COST REDUCTION GO

Prodapt, powering global telecom

Get your products faster to market

From development to test to production, CI/CD over containers automates every phase

Evolution of application development processes

The process for application development has seen a lot of changes over the last decade

- Linear application development process.
- Follows the sequential flow of application development.
- Bug fixes and new features have to wait for next release

Traditional application development process

 Light weight alternative to virtual machines

- Form of OS virtualization includes just the minimum OS resources, memory and the services required to run an application or service
- Faster and error proof deployment

 DevOps based process.
System sends frequent feedbacks after every stage.
Automated process from

check in to integration

Continuous Integration Continuous Delivery

process

Continuous Integration Continuous Delivery over Containers

This insight focuses on application development process that leverages CI/CD over containerization, a key driver for cost reduction in a pre- production environment



Solution benefits: CI/CD vs CI/CD over containers

	Enterprise challenges	CI/CD	CI/CD over containers
00	Bug fixes/new features New features and fixes have to wait for the release cycle which may take 6 months to 1 year.		
00	Dependency Gap between development and operations creates a lot of unnecessary dependencies which add additional time and cost		
κ	Efforts in Release From development to deployment, multiple manual processes are involved leading to high effort, time and scope for errors		
\otimes	Tools Restriction Enterprises are bound to use the tools/ test suites supported by their earlier adopted tools or framework		
0	Production Downtime Inability to deploy new major releases on production environment without downtime		
×	Infrastructure Capacity Management Capacity management in a dynamically growing/changing user-base is a continuous challenge as it contributes to increased infrastructure costs		
	Fully Overcome	Partially Overcome	Not Overcome

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Recommended features of a CI/CD over containers solution







Micro-services based architecture to help in delivering frequent patches and releases

Containerization to help in frequent and fast deployment of releases



Portability

- CaaS to make shipping of code easy
- Easy to scale up and scale down infrastructure (elasticity)
- CI/CD over containers to deploy application or micro-service without affecting the system. Hence zero downtime for production



Controllability

- Portal to view status of activities and utilization of resources
- One-click environment commissioning and decommissioning
- Adaptable CI/CD framework to help enterprises use tools of their choice



Adaptability

APIs make framework adaptable for any tool, repository, test suite and deployment engine

Adaptable frameworks give enterprises independence to choose tools of their choice



Automation

Framework automatically builds, packages, tests and deploys applications

Automated process from check-in to deployment leaves no scope for manual errors



Recommended framework that supports CI/CD over containers



CI/CD framework automating every stage from development to test to production and minimizing errors and



Key takeaways

Faster time to market: A typical CI/CD solution follows microservices architecture that gives approximately 18% reduction in time to market for new applications, which increases the revenue up to 19% and delivery capability by approximately 21%.

Optimum use of infrastructure: CI/CD over containers solution makes shipping of code easy. It enables enterprises to maximize their compute usage and minimize resource wastage. Approximately 30% reduction in infrastructure usage from development/test consolidation to production

One-click infrastructure provisioning and decommissioning: CaaS features like portal view and one-click infrastructure provisioning and decommissioning reduces the resource wastage as resources are created and decommissioned dynamically as per need. This results in up to 50% reduction in overall VM use





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