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# WHY WE NEED CI/CD: **CONTINUOUS** **DELIVERY** OF **VALUE**

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# CI/CD OVERVIEW

## What is CI/CD?

CI/CD is a way to **rapidly** and **frequently** deliver software to customers by automating aspects of software development and deployment.

## Continuous Integration (CI)

Developers continuously integrate their changes into a shared repository, triggering **automated** building, testing and quality assurance of the software.

## Continuous Deployment (CD)

Fully-tested software is **automatically** deployed into Production so that users can access it as soon as possible.

CI + CD = **Continuous Delivery** of **Value**

Automation of repetitive tasks enables **faster, more frequent** delivery of software to customers at a **lower cost** and with **less defects**.

# BENEFITS TO THE BUSINESS

	Create Revenue	Protect Revenue	Optimize Cost
Deliver faster and more frequently	✓		
Continuous stakeholder engagement	✓	✓	
Better software quality		✓	✓
Easier and quicker fixes		✓	✓
Easier rollbacks		✓	✓
Better visibility and accountability		✓	✓
Automate manual tasks and lower costs			✓

# HOW BENEFITS ARE ACHIEVED

	How it is Achieved
Deliver faster and more frequently	<ul style="list-style-type: none"><li>Automating the release pipeline reduces time-to-release <b>and</b> frees up expensive development resources for other activities</li></ul>
Continuous stakeholder engagement	<ul style="list-style-type: none"><li>CI/CD provides all stakeholders with a single continuous view into the development process</li><li>Continuous feedback on development activities makes the process transparent and accountable to business and other stakeholders</li></ul>
Better software quality	<ul style="list-style-type: none"><li>CI/CD test and QA automation flag code problems quickly and reliably, so problems 'fail fast'</li><li>Time saved through CI/CD automation allows developers to work on improvements and defects that not otherwise get addressed</li></ul>
Easier and quicker fixes	<ul style="list-style-type: none"><li>Automated testing and detailed CI/CD logs make it easier for developers to diagnose and resolve defects</li></ul>
Easier rollbacks	<ul style="list-style-type: none"><li>Once deployments to Production are automated, it becomes a simple matter to be able to rollback to a previous release in the event of a problem</li></ul>
Better visibility and accountability	<ul style="list-style-type: none"><li>CI/CD pipelines deliver continuous feedback on a variety of predefined metrics, allowing the organization to make better data-based decisions</li></ul>
Automate manual tasks and lower costs	<ul style="list-style-type: none"><li>Automating repetitive tasks from the software development and release process frees up development resources and lowers costs</li></ul>



# SUMMARY

- CI/CD automates repetitive development tasks to enable **continuous delivery** of **value**
- It helps to:
  - Create revenue
  - Protect revenue
  - Control / reduce costs
- Benefits include:
  - Faster, more frequent delivery
  - Continuous stakeholder engagement
  - Better software quality
  - Easier, quicker fixes
  - Easier rollbacks
  - Better visibility and accountability
  - Lower costs through automation