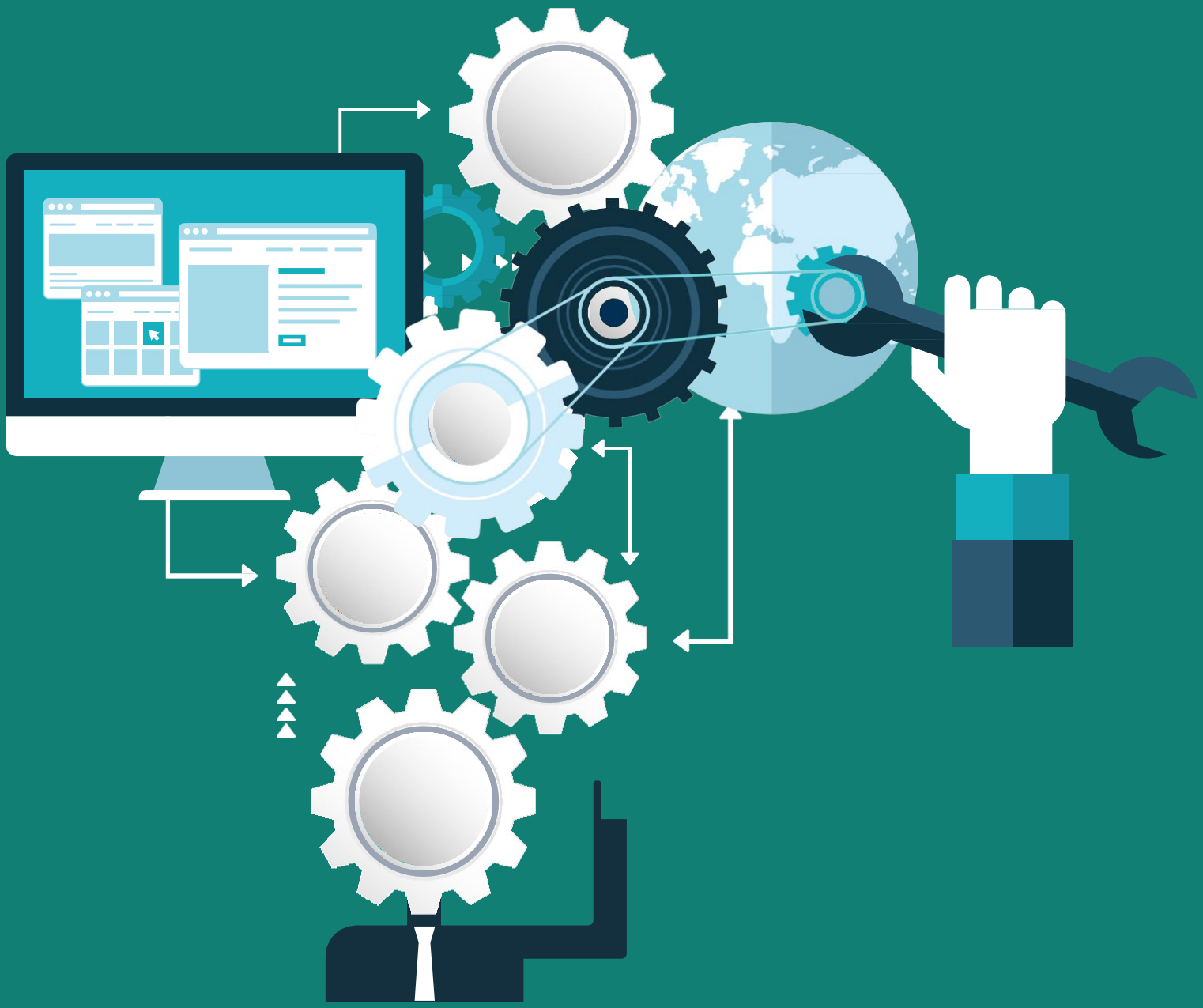
DevOps



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Introduction

Top concerns that we hear from customers are “How can we release on-time?”, “How can we have a stable release?” or “How can we address the problems before end users get impacted?” We answer them in a simple one-liner, “Embrace DevOps”.Whether you are a tiny startup, a mid-sized one or a Fortune 500 company, be informed that the IT industry is adopting DevOps at an amazing pace. Even then, majority of IT professionals either don’t know about DevOps or just have a partial understanding of the big picture.

Whether you are a tiny startup, a mid-sized one or a Fortune 500 company, be informed that the IT industry is adopting DevOps at an amazing pace. Even then, majority of IT professionals either don’t know about DevOps or just have a partial understanding of the big picture.

We explain here the basic concepts of DevOps and why you should embrace it.

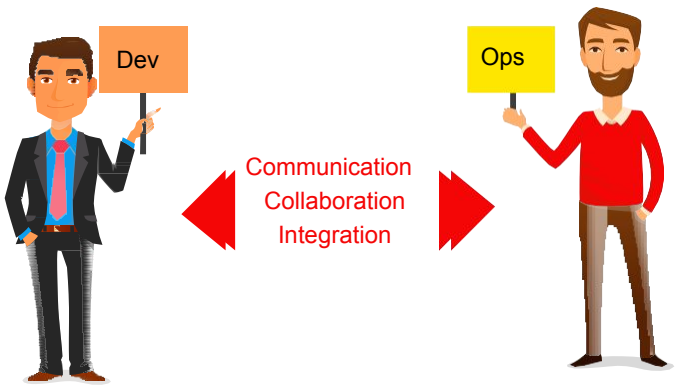
- What is DevOps?
- Do we really need DevOps?
- How does DevOps work anyways?
- Challenges and problems out there
- Our Approach – 7Cs of DevOps
- How will you benefit from DevOps?

We see DevOps as a business driven software delivery approach, an approach that takes a new or enhanced business idea from design to development to testing and all the way to production, providing business value to customers in an efficient manner.

What is DevOps?

Patrick Debois, who’s often called “the father of DevOps”, coined the word “DevOps” in 2009. As the word depicts, it was formed by combi ning two words: “development” and “operations”. DevOps is a collaborative way of developing and deploying software.

DevOps (a portmanteau of development and operations) is a software development method that stresses communication, collaboration and integration between software developers and information technology (IT) operation professionals.



> It’s a movement of people who think it’s change in the IT Industry - time to stop wasting money, time to start delivering great software, and building systems that scale and last
>
> Patrick Debois

- DevOps is an approach based on agile and lean principles in which business owners, development, operations, and quality assurance team collaborate to deliver software in a continuous stable manner
- DevOps is an environment that promotes cross practicality, shared business tasks and belief
- DevOps is a movement that improves IT service delivery agility
- DevOps is a culture that promotes better working relationship within the company
- DevOps is a set of practices that provides rapid, reliable software delivery

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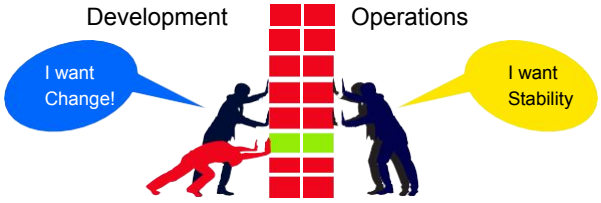
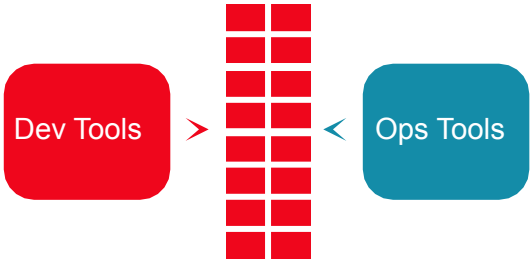
Do we really need DevOps?

Developers always want to deliver changes as soon as possible. Operations want reliability and stability.



Wall of Confusion

Lee Thomson describes this as a wall of confusion between development and operations. This wall of confusion not only exists between the mindsets of the two teams but also with the tools they use. Development uses some tools and operation uses some other tools to perform the same stuff.

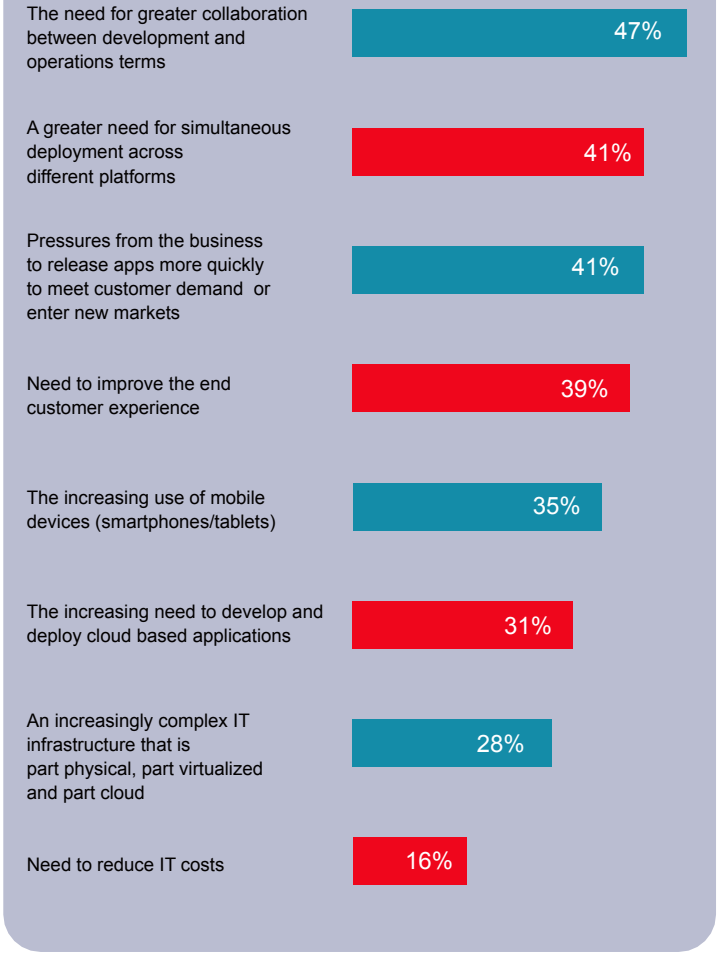


Wall of Confusion

DevOps break down the walls between development and operations team, unifying development to operations for better, faster outcomes.

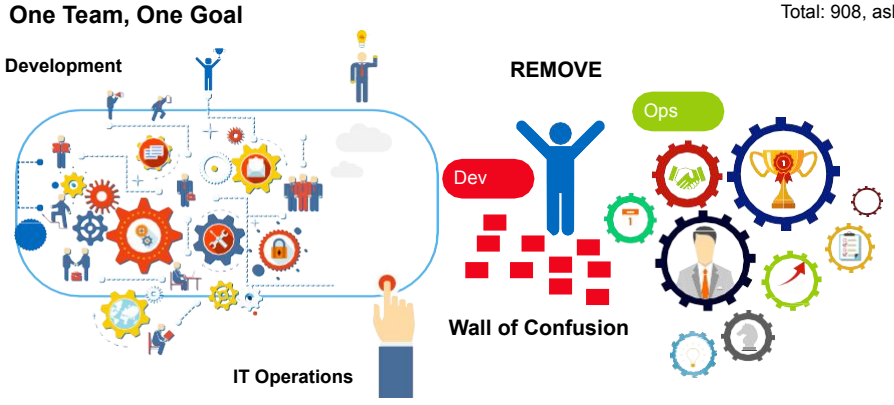
We see DevOps as a discipline, which allows us to bridge the gap between ongoing development and operations.

What Drives the Need for DevOps?



ca.com: What is driving the need for DevOps now more than ever before?
Total: 908, asked of those who said there was a greater need.

One Team, One Goal



Dev Ops Focuses both the Apps team's drive for agillity responsiveness and the NOC's concern with quality and stability on the ultimate goal of providing business value

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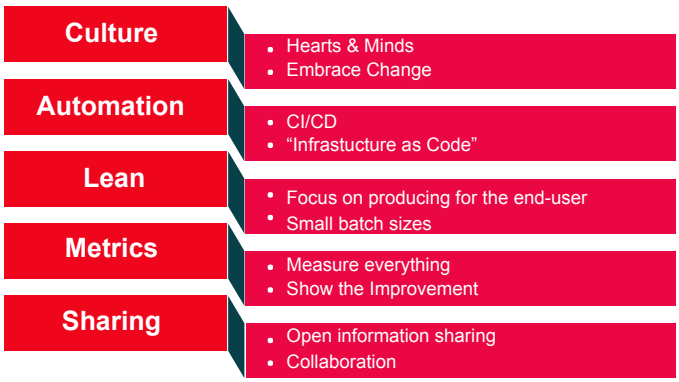
Survey of DevOps Quantifiable Benefits

Metric	Percent Improvement
Increased collaboration between departments	23%
Improved quality of our deployed applications	22%
Increased numbers of customers using our software/services	22%
New software/services that would otherwise not be possible/explored	21%
Fewer employees working on developing and deploying our software/services	21%
Reduced time-to-time market for our software/service	20%
An increase in revenue	19%
Our software/service made available across more platforms	19%
a reduction in spend on development and operations	18%
Increased frequency of deployments of our software/services	17%

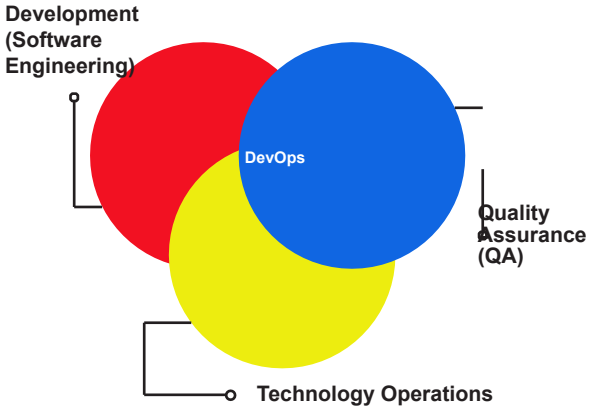
ca.com: What benefits have you seen or do you anticipate seeing from implementing DevOps in your organization?
Total: 859 who have or plan to have DevOps

How does DevOps work anyways?

DevOps is a way of thinking.



CALMS Model



Five Basic Principles of DevOps :

•Eliminate the blame game, Open post-mortems, Feedback, Rewarding failures

•Continuous Delivery, Monitoring, Configuration Management

•Business value for end user

•Performance Metrics, Logs, Business goals Metrics, People Integration Metrics, KPI

•Ideas, Plans, Goals, Metrics, Complications, Tools

DevOps combines the best of all teams providing the following:

•Develops and verifies against production-like systems

•Reduces cost/time to deliver - Deploy often, deploy faster with repeatable, reliable process

•Increases Quality - Automated testing, Reduce cost/time to test

•Reduces Defect cycle time - Increase the ability to reproduce and fix defects

•Increases Virtualized Environments utilization

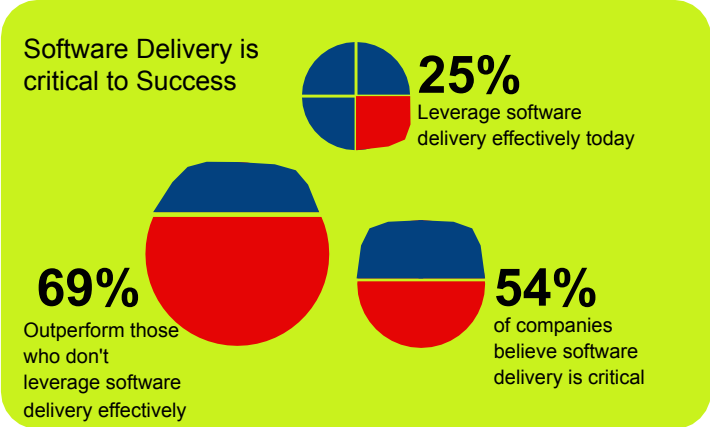
•Reduces Deployment related downtime

•Minimizes rollbacks

We see DevOps as a business enabler to react to market forces quickly, efficiently and reliably.

Challenges and problems out there

It doesn't matter whether you are in Cloud, Enterprise or Mobile. For each one of you, **stable software delivery on time** is the key to your business success.



Some of the serious issues blocking your software delivery are:

- Building and maintaining servers – Time consuming and unproductive
- No environment management - Differences in development and production environments
- Slow deployments – Costly error prone manual process and efforts
- No shared ownership - Lack of feedback and proper metric leads
- No proper configuration management - Discrepancies in managing configurations
- Deployments are a blocker - Upgrade risk due to manual management of multiple application configuration and versions - Dependency on specific deployment engineer
- Production downtime - Due to lack of improper deployment instructions / checklist
- Hacking – Fixing directly in production (instead of a proper hotfix process) and forgets to check-in into source control

Realize your entire business gets impacted if you do not have Continuous Delivery. To enable that, you must adopt DevOps

Our approach: 7Cs OF DevOps

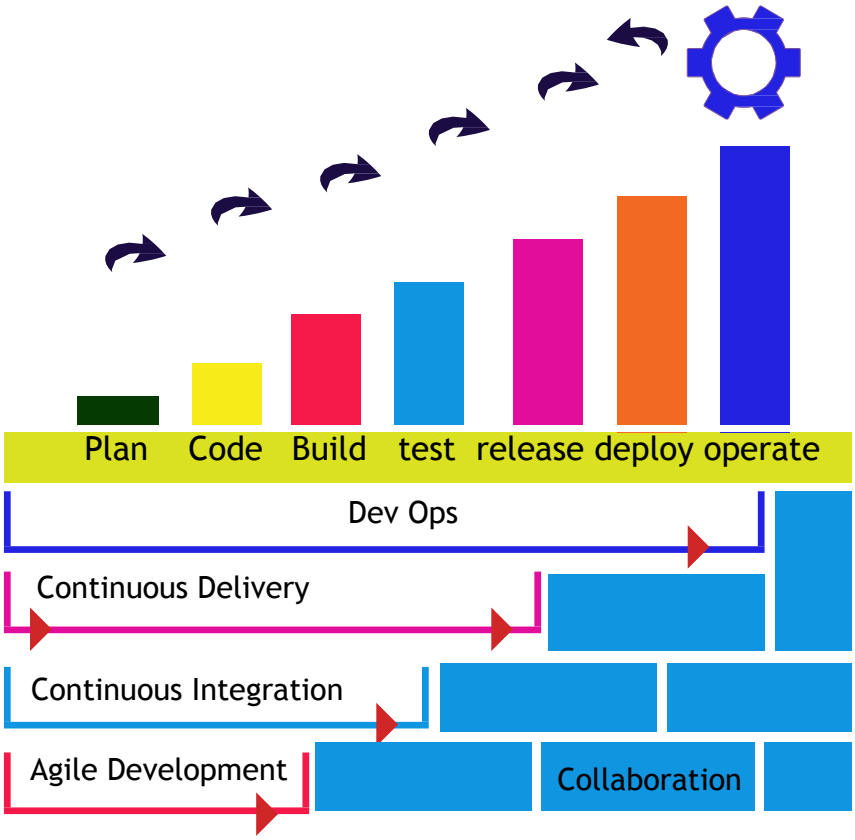
We believes in the agile mantra "People over Process over Tools". With the right people, we establish the right process and choose the right tools to deliver the end results

- People – Communication & Collaboration
- Process – Source Control Check-ins, Code Review, Code Quality, Change Control, RCAs
- Tools – For Continuous Delivery (achieve by the combination of **Continuous Integration**, Continuous Deployment and Continuous Testing) and Continuous Monitoring

7 Cs of Devops:

- Communication
- Collaboration
- Controlled Process
- Continuous Integration
- Continuous Deployment
- Continuous Testing
- Continuous Monitoring

We see DevOps as a process that creates a stable infrastructure which enables to release new code frequently, easily and rapidly with confidence.



Without automation there is no DevOps.

- Automate Provisioning - Infrastructure as Code
- Automate Builds – Continuous Integration
- Automate Deployments – Defined Deployment Pipeline and Continuous Deployments with appropriate configurations for the environments
- Automate Testing – Continuous Testing, Automated tests after each deployment
- Automate Monitoring – Proper monitors in place sending alerts
- Automate Metrics – Performance Metrics, Logs

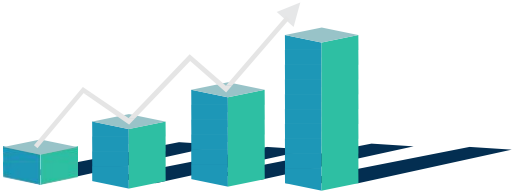
We see DevOps as an Enterprise Architecture Framework that allows seamless communication between development and operations team to deliver stable software on time.

How will you benefit from our DevOps approach

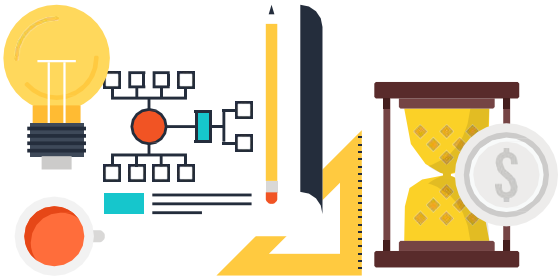
Our DevOps Approach defines the **DevOps lifecycle** as a Continuous ongoing interactions and feedback between the Customers-Business-Development-Operations.

By implementing our DevOps approach, you'll experience these key benefits.

•Stay ahead of the game,
Faster time to market



•Increase in productivity,
Automation domination



•Faster recovery, Because time is money

•Faster deployments,
Reduction in cycle time

Key to sucess

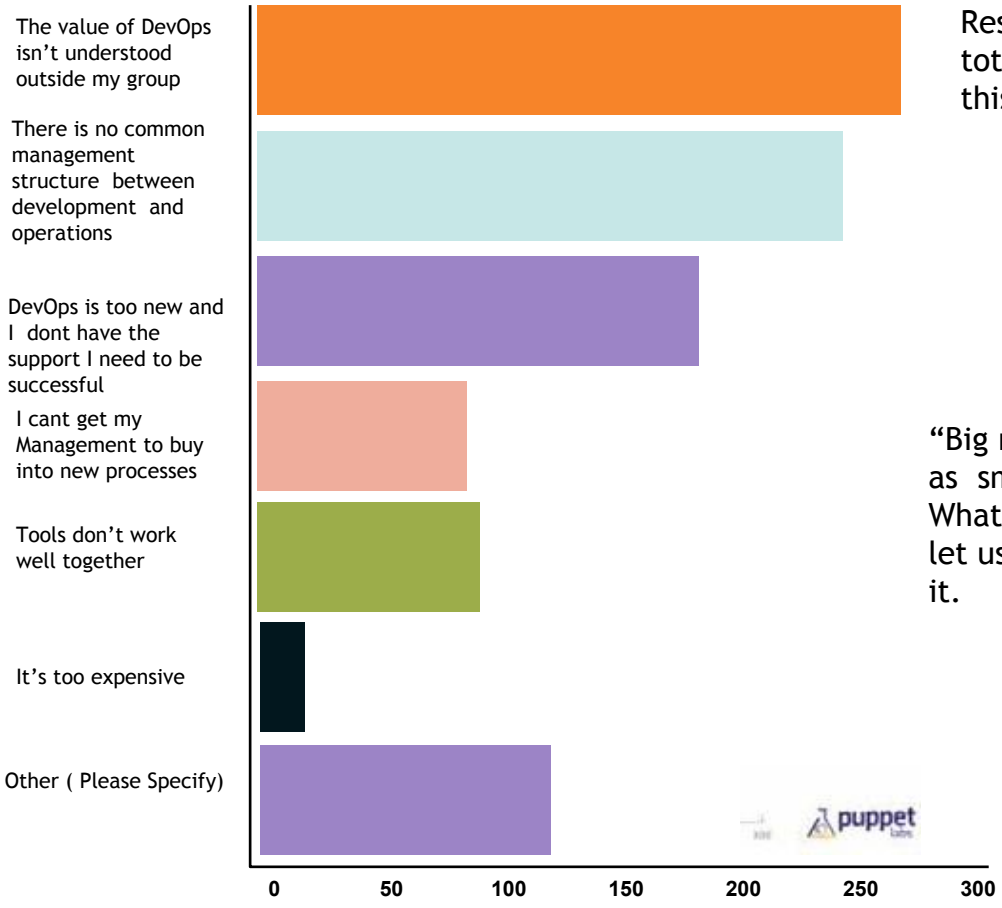
We see DevOps as a service, delivering business value by adopting a set of capabilities including People, Process & Tools resulting a rapid stable software.

Conclusion

Our Solutions help you **remove bottlenecks in software development to achieve continuous delivery** of software-focused improvement. With swift principles across the software lifecycle, We are able to mend the culture, process and tools gap to drive faster innovation and feedback that ultimately improve the customer experience.

Barriers to DevOps Adoption

What are the biggest obstacles in implementing DevOps in your organization? (Select all that apply)



Results out of 579 total responses to this question

"Big rivers often begin as small streams"
Whatever your barriers are, let us help you to overcome it.

Some Companies who got DevOps Right

Let us take care of your DevOps needs end-to-end, from automation, building servers, deployment pipeline to continuous delivery and more. When it comes to DevOps we got it covered. If you have any questions or want to learn more about DevOps, just contact us.

We see DevOps as a bridge that reduces or eliminates "the speed and innovation gap" between business demands and IT.