

4 Step Process To Fix CloudFormation Drifts With No Downtime



Overview

- Demo Setup
- Why do We Need 4 Steps to Fix the drifts?
- **4 Steps**
 - *Step 1 - Add DeletionPolicy to the drifted resources*
 - *Step 2 - Remove the drifted resources from the stack*
 - *Step 3 - Import the resource into the stack with current configuration*
 - *Step 4 - Remove Deletion policy from the stack*

Lab Setup

Relatively simple template. It has only two resources (EC2 Instance and security group) but is adequate to explain steps to resolve drifts

Drifts:

- Root Volume Size Increased
- New Tag added
- Instance type changed

Why do We Need these Steps?

Depending on what we update, a stack update may replace resources and cause downtime

Stacks Update behaviors:

- Update With Interruptions.
- Updates With No Interruptions
- Replacement

Step 1 – Add DeletionPolicy Attribute

Update the template and add `"DeletionPolicy" : "Retain"` attribute to drifted resources

What's the purpose of this?

This ensures resources won't be deleted if a stack or resource ever gets removed. We will see it in effect in the next step

Step 2 – Remove Drifted Resources from the stack

Update the template and remove the drifted resources.

What's the outcome of this?

Drifted Resource(s) would no longer be part of the template. Since deletion policy was applied in Step 1, CloudFormation won't delete the resource upon removal from the template.

Step 3 – Import the resource

Update the template and include new attributes of drifted resources

Import the template using import stack option

What's the purpose of this?

Drifted resources that were removed in Step 2 are reintroduced into the stack with their current attributes.

Step 4 – Remove DeletionPolicy

Update the template and remove "DeletionPolicy" : "Retain" attribute from resources

What's the purpose of this?

This brings back the template to its original shape, as it was before without a deletion policy. So in case someone really wants to destroy this stack in the future, the deletion policy wouldn't cause any hindrance

Summary

4 Steps

- *Step 1 – Add DeletionPolicy to the drifted resources*
- *Step 2 – Remove the drifted resources from the stack*
- *Step 3 – Import the resource into the stack with current configuration*
- *Step 4 - Remove Deletion policy from the stack*

Thank You

