

WSO2con2025

Streamlining the Developer's Workflow

(a.k.a Developer Love)



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Chief Developer Advocate



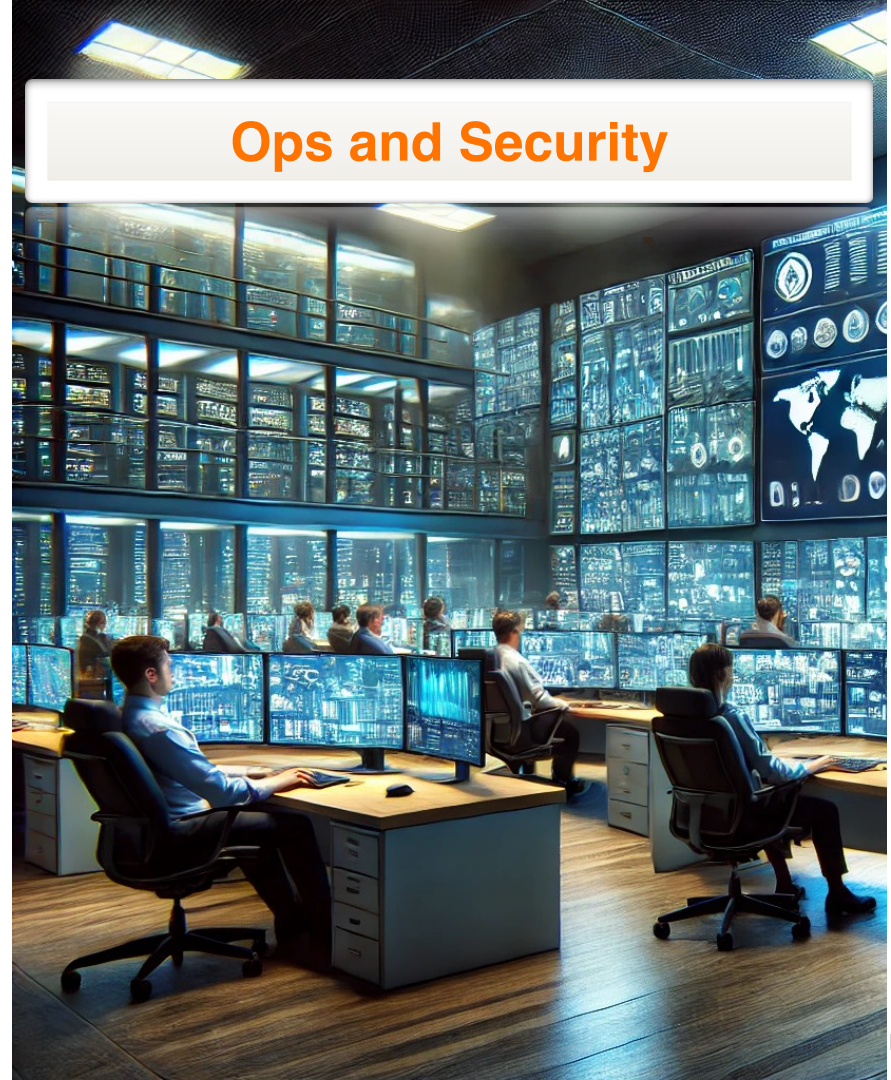


○ Coherency

○ Compliance

○ Management

Ops and Security



Developers



● Deliver Apps!

● Stay Focused

● Autonomy

Cloud Native Landscape

EXPLOREGUIDESTATS

Type / to search items

Filters

GROUP:Projects and productsMembersCertified partners and providersServerlessWasmCNAI

VIEW MODE:GridCard

ZOOM:-+

FILTERS APPLIED (reset all):

PROJECT: GRADUATED

PROJECT: INCUBATING

PROJECT: SANDBOX

App Definition and Development

Application Definition & Image BuildContinuous Integration & DeliveryStreaming & MessagingDatabase

dapr

CNCF GRADUATED

HELM

CNCF GRADUATED

ArtifactHUB

CNCF INCUBATING

Backstage

CNCF INCUBATING

Buildpacks.io

CNCF INCUBATING

KubeVela

CNCF INCUBATING

KubeVirt

CNCF INCUBATING

OPERATOR FRAMEWORK

CNCF INCUBATING

CAIRVEL

CNCF INCUBATING

Donfile.io

CNCF INCUBATING

CloudBees

CNCF INCUBATING

ho

CNCF INCUBATING

Flux

CNCF GRADUATED

Argo

CNCF GRADUATED

Keptn

CNCF INCUBATING

OpenKruise

CNCF INCUBATING

cloudevents

CNCF GRADUATED

NATS

CNCF INCUBATING

STRIKES

CNCF INCUBATING

STRIMZI

CNCF INCUBATING

TiKV

CNCF GRADUATED

Vitess

CNCF GRADUATED

Orchestration & Management

Scheduling & OrchestrationService ProxyAPI Gateway

KEDA

CNCF GRADUATED

kubernetes

CNCF GRADUATED

Crossplane

CNCF INCUBATING

KARMADA

CNCF INCUBATING

Knative

CNCF INCUBATING

Kubeflow

CNCF INCUBATING

VOLCANO

CNCF INCUBATING

wasmcloud

CNCF INCUBATING

ERASER

CNCF INCUBATING

Fluid

CNCF INCUBATING

mini

CNCF INCUBATING

z-lf

CNCF INCUBATING

istio

CNCF INCUBATING

Kubeless

CNCF INCUBATING

envoy

CNCF GRADUATED

CONTOUR

CNCF INCUBATING

BFE

CNCF INCUBATING

Envoy

CNCF INCUBATING

EMISSARY INGRESS

CNCF INCUBATING

Service Mesh

Coordination & Service DiscoveryRemote Procedure Call

Istio

CNCF GRADUATED

LINKERD

CNCF GRADUATED

etcd

CNCF GRADUATED

CoreDNS

CNCF GRADUATED

gRPC

CNCF INCUBATING

Runtime

Cloud Native StorageCloud Native NetworkContainer Runtime

CubeFS

CNCF GRADUATED

ROCK

CNCF GRADUATED

LONGHORN

CNCF INCUBATING

cilium

CNCF GRADUATED

CNI

CNCF INCUBATING

cri-o

CNCF GRADUATED

Provisioning

Security & ComplianceAutomation & ConfigurationContainer RegistryKey Management

Anchor

CNCF GRADUATED

Falco

CNCF GRADUATED

in-toto

CNCF GRADUATED

Open Policy Agent

CNCF GRADUATED

KEYCLOAK

CNCF INCUBATING

Kubescape

CNCF INCUBATING

Kyverno

CNCF INCUBATING

Harbor

CNCF GRADUATED

Dragonfly

CNCF INCUBATING

spiffe

CNCF GRADUATED

SPiRE

CNCF GRADUATED

Observability and Analysis

ObservabilityChaos EngineeringFeature FlaggingContinuous Optimization

fluentd

CNCF GRADUATED

Prometheus

CNCF GRADUATED

cortex

CNCF INCUBATING

OpenTelemetry

CNCF INCUBATING

Thanos

CNCF INCUBATING

Chaos Mesh

CNCF INCUBATING

Litmus

CNCF INCUBATING

Open Feature

CNCF INCUBATING

OpenCost

CNCF INCUBATING

“Cognitive Overload”



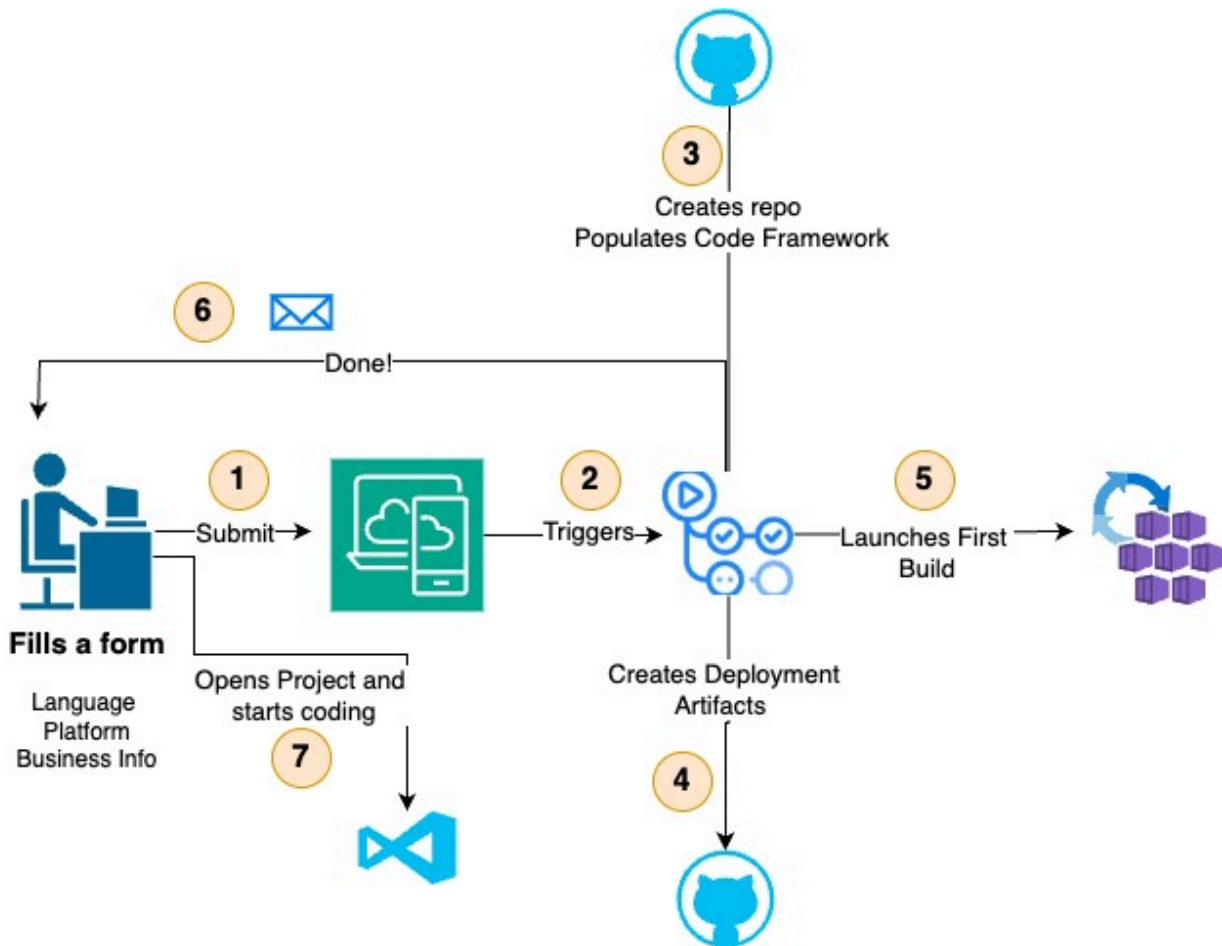


1 hour

A success story!

1. Platform used by 500 developers, coding in 4 languages.
2. Deployment pipelines includes security, quality and governance tools
3. Underlying infrastructure is automatically configured with security/network policies, reviewed and enhanced periodically

Developers only need to focus on coding.



Adopting API First

- Start from the API contract
- Discover **compliance** and **security** issues as **early** as possible
- Mocks** deployment
- Automated **Tests** Generation

Ruleset Adherence Summary

Ruleset	Status	Violations
OWASP Top 10	Failed	2 7 0
WSO2 REST API Design Guidelines	Failed	0 7 0
WSO2 API Management Guidelines	Failed	0 8 1

Rows per page: 5 1-3 of

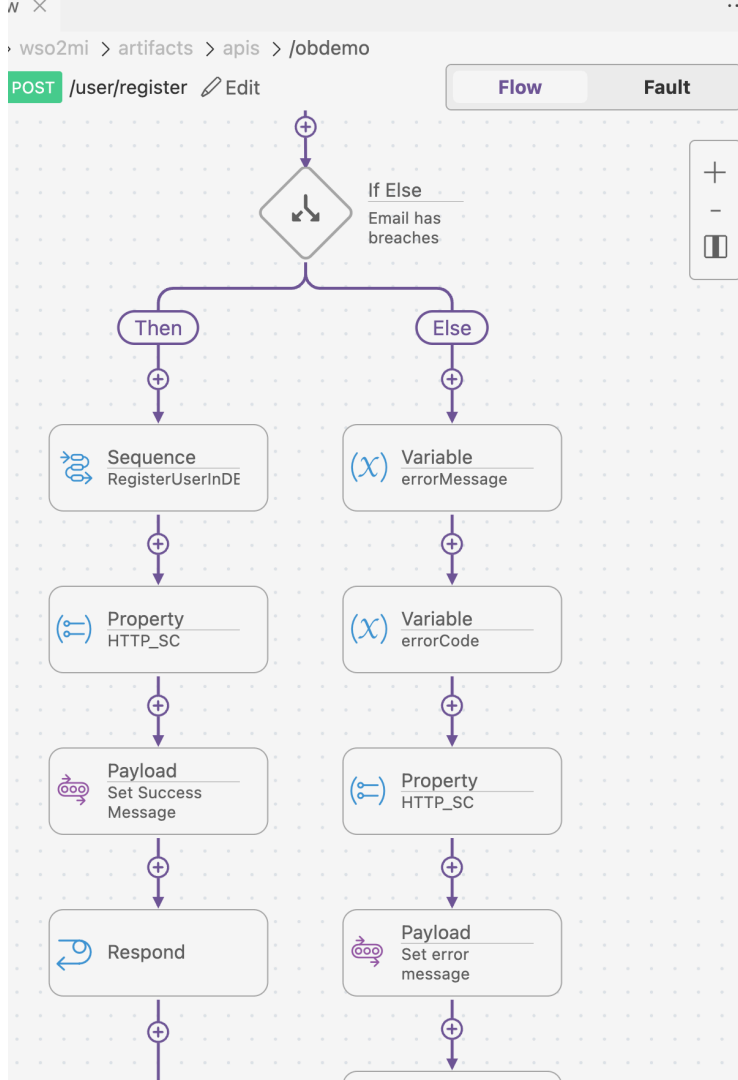
Policy Adherence Summary

Policy	Status	Rulesets
WSO2 API Management Best Practices	Violated	0/3 Followed
		OWASP Top 10
		WSO2 REST API Design Guidelines
		WSO2 API Management Guidelines



Development

- Tools are **integrated** inside developer's IDE
- Increase **productivity** with AI copilots.
- Enable **reuse** across the enterprise
- Code/deploy/test is as **frictionless** as possible



Remaining Free Usage: 97%
Resets in: 19 days

Clear Logout

> RegisterUserInDB

+ Add to Project

Explanation

- SQL Statement:** The SQL statement has been added to perform an insert operation into a hypothetical **USERS** table. You need to ensure that your database schema matches this SQL query.
- Parameter Expressions:** The parameters for the SQL statement now use the properties (`uri.var.email`, `uri.var.password`, `uri.var.fullname`, `uri.var.role`) that are set by the **ExtractPropertiesSequence**. This ensures that the values extracted from the JSON payload are correctly passed to the database insert operation.
- Property Scope:** The properties are accessed using `get-property('uri.var.property_name')`, which is the correct method to retrieve properties set in the default scope.

This modification aligns the **RegisterUserInDB** sequence with the properties extracted by the **ExtractPropertiesSequence**, allowing for dynamic data handling based on the input JSON payload. Make sure to invoke the **ExtractPropertiesSequence** before this sequence in your flow to ensure the properties are set before the database operation is attempted.

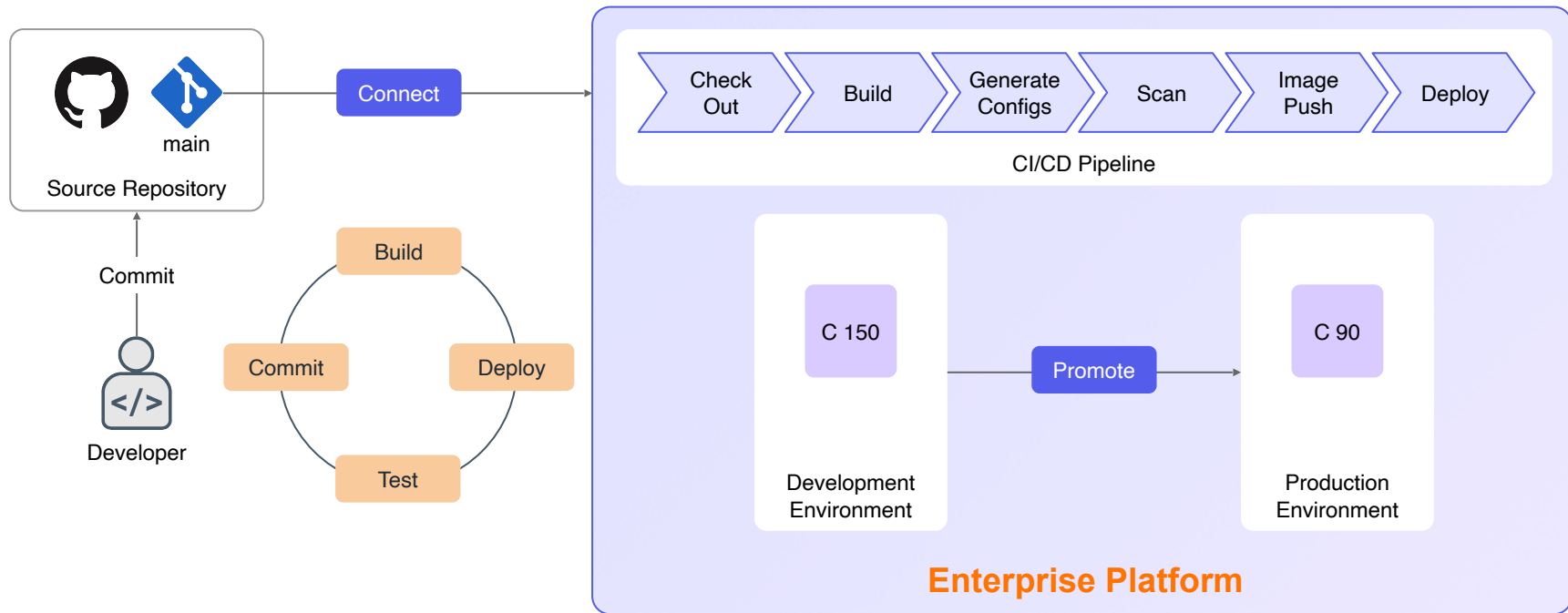
Can you help me add a new feature to the UserRegistration API to send a confirmation email to the user after successful registration?



Type a command



GitOps: Declarative | Immutable | Automatic | Continuous



GitOps in practice

“Platform as an API”

- Developer focuses on describing application in Git
- Uses CLI to deploy
- Code and dependencies are deployed automatically.

! reading-list-service.yaml X

deploying-applications > build-from-source > reading-list-service > ! reading-list-service.yaml > ...

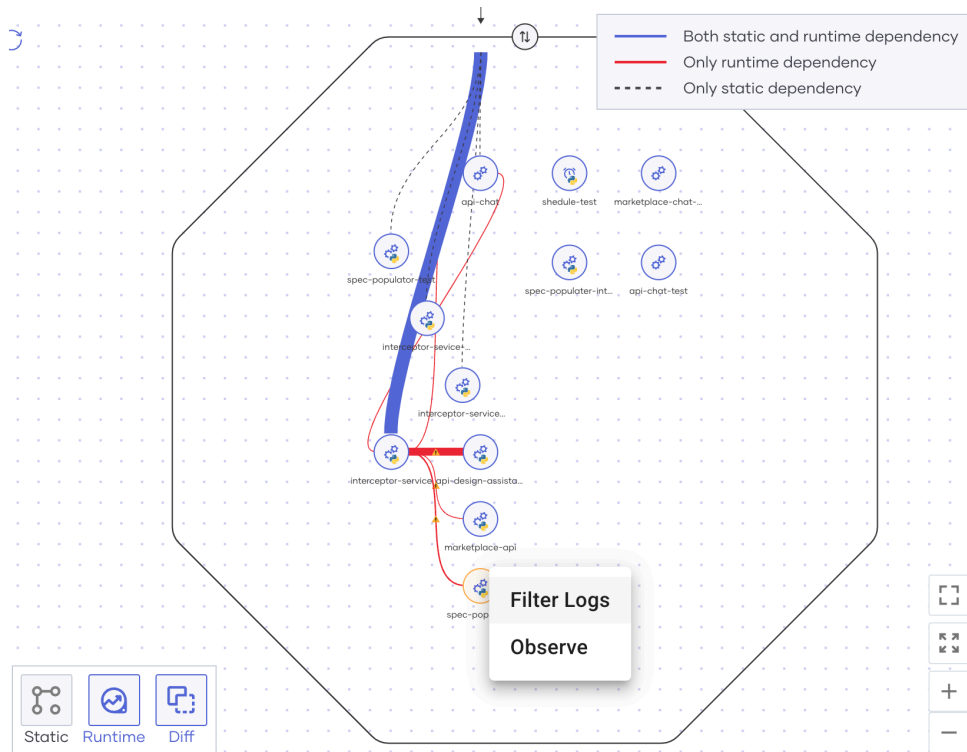
```
45  ## Sample Build kind (Namespaced)
46  apiVersion: core.choreo.dev/v1
47  kind: Build
48  metadata:
49    name: reading-list-service-build-01
50    namespace: default-org
51    annotations:
52      core.choreo.dev/display-name: Build for Reading List Service
53      core.choreo.dev/description: Build triggered for the Reading List Serv
54    labels:
55      core.choreo.dev/organization: default-org
56      core.choreo.dev/project: default-project
57      core.choreo.dev/component: reading-list-service
58      core.choreo.dev/deployment-track: reading-list-service-main
59      core.choreo.dev/name: reading-list-service-build-01
60  spec:
61    branch: main
62    path: /go-reading-list-rest-api
63    buildConfiguration:
64      buildpack:
65        name: Go
66        version: 1.x
67  ---
68
69  ## Sample Deployment kind (Namespaced)
70  apiVersion: core.choreo.dev/v1
71  kind: Deployment
72  metadata:
73    name: reading-list-service-development-deployment-01
74    namespace: default-org
```



Debugging!

Where most time is spent!

- Especially critical in distributed architectures
- Code explanation via AI
- Easy access to logs



2025-03-07T17:25:09.95
2025-03-07T17:25:09.96

timestamp
level
logLine
componentId
componentName
componentVersion
> 2025-03-07T17:25:10.02
> 2025-03-07T17:25:10.02
> 2025-03-07T17:25:10.02
> 2025-03-07T17:25:10.34
> 2025-03-07T17:25:10.34
> 2025-03-07T17:25:10.34
> 2025-03-07T17:25:10.34
> 2025-03-07T17:25:11.61
> 2025-03-07T17:25:11.61
> 2025-03-07T17:25:11.72
> 2025-03-07T17:25:11.74
> 2025-03-07T17:25:11.74
> 2025-03-07T17:25:17.30
> 2025-03-07T17:25:17.40
> 2025-03-11T07:02:06.28

Load latest logs

Build steps are like traffic lights.

Select them carefully and don't add too many.



Measure and Improve



Deployment Frequency

Elite

~ **3**/week (37 total) 184.6% ↑

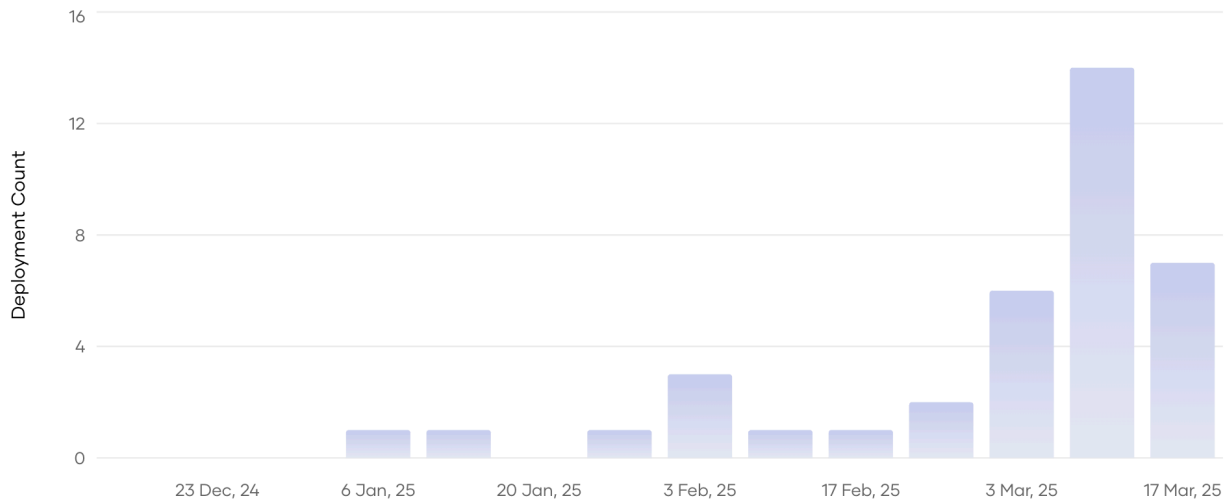


Lead Time for Change

Medium

11 days **17** hours

Deployment Frequency





The background is a dark, deep blue space filled with a vibrant, multi-colored nebula or galaxy core in shades of red, orange, and yellow. Scattered throughout the scene are numerous 3D cubes and rectangular prisms. These shapes are rendered with a blue-to-purple gradient and have some faces highlighted in red and yellow, giving them a glowing, crystalline appearance. Some cubes are simple, while others are more complex, resembling architectural structures or pixelated objects. A few small, dark spheres are also visible, adding to the cosmic feel.

Thank you!

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