Infrastructure as Code with Terraform

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Table of Contents

Table of Contents

Infrastructure as Code

Concept

- Desired infrastructure state in declarative definition files
- Software adjusts state based on current and desired

Properties

- Version control => audit, rollback, versioning, ... #gitops
- Allows high degree of automation
- Enables reproducibility, speed, and quality of deployments

Infrastructure as Code

Tooling

- imperative vs. declarative

- push vs. pull

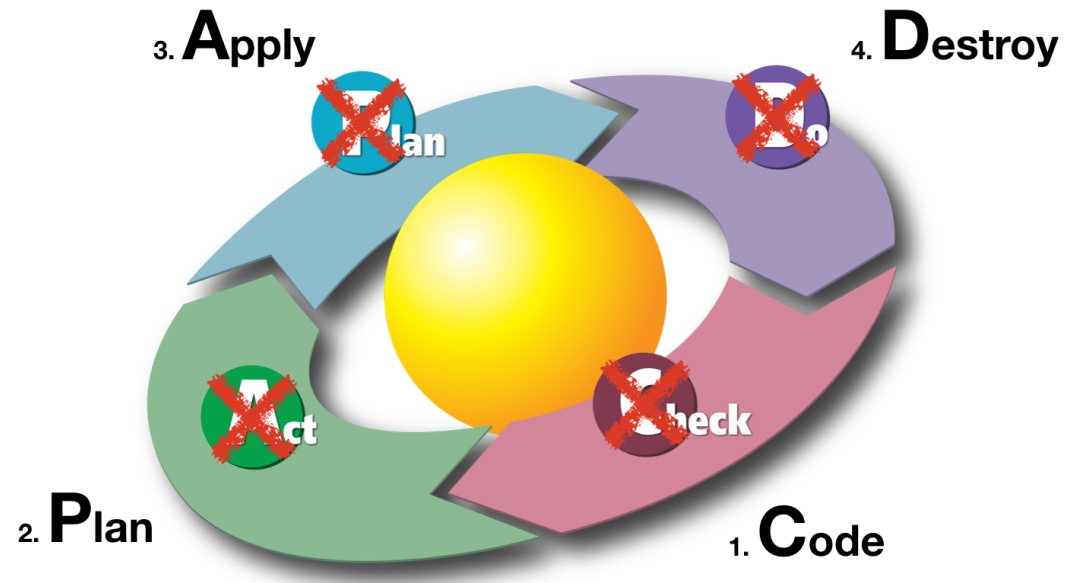- configuration management vs. orchestration management
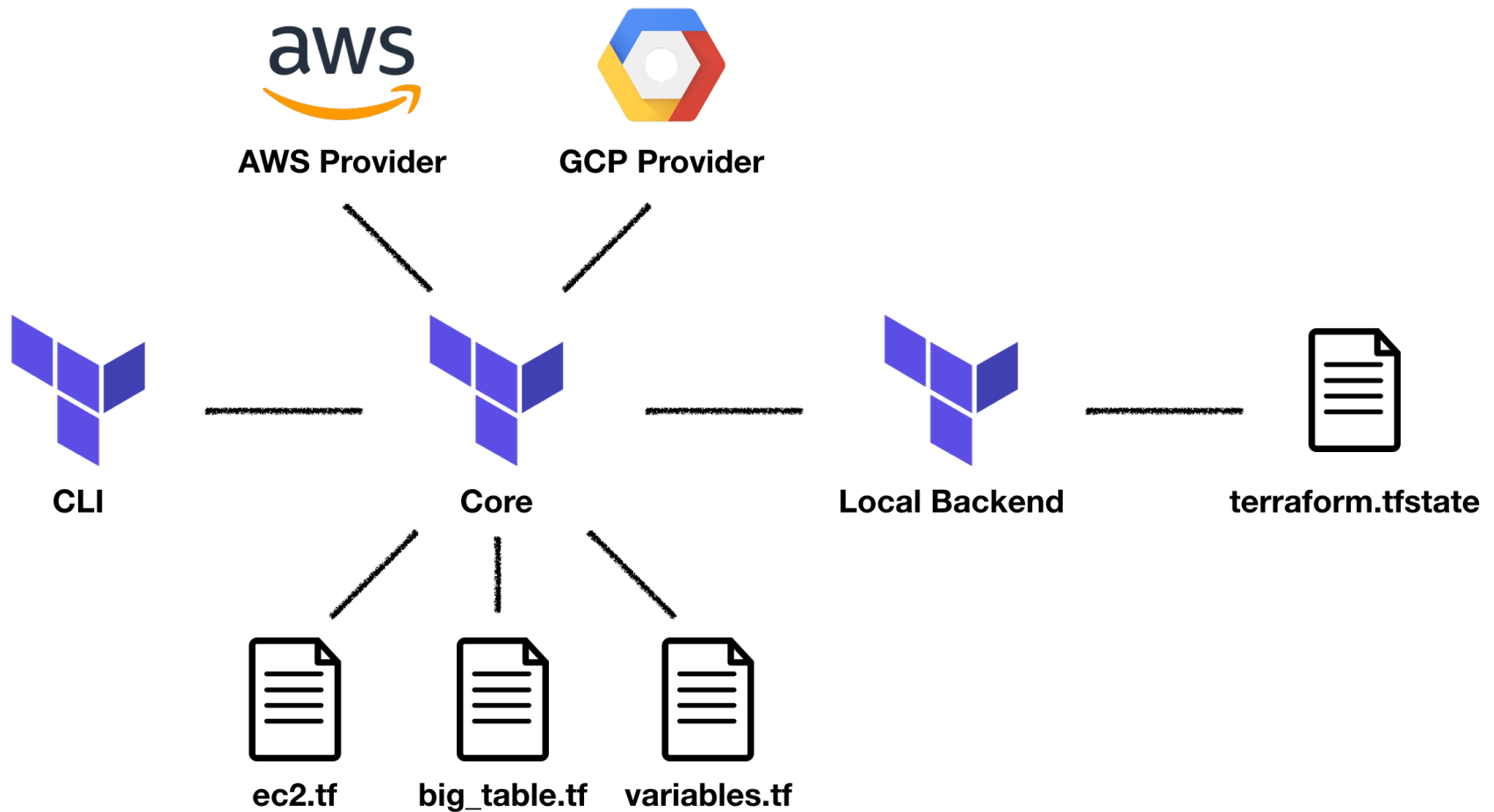
Table of Contents

Terraform Basics

Workflow

1. Code desired infrastructure state

2. **Plan** infrastructure changes to make reality match

3. **Apply** plan

   ...

4. **Destroy** infrastructure

Terraform Basics

Architecture

Table of Contents

Terraform in Action

Demo

https://dev.to/frosnerd/infrastructure-as-code---managing-aws-with-terraform-i9o