Building Dynamic Configuration into Terraform

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Who We Are / About Us

Hosh
✓ Platform Engineer at LaunchDarkly
✓ Really bomb at Terraform

Isabelle
✓ Works on integrations at LaunchDarkly
✓ Maintainer of the LD Terraform provider
Startups, eh?
Scaling is hard
Terraform management at LaunchDarkly

- Over 100 software engineers for one tiny platform team
- You build it, you run it
- Almost all teams touch or maintain some Terraform configuration
- Migrating Terraform is a pain

Tl;dr oops monorepo
When in Rome...

* Ask us about how we use flags to do rate limits, pricing tiers, and more.
** This is an unreleased feature. Please do not complain to sales that you cannot find it yet.
Terraform: A New Provider

* We’re both also Terraform nerds, so it was a great opportunity to test out Terraform’s experimental new SDK, which features actual support for nested attributes, custom types, and detecting unknown or null values. Ask us about the tradeoffs!
Why feature management in Terraform?

Key Takeaways

- **Avoid small code changes**
  No need to go through a pesky PR process to make small and harmless changes like changing a monitoring or SLO threshold.

- **Controlled access**
  Your feature management platform can further limit who can make changes.

- **More independence**
  No need to involve Platform/DevOps teams for config updates, and engineers don't need to re-learn Terraform every time they dip their toes.

- **And more...?**

data "ldflags_evaluation_json" "slo_availability_thresholds" {
    flag_key = "slo-availability-thresholds"
    default_value = jsonencode({
        target = 99.9
        warning = 99.95
    })
    context = {
        key = "webhooks"
    }
}

module "slo_availability" {
    source = "/modules/slo"
    environment = "production"
    thresholds = jsondecode(data.ldflags_evaluation_json.
        slo_availability_thresholds.value)
}
A New Frontier

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That's all, folks!

LaunchDarkly ➔

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