Scaling a platform for flexibility & maintainability

testdouble®
Case Study

The Client

Mode

Environment: Business Intelligence and Analytics
Size: 150+ employees
Location: San Francisco | mode.com
Engagement: System of composable AWS terraform modules

> Test Double has been a pleasure to work with, and **they've been instrumental** in revamping our platform. Their work has **streamlined our deployments** and **sharpened our focus** on delivering to our customers.
>
> **–Eddie Tejeda**
> Senor Director of Engineering

The Mission

Tools & Tech: AWS, Terraform, Circle CI, Docker, Golang
Impact Areas: Infrastructure as code, automated deployments, containerized infrastructure, deployment tooling

Mode came to Test Double in need of a more flexible and maintainable infrastructure, especially when it came to managing deployments. Mode was using Salt which required all development teams to funnel deployments and infrastructure changes through a single infrastructure team.

Mode's goal was to enable development teams to work more independently. Doing so would support Mode's evolving business by providing the ability for teams to self-manage their application infrastructure using reliable and repeatable processes. They had their eye on migrating to use Terraform modules and we confirmed this was the right solution for their goals.

Helping teams understand and manage DevOps tooling

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The Fix

Steps to the Fix: Repeatable processes, modules, autonomous teams

We helped Mode construct a series of infrastructure components combinable to meet each team's unique needs:

Great Software

- Modules created using Terraform and customized Circle CI orbs
- New tooling gave teams building blocks they needed to run services without managing underlying parts individually
- Enabled standardized and streamlined deployment practices across teams
- Maintained ability to serve the varying needs of every team

Great Teams

- Migrated multiple services to new tooling by working directly with teams that own services
- Built out necessary infrastructure—moving applications off a more fragile legacy system reliant on centralized management and onto AWS Terraform modules
- Teams can now focus on delivering great software to customers, not the tooling configurations

The Results

Development teams can now quickly and easily deliver both their own infrastructure needs, and software to production in a consistent way—allowing them to work more autonomously and lessening constraints imposed by a centralized infrastructure team. Mode teams can now choose strategies for scaling compute needs, common add-ons for observability, service discovery, or load balancing.

By developing the necessary building blocks, and working with service owners to move services onto a new platform we've grown the number of people able to manage services, and enabled teams to have deeper ownership of the services they're responsible for running.

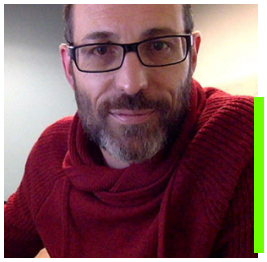
Dramatically increased throughput for infrastructure changes and deployment by minimizing reliance on a single infrastructre team

Dozens of infrastructure modules allowing teams to choose the right set of tools to meet their needs

Enabled autonomous teams with reliable, repeatable processes for daily deployments across multiple production services

Supporting 5+ development teams deploying more than 15 services

The Team



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