

Carry out DevOps digital delivery activities

Overview

DevOps covers the competencies required to develop digital services using appropriate software development methods in which requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. The DevOps approach emphasises; collaboration, automation, lean, measurement and sharing.

The specific goals of a DevOps approach span the entire delivery pipeline. They include improved deployment frequency, which can lead to faster time to market, lower failure rate of new releases, shortened lead time between fixes, and faster time to recovery.

This standard covers the competencies needed to implement and validate DevOps development and delivery processes.

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Performance criteria

You must be able to:

1. implement and validate DevOps processes for continuous digital deployment to host and cloud-based infrastructure
2. maintain high levels of availability of both production and pre-production systems during DevOps delivery operations in line with service level agreements
3. implement automated and dynamic DevOps environments to support delivery teams
4. test that software functionality meets the intended user requirements in line with organisational standards
5. use the specified development, configuration management, version control, test and scripting tools to develop and deploy digital product and service updates
6. measure the success of the entire development-to-operations lifecycle on a regular basis, making continuous improvements

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Knowledge and understanding

You need to know and understand:

1. the different DevOps principles
2. the following DevOps practices; continuous integration, test automation and continuous delivery
3. what problems might arise when transitioning to DevOps and how to mitigate these
4. how to implement continuous deployment
5. how to maintain high availability of production and pre-production systems
6. what the industry standard tools for supporting DevOps development and deployment are and how to apply them
7. that digital software products and services in a DevOps world are in a continuous cycle of development, testing, and release
8. that DevOps involves the evolution and growing complexity of the platforms on which the systems run
9. that DevOps involves a lot of moving pieces that must fit together seamlessly to guarantee the success and long-term value of digital products and services development
10. the need to build security in to digital products and services
11. how to roll back digital products and services to the previous stable version without impacting users

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