

Giri Reddy

Agility, Autonomy and Speed to Market with Spring Cloud Config Server

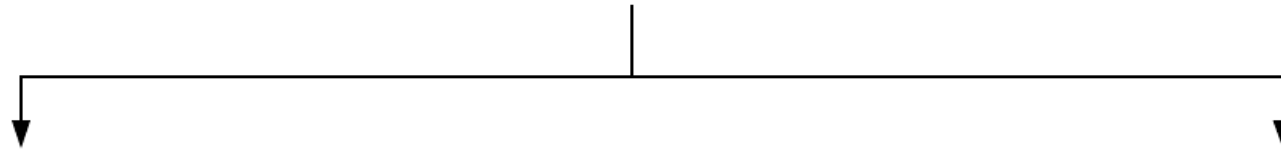
What is a good technology
for Business?

Good technology

In Business context

Optimizes existing business

Creates new business opportunities



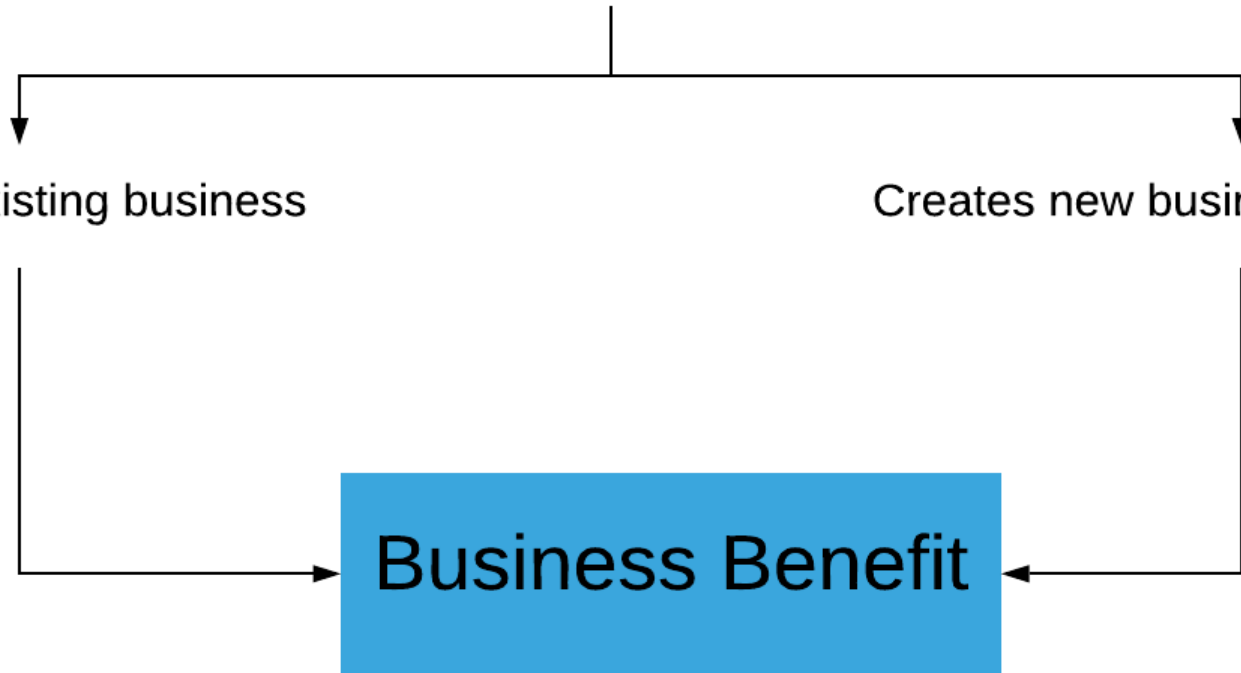
Good technology

In Business context

Optimizes existing business

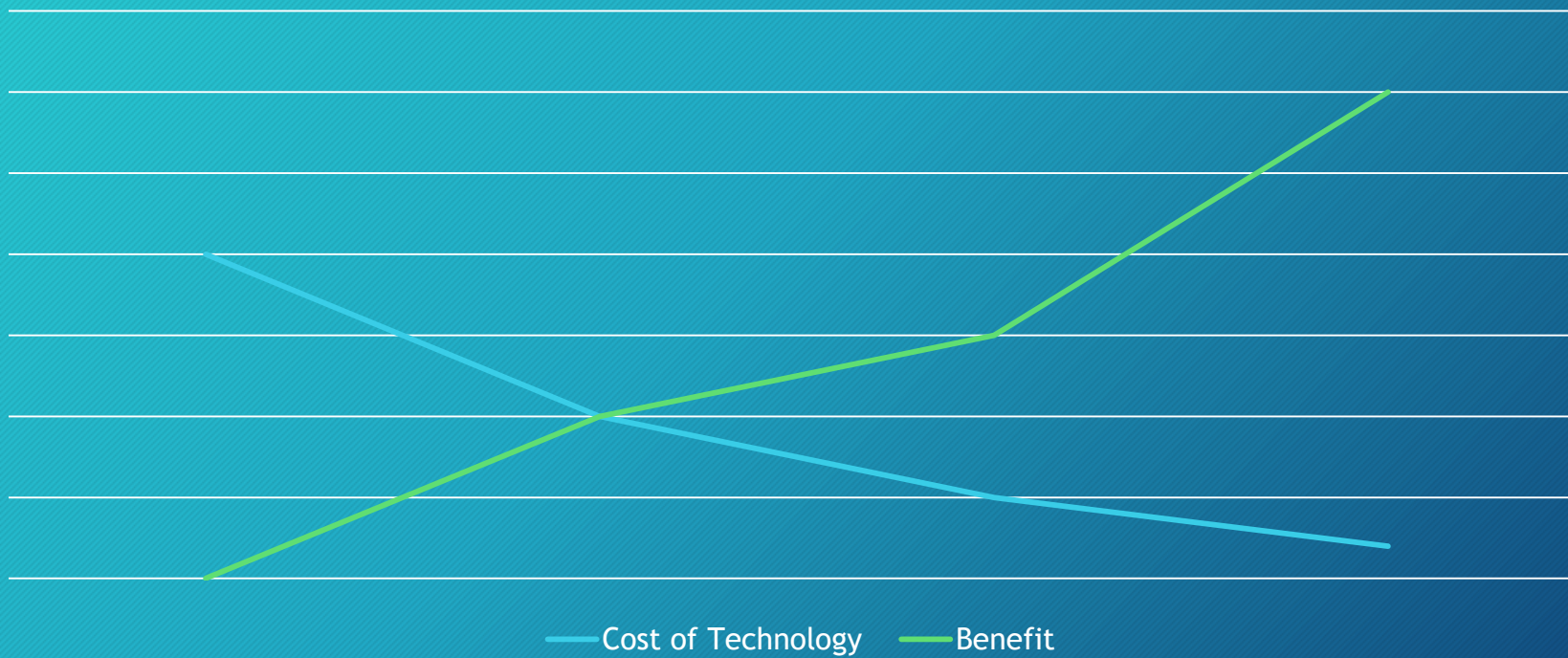
Creates new business opportunities

Business Benefit



Business benefit

Cost versus Benefit



Cost of technology



Cost of operations

Business benefit

Why software fails when
released to production?

Why?



Test Environment



Production Environment

Environment



```
graph TD; Environment[Environment] --> Code([Code]);
```

The diagram consists of a light blue rectangular box with a black border containing the word "Environment". A black line extends downwards from the bottom center of this box, then turns 90 degrees to the right, ending in a black arrowhead that points to a green rounded rectangular box with a black border containing the word "Code".

Code

Code

Code

DB structure

Inputs

Outputs

Requests

Responses

File structure

Integrations

Environment

Code



data

Environment

Code

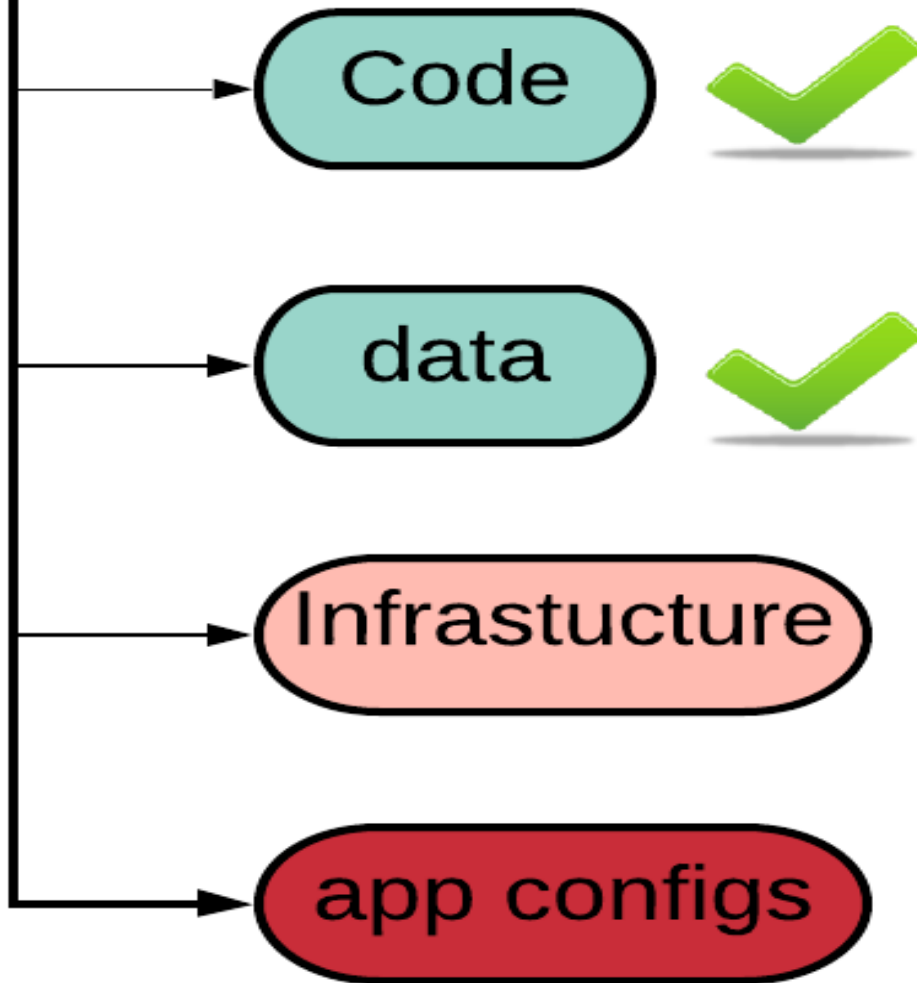


data



Infrastructure

Environment



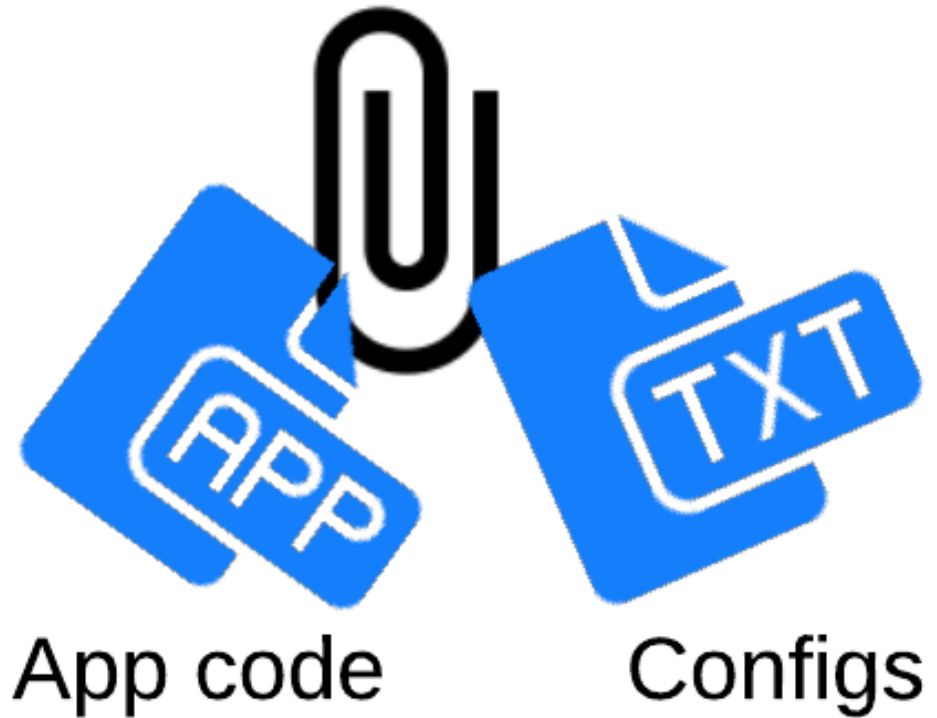
Configs

Plain text

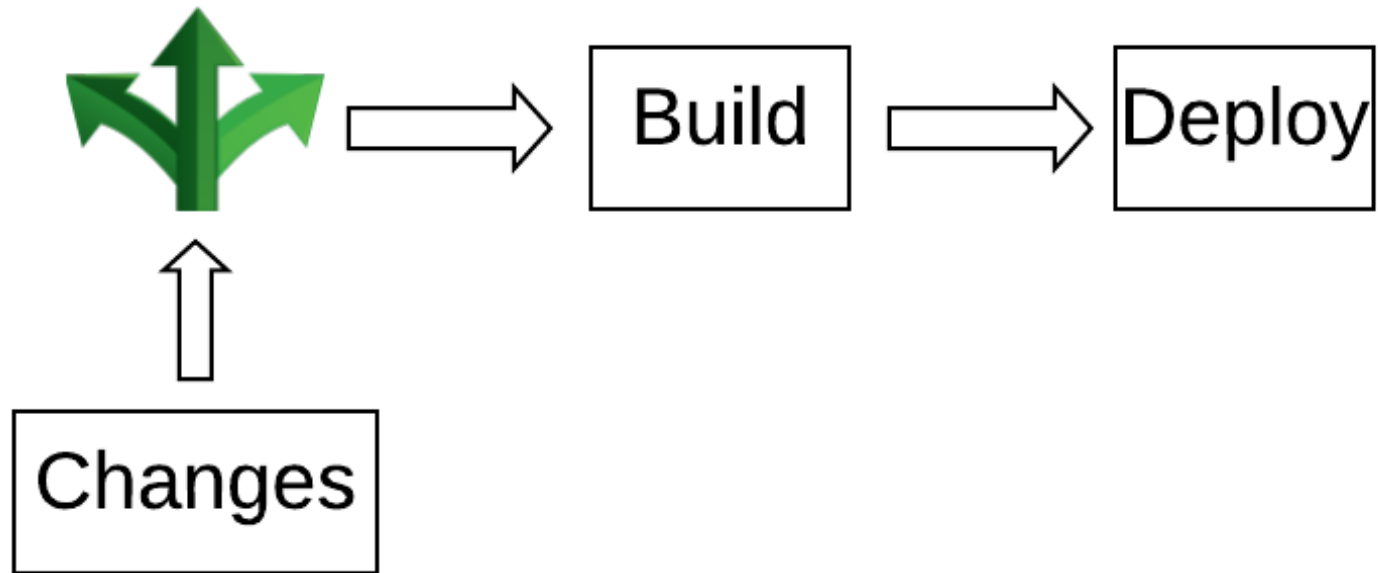
Secrets



Bundled in
to code



Bundled in to code



Auditability



Agility



Autonomy



Bundled in to code - team dependencies



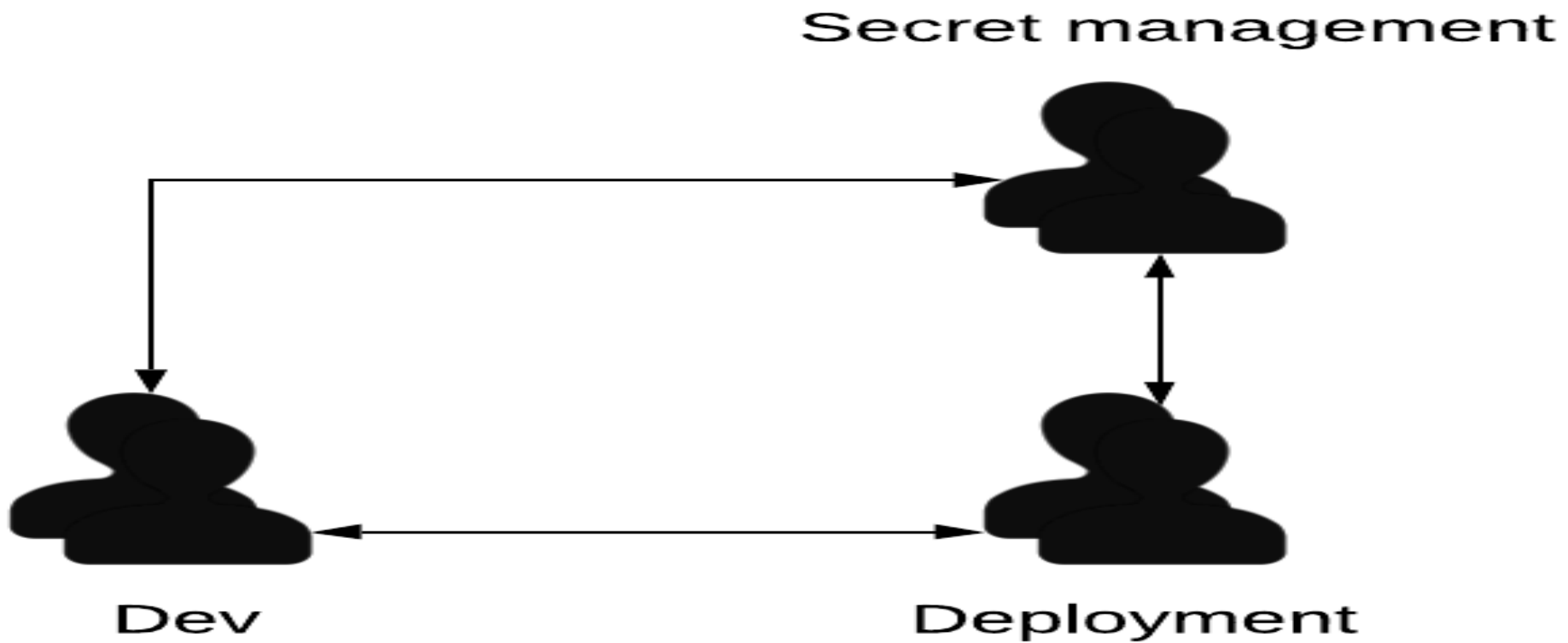
Dev



Deployment



Bundled in to code - team dependencies



File system



Configs in file system



Auditability



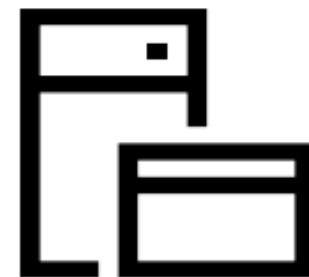
Agility



Autonomy



DB, Vaults,
application
containers



Configs in DB, Vaults, application containers



Auditability



Agility



Autonomy



Environment
variables,
JVM properties

Auditability



Agility



Autonomy



Helm



Auditability



Agility



Autonomy















Kubernetes

Lets revisit

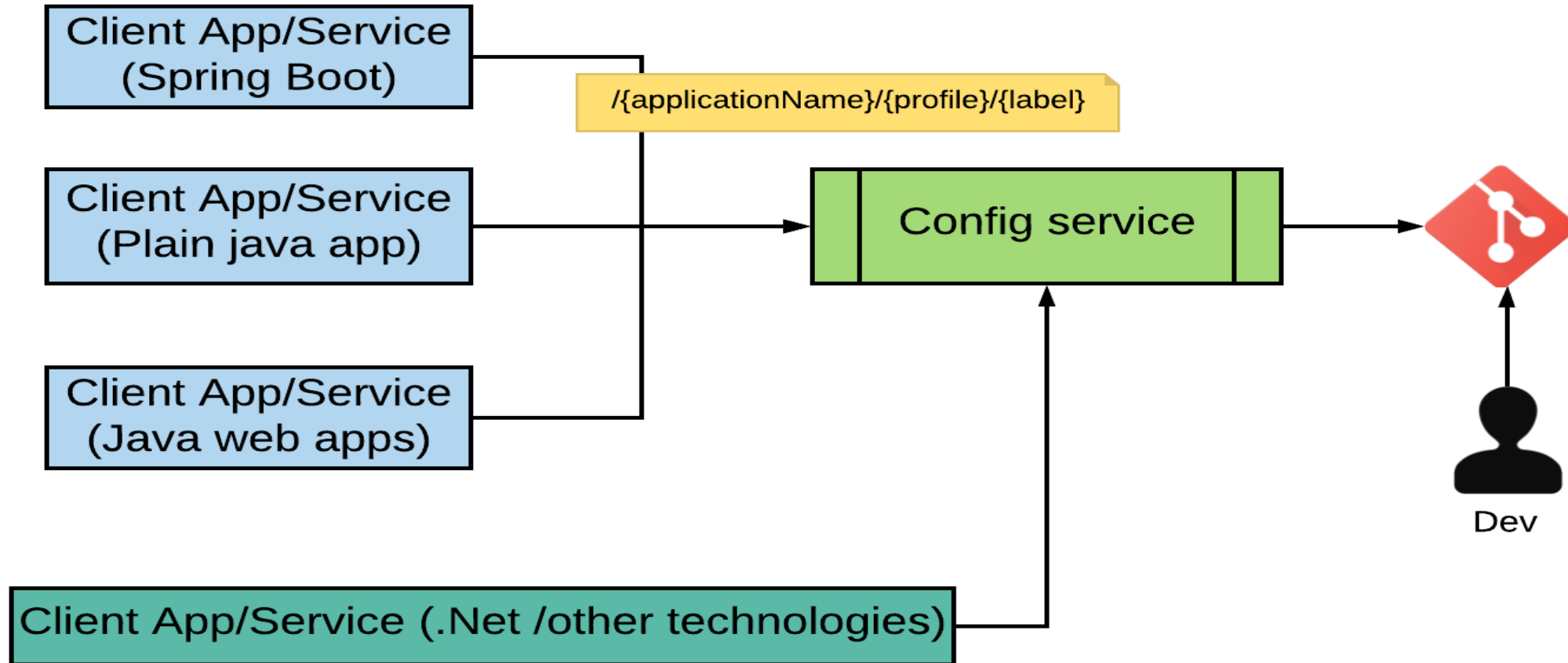
Spring Cloud Config Server

Demo

	Bundled with code	File System	DB, Vaults, Containers	ConfigServer
Agility				
Autonomy				
Auditability				

Config server

Config server - High level



<https://configserver.giri.com/foopro/production/master>

Live Demo

`@EnableConfigServer`

`-Dspring.config.name=configserver`

@RefreshScope

Config server

REST Service

Centralized

Client side support

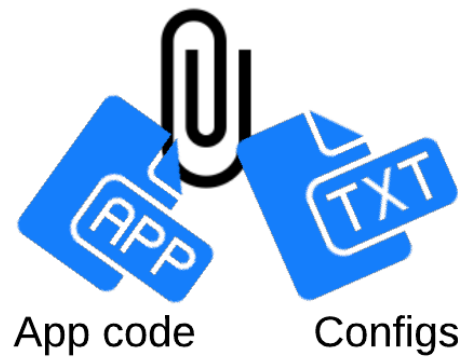
Secret management

Backend

git



Config server



Secrets?

Auditability



Agility



Autonomy



Config server - Secrets

Encryption

Symmetric

Asymmetric

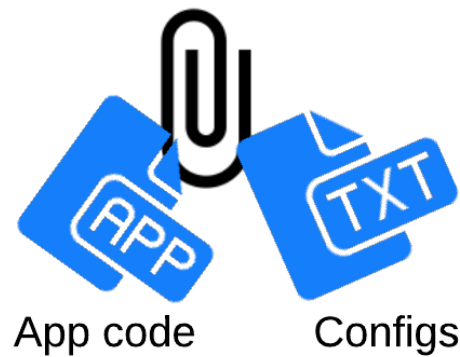
Config server - Secrets (Symmetric encryption)

e488d768de8957f5210ce030d6f74df3de
9c016b5c54c4c5214b2ccc1331b595cf6d
dd205453fb30bbaec9b2ee05c06685378
7961c1fb662f3cd7a32cfc00eee

Config server - Secrets (Asymmetric encryption)

AQBMFbA+9aRKzjE9I4UR53RhfnD90tP
UNjcSPj4jLe1Z6C6OUIj9BtVQbfXAbOMT
QqR38E//uvTm92cEb122DW3p3Ui0pF6
Bflpy4vdQRfOqbWTvA2B0WyFBulCdNoi
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2Ffj7rol2bOKfPluwldhftMP+GFHO64im5
ugvHU8lTYdxRcRhtcjxYt3B1bVUu7nvtD
w==

Config server



Auditability



Agility



Autonomy



Config server vs Helm

Config Server

Helm

Technology agnostic



Refresh at runtime



Few more

Consistency

Performance

Security

Simplicity



Business Value

Non critical apps

configs don't change much

Simple apps

Not many configs

Business Value



Critical apps

Configs change often

Complex apps

Many configs

Questions