

**With  
Great Pipelines  
comes  
Great Responsibility**

**Standardizing Multi-Region Deployments @ Razorpay**

Nanda Kishore B - Nov 8th 2025

## About me

- Nanda Kishore B
- 🚧 Passionate Builder
- Still thinking what to fill here 😐

# About Razorpay

## Presence Across 3 Continents

Taking Indian payment prowess global

<b>200Mn+</b> Unique customers	<b>100Mn+</b> Offline touch points
Processing <b>\$150Bn+</b> TPV	Supporting <b>5mn+</b> Businesses
<b>60+</b> Banks	Operating from <b>6 countries</b>



Razorpay

## What is Spinnaker (for the uninitiated)

- Our Chariot of Deployments
- Continuous Delivery(CD) platform open-sourced by Netflix
- Focused on safe, repeatable, and multi-cloud deployments.
- Used to define pipelines - sequence of verify, deploy and rollback stages
- Rzp uses Spinnaker to deploy hundreds of services daily across multiple regions
- Think of it as “Kubernetes + CI + progressive rollout brain + guardrails = Spinnaker.”



## The Mumbai Era 🕉

- Life was simple in one region
- One Spinnaker.
- One Mumbai.
- One way to deploy.



We lived in a single-region paradise - everything predictable, stable, deploys felt divine. Until... geography happened.

## The Great Expansion (Singapore 🇸🇬)

- Singapore calls. Multi-Region begins.
- New Clusters. New “Cell”.
- Same Spinnaker
- Say Goodbye to Weekends



We expanded to Singapore. Suddenly, one Spinnaker had to rule to distant lands. And that's where the story got interesting. When your kingdom expands, your single throne starts shaking.

## The Forest of Chaos

- Mumbai Spinnaker
- Deployed 30/150+ services in SG
- $30 \times 5 = 150$  pipelines manually modified.
- Sometimes, Powered by Ctrl-C,  
Driven by Ctrl-V 🤦
- A mislinked stage caused a Mumbai checkout outage.
- Pipeline Config Drift across environments.



When you clone pipelines like demons multiply — chaos is inevitable.

## The Turning Point

- Realization: We need structure, not scripts
- Helm-based releases as Standard currency
- When a checkout in Singapore 🇸🇬 sneezes, Mumbai 🇮🇳 shouldn't catch a cold.



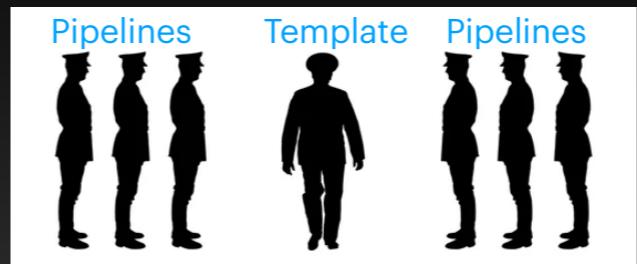
We didn't need more hands — we needed one strong bridge.

**Structure = Pipeline-Templates**

**Fault Isolation = Regional Spinnakers**

## Pipeline Templates

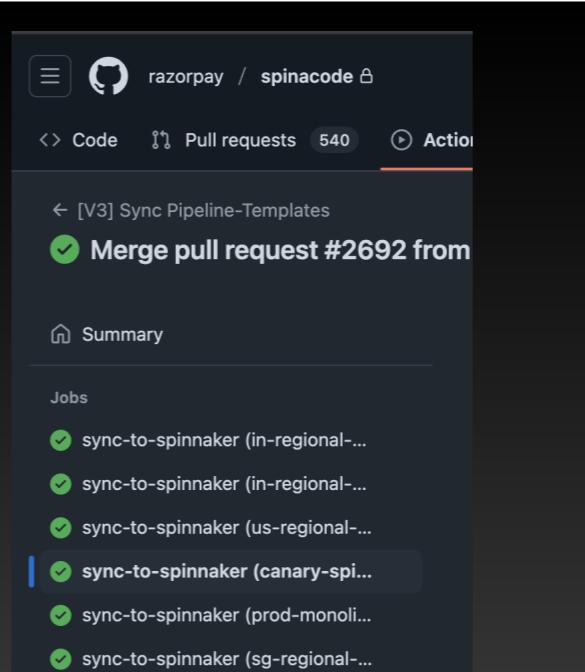
- Native to Spinnaker
- Centralized Config (no need to reinvent the ☺)
- Custom Stages for Helm Releases, Canary and Mirror Deployments
- Central Policy Enforcement
- Individual pipelines just “refer” them.



Order isn't magic - it's templates.

## GitOps takes center-stage

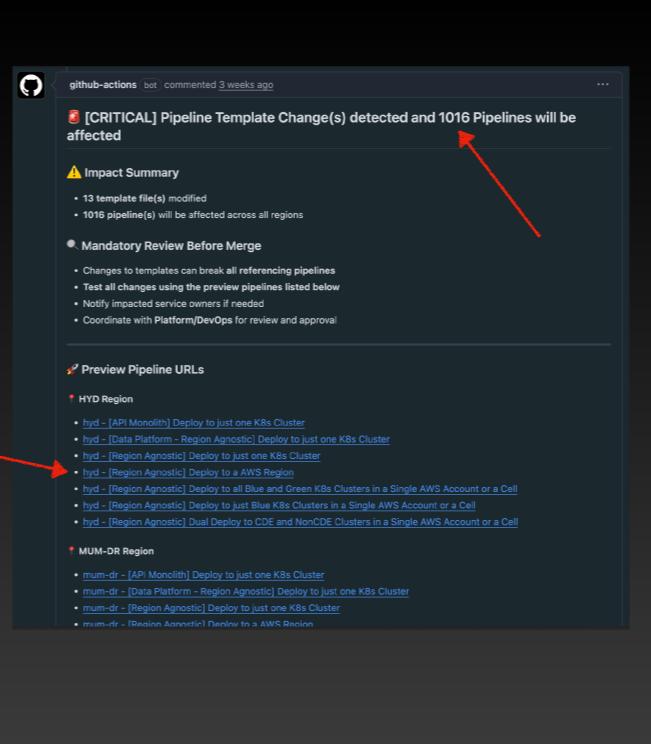
- Fully native to Engineering teams
- All checks-and-balances enforced as CI Checks



**With Great Templates comes Great  
Responsibility**

# Guard-Rails

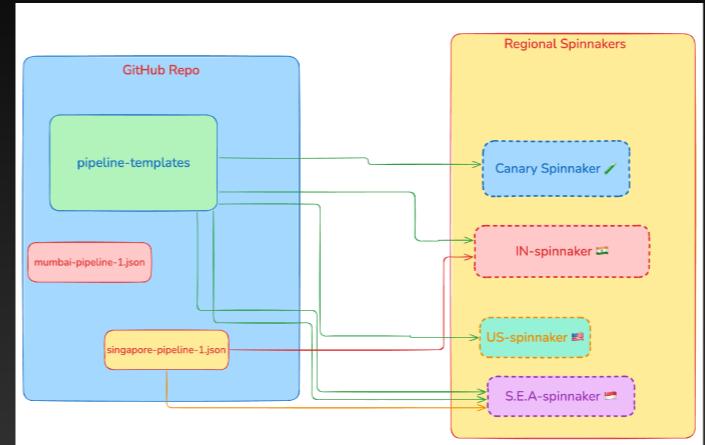
- `spin pipeline-template plan` 🤞
- CI Checks ✅
- Preview Pipelines ✅
- Per Region ✅



Nothing wakes you up faster than seeing 'CRITICAL' and '1016 Pipelines affected'. It works better than a strong filter coffee.

## Regional Spinnakers

- Isolated by design
- Region-wise releases
- Each region owns its destiny, yet aligned



Autonomy without anarchy - that's true scalability. With this we separated power. Each region got its own Spinnaker - regional control, local fail-safety

## But no Global Deployer



Because one bad push, shouldn't take down the whole 🌎

My anxiety isn't ready for that level of power. First, we earn that trust through stronger checks.

## Rollout & Migration

- Used US 🇺🇸 as a first pilot region
- Created Canary Pipelines first in US 🇺🇸
- Singapore 🇸🇬 followed.
- Standardized Mumbai 🇮🇳 Spinnaker setup and created full end-to-end V3 pipelines



Regions operating now independently but in harmony. Make it run, Make it right, Make it fast

# Tools are easy to Build

But adoption, selling, *story-telling* are hard

- Every DevOps/Ops/Infra person ever

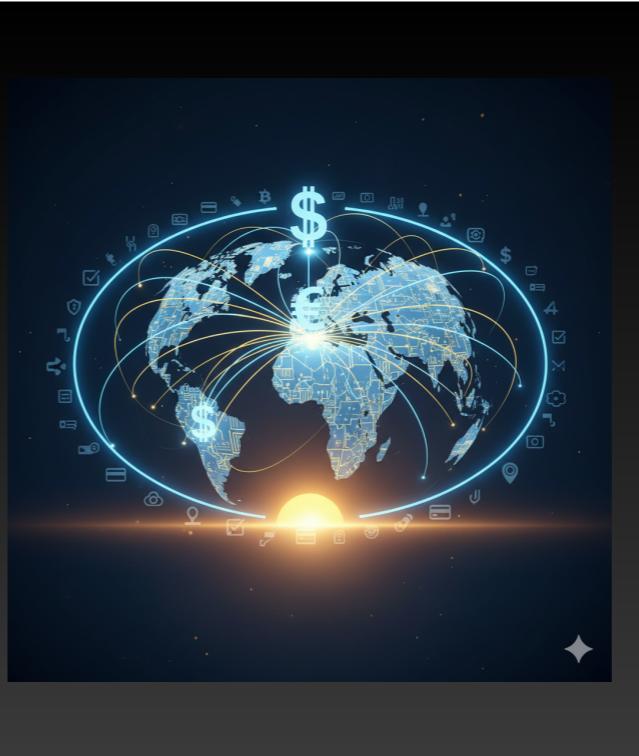
## Closer to the Service Teams 🤝

- Spinnaker MCP Server
- Self-Serve Migration pipelines empowering teams
- Adoption Tracker Boards



## The Impact

- One of the Foundational Pillars for Cell Automation
- Safer Multi-Regional Rollouts
- Consistent Deployment Discipline



The war ended - but the discipline stayed.

# The End... Or the Beginning

Because in DevOps, peace is temporary - But Evolution is permanent

Thank You 🙏

Q & A