CI/CD

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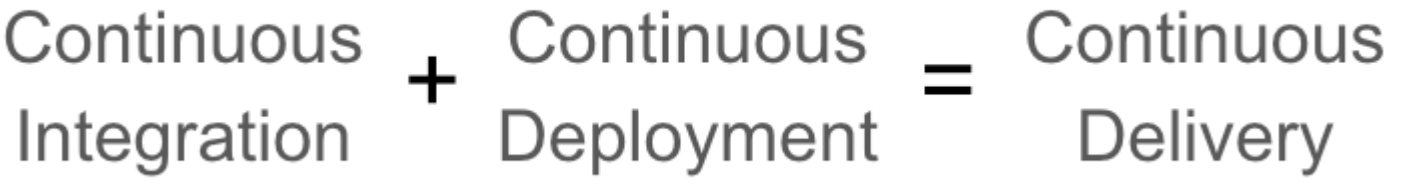
Why we should adopt it!!

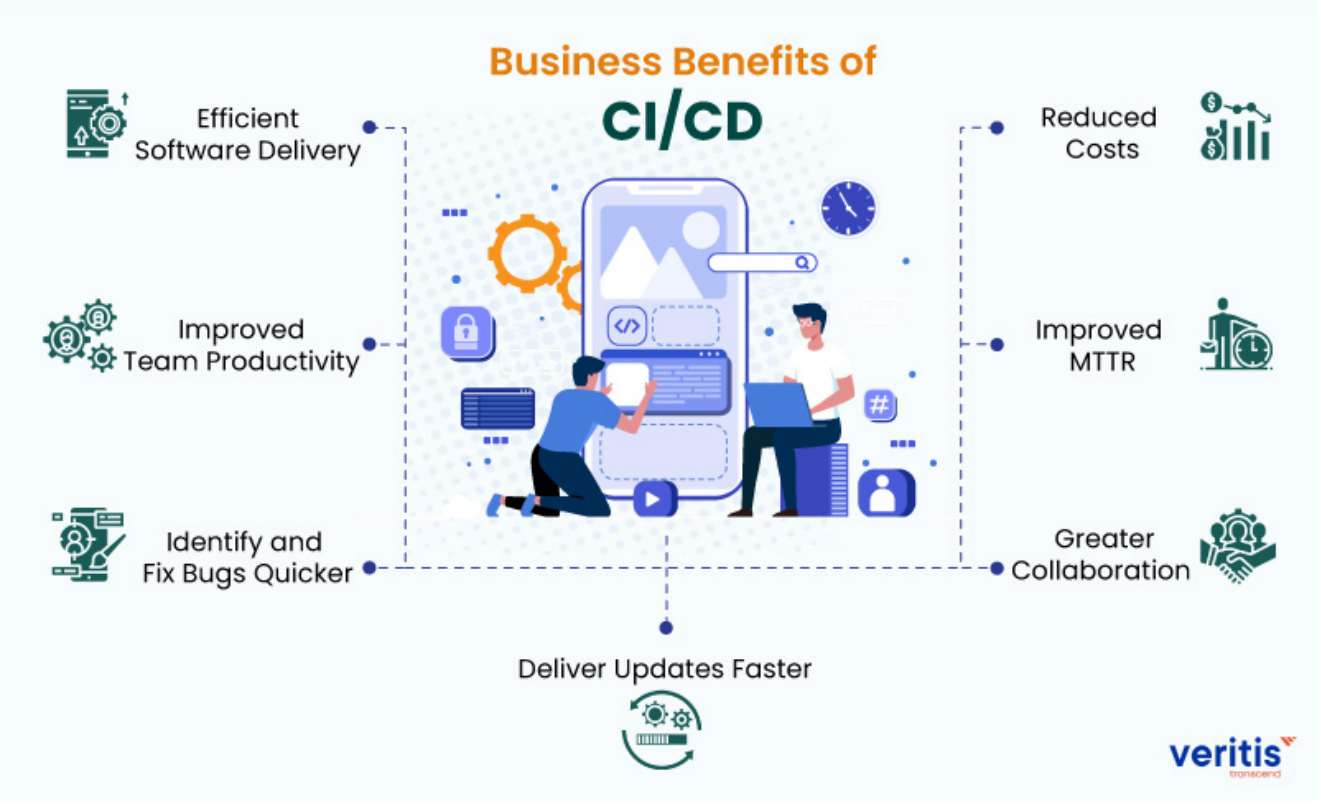
What is CI\CD?

- Continuous Integration: Development practice where developers integrate code into a shared repository frequently, preferably several times a day. Each time there is automated merging and compilation of the code, running unit test cases, static analysis of the code, and creation of an artefact.
- Continous Deployment: Automated processess that provisions Infrastructure, sets up environment, uses automated testing to validate if changes to a codebase are correct and stable for immediate autonomous deployment to a production environment. Same process then deploys the artefact, promotes to production, and rollbacks if anything fails all without need of humar intervention.



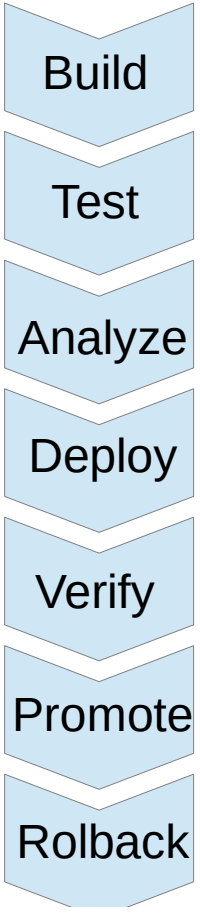
Benefits?

- Repeatable Reliable Process
- Automate Everything
- Version Control Everything
- Bring the Pain Forward
- Build-in Quality
- "Done" Means Released
- Everyone is Responsible
- Continuous Improvement
- Shorter ‘Time to Market’
- Optimisation of Humar resource capital
- Optimisation of Infrastructure investments



Source : www.Veritis.com

Steps of CI/CD



Regularly merge and compile the code in shared repository.
Generate artefacts

Run unit test cases

Static analysis of the code to check for quality and security.
Dependency checks

C

Automated provisioning of infrastructure and its configuration.
Deployment of artefact to the proviosioned Infrastructure.

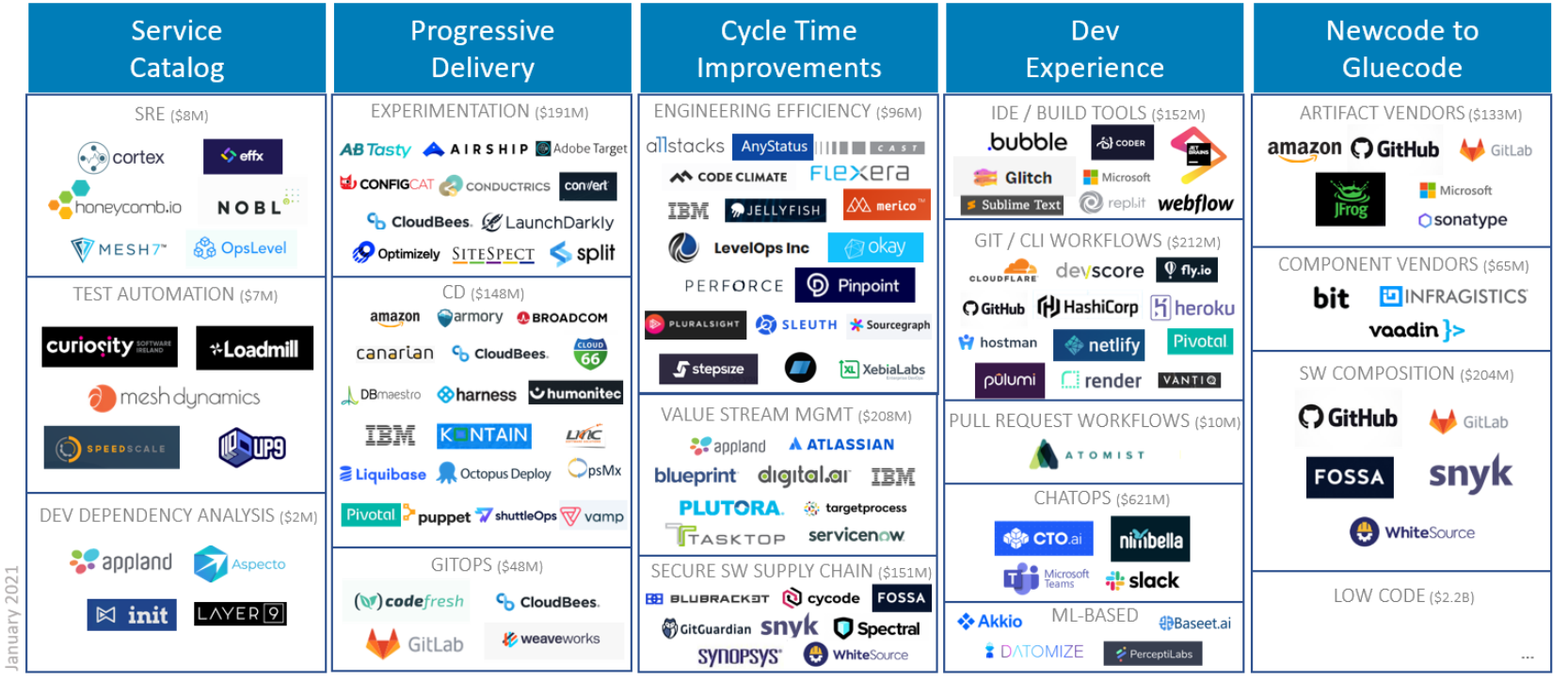
Smoke tests

Make the new product version live for customer use
Remove the previous version and in some cases infrastructure.

Rollback to previous version in case of failures

CD

Companies Driving CI/CD and Devops



	Service Catalog	Progressive Delivery	Cycle Time Improvements	Dev Experience	Newcode to Gluecode
COUNT	15	40	40	34	17
RAISED	$57M	$1.3B	$597M	$840M	$761M
ARR	$17M	$387M	$455M	$995M	$2.6B

[1] ($M): Est. ARR of all companies in category [2] "RAISED" includes VC raised for private companies only

Source: https://cdn.substack.com/