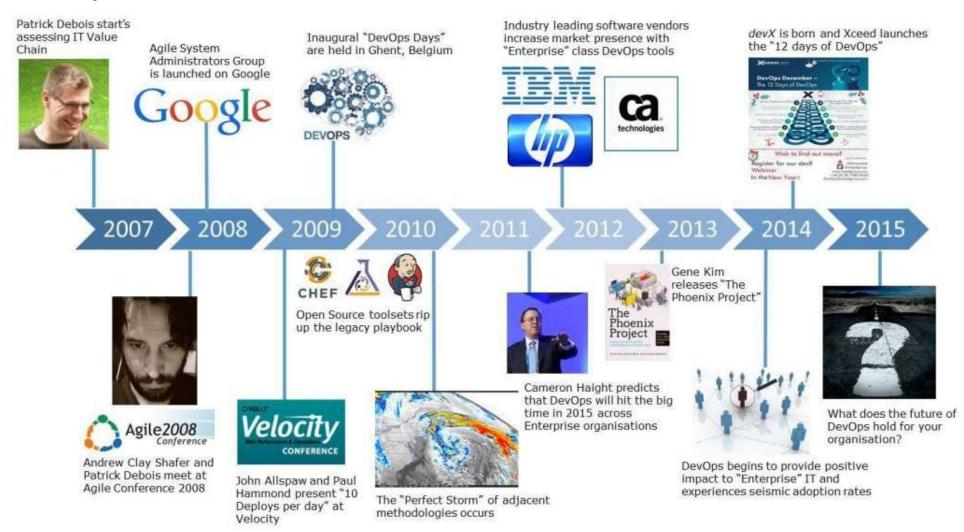
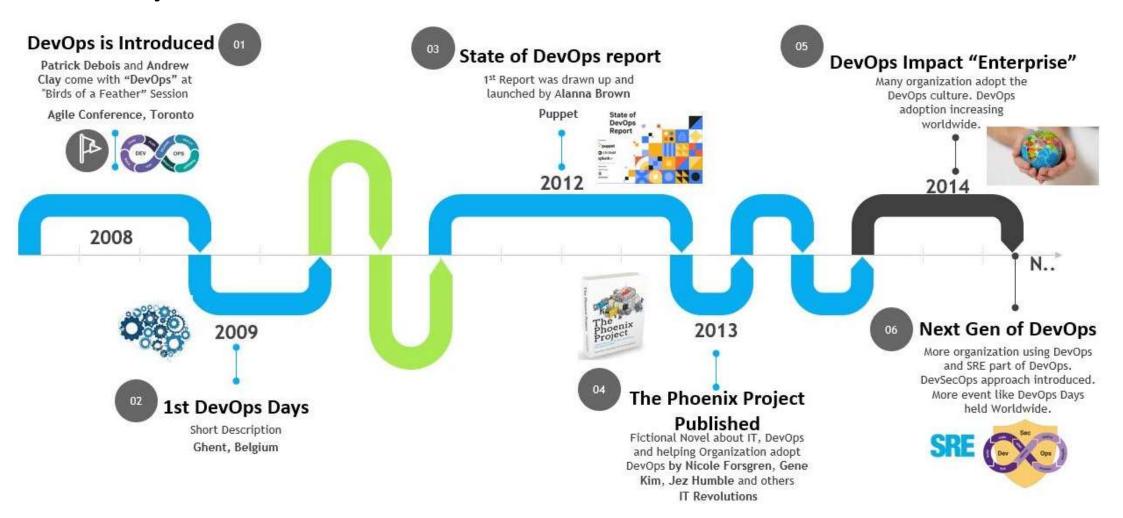
DevOps

History



History

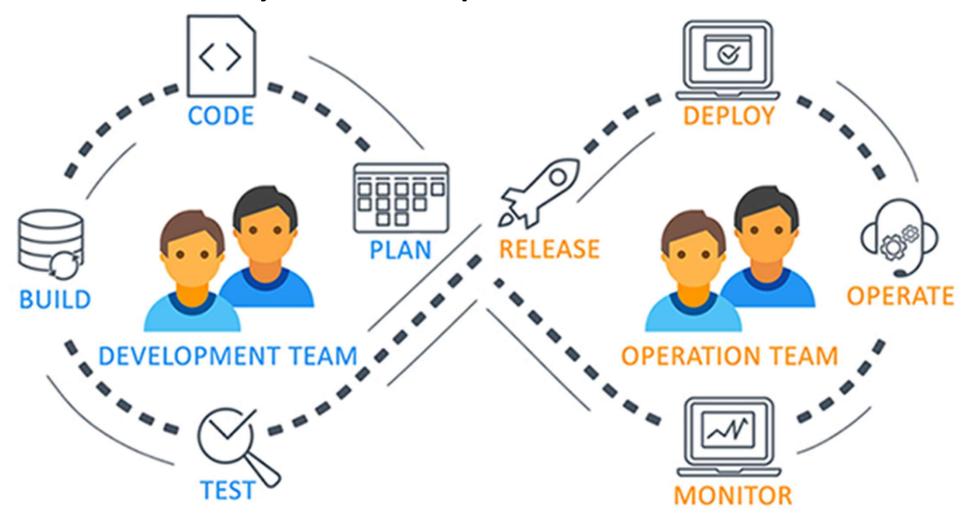


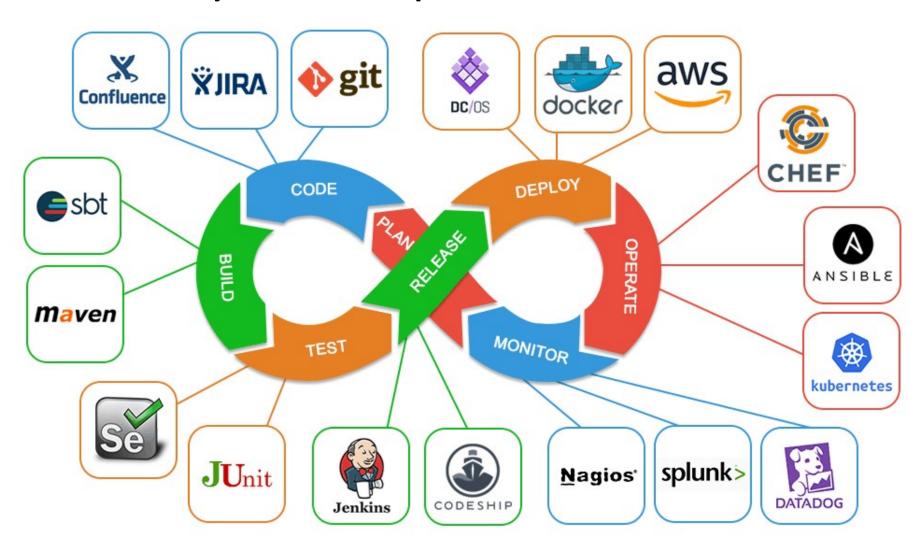
Configuration management

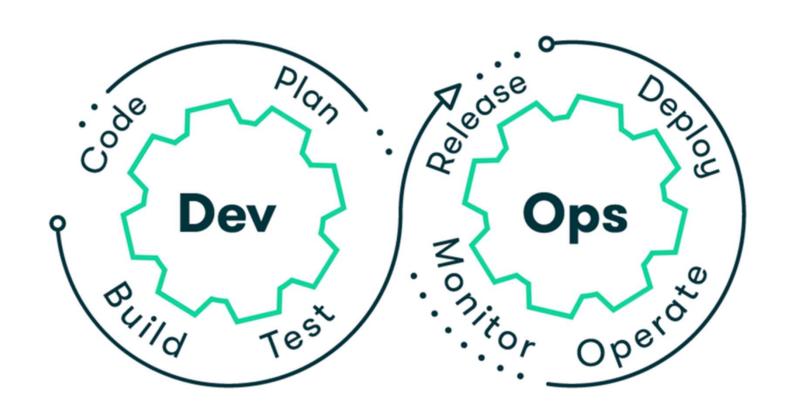
- Process of maintaining systems, such as computer hardware and software, in a desired state
- Configuration Management (CM) is also a method of ensuring that systems perform in a manner consistent with expectations over time.

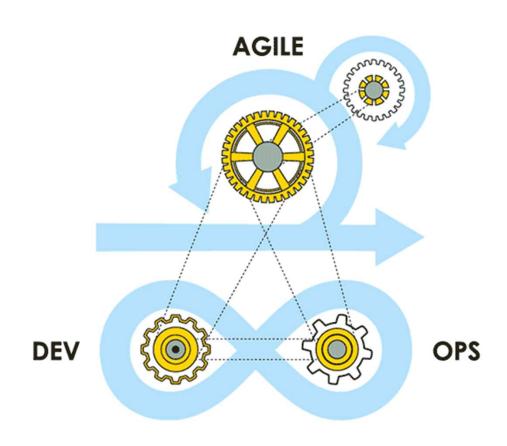
Benefits of Configuration Management

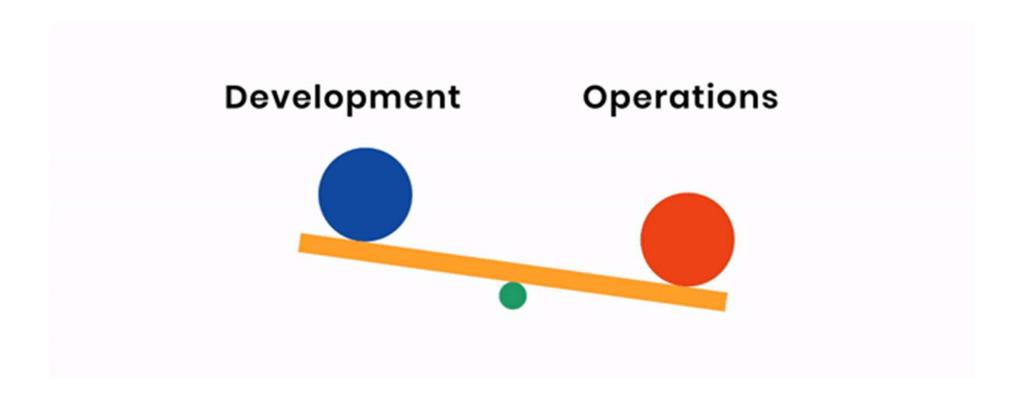
- Reduces risk of unpredictable system failures
 - because it offers perfect visibility and tracks every change made to test environments.
- Reduces costs
- Offers greater agility and better resolution of issues
- Implement faster restoration of services



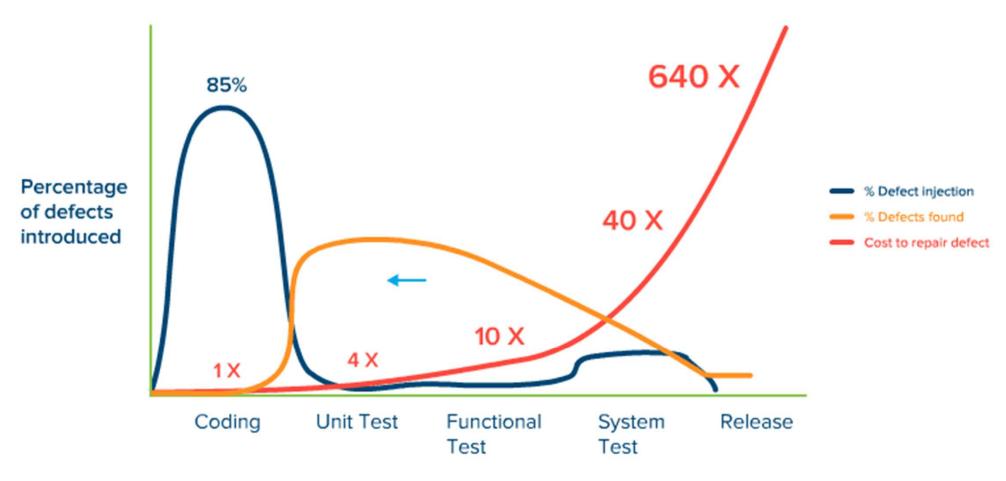






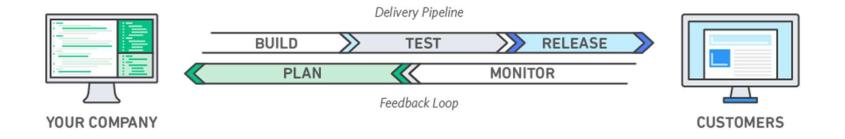


Early Defects vs Delayed Defects detection

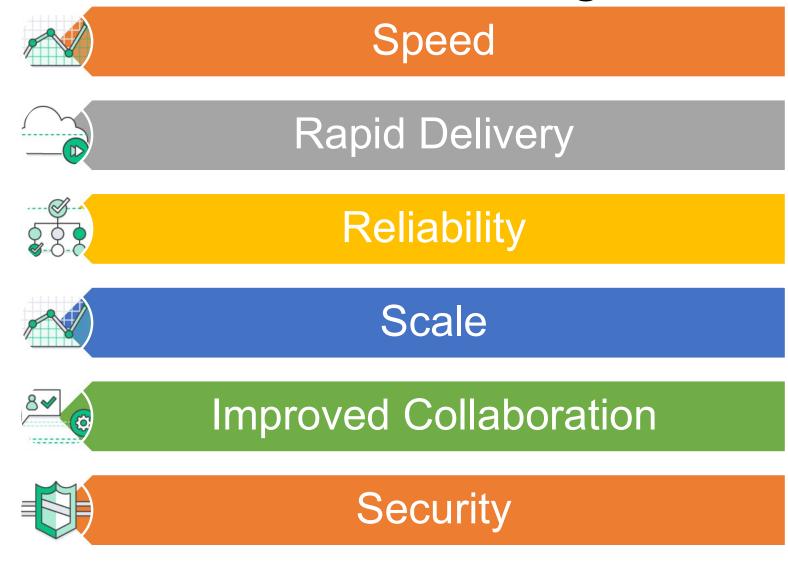


Jones, Capers. Applied Software Measurement: Global Analysis of Productivity and Quality.

DevOps as a solution and Advantages



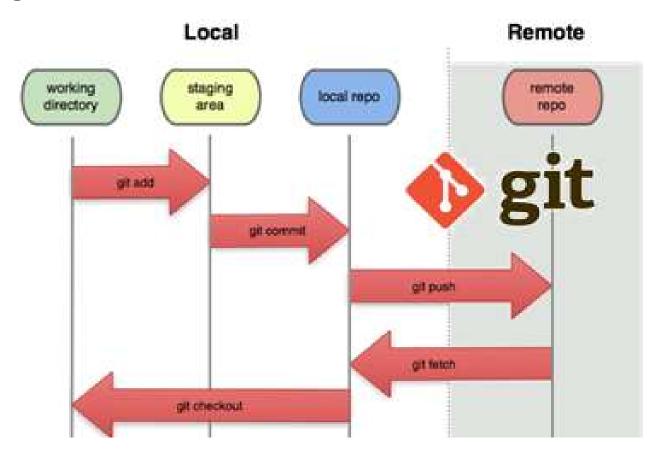
DevOps as a solution and Advantages



DevOps Tools – Overview and Use case

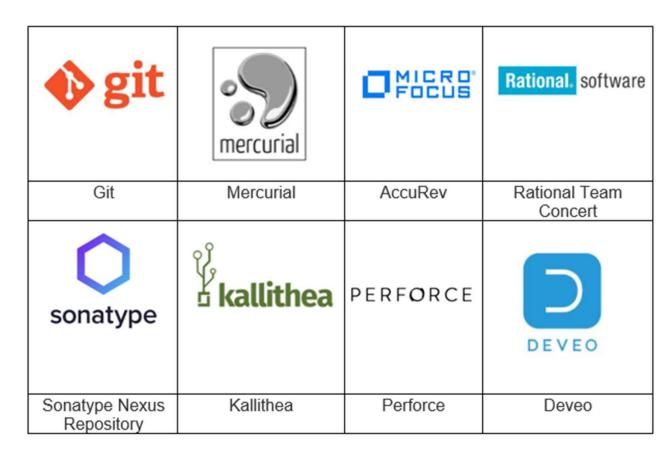
Source control

- To ensures for working on the right version
- Important for maintaining a single source of truth

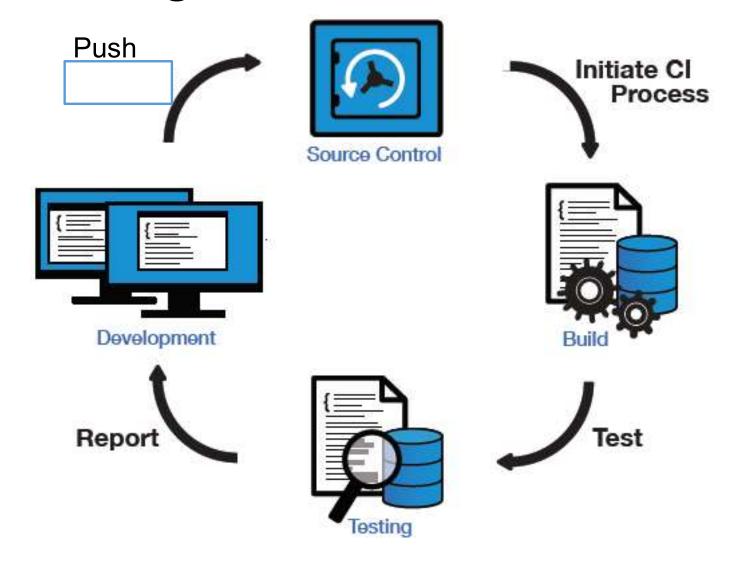


Source Code Management (SCM Tools)

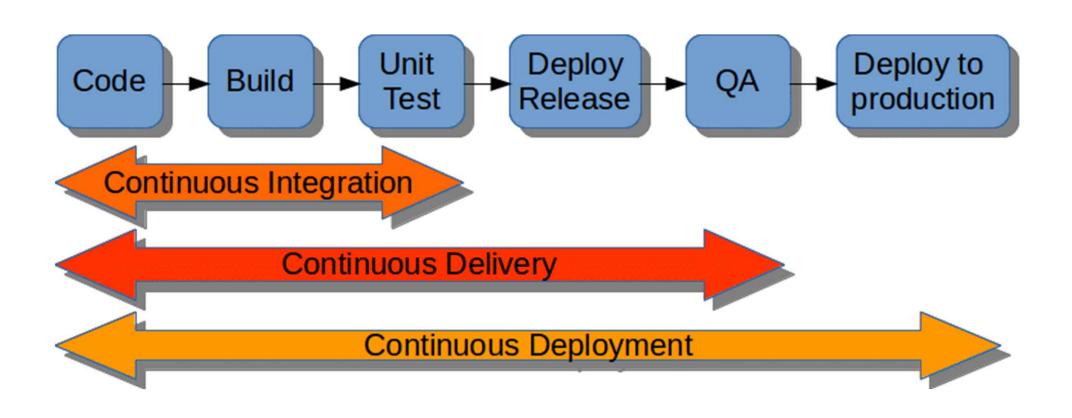
- Help to keep track of code
- Complete history of changes.



Continuous Integration

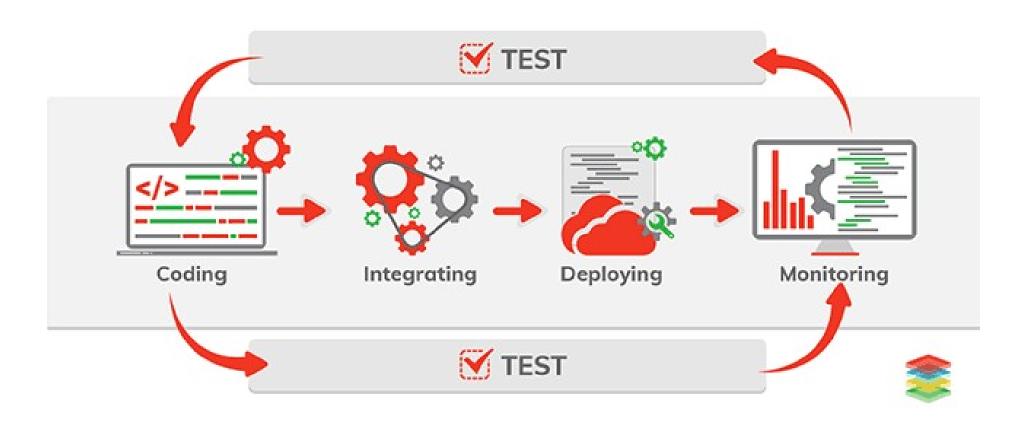


Continuous Delivery and Deployment



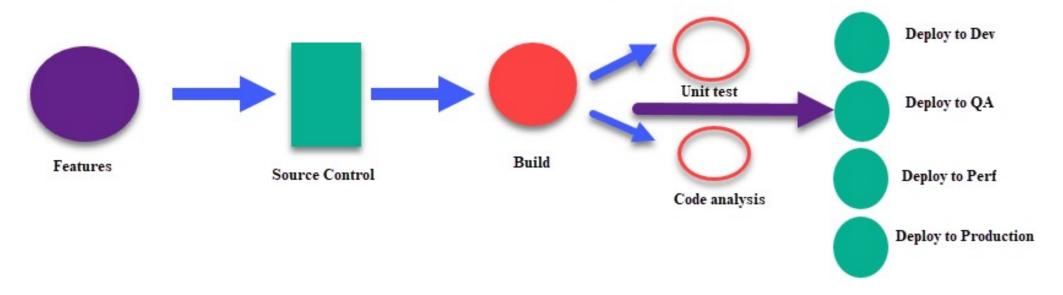
Continuous Testing

Continuous Testing



Continuous Testing

Continuous Testing



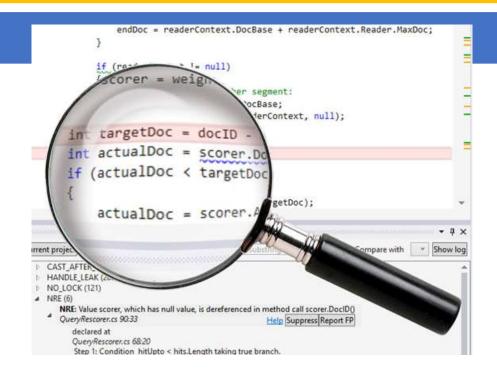
What Is Static Code Analysis?

A method of debugging

Examine source code before a program is run

Done by analyzing a set of code against a set of coding rules.

Performed early in development



Static Code Analysis Tool

Development teams are under pressure

Quality releases needed to be delivered on time

Coding and compliance standards need to be met

And mistakes are not an option.

That's why development teams are using static analysis tools.

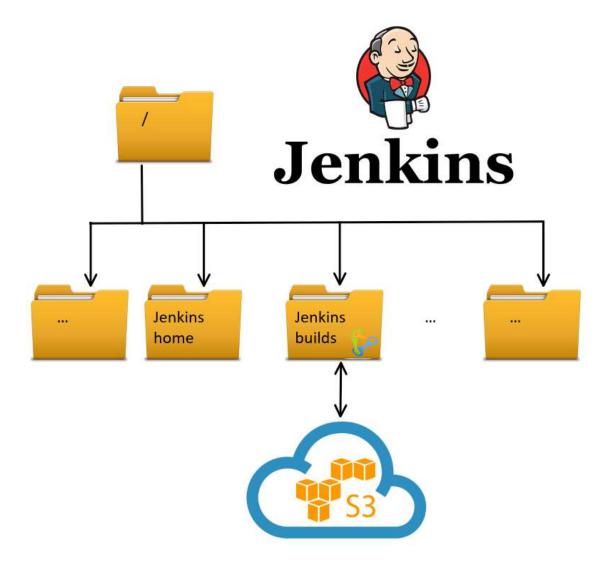
Static Analysis vs. Dynamic Analysis

- Static analysis
 - Identifies defects before running a program (e.g., between coding and unit testing).
- Dynamic analysis
 - Identifies defects after running a program (e.g., during unit testing)

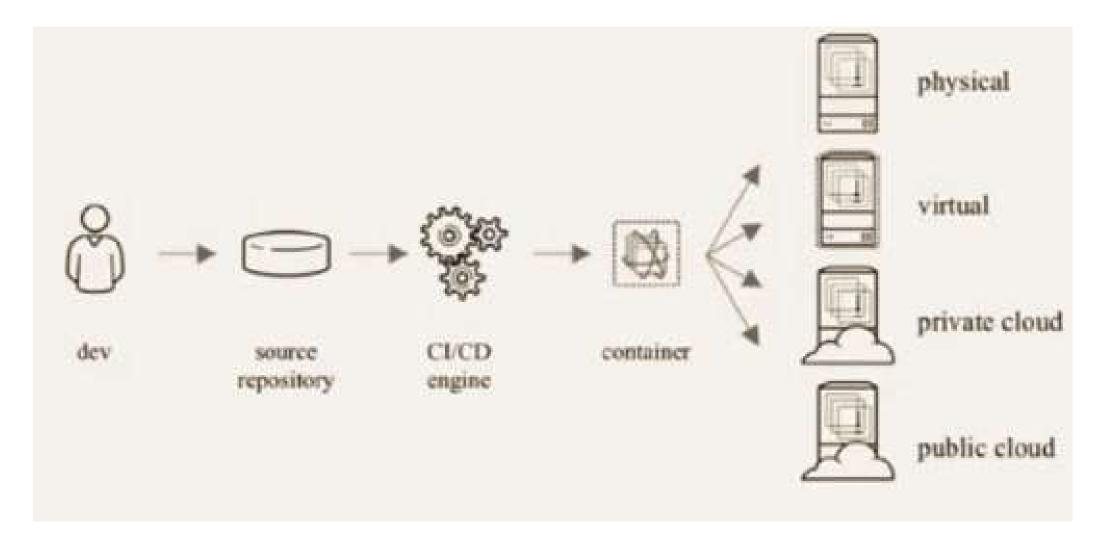
Few Static Code Analysis Tools



Storage Artifacts



Containerization



Configuration Management

- A process for maintaining
 - Computer systems
 - · Servers, and
 - Software in a desired, consistent state

Benefits of Configuration Management for Servers

Quick Provisioning of New Servers

Quick Recovery from Critical Events

Version Control for the Server Environment

Replicated Environments

Configuration Management Tools















Thanks