REALIZE THE VISION OF AUTONOMOUS OPERATIONS WITH INFOSYS DATA OPERATIONS WORKBENCH



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As enterprises embark on a digital transformation journey, data has become the lifeblood of enterprises and the cost of managing this data landscape can increase exponentially, if left unchecked. Hybrid landscapes, constantly changing architecture and technology, a plethora of tools and services, and evolving business demands complicate the governance and management of the data estate further. A DevOps model of execution combined with autonomous operations (extreme automation, LowOps, and FinOps), is the need of the hour to manage the constantly evolving data estate efficiently while lowering the costs of operations.

One of the primary challenges for large enterprises is monitoring heterogenous data technologies with varied governance levels. The need here is an integrated solution that offers a unified monitoring view of the entire data operations and the data platform.

- Understand data and resource utilization to drive optimization and decision rationalization.
- Enable LowOps by automating monitoring, failure point analysis and resolution to improve platform stability and availability
- Monitor cloud consumption costs to drive optimization and chargebacks



## Key challenges faced by enterprises include

- Runaway cloud costs due to suboptimal usage of cloud services
- Lack of a unified view of the entire data estate including those on premises and cloud to ensure stability and availability
- Lack of insights into enterpriselevel data and resource utilization to drive optimization and decision rationalization
- Lack of insights into the business impact of data pipeline failures and delays due to use of manual processes to manage data operations.
- A high degree of manual intervention in managing Data and Platform operations leading to an increase in the cost of operations

The Infosys Data Operations Workbench addresses the pain points of enterprises by offering:

- One integrated intelligent operations platform for all technologies
- A self-healing framework embedded into the platform that goes beyond monitoring and enables LowOps
- Cost monitoring, analytics and intelligent recommendations for cloud cost optimization enabling Cloud FinOps

# Key traits of the Infosys Data Operations Workbench:

A unified operations view for all platforms (on-premises and Cloud)	A holistic view of the data pipeline	Self-healing and ticket elimination through automation	End-to-end data usage diagnostics	Snowflake monitoring dashboard with run metrics and usage metrics	Snowflake cost monitoring dashboard with credit consumption metrics and ML-based sizing recommendations for potential cost savings						
Infosys Data Operations Workbench											

Provisioning	Diagnostics		Monitoring			Outcomes	
<ul> <li>Single UI to provision multiple platforms across different clouds</li> <li>Ready to use cloud formation templates</li> <li>Optimized configuration recommendation based on the workload</li> </ul>	<ul> <li>LOB and application level operational and usage metrics</li> <li>Identify unused data</li> <li>Identify Heavy users</li> <li>Resources usage trend</li> <li>Report consumption diagnostics</li> </ul>		<ul> <li>Monitor end to end platform health across data estate</li> <li>Data ingestion pipeline monitoring</li> <li>Core platform health monitoring across on prem and cloud</li> <li>Preventive alerts for all platforms</li> <li>Self healing framework</li> <li>Capacity forecasting and planning</li> </ul>		•	Unified operations view for all platforms (On-Prem & Cloud) Holistic view of Data Pipeline Cluster Usage Optimization and Cost Reduction	
Cost Ma • Cost Monito Business • Actual vs bu • Consumptio identification • Cost optimiz recommend • Charge back	Cost Management <ul> <li>Cost Monitoring by Line Of Business</li> <li>Actual vs budget tracking</li> <li>Consumption hotspot identification</li> <li>Cost optimization recommendations</li> <li>Charge backs</li> </ul>		Helpdesk   Provisioning requests portal Incidents Analysis Self Heal up Registration Integration to remedy/service now Ticket generation and analysis  ench is available on		· ·	Self healing and Ticket elimination End to End Data Usage Diagnostics Recommendations and Proactive Monitoring	

# Key Capabilities of Infosys Data Operations Workbench that would help in productivity Improvement and automated Operations



# Case study

#### Admin support for a leading Pharma and Life Sciences company in the US

#### **Business need**

Key requirements of Snowflake administrative aspects included:

- Monitoring internal and external user audit information and generating monthly reports
- Monitoring credit consumption by lines of business (LOB), user and queries
- Automation of the environment setup for Tableau Visualization, automation of the read access setup for vendors and automation to enable consumption of inbound data

# **Platform landscape**

- Snowflake on AWS with over 14 TB of data volume with 90 plus operational jobs, 3500 plus tables, 25 plus procedures, over 100 different file formats and 100 plus consumption reports
- More than one database with over 45 schemas and 25 plus procedures

# Solution approach

 Enabling alerts for platformlevel threshold values, job failure thresholds, Snowflake access management, and virtual warehouse creation

- Introducing automation to the process of environment cloning from PROD, for the Tableau Visualization team ensuring zero impact on existing objects
- Enabling diagnostic dashboards for platform usage at account level (PROD/PREPROD)
- Monitoring Snowflake ETL loads including any queuing/blocking workloads.
- Enabling deployment automation, cloning activities, and data refresh activities

### **Benefits delivered:**

 Reduction in application support cost and improved operating cost efficiencies

#### Automation of activities listed below.

- Schema creation and access setup for ETL, reporting, operations roles
- User onboarding/creation and providing access
- Access replication of one user with another if they provide reference of an existing user
- Tableau Visualization Team Sandbox Refresh activity (cloning) once a week automatically for 15 Schema objects
- User offboarding: individual schema and role will be removed in one step rather than removing each access manually
- Third-Party Administrator (TPA) Access setup for specific vendors roles which will grant and revoke access based on TPA validity (expiry date)





#### For more information, contact askus@infosys.com

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