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Blue green deployment model

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Blue/green deployment is a software deployment approach that helps organizations deploy frequent updates while maintaining high quality and a smooth user experience. The blue/green deployment method helps to minimize the risk of introducing flaws during software updates while limiting downtime during the transition to new versions.

This model uses two similar production environments (blue and green) to release software updates. The blue environment runs the existing software version, while the green environment runs the new version. Only one environment is live at any time, receiving all production traffic. Once the new version passes the relevant tests, it is safe to transfer the traffic to the new environment. If something goes wrong, traffic is switched to the previous version.

The main prerequisite for a blue/green deployment is having two identical production environments, with a router, load balancer, or service that can switch traffic between them.

Blue/Green Deployment: Benefits

1 Rapid Releases

In a CI/CD framework, a blue/green deployment is a great way to move software into production quickly. DevOps teams can release software at any time, without having to schedule a weekend or after-hours release.

2 Simple Rollbacks

Blue/green deployments provide an easy way to roll back to a safe, working version in case something goes wrong. This reduces the risks inherent in experimenting in a production environment. Teams can easily eliminate issues with simple routing changes and return to a stable production environment.

3 Testing in Production

No matter how much effort goes into making the staging and production environments identical, there are usually subtle differences. This can lead to exceptions and bugs that may not be discovered until a new version is pushed to production.