



DevSecOps Reference Architectures

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About this collection

1. The reference architectures can be used to **validate choices** you have made or are planning to make.
2. They are curated from the **community**. You will notice a number of common elements that are used repeatedly.
3. Each image has a link to its **original source** in the speaker notes, enabling you to deep dive for more knowledge.

If you would like to have **your reference architecture** added to this deck, please send it to weeks@sonatype.com.

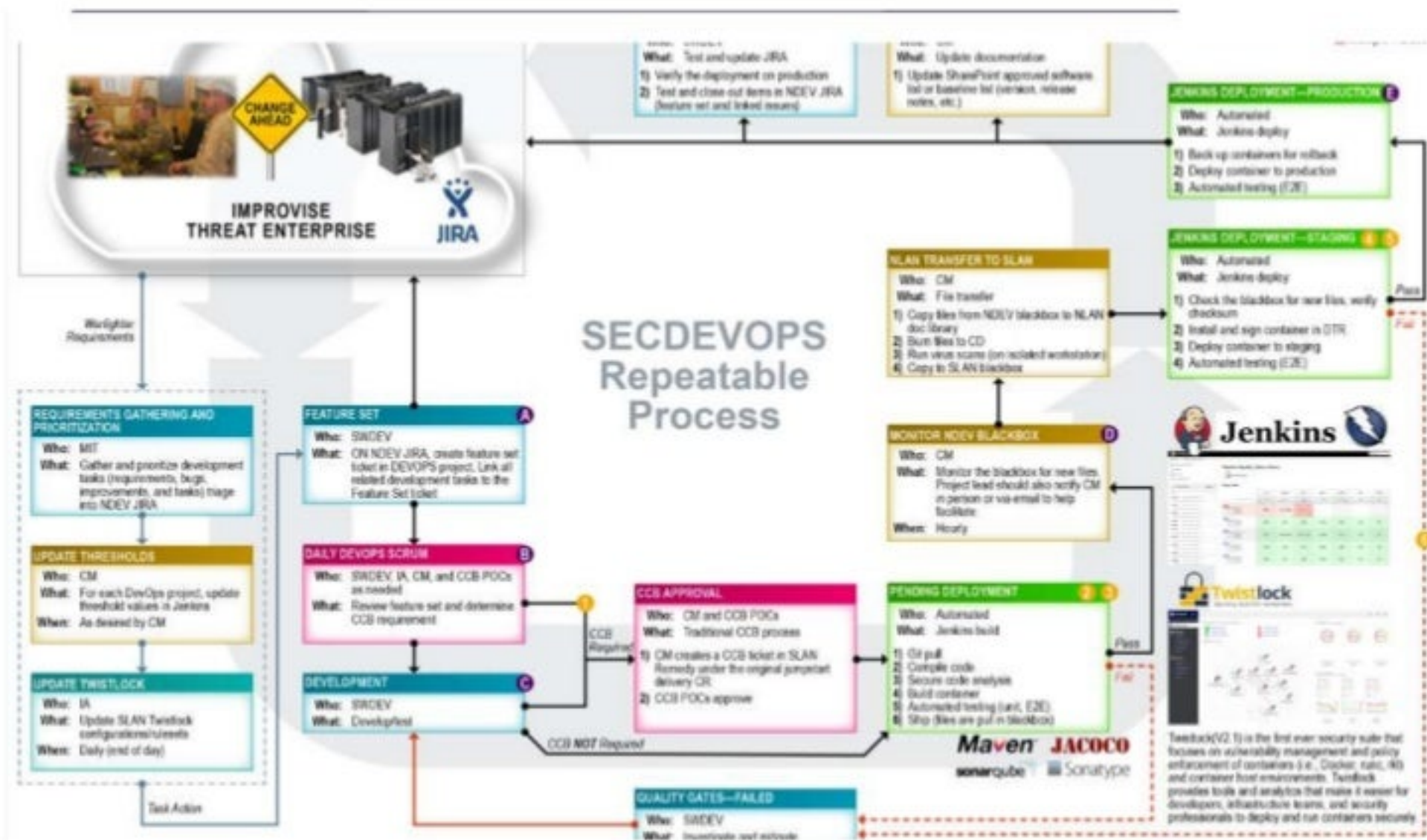
Degrees of DevSecOps Automation

	Integration Points and Degree of Automation				
DevSecOps Tooling	Design	Development (IDE)	Repository Manager	CI/CD	Post-Deployment
Open source governance	●	●	●	●	●
Open source software analysis	●	●	●	●	n/a
Static Application Security Testing (SAST)	●	●	●	●	n/a
Dynamic Application Security Testing (DAST)	●	n/a	n/a	n/a	◐
Interactive Application Security Testing (IAST)	●	n/a	n/a	●	n/a
Mobile Application Security Testing (MAST)	◐	n/a	◐	◐	n/a
Run-time Application Self Protection (RASP)	n/a	n/a	n/a	◐	●
Container and Infrastructure Security	◐	n/a	●	●	●

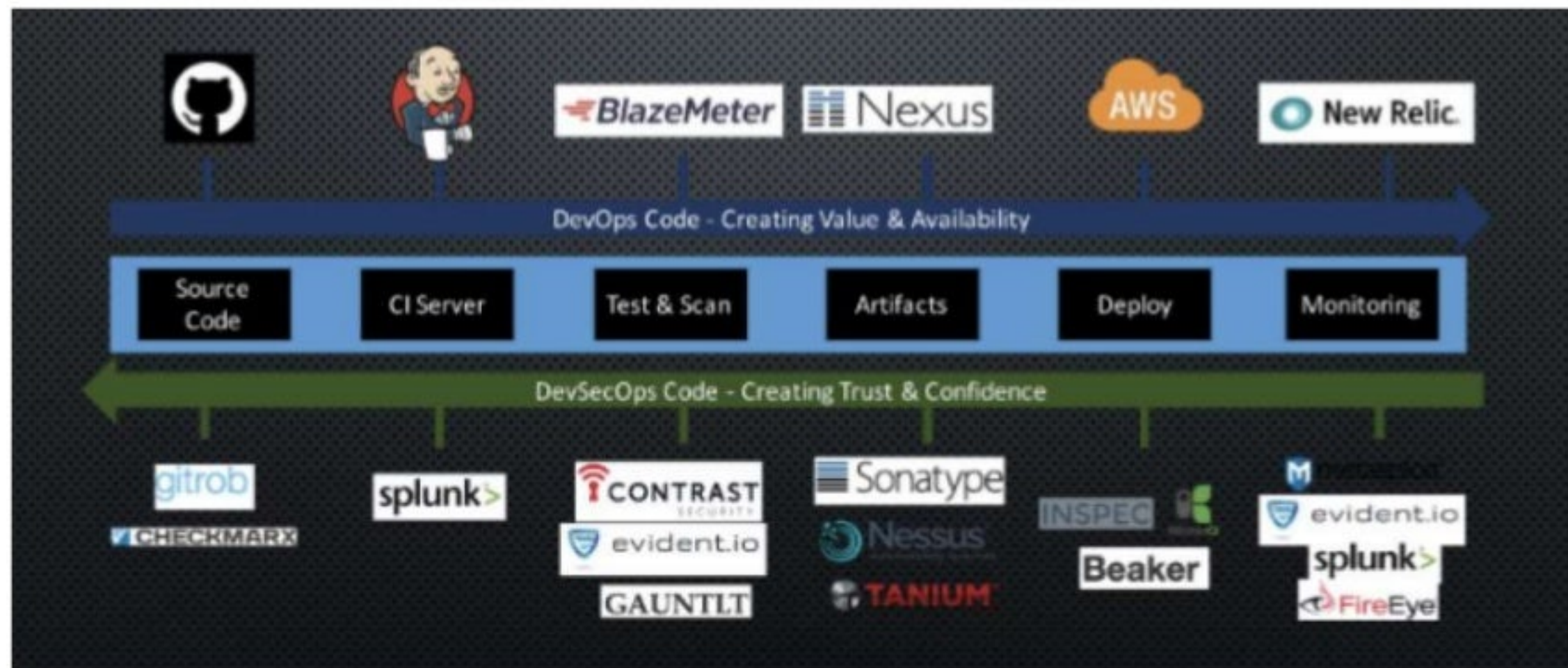
Common Elements of a DevSecOps Pipeline



DevSecOps according to U.S. Dept of Defense/JIDO



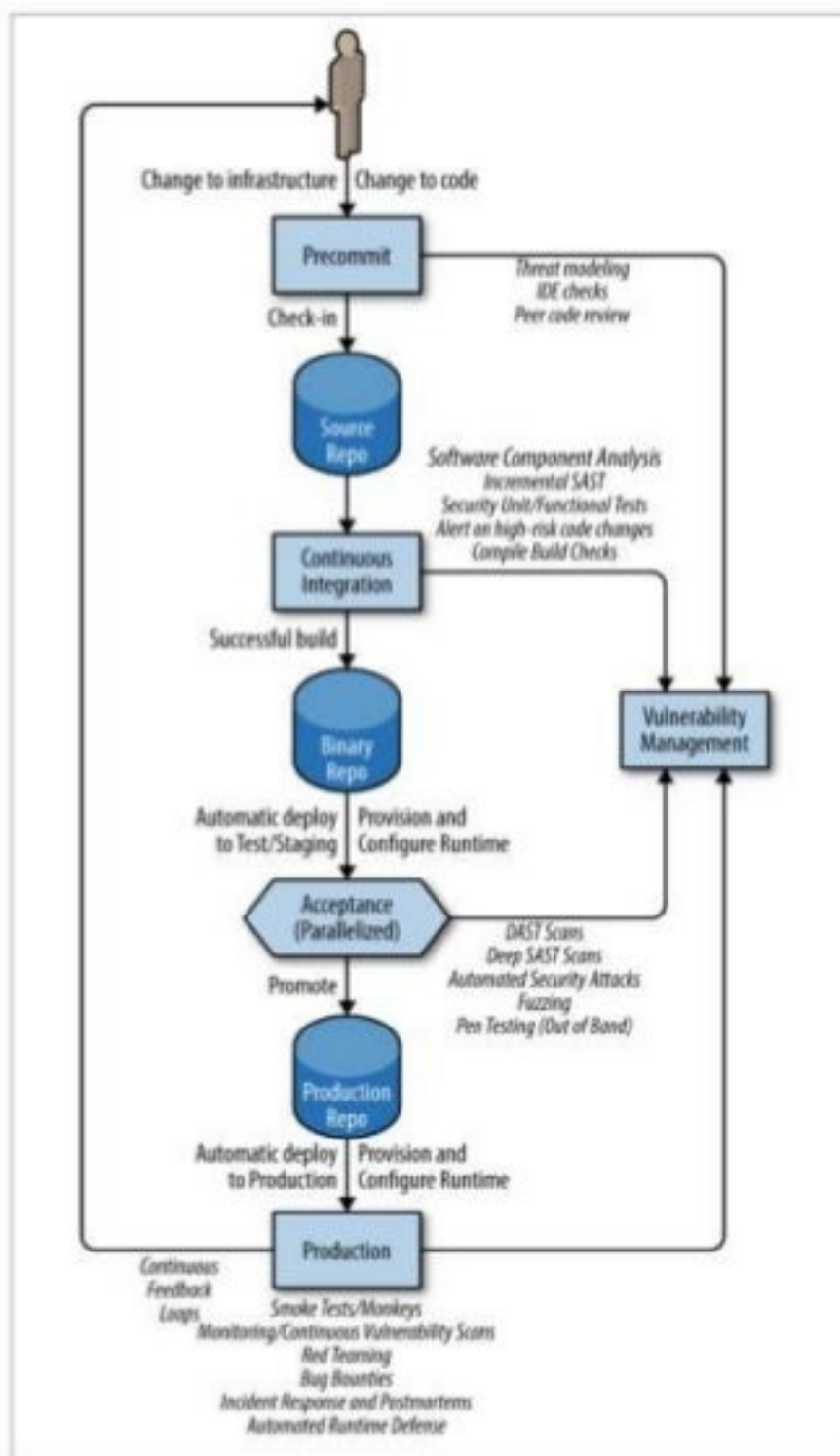
DevSecOps according to Magno Rodrigues



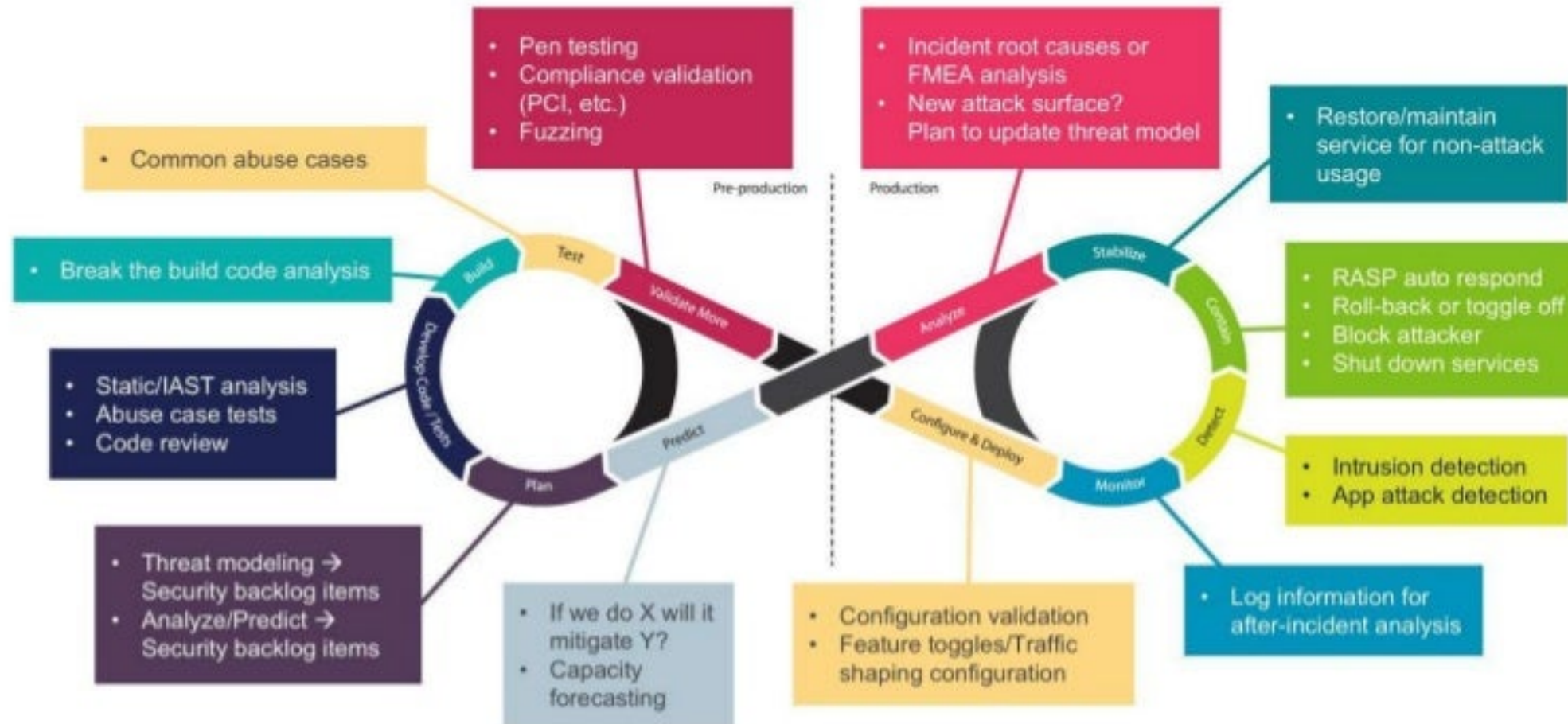
DevSecOps according to Carnegie Mellon's SEI



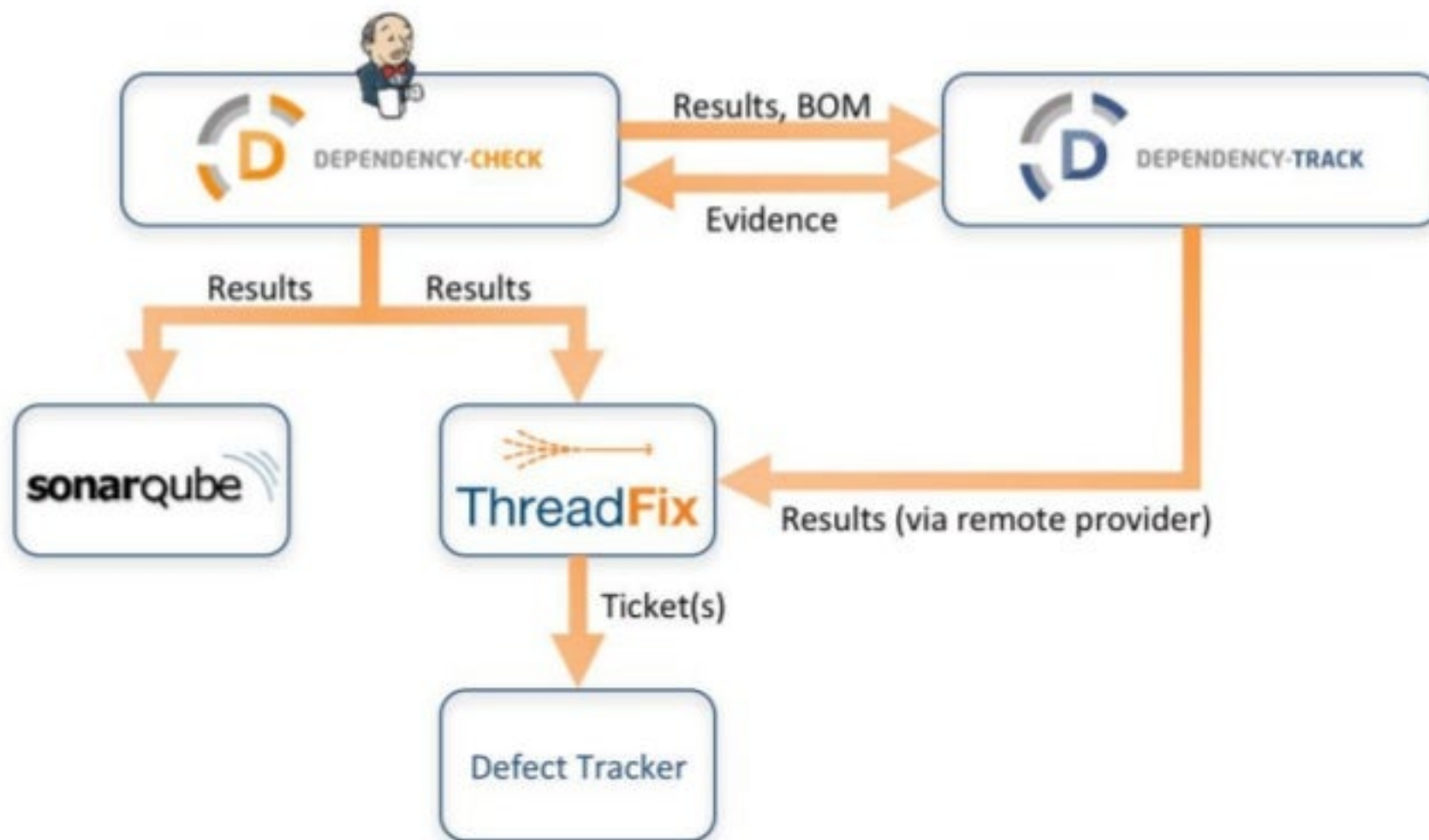
DevSecOps according to Jim Bird



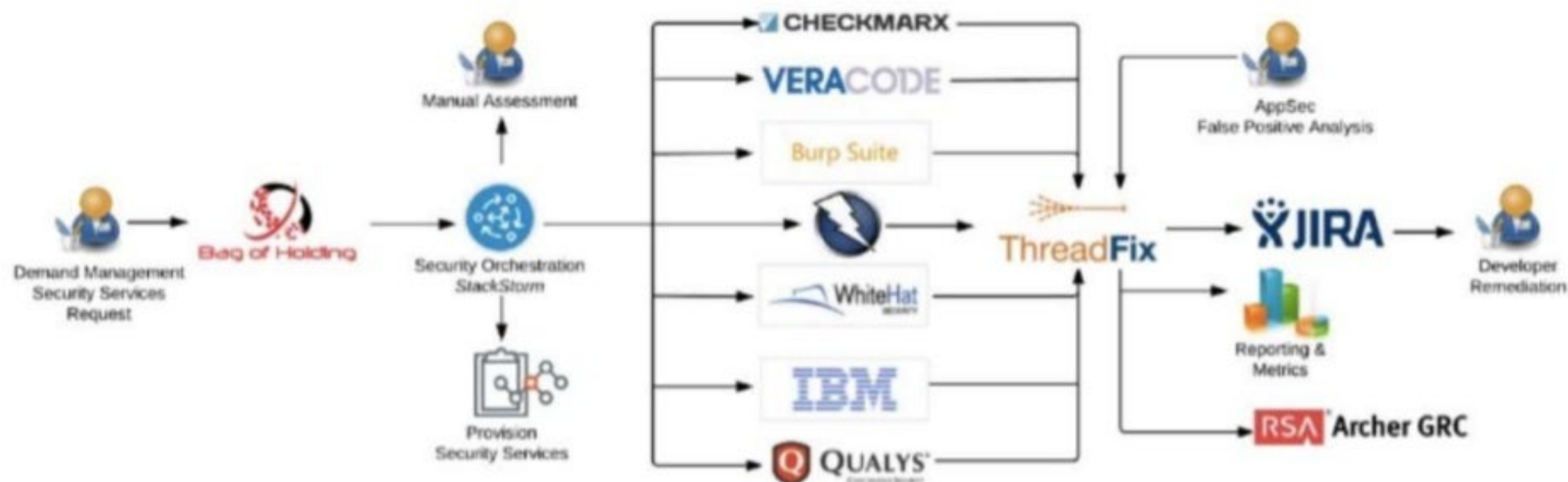
DevSecOps according to Larry Maccherone



DevSecOps according to Steve Springett



DevSecOps according to TeachEra



Learn More From Your Peers

21 DevSecOps practitioners from leading enterprises to shared their experiences and best practices. All 21 recordings are available for **free** at www.alldaydevops.com.



 LendingClub



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UNDER ARMOUR



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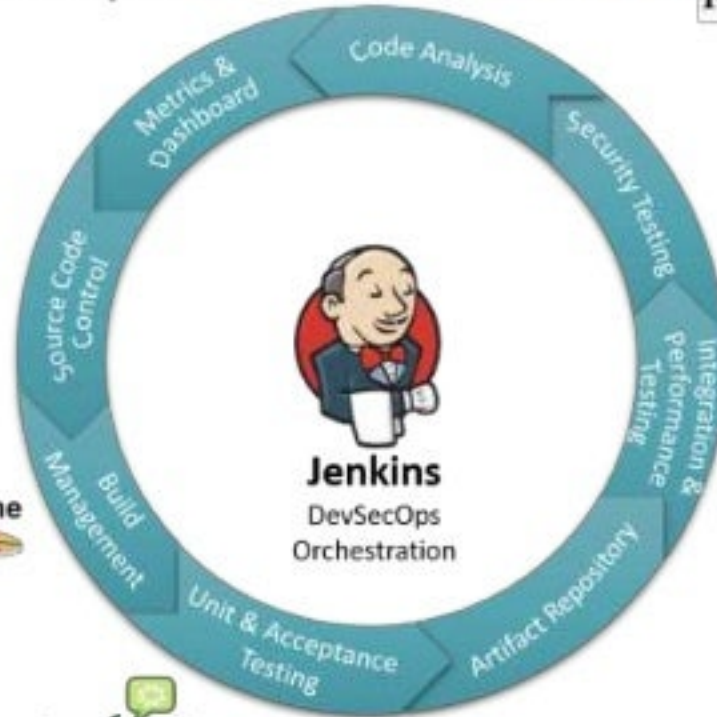




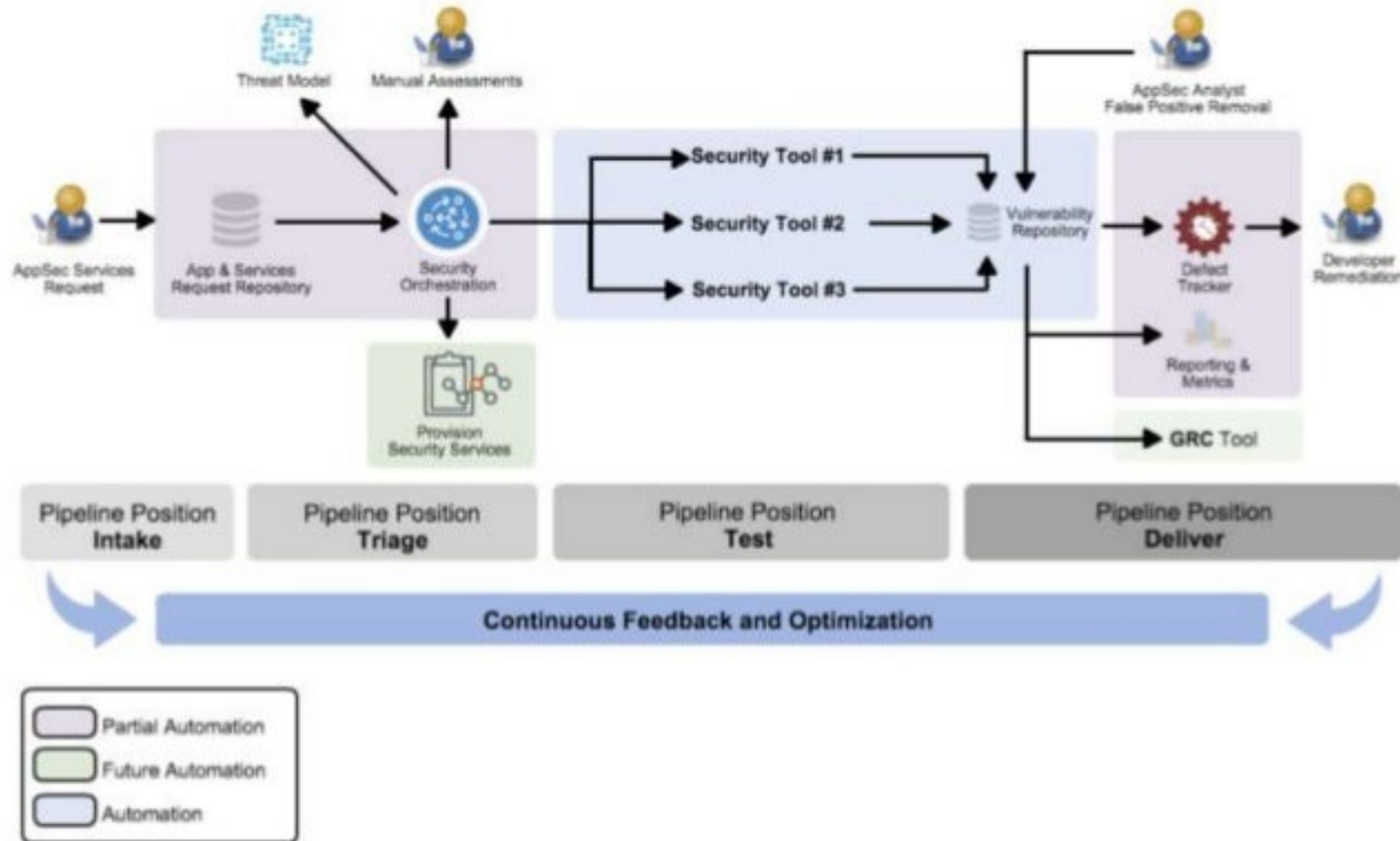


DevSecOps according to Coveros

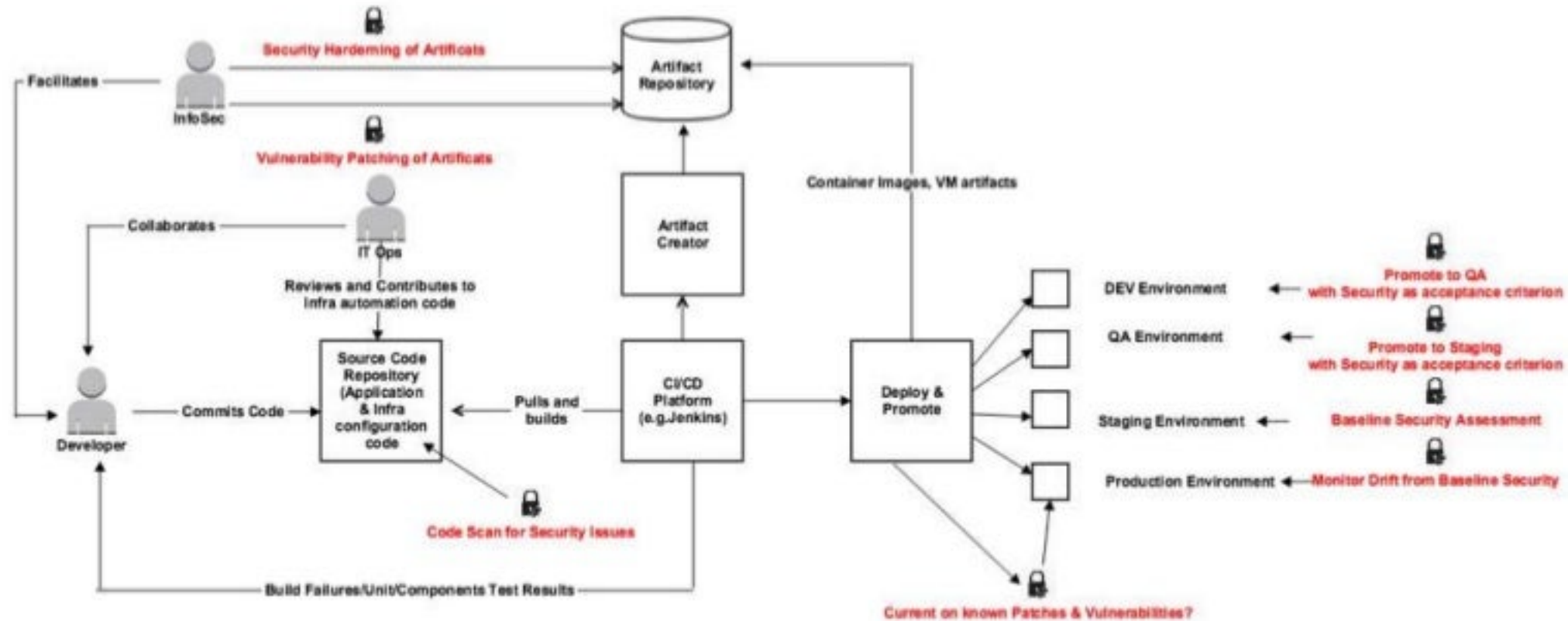
Designed & built on:



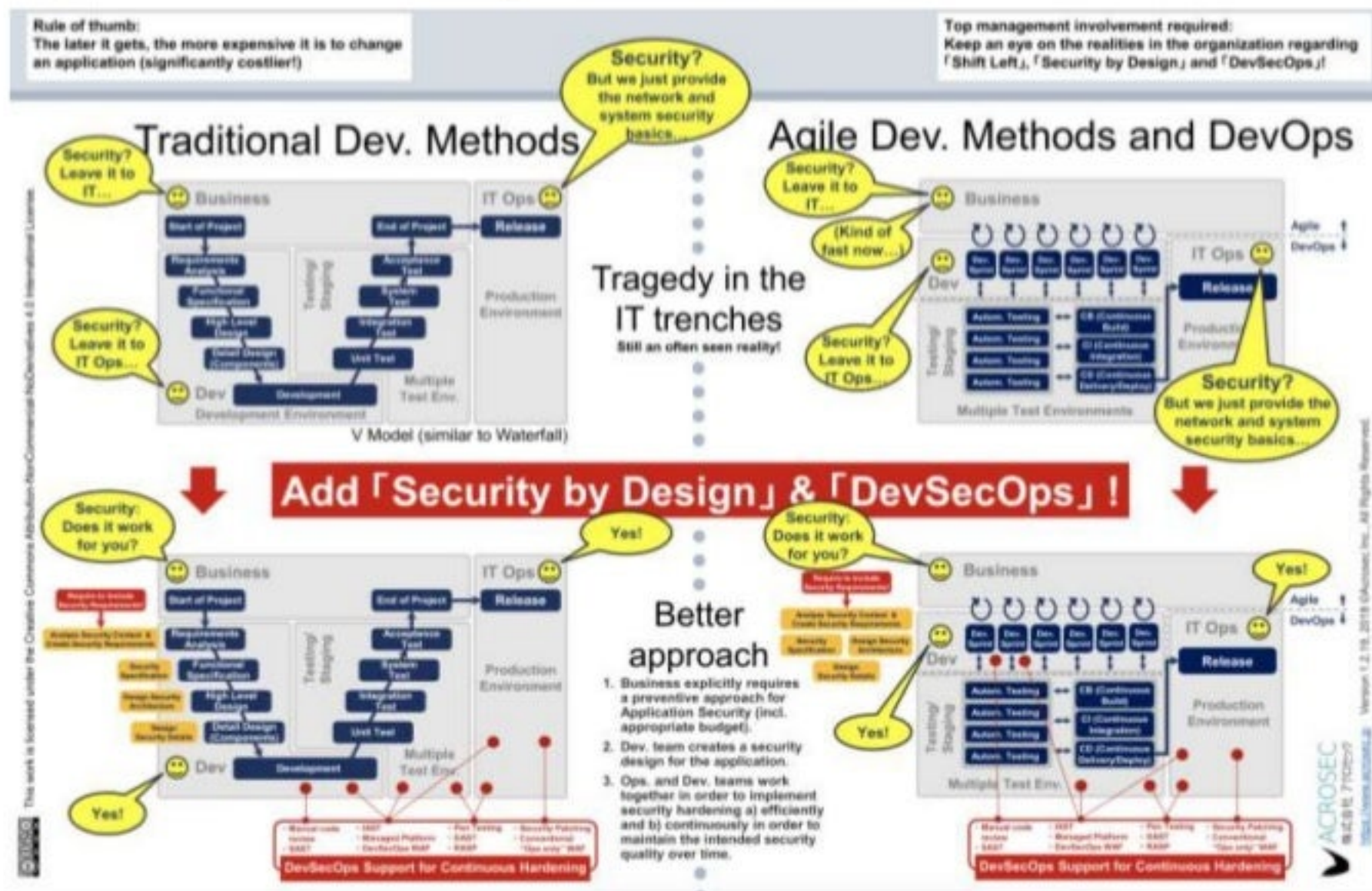
DevSecOps according to Aaron Weaver



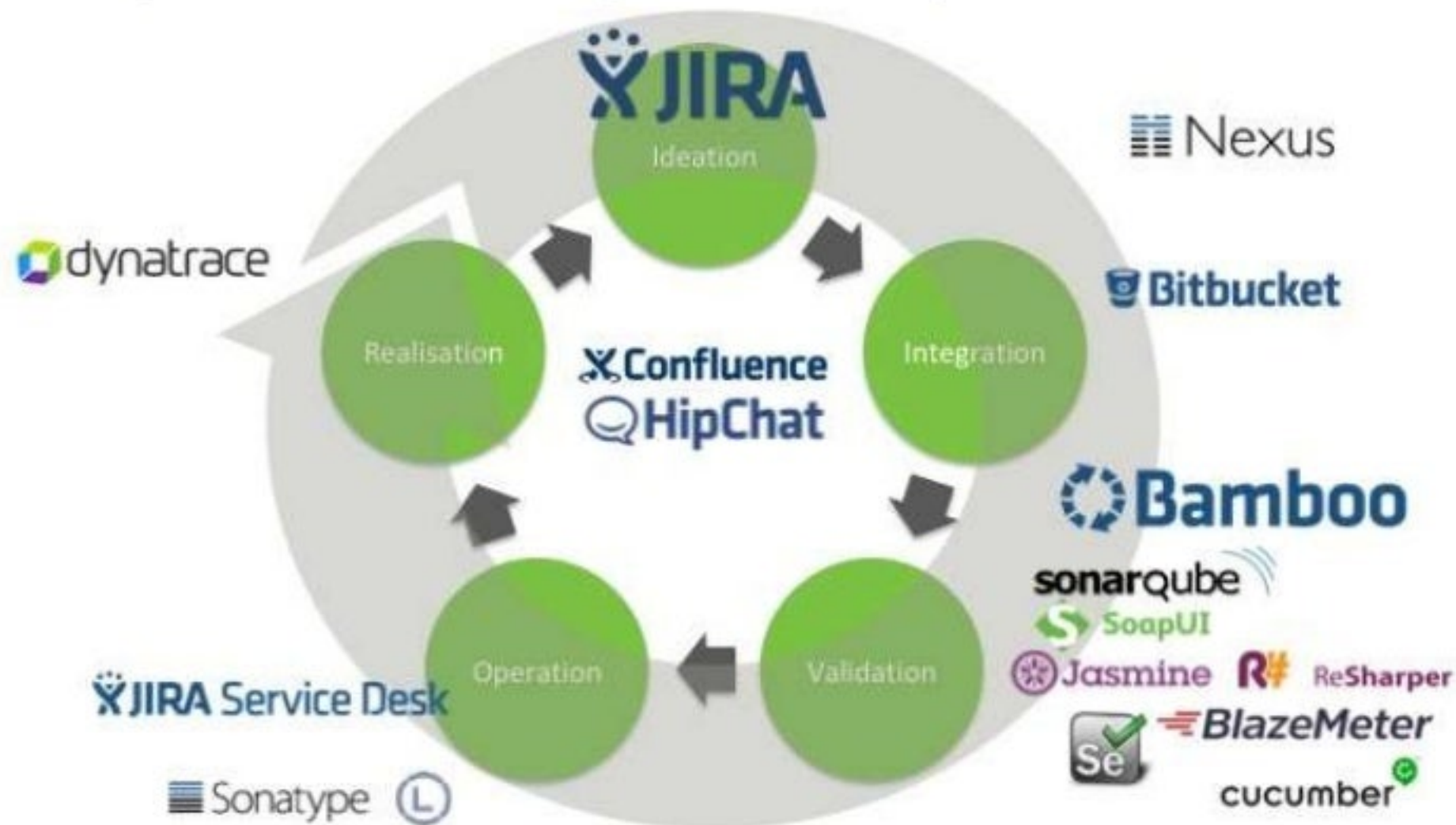
DevSecOps according to Dr. Ravi Rajamiyer



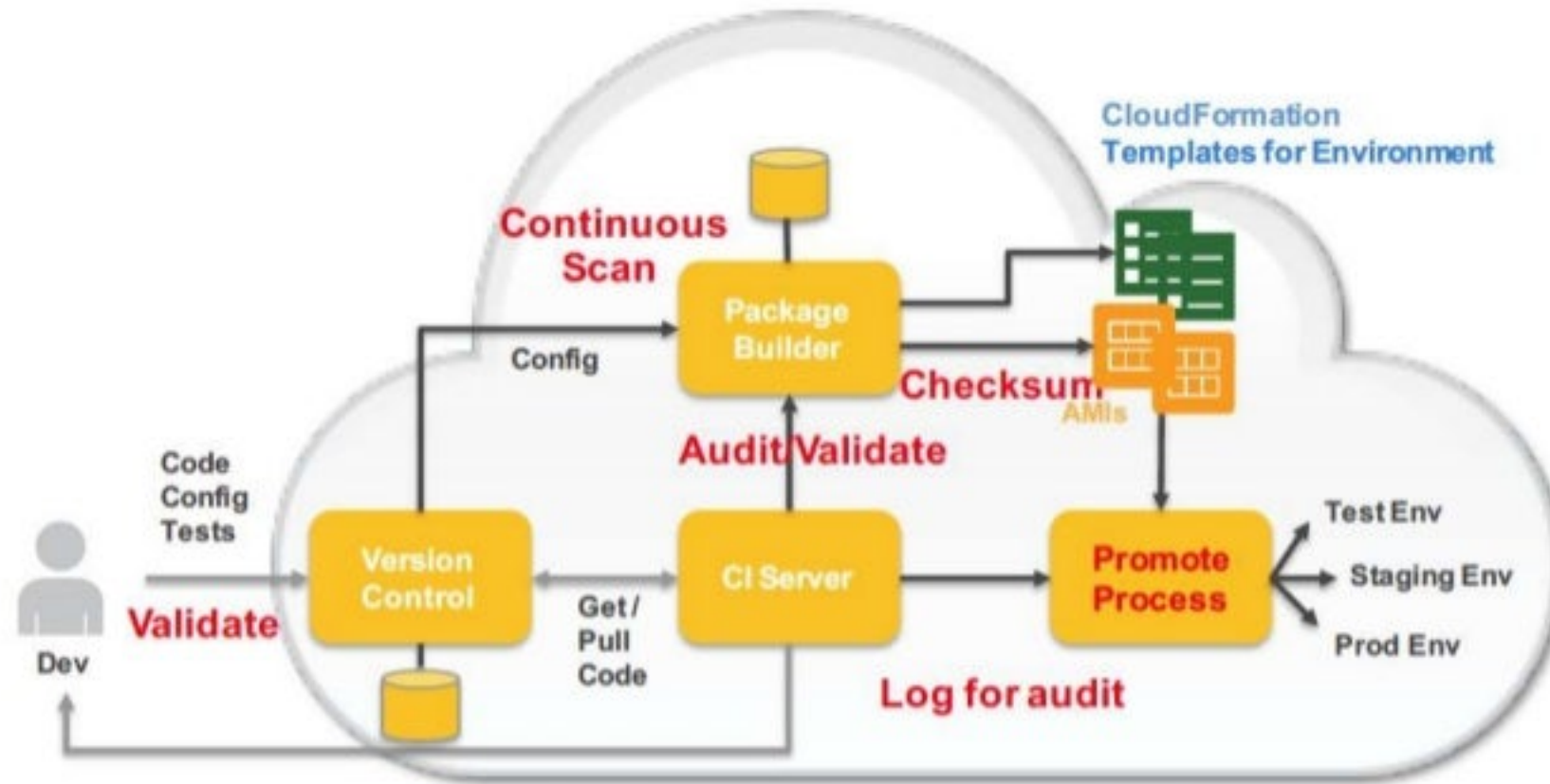
DevSecOps according to ACROSEC



DevSecOps according to Ranger4

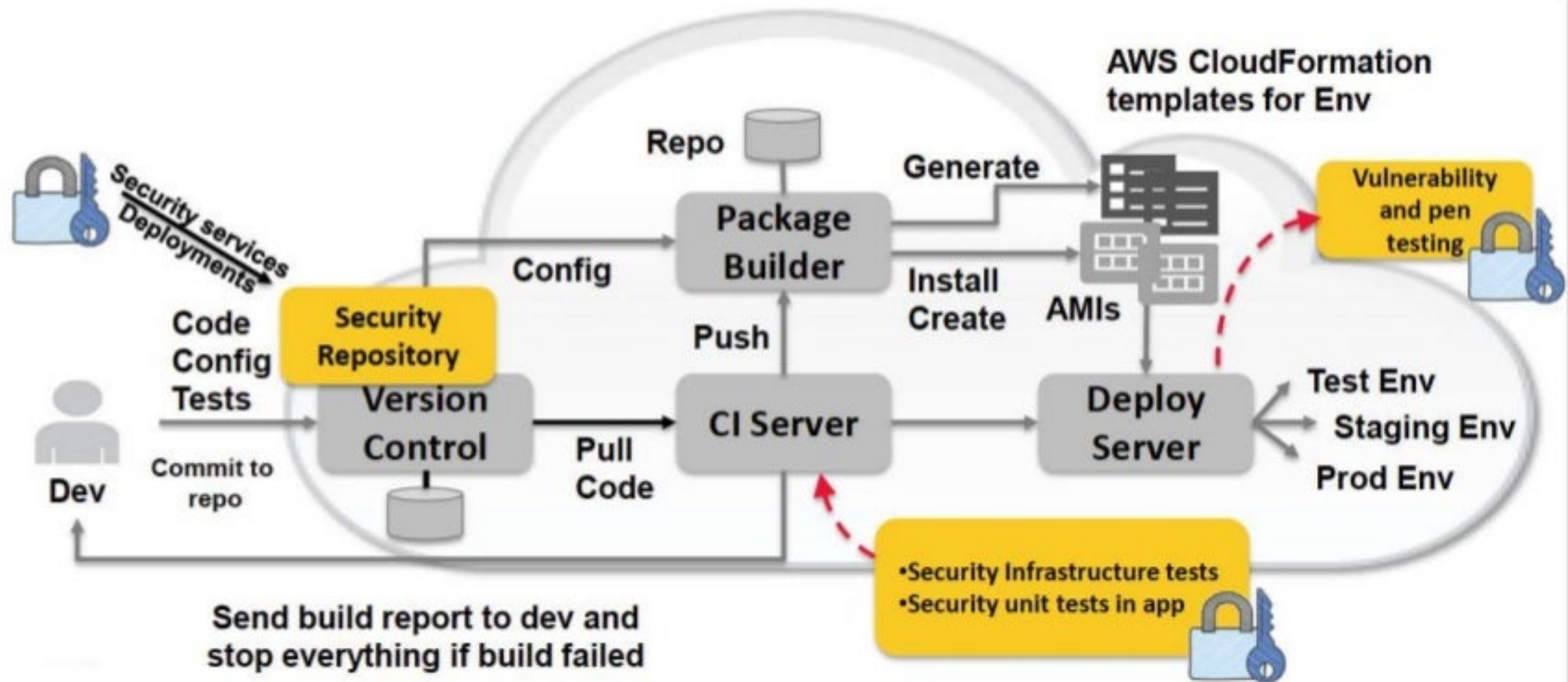


DevSecOps according to AWS

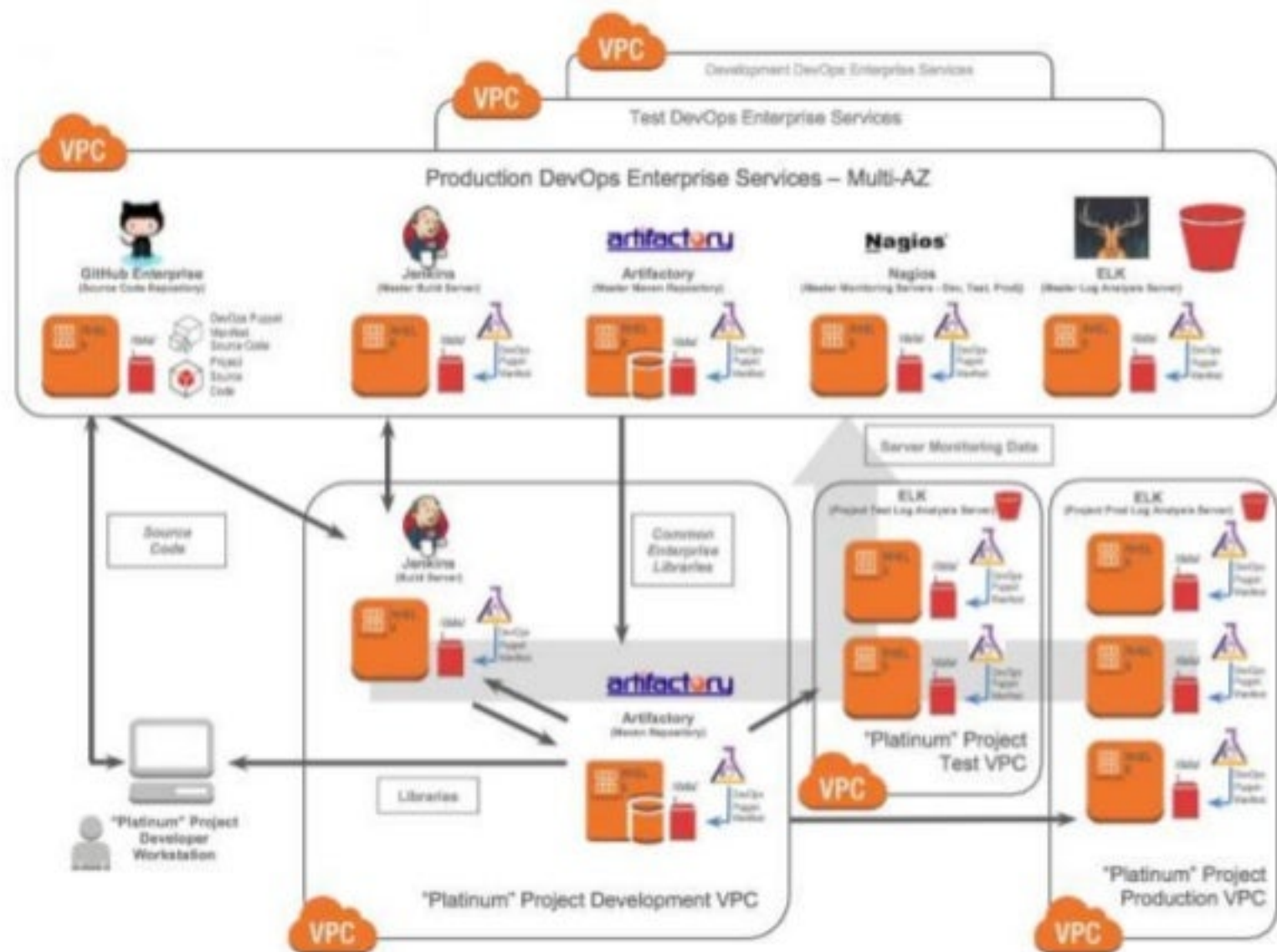


Send Build Report to Security
Stop everything if audit/validation failed

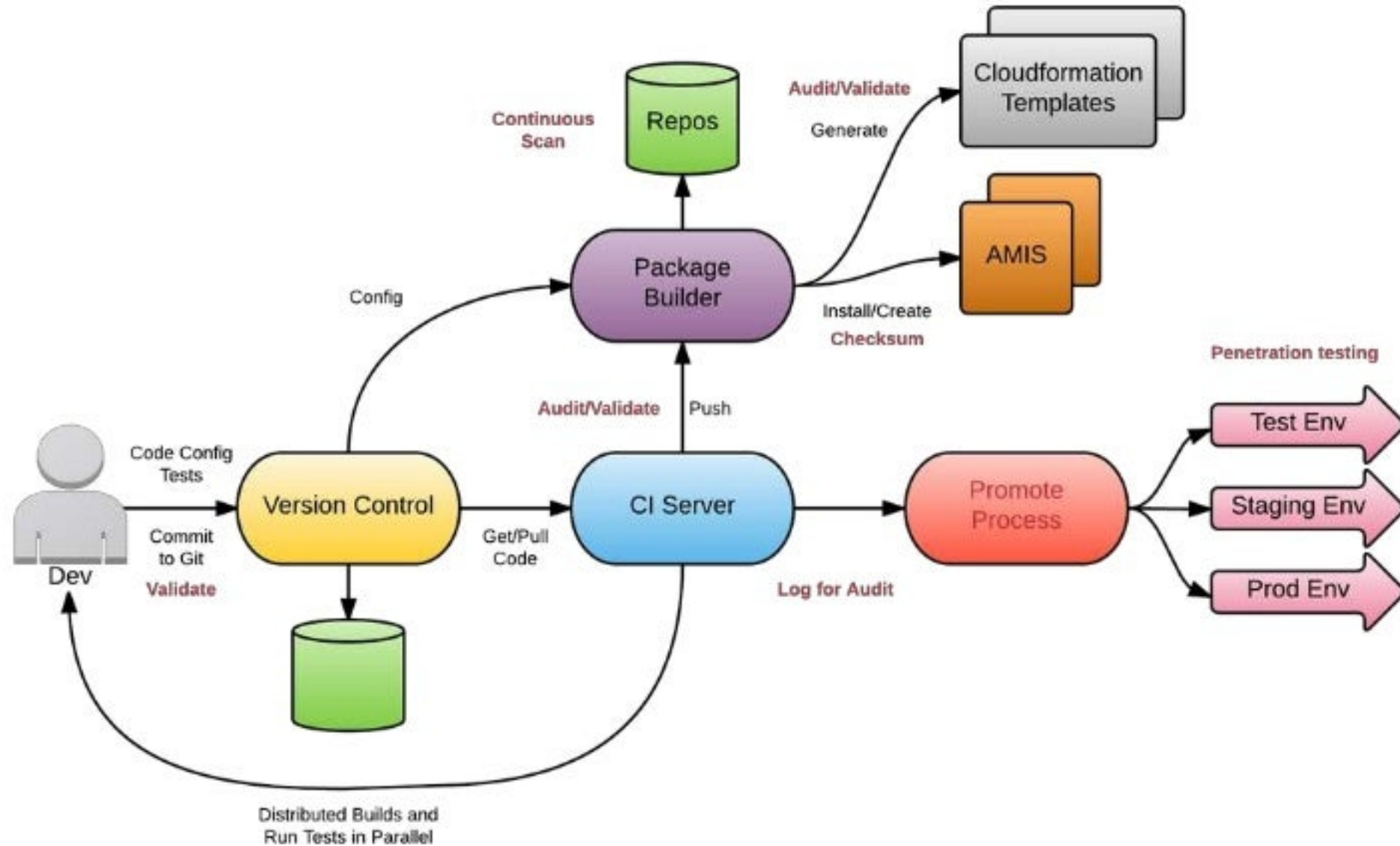
DevSecOps according to AWS



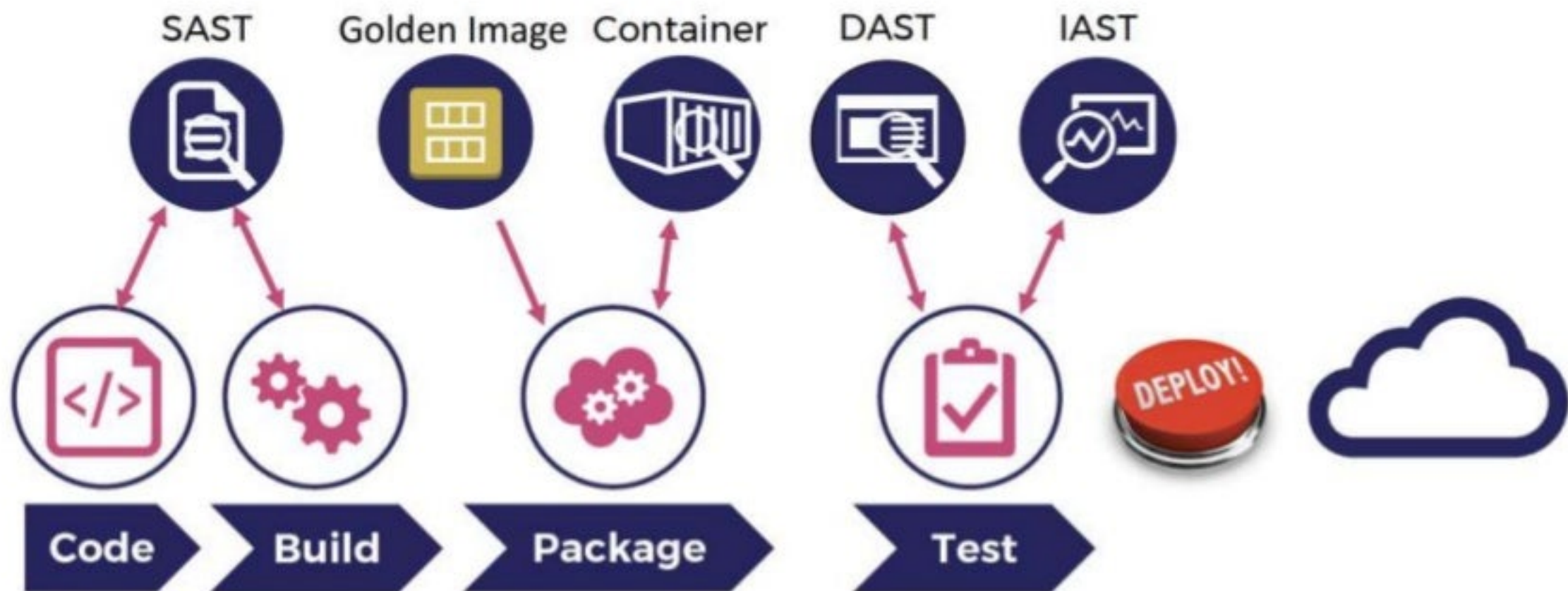
DevSecOps according to Accenture



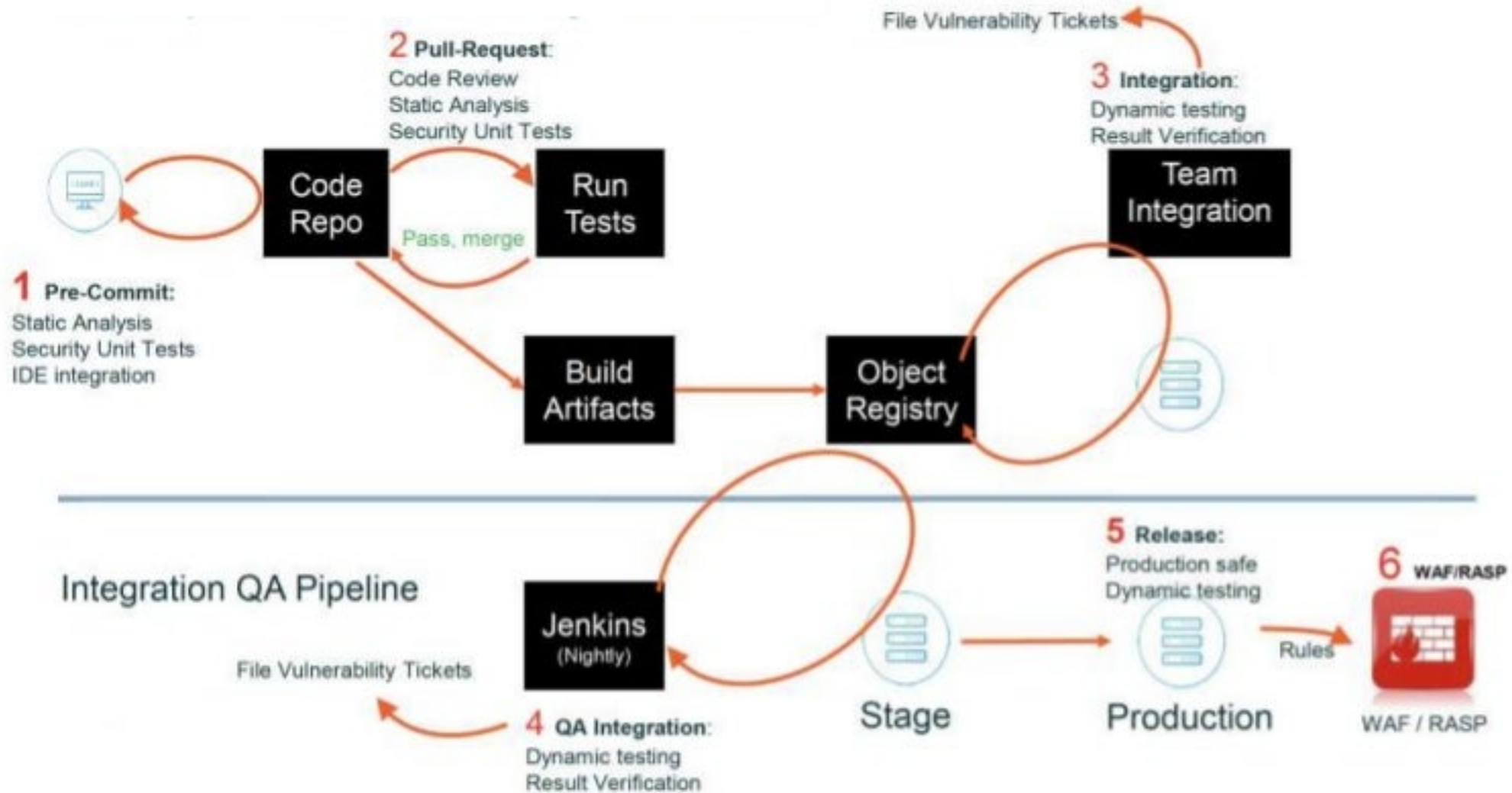
DevSecOps according to Shine Solutions



DevSecOps according to Ellucian



DevSecOps according to WhiteHat Security



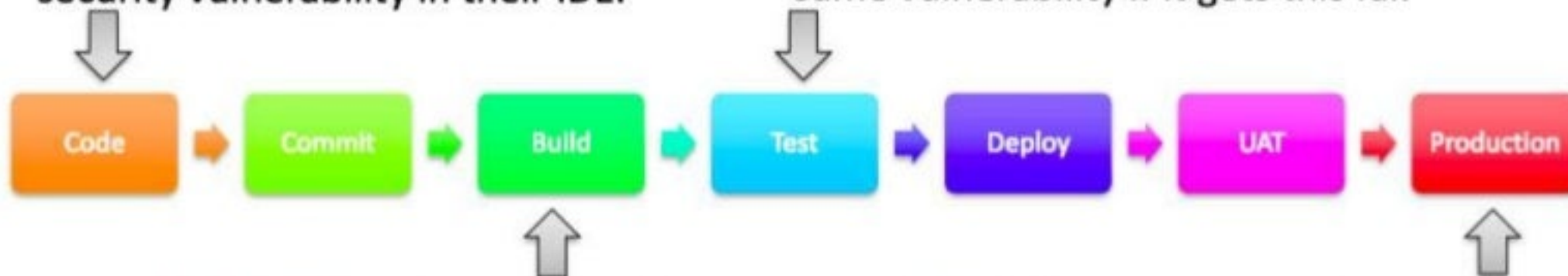
DevSecOps according to GSA

BUILD		TEST	DEPLOY	OPERATIONS
PLAN	CODE	(CI)	(CD)	SECURITY & MONITORING
JIRA Slack Trello	Ansible GitHub Jenkins	Jenkins Selenium	Ansible Jenkins Terraform CloudFormation	AMI ClamAV CloudWatch Nessus OSSEC SolarWinds

https://tech.gsa.gov/guides/building_devsecops_culture/

DevSecOps according to Sense of Security

Layer #1 – The developer has an opportunity to avoid introducing a security vulnerability in their IDE.



Layer #3 – Automated dynamic scanning of the application detects the same vulnerability if it gets this far.

Layer #2 – Static code analysis triggered by the code commit action identifies the vulnerability – build fails.

Layer #4 – Continuous Monitoring & Vulnerability Management detects the exposed vulnerability. Add comprehensive Manual Pen Test.



All Day DevOps



We would love to add your DevSecOps reference architecture to this deck.

How?

1. Send it to me (weeks@sonatype.com), with the subject line: DevSecOps reference architecture.
2. Provide me link as to where people can find more information about the architecture (e.g., your blog, a video, a SlideShare deck).
3. I'll add it to this deck with full attribution to you, and let you know that it's been updated.

It's that easy. We all learn with help from the community. Thank you for your contributions!

