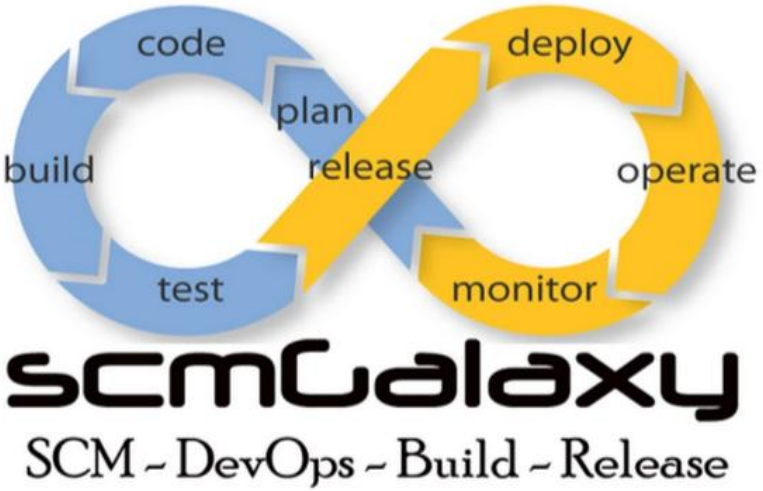


DevOps Essential

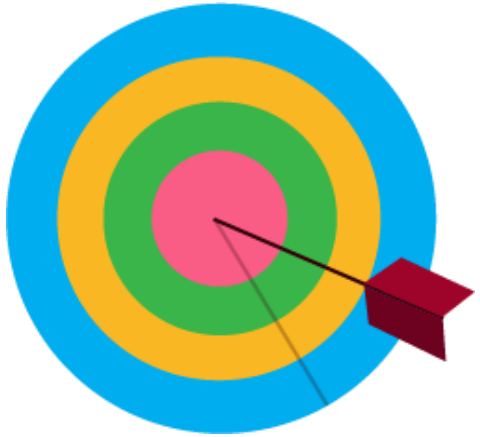
Introduction to DevOps and its Necessities

By – Rajesh Kumar
Twitter - RajeshKumarIN
Email – DevOps@RajeshKumar.xyz

Learning Objectives

This slide should clearly answer the question “what will I learn in this lesson?”

Why DevOps?
What is DevOps and its necessities
DevOps roles
Daily challenges and their solutions

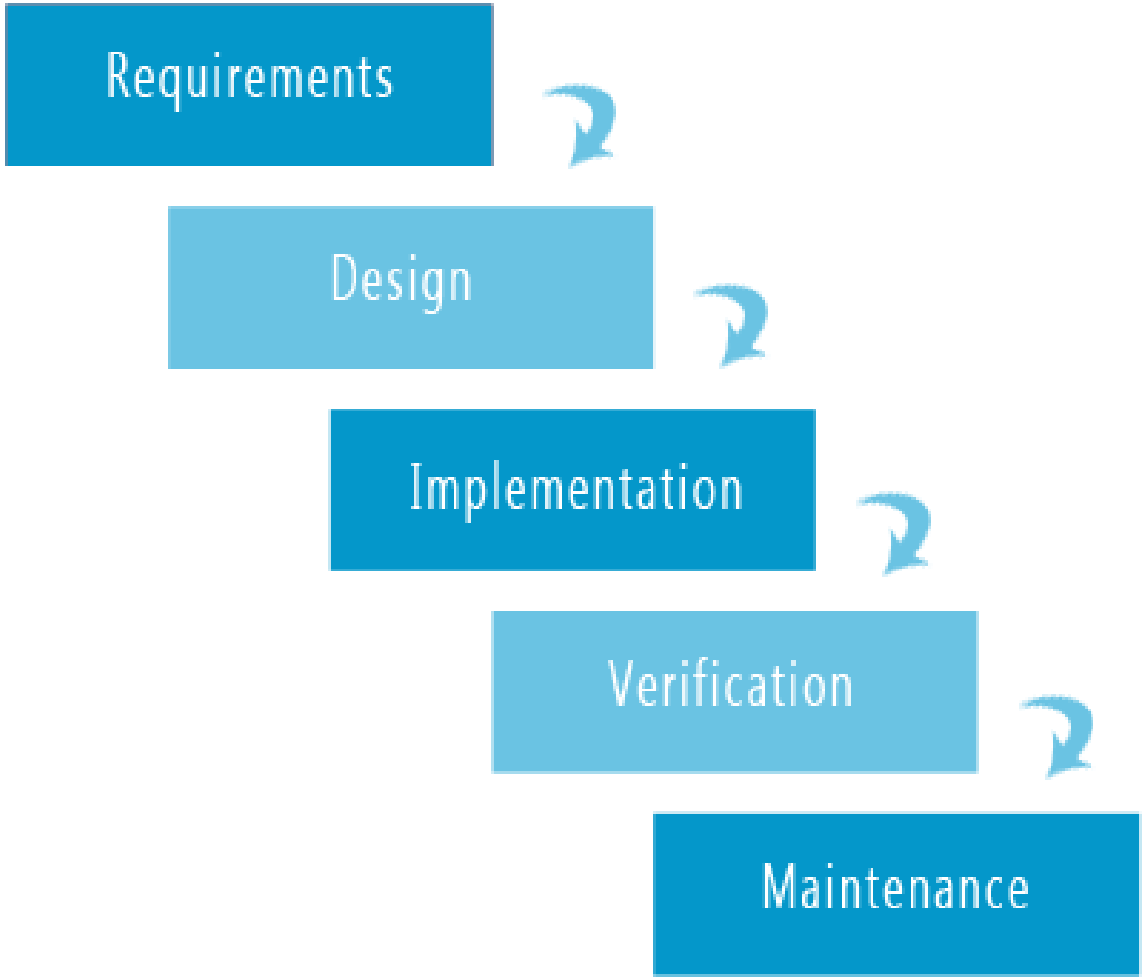


Old Trends of Software Consumption

Old Trends of Software Consumption

Old Trends of Software Consumption

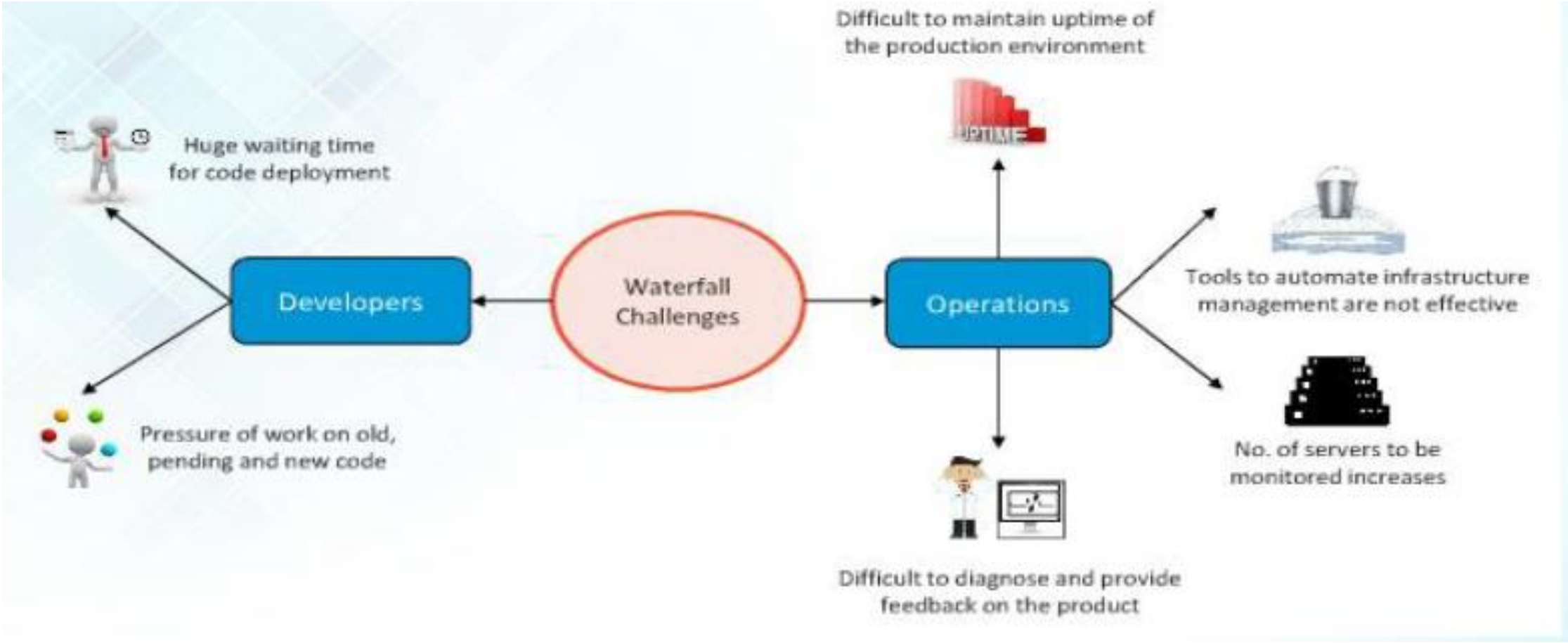
Old Mode of Software Development Model - Waterfall



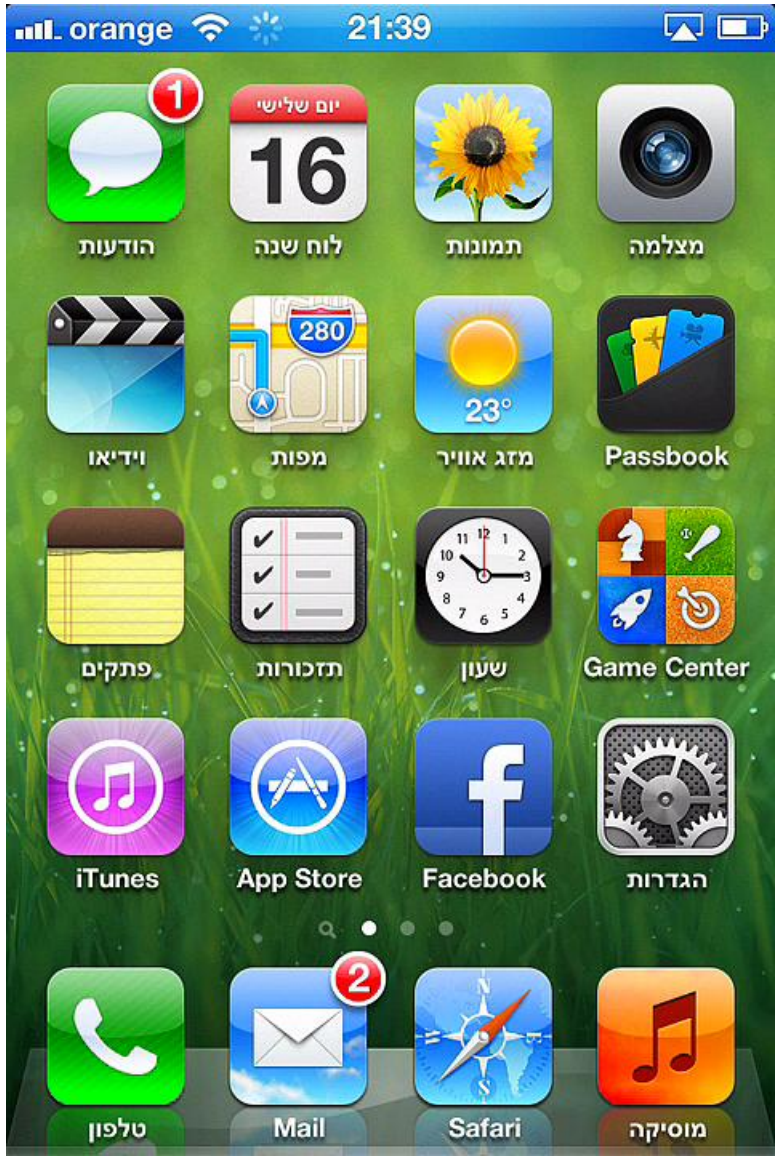
Disadvantage of Waterfall model

- Linear and Sequential Approach
- Long Duration of Release Cycle
- Frequent changes is not good for Waterfall Model

Waterfall Model Challenges



Latest Trends in Software Consumption



Latest Trends in Software Consumption

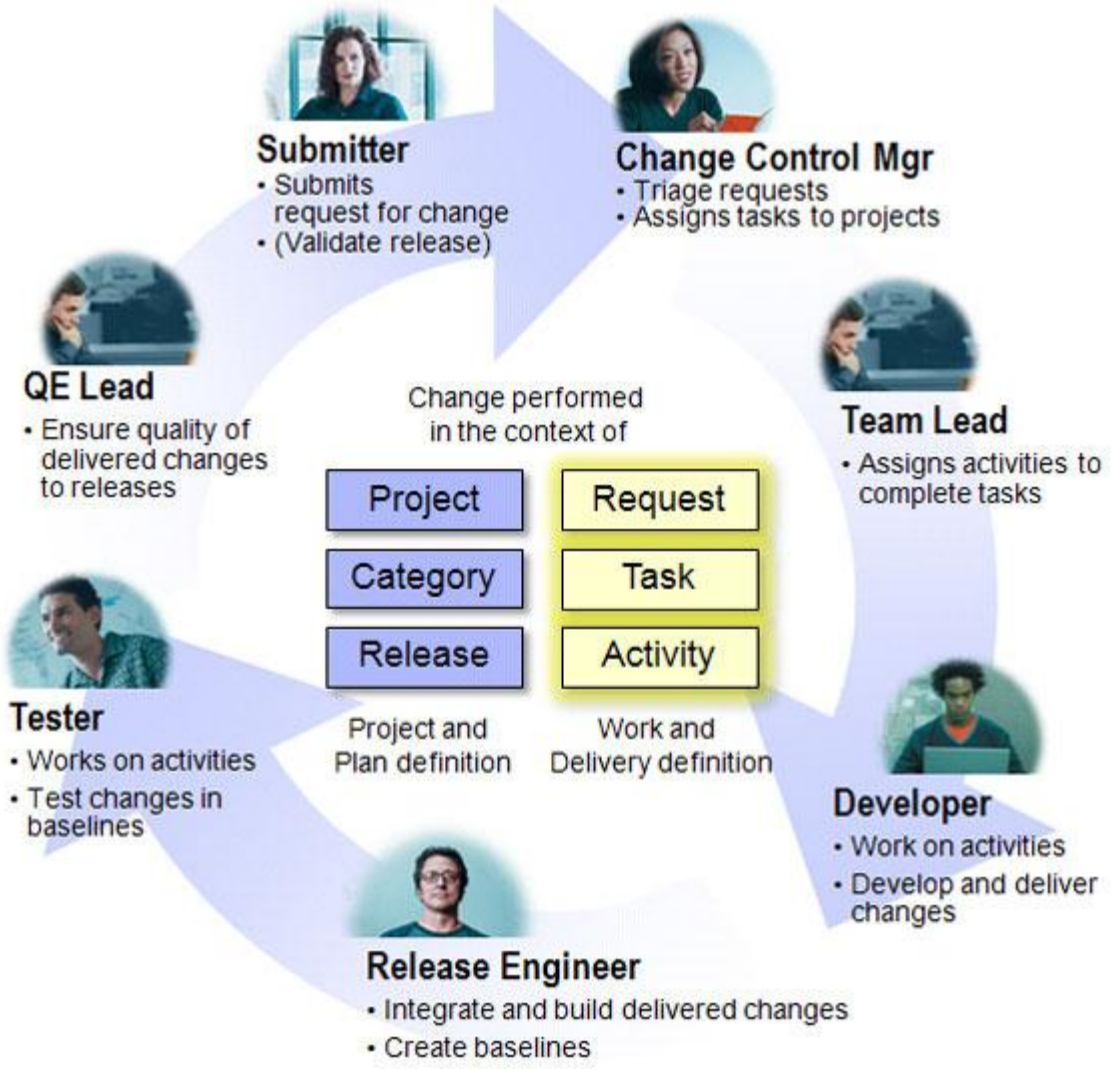
Latest Trends in Software Consumption

- One version of software
- Everyone connected together
- 24/7 up and running with no down time

Objective for IT organization

- Quality Release
- Immediate Release
- Cost Reduction

Challenges of IT organization



Challenges of IT organization

Complex Integration

Only 17% of IT teams can deliver fast enough*

Challenges . . .

More time testing, deploying and releasing than designing and building it

Production incidents result from human errors in manual release

IT Development and IT Operations are often not in alignment

"IT Speed: The Crisis and the Savior of the Enterprise," A Forrester Consulting study commissioned by Chef, December 2013

#DevOps

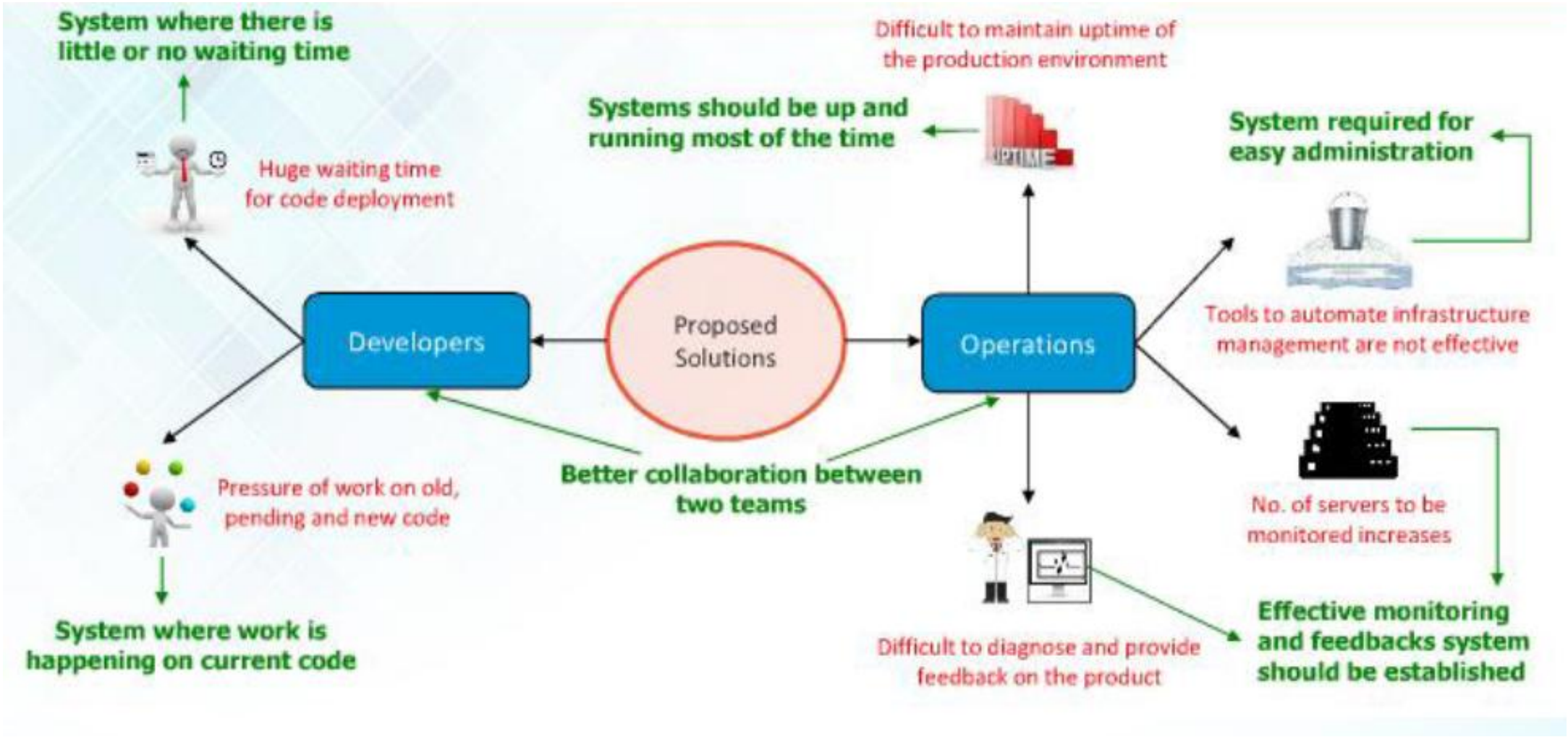
Digital and enterprise applications must move faster

Adopt new engineering practices to compete with agility and speed

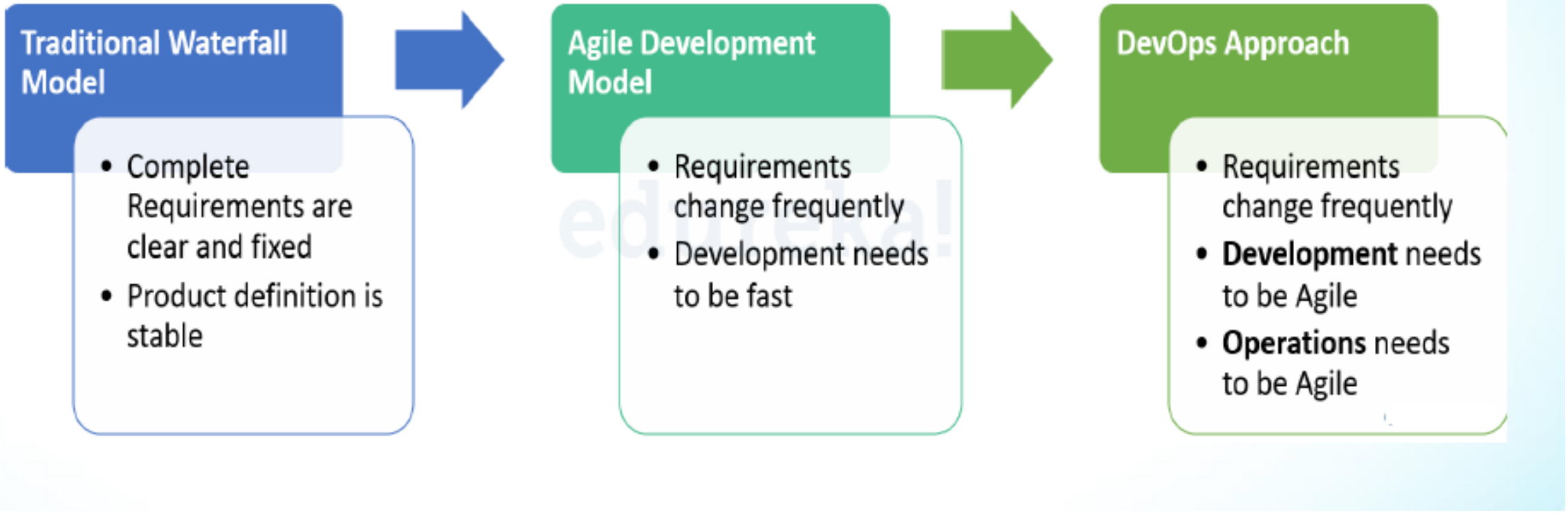
- Digital and mobile applications require fast changes to respond to short feedback cycles.
- Enterprise systems need to be streamlined through automated deployment approaches.
- Over time, applications should operate at a faster speed or be retired.

#DevOps

Proposed Solution



Evolution of DevOps



Agile Model

- Agile model is a combination of iterative and incremental process models With focus on process adaptability and customer satisfaction by rapid delivery of working software product.
- Agile Methods break the product into small incremental builds.
- Agile SCRUM approach brought agility to development
- Lack of collaboration between Developers and Operations Engineers still slowed down the development process and releases

DevOps Model

- DevOps links software development to operations.
- It also bridges the gap between agile software development and operations experiences.
- All experts have at least a basic understanding of others business subjects.

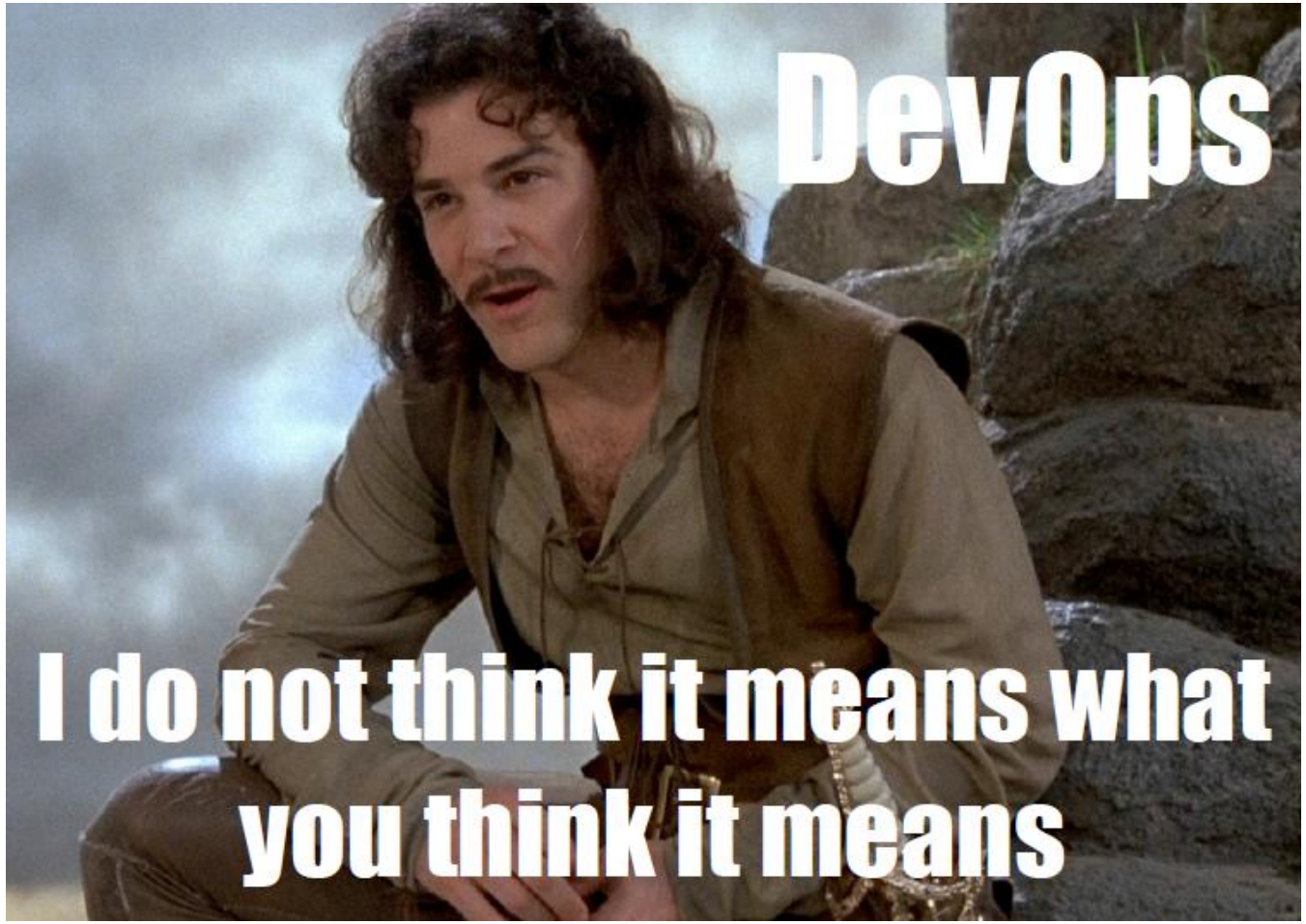
DevOps for Dev Challenges

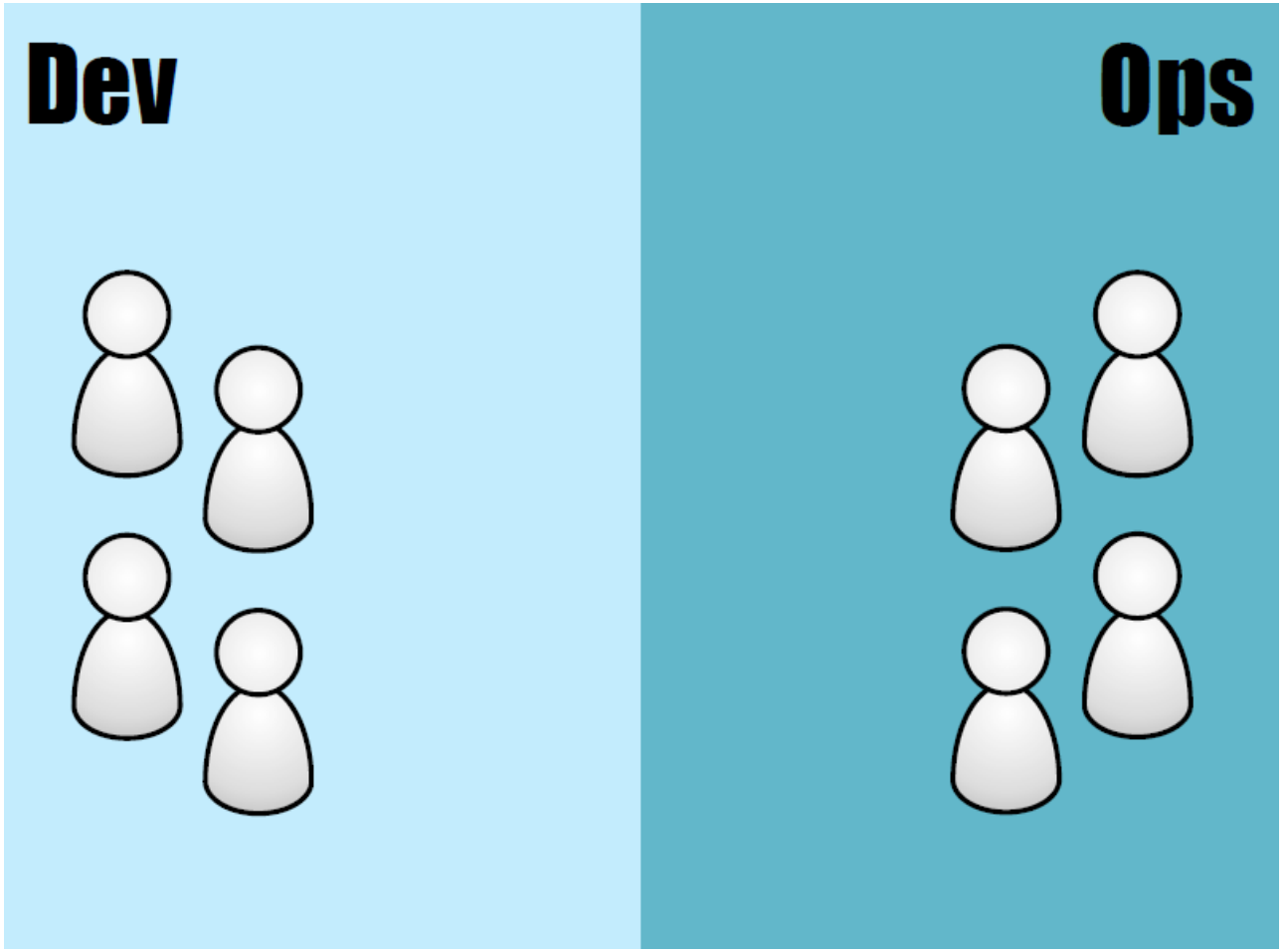
	Dev Challenges	DevOps Solution
	Waiting time for code deployment	• Continuous Integration ensures there is quick deployment of code, faster testing and speedy feedback mechanism • Thus there is no waiting time to deploy the code. Hence the developer focuses on building the current code
	Pressure of work on old, pending and new code	

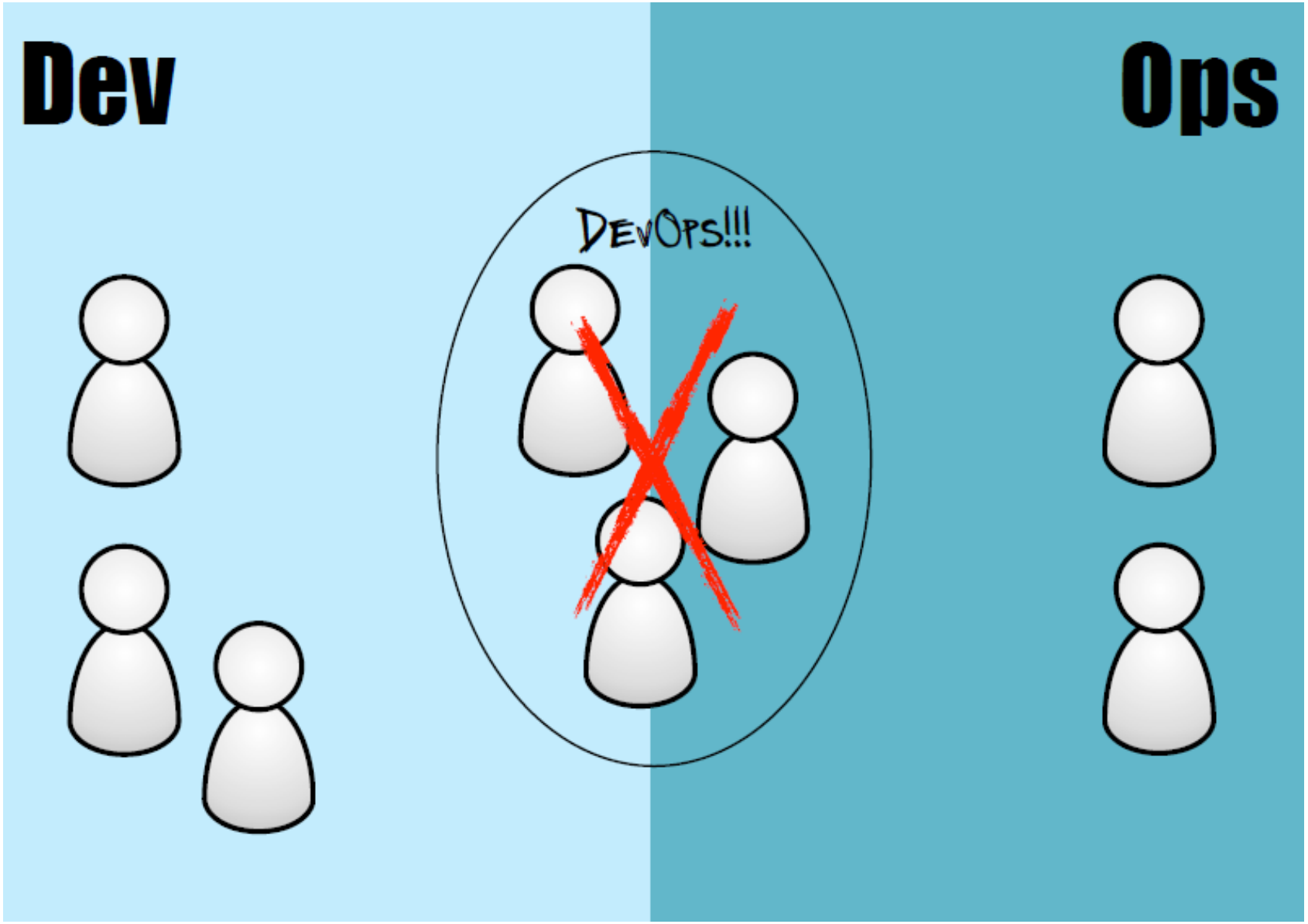
DevOps for Ops Challenges

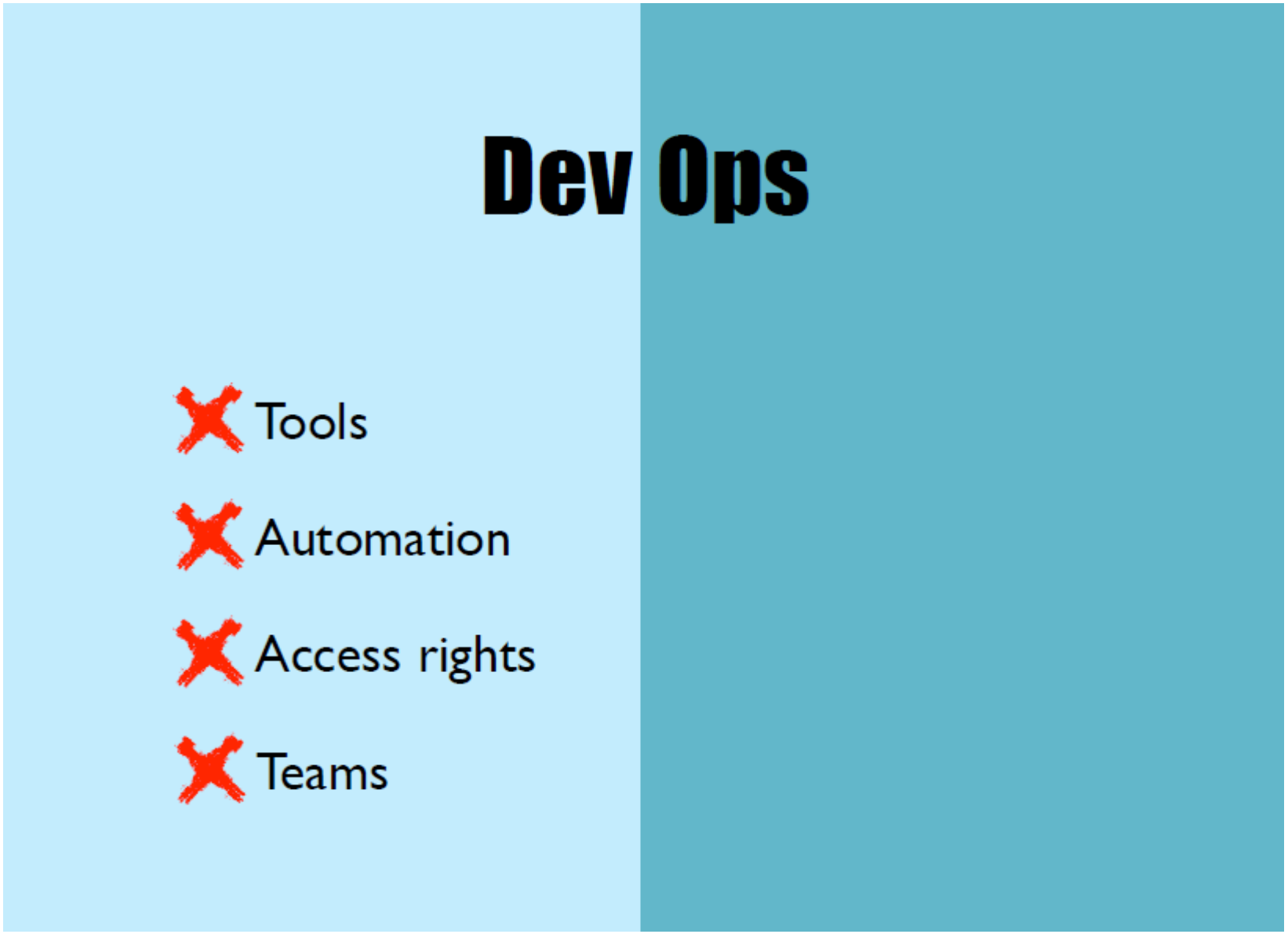
	Ops Challenges	DevOps Solution
	Difficult to maintain uptime of the production environment	Containerization / Virtualization ensures there is a simulated environment created to run the software as containers offer great reliability for service uptime
	Tools to automate infrastructure management are not effective	Configuration Management helps you to organize and execute configuration plans, consistently provision the system, and proactively manage their infrastructure
	No. of servers to be monitored increases	Continuous Monitoring Effective monitoring and feedbacks system is established through Nagios Thus effective administration is assured
	Difficult to diagnose and provide feedback on the product	

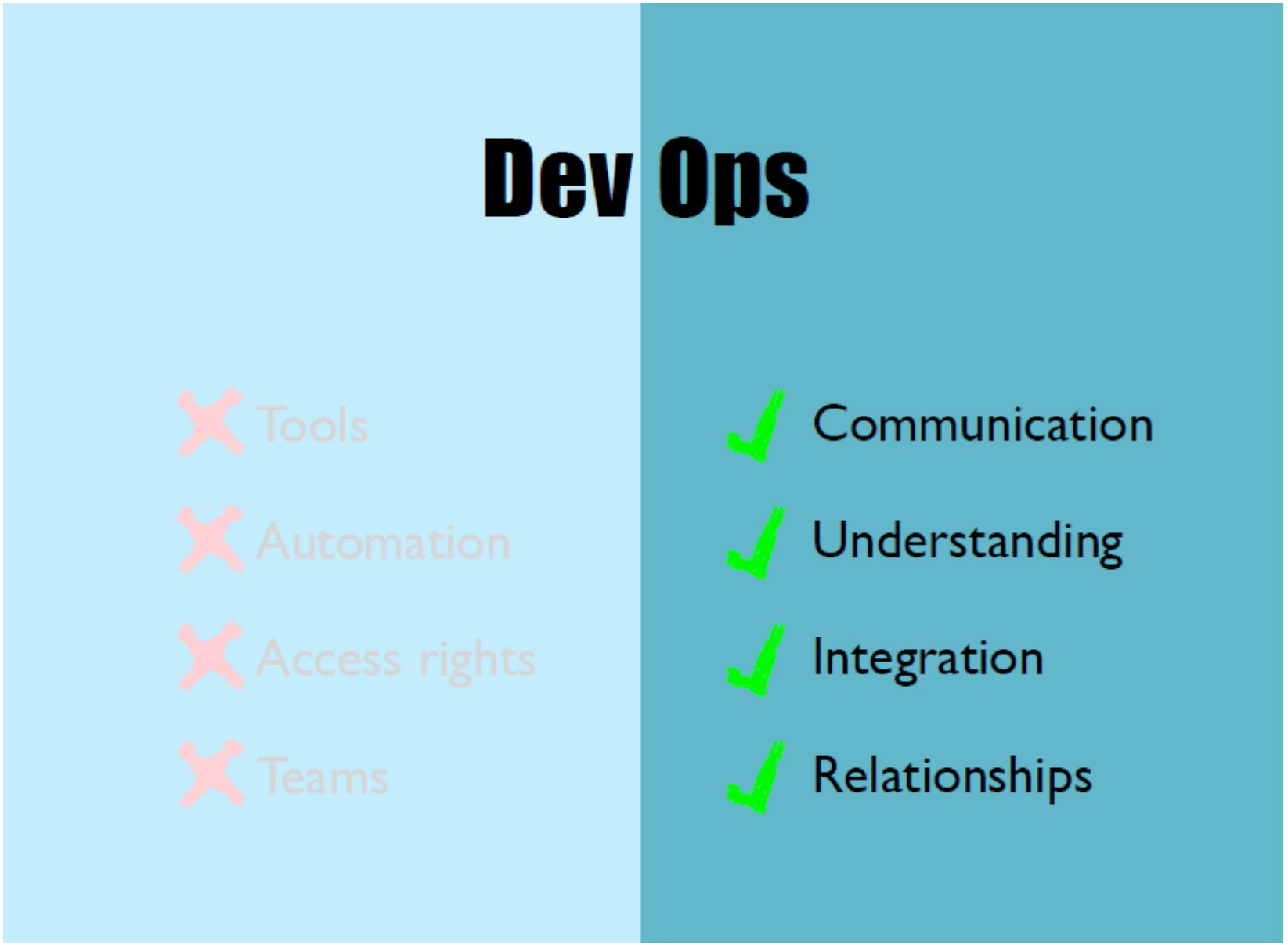
So, Finally What is DevOps?




Dev
Ops



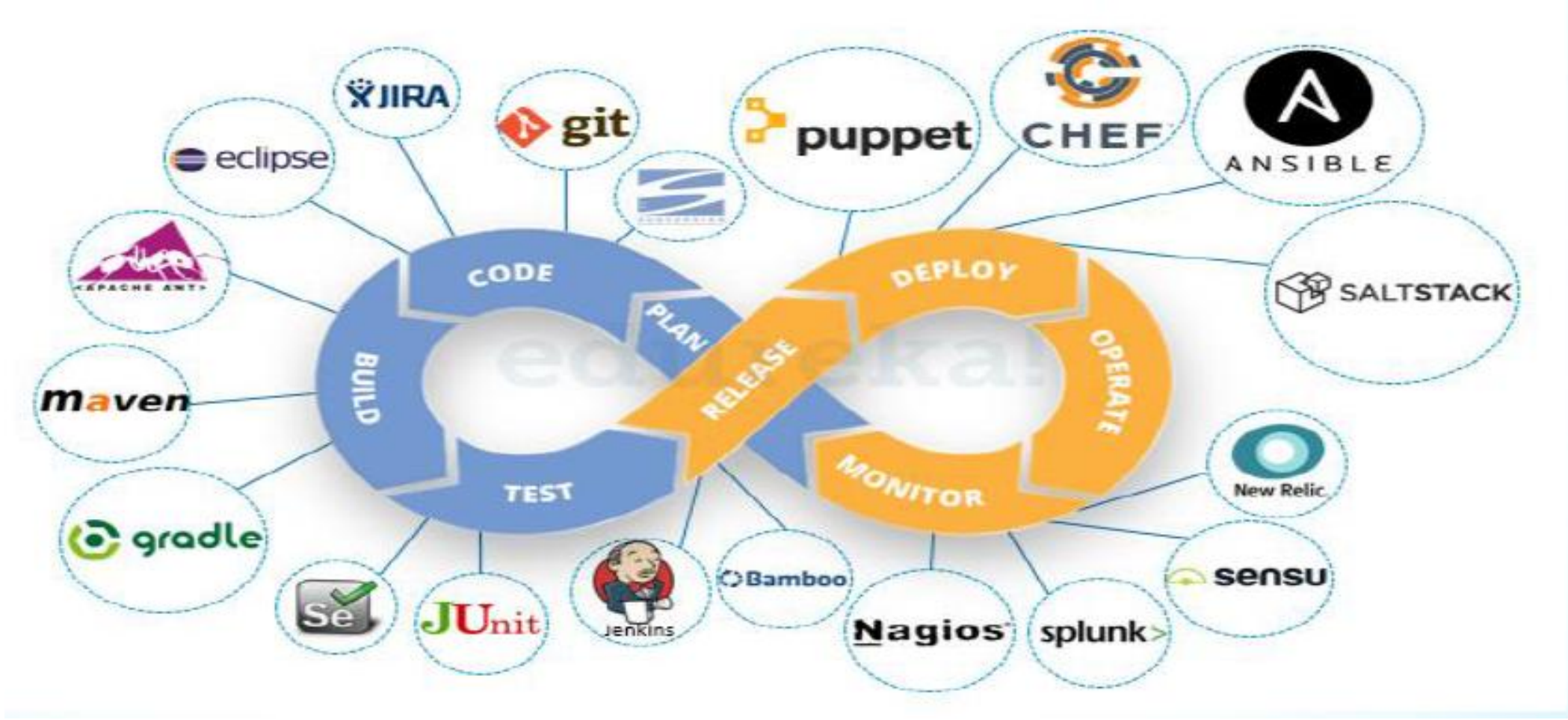




Conclusion

DevOps is not a new technology or a product. It's an approach or culture of SW development that seeks stability and performance at the same time that it speeds software deliveries to the business.

DevOps - LifeCycle



Have Questions?

Please send an email to **info@scmGalaxy.com** if you've got any questions

Wrap – up - TBD

Brief statements (in bullet points) that gives the most important information about what has been done in this lesson.

Exercise

Please refer www.DevOpsSchool.com