Dashboard as code

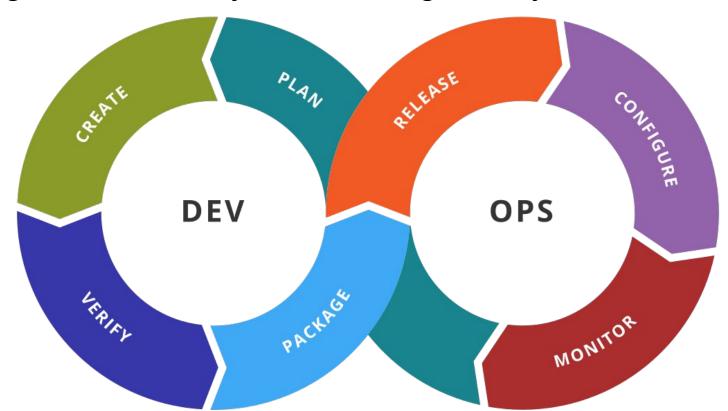
Jsonnet, Grafonnet-lib to create version control dashboards

Agenda

- Background Diversity
- Configuration Languages
- Dashboard as Code
- Ideal Workflow

Background Diversity

Background Diversity - Debunking the myth



Background Diversity - Ideal Representation

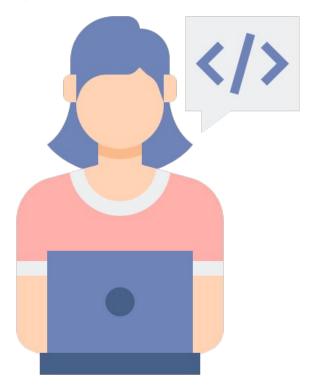


Devops Engineer

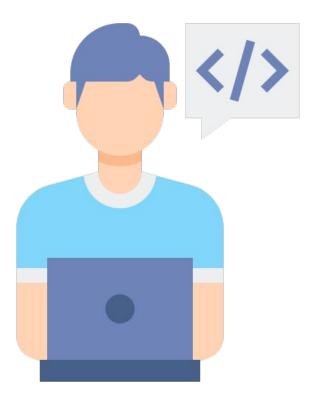


Fullstack Engineer

Background Diversity - Reality Check





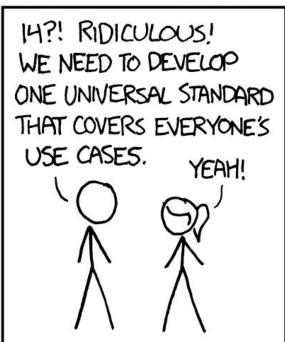


Front End developer - Writes a pipeline every 10yrs

Background Check - Raising the Issue

HOW STANDARDS PROLIFERATE: (SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

SITUATION: THERE ARE 14 COMPETING STANDARDS.



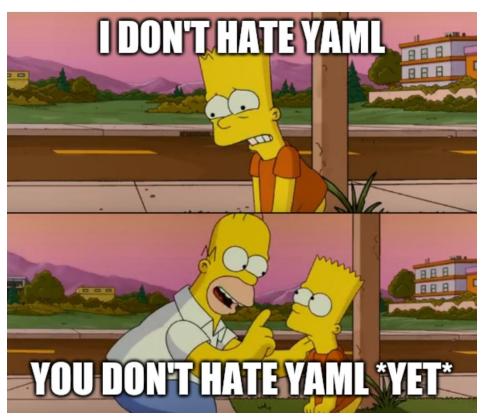
500N: SITUATION: THERE ARE 15 COMPETING STANDARDS.

There is a need for different dashboards for different

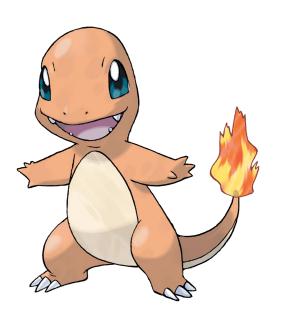
people

Configuration Languages

Configuration Languages - Yaml Hell

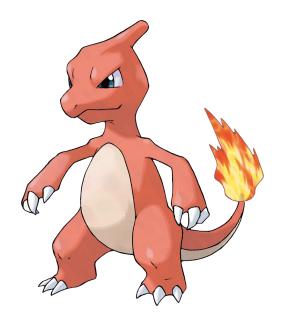


Configuration Languages - As a Pokemon



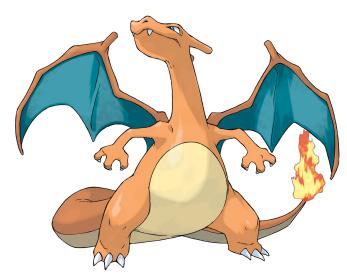


- Yaml
- Json
- Hcl



Configuration Languages:

- Dhall
- Jsonnet
- CUE
- Go Template



Programming Languages

Configuration Languages - Jsonnet

Language Specification: <u>Jsonnet</u>

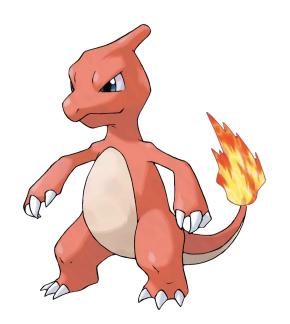
Imports: <u>kubernetes-mixins</u>

Dashboard as Code - More Code then ever

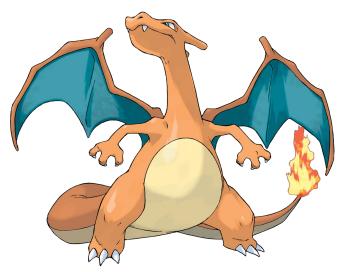
Dashboard as code - As a Pokemon



Configuration Files
- Json



Configuration Languages:
- Jsonnet



Programming Languages: python

Ideal Workflow - Proposed Solution

Think Product:

- Dashboards are product oriented
- Dashboards are a view of the status of the product

Abuse Grafana:

- Use Gitlab/Jenkins exporter to view changes
- Use Loki Promtail to gather; query the logs
- Use Kubernetes to see the available resources: networking, cpu, Memory
- Use Istio To see the Application networking Metrics
- Use Tags to have one dashboard per product, per region, for searchability
- Have a Folder to store the person dashboard

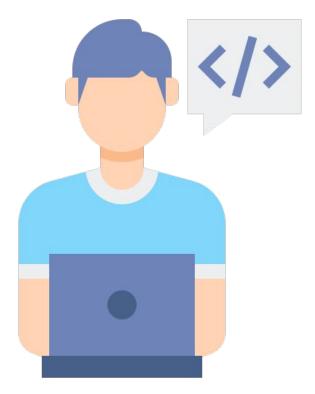
Ideal Workflow - Debunking the myth



Ideal Workflow - My SRE Job



SRE - Tool Vendor



Front End developer - Tool Consumer