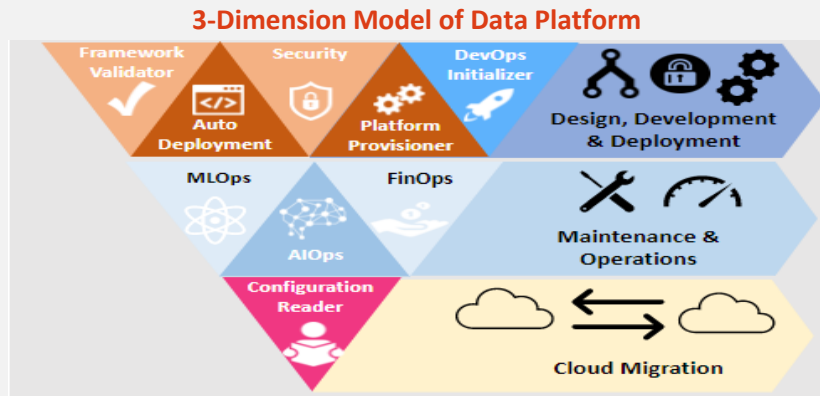


# TCS Azure AutoOps

Elevate your Azure data platform journey with seamless automation and intelligence

Many organizations are setting-up or migrating their on-premises data platforms to Azure Cloud. Keeping up with the fast-moving Data and AI trends is tedious and challenging for enterprises during this platform adoption journey. Setting up reliable, scalable modern connected data platforms involve challenges like manual configuration of the project's initial structure, data platform setup, security service configuration, data service deployment, and live monitoring, alerts and report generation.

TCS Microsoft Data and AI Unit is excited to announce the launch of Azure AutoOps, a Next Gen one-stop data platform automation and intelligence solution that takes a 360-degree perspective of the customer's data platform to help organizations accelerate their data platform journey.



## Three Dimensions of Data Platform

Azure AutoOps nine pillar address the three dimension of the customer data platform Journey for complete data SDLC through automation and intelligence. Each of the AutoOps pillars are plug-and-play and allow customers to choose one or more features to enhance and expedite their data platform experience.

### Design, Development & Deployment

- ❖ Provides completely automated DevOps Starter kit, spinning DevOps Projects, repos and branches resulting in minimal or zero manual work required to begin the data platform journey.
- ❖ Helps to quickly Provision customers end-to-end data platforms using customizable and configurable templates
- ❖ In built integration with 360-degree security for network infrastructure and data.
- ❖ Automating the validation of all deployed services through configurable test automation framework.
- ❖ Interactive user-friendly Devops and monitoring dashboard for data platform health.
- ❖ Helps with deployment via automated built-in pipelines(IaC, DataOps, DevOps)

### Maintenance & Operation

- ❖ Anomaly detection through active monitoring, alert ,report with self-resolution leveraging AIML Model, customize usage-based cost recommendation and optimization.
- ❖ In-built connectors for ITSM tools like Service Now, Remedy etc.
- ❖ User friendly interactive dashboard for live platform knowledge graph with live incident tracking.

### Cloud Migration

- ❖ Helps with data platform configuration.
- ❖ Migration from any available public cloud to azure cloud or replication of azure data platform from one division to another division within the organization, and scaling at enterprise level.

## Nine Pillars of TCS Azure AutoOps



**DevOps Initiator:** Provides completely automated DevOps Starter kit including auto configuration of DevOps Projects, development methodologies, repos, branches, permissions etc.



**Platform Provisioner :** Helps to provision customers' end-to-end data platforms through templated Terraform ARM PowerShell modules designed based on industry standard and Microsoft best practices



**Security:** Best in class inbuilt security configurations and modules to Enable infrastructure network and data security like data masking, encryption, auditing, and role-based access control.



**Framework Validator :** Out of box testing and validation suit to test the deployed azure data platform services using templated test data configuration, real time test evidence capturing and test results. In-built connectors for integration with test management tools like JIRA Zypher , rally and azure Devops CICD pipelines for continuous testing



**Auto Deployment :** it offers a Dedicated configurable YAML based CI/CD pipelines modules to automatically deploy infrastructure(IaC), data services(DataOps) and applications(DevOps). In-built change management and approval process integration options to integrate tools for unit testing, static code analysis, security scanning etc



**AI Ops :** Automated and Intelligent next gen monitoring , alerting and reporting features via user-friendly interactive dashboard. Predictive preventive and reactive incident reporting and self-resolution through AIML Models. Options to integrate automated day to day data platform health check, routine task and incident management tools like Service Now, Remedy etc.



**MLOps :** Helps in end-end training of AIML model, Packaging validation and deployment of the model. Hooks for monitoring, alerting, reporting AIML model health .



**FinOps :** Offers perspective model and best practices in cloud finance for resource consumption analysis, cost utilization reports for azure data services and Usage based recommendations and optimization choices for overall data platform expenditure.



**Configuration Reader:** Automated way to replicate or migrate existing data platform to azure data platform by configuring self-readable configuration models on source platform and replication of same to target azure data platform with scale .

# How TCS Azure AutoOps helps customers run their daily business operation through seamless automation and intelligence

## Challenges

- Having trouble transferring business architecture from paper to the cloud
- Investing a significant amount of time and effort to manually configuring and provisioning data platform
- Constantly concerned about the security of your data platform
- Manually validating the deployed service and replication of a data platform architecture to a new environment is a time-consuming process.
- Require real time monitoring, alerts and report generation to track and resolve incidents on data platform
- The rising expense of Azure Data Services is becoming a strain for the organization.

## TCS SOLUTION

TCS Azure AutoOps enables customers to strengthen their data platform through complete automation and intelligence, resulting in minimal or zero manual effort. It provides instant provisioning of data services and interfaces, data platform migration or replication from one environment to another, and change management process integration.

Validation of data services via automation, boosting the overall security of the data platform. Auto deployment using Azure Devops CICD and training of AIML Model. Proactive, preventive, and reactive monitoring, alerting and reporting with automated intelligent self-resolution and validation. Inbuilt integration connectors with incident management, Change management, Test Management tools like as ServiceNow, Remedy, Hornbill, JIRA, and many more, as well as usage-based recommendations and cost optimization options for the overall data platform expenditure.



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