GitOps Family Tree

A somewhat arbitrary and opinionated view of GitOps' antecedents.

Container Solutions

Manual

Manual

Run a series of commands by hand from memory, physically-written script.

Shell Script

Series of commands written and run as a unit.

Shell Script (1971)

Declarative

Declare state and dependencies, and allow tool to manage deployment.

Make (1976)

Source Control

Store and collate changes to code.

CVS (1986)

SVN (2000)

CI/CD

Jenkins (2005)

Team City (2006)

Management tools for running scripts to build and deploy software.

tar (1979)

'Golden Build'

Create an artefact that represents a specific build's file contents, to be deployed on a compute node or standard runtime.

apt/deb (1994)

yum/rpm (1997)

Maven (2002)

Declarative Infra

State the infra you want, and tool uses APIS to make it so.

CFEngine (1993)

Puppet (2009)

Chef (2009)

DSL + Agent

Programs/declarative recipes that get applied by a separate program acting as a control loop.

Mercurial (2005)

Git (2005)

Distributed Source Control

Source control with no primary server.

Terraform (2014)

'Golden Image'

Create an artefact that represents a specific compute node, either through virtual machine image or containerisation, that can be run as a standalone environment.

Packer (2013)

Docker (2013)

GitLab CI/CD (2018)

GitHub Actions (2019)

Pipelines as Source

CI/CD as code, co-lolocated with source control.

Cluster-level

GitOps principles to deploy and update declarative representations of state at a cluster level.

FluxCD (2016)

ArgoCD (2018)

JenkinsX (2018)