI, Snowflake, Oracle Databases, MS SQL Server, API, Azure Boards

aws
PARTNER

- Immersion Day
- Public Sector
- Solution Provider
- Amazon EMR Delivery
- Amazon Kinesis Delivery
- SAP Services Competency
- Amazon Redshift Delivery
- Well-Architected Partner Program

Business Need

Compass Group was working on standardization of their data strategy globally and to consolidate their current data platforms. As a part of this initiative, they were looking for an experienced technology partner who could:

- Build a DataOps strategy to support their data platform consolidation process
- Automate different stages of data platform on AWS cloud
- Create & implement AWS best practices for different services used as part of the solution
- Design and implement IAM, security & governance best practices for the current data platform
- Setup a highly scalable and reliable solution using DataOps practices
- Optimize the time-to-value on data & simultaneously empower stakeholders with inputs to bring business proficiency

Problem Statement

The Compass team was performing infrastructure provisioning which required 3-4 days of manual effort for different AWS services. In addition to this, they were actively looking to standardize and streamline the data platform processes along with data pipelines which took approximately 10-12 days to operationalize. Furthermore, the transition to agile practices and efficient management of data pipeline releases was a hindrance. To overcome these difficulties, the client was seeking the assistance of a vendor who could automate various stages of the data platform and implement a dependable solution.

Solution

The Compass group wanted a data platform standardization process that would include AWS cloud best practices, automation, security, and governance (monitoring & operations) as its foundational pillars.
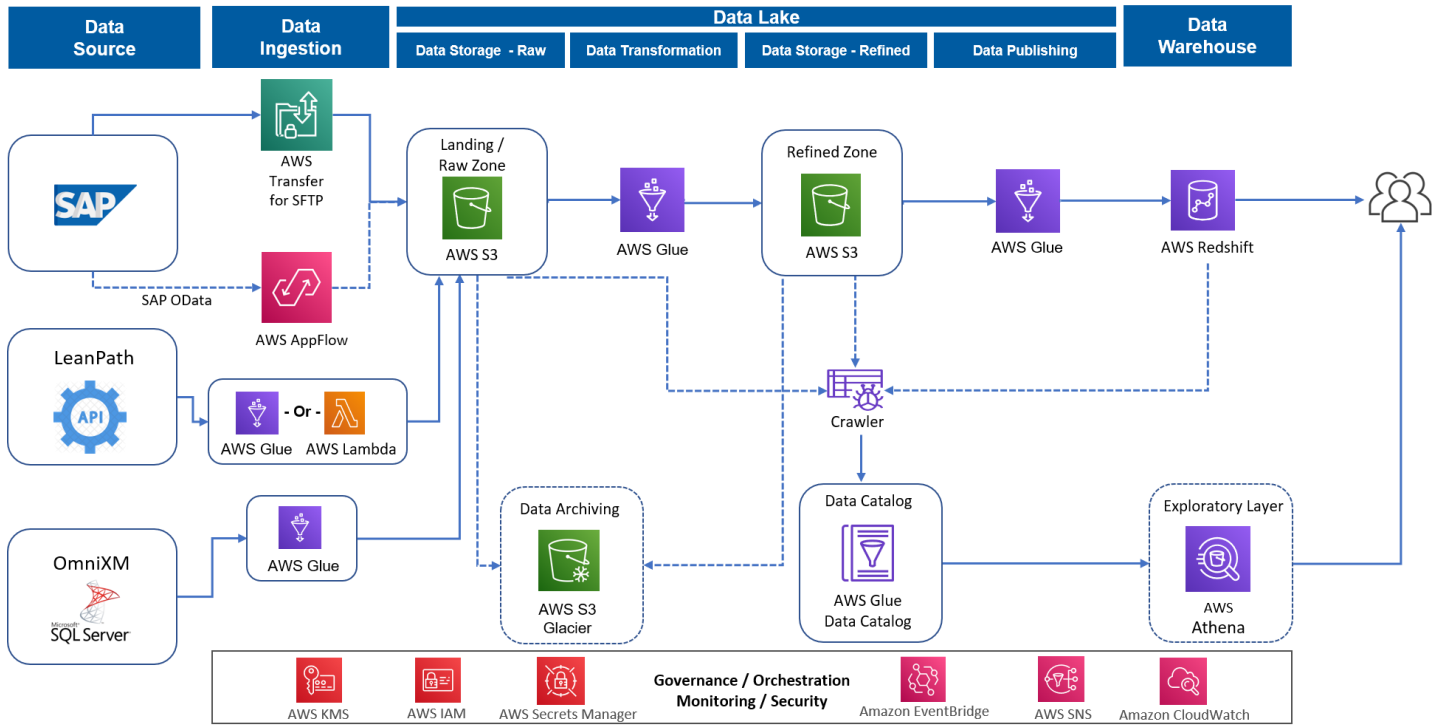
YASH Technologies, an AWS Advanced Consulting Partner and proficient in the implementation of DataOps practices in a cloud environment, was assigned to efficiently deliver this task.

We recommended an automated DevOps/ DataOps framework that can transport the live operations data from various data sources (SAP, different DBs) to the AWS Cloud, process it, and deliver precise insights for the stakeholders on the client's side at high velocity.
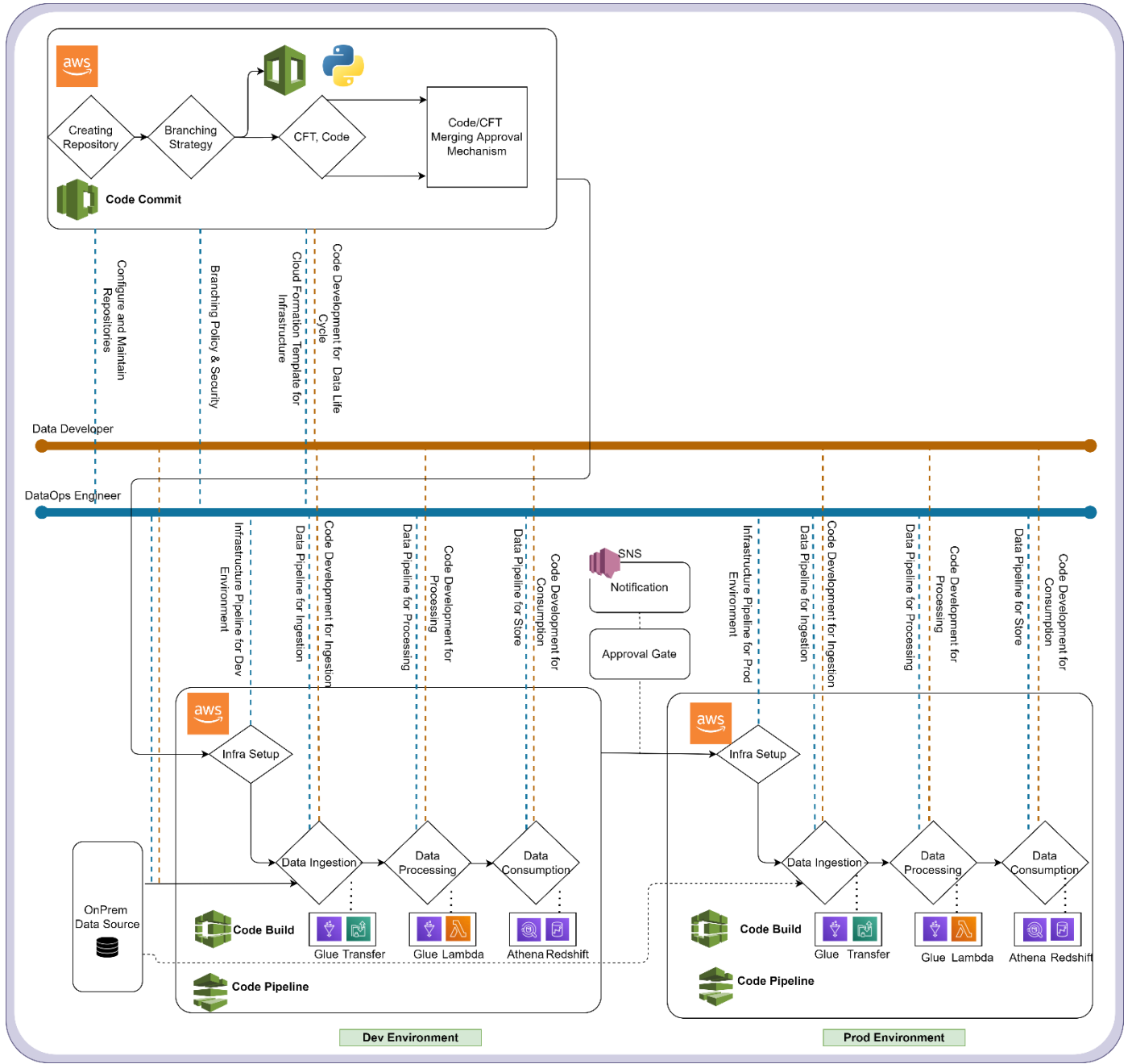
Based on a hybrid model, the project delivery committed offshore and onshore resources to facilitate a seamless and accelerated execution. As part of the engagement, our solution, and recommended actions in key process areas included:

- Automation of complex systems and processes that can collect live operations data from various data sources across the globe and transport them to the AWS environment
- Customization of infrastructure resources like AWS Glue, S3 buckets, Athena, Lambda functions, RedShift, and integration with Power BI in the AWS cloud that can ingest, store, curate and visualize the data in real-time
- Infrastructure as Code (IaC) advantage to the client's AWS- hosted resources through CFT, CodePipeline, and CodeCommit to make single-click deployments feasible without any manual intervention.
- Building python code for transforming data using Lambda function, CodeBuild, and deploying code through CodePipeline in different environments
- Enabling a visibility layer on top of the Athena workspace using Microsoft Power BI Analysis services (integrated with AWS cloud in a secure manner) to create customized dashboards
- Continuous monitoring for the AWS-hosted infrastructure resources and across the data pipelines to pre-empt unplanned downtimes and errors
- Deployment of DevOps/DataOps maturity framework to consistently assess the integrity and success of the data platform automation across the different sites
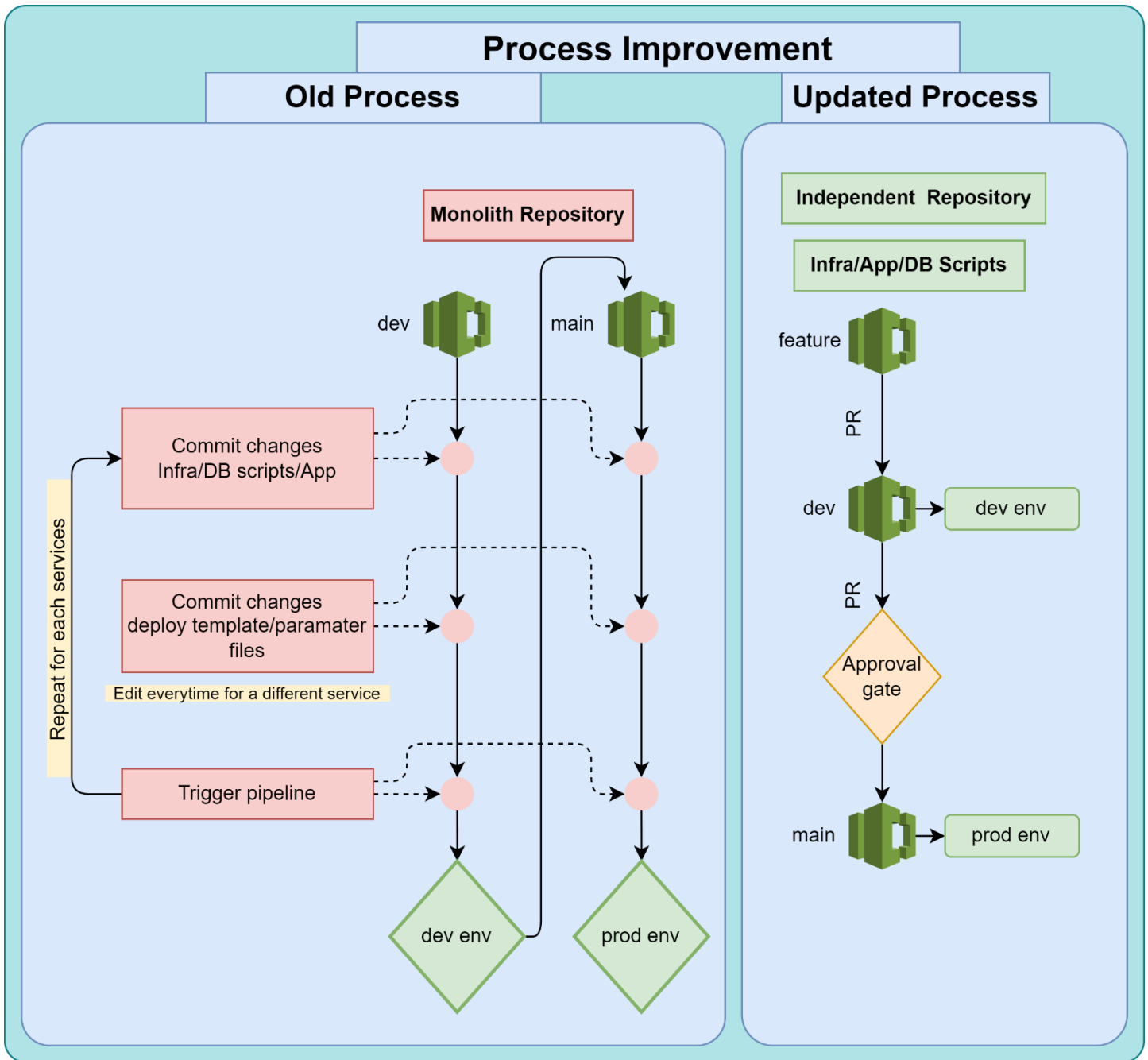
Solution Architecture

Data Source	Data Ingestion	Data Lake				Data Warehouse
		Data Storage - Raw	Data Transformation	Data Storage - Refined	Data Publishing	

SAP

AWS Transfer for SFTP

SAP OData

AWS AppFlow

Landing / Raw Zone — AWS S3

AWS Glue

Refined Zone — AWS S3

AWS Glue

AWS Redshift

LeanPath API

AWS Glue - Or - **AWS Lambda**

Crawler

OmniXM — Microsoft SQL Server

AWS Glue

Data Archiving — AWS S3 Glacier

Data Catalog — AWS Glue Data Catalog

Exploratory Layer — AWS Athena

Governance / Orchestration Monitoring / Security

AWS KMS	AWS IAM	AWS Secrets Manager	Amazon EventBridge	AWS SNS	Amazon CloudWatch

Process Improvement Metrics

With monolith repository and manual release cycles, the process took 12 hours initially. The updated release process has now been optimized to 30%. All the manual activities have been automated by implementation of efficient release lifecycles which lead to a 15% improvement of application team's time and helped them focus on core development areas.

Process Improvement

Old Process

Updated Process

Monolith Repository

dev

main

Commit changes
Infra/DB scripts/App

Repeat for each services

Commit changes
deploy template/paramater files

Edit everytime for a different service

Trigger pipeline

dev env

prod env

Independent Repository

Infra/App/DB Scripts

feature

PR

dev → dev env

PR

Approval gate

main → prod env

Business Benefits

- 15% optimization of time-to-value on live operations data
- Up to 30% improvement in operational efficiency, speed of execution, and reduced manual effort
- High scalability, availability, and cost optimization to the cloud-hosted data infrastructure

- An agile modular data platform automation framework that has enabled centralized process, easy maintenance, and reusability
- Focused training sessions and guideline documents to help align end-users with improved AWS expertise and hands-on experience

For more information and for your own personalized free assessment,

reach out to YASH today at **info@yash.com** or visit **www.yash.com**

About YASH Technologies

YASH Technologies focuses on customer success. As a leading technology services and outsourcing partner for large and fast growing global customers, the company leverages technology and flexible business models to drive innovation and value throughout its customer's enterprise. YASH customer centric engagement and delivery framework integrates specialized domain and consulting capabilities with proprietary methodologies and solution offerings to provision application, infrastructure and end user focused Right-Sourcing services. YASH is a SEI CMMI (Level 5) and an ISO 9001:2015 certified company with U.S. and India headquarters and regional sales and development offices globally with customers spread across 6 continents.

Global Presence

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