Containers - DevOps Journey from Development to Enterprise-grade Production Deployment

IBM Code

IBM Watson

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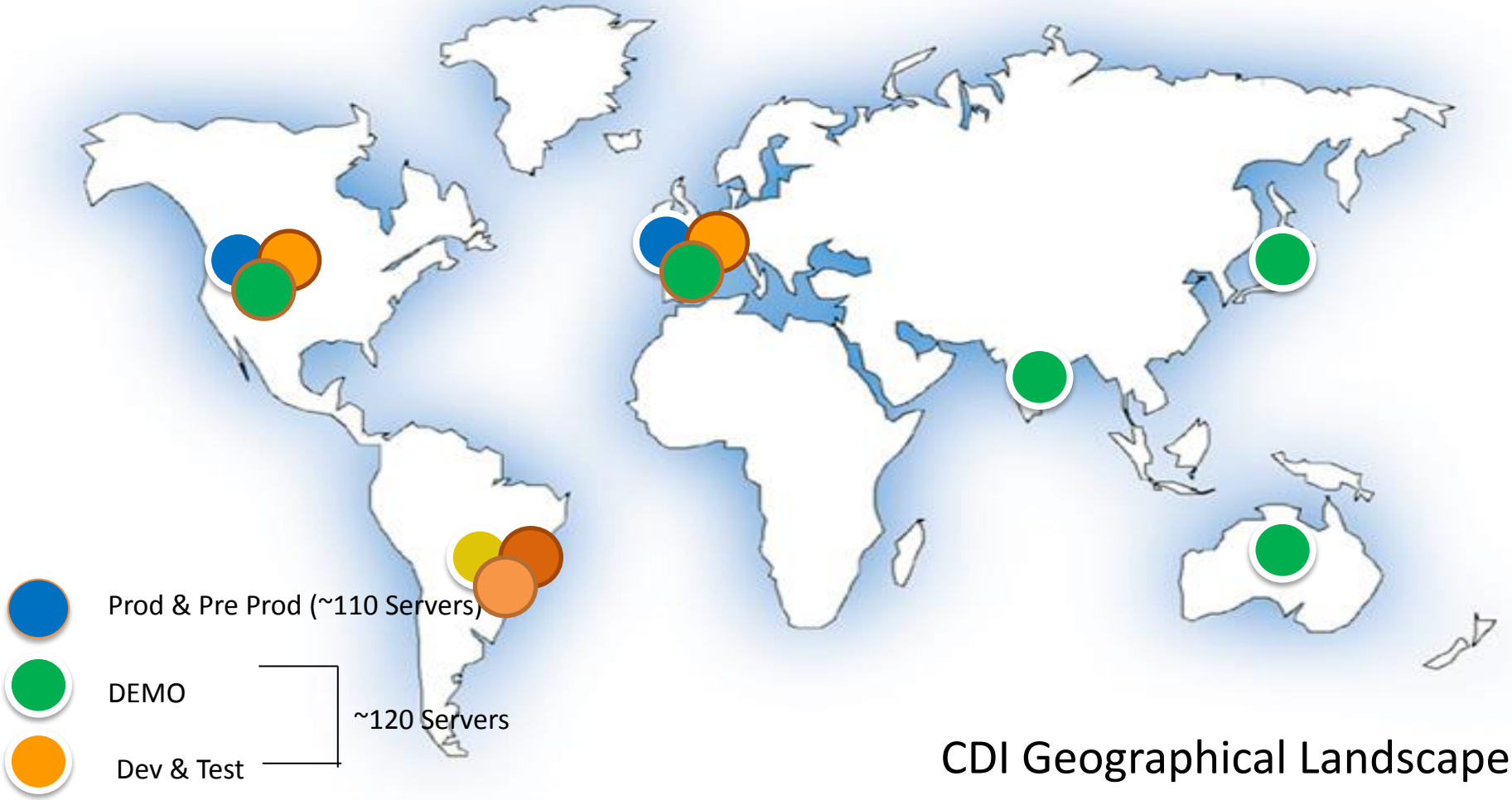
Global Portfolio of Environments I manage



CDI Geographical Landscape

Share the experience

- I work as a Chief Infrastructure & Middleware Architect responsible for global system portfolio
- I am responsible for the management of large analytical solution on Cloud spread across 6 geos managing nearly peta byte of data every month.
- Complexity is every geo connects to 100s of data sources acquiring data and performing analytics
- We recently had an incident, where one of the middleware SSL certificate expired inside container stopping complete traffic . No clue what is happening.

OOPS !

It works on my machine ! Not sure why failing in production !

Packaging

jar, war, ear, rar etc etc packages code but what about configurations ?

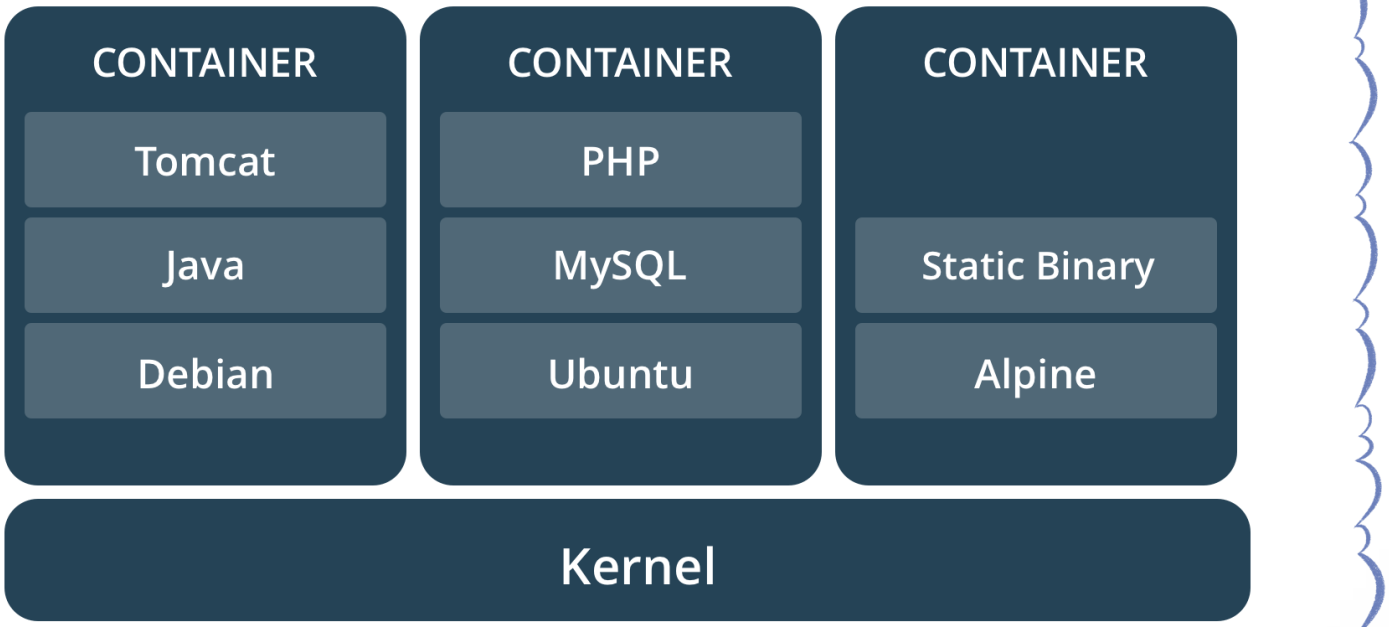
Code configuration ?

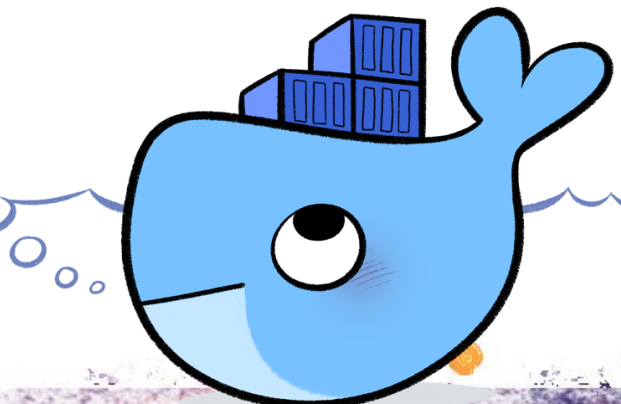
Runtime configuration ?

Containers

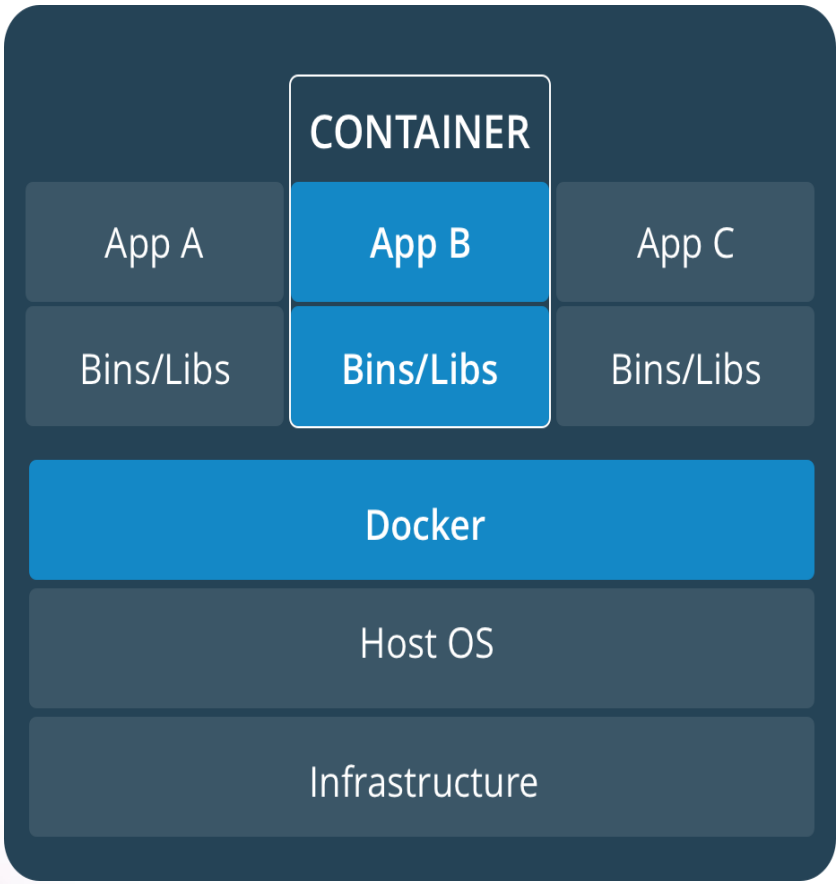
- Containers or Operating-system-level virtualization in the world of Information Technology is a standardized unit of software.
- A container image is a lightweight, stand-alone, executable package of a piece of software that includes everything needed to run it: code, runtime, system tools, system libraries, settings.
- Containerized software will always run the same, regardless of the environment.
- Has proved to avoid “OOPS ! It worked on my machine”
- Code + Runtime + Compact OS + Configurations
- Containers enables developers to easily pack, ship, and run any application as a lightweight, portable, self-sufficient container, which can run virtually anywhere.

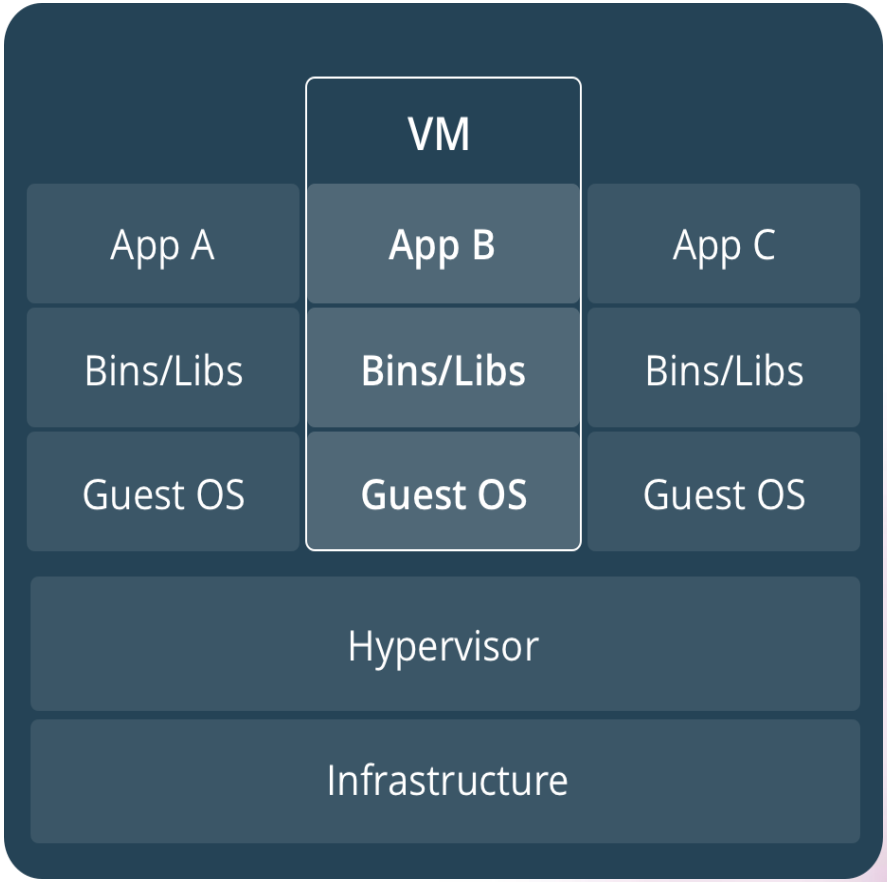
What is Container ?





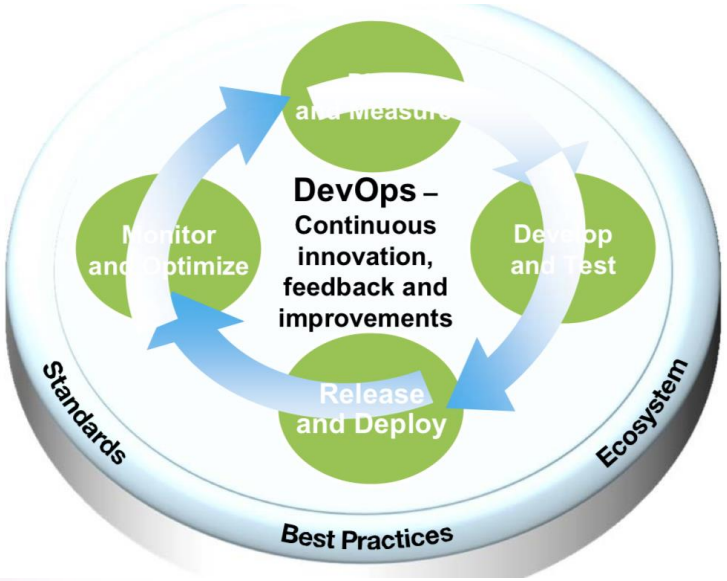
Container Vs VM

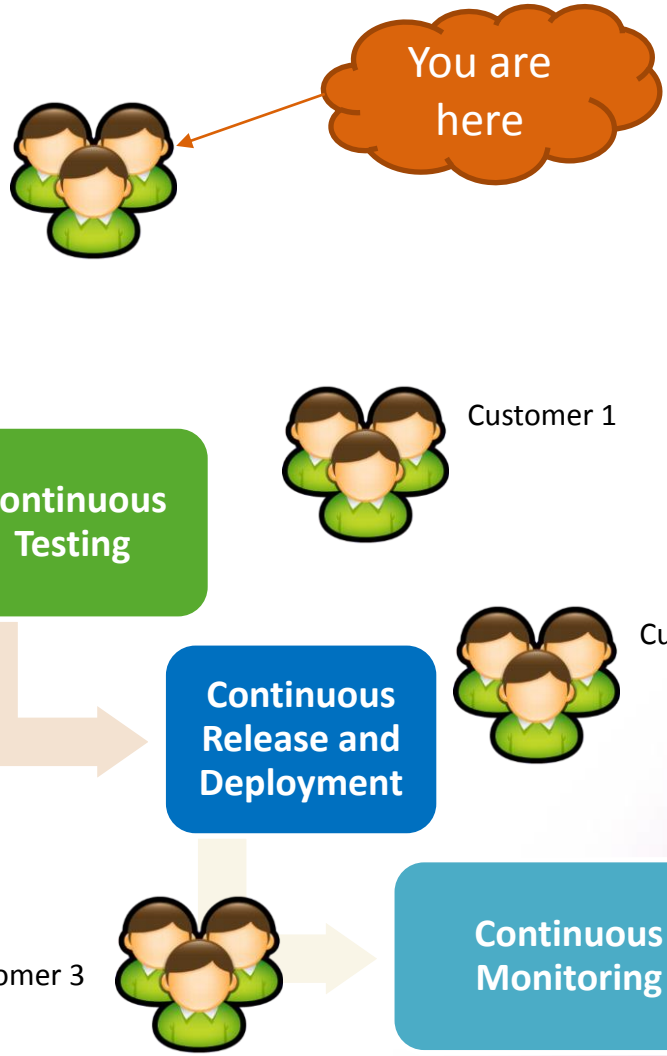




Know your Customer !

What is DevOps ?





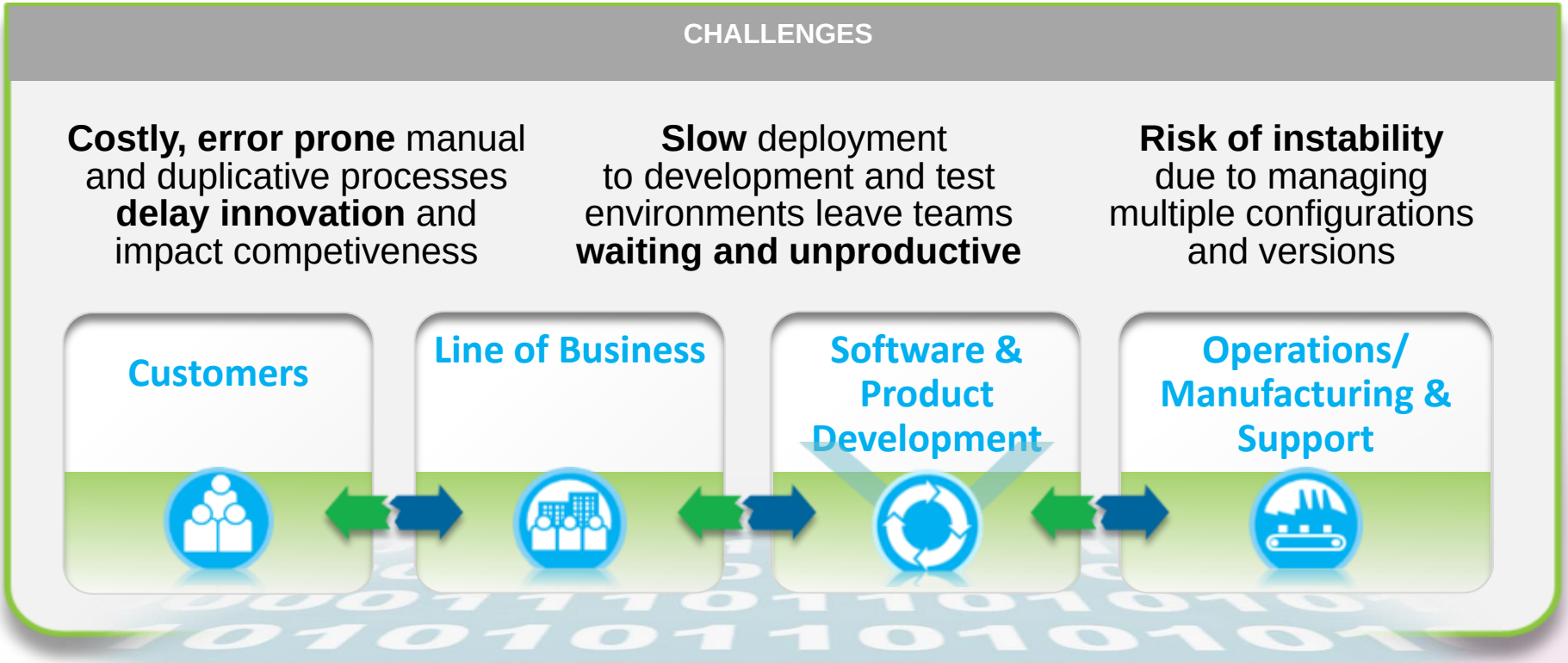
Tools alone will not bring dev ops !

- Dev Ops ready code
- Integrated Security
- Process
- Platform
- Awareness of End to End integrated Dev Ops across teams. (Larger picture)

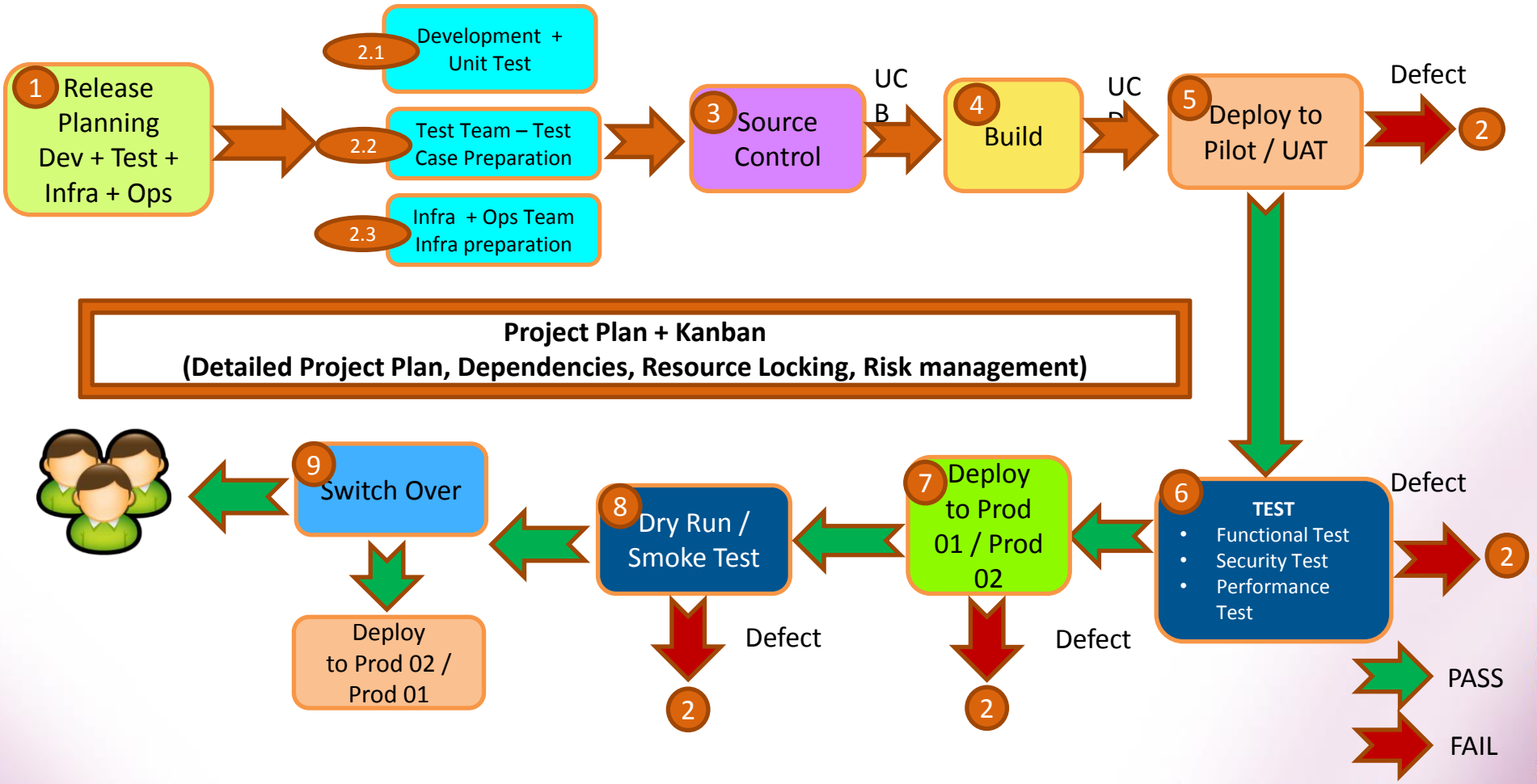
“GOVERNANCE”

“TEAM”

A lack of continuous delivery impacts the entire business



Secure Dev Ops Simplified– All Releases



Best Practices

- Security and governance
- Monitoring
- Storage
- Networking
- Container life cycle management
- Container orchestration

Source : https://www.gartner.com/smarterwithgartner/6-best-practices-for-creating-a-container-platform-strategy/

Q&A

Stay Connected and continue coding !

Code & instructions

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