# InfraSync ??? DriftGuard for AWS

Specifications & Feature Summary

## Overview

??? Event-driven drift detection and remediation for Terraform-managed AWS resources.
??? Integrates AWS EventBridge, Lambda, Terraform Cloud, Slack, and DynamoDB.

## Key Features

??? Real-time drift detection for EC2, S3, and IAM resource changes.
??? Terraform Cloud plan runs validate drift and summarize changes.
??? Slack alerts with resource metadata, change summary, and remediation status.
??? DynamoDB drift history with TTL, point-in-time recovery, and encryption.
??? Optional auto-remediation via Terraform apply when authorized.

## AWS Services

??? EventBridge ??? captures CloudTrail configuration change events.
??? Lambda ??? Python 3.11 drift detection engine.
??? DynamoDB ??? encrypted audit log with TTL.
??? Secrets Manager ??? stores Terraform API token and Slack webhook.
??? CloudWatch Logs ??? operational telemetry for Lambda runs.

## Security & Compliance

??? Least-privilege IAM roles and scoped secrets access.
??? Server-side encryption for DynamoDB and Secrets Manager.
??? Audit-ready logs and configurable retention policies.
??? Supports Terraform policy checks and run tasks for governance.

## Deployment Footprint

??? Terraform-managed infrastructure using HashiCorp Terraform Cloud.
??? Lightweight Lambda package with AWS SDK dependencies only.
??? CI/CD ready via GitHub Actions for plan/apply and Lambda packaging.