

GLOBAL TELECOM LEADER COMBATS DOWNTIME WITH **BLUE-GREEN DEPLOYMENT**

Capgemini-led approach reduces application downtime by 95 percent

A global telecommunications giant is on a mission to connect customers from all over the globe. It provides wireless communications, data communications, voice, and text messaging services to a sprawling network of customers.

Though the enterprise is a global leader within its industry, remaining on top requires persistent innovation and unparalleled adaptation. Remaining ahead of the competition and providing the best service possible requires continuous updates within its application environment.

Client: Telecommunications company

Region: Global

Industry: Telecommunications

Client challenges:

A global telecommunications company faced prolonged deployment periods, time-consuming rollback procedures, and substantial downtime during release nights.

Our approach:

Capgemini implemented a Blue-Green deployment strategy to combat downtime across the enterprise.

Business outcomes:

- Zero to minimal downtime on release nights
- 95% reduction in deployment timeframe

Overwhelmed by inefficiency

One of the biggest inhibitors to efficiency during the deployment of upgraded applications was lengthy downtime periods. Prolonged deployment timeframes and laborious rollback procedures led to even more downtime and, subsequently, dissatisfied customers.

These inefficiencies highlighted a need for support from a trusted partner who could create an improved process for upgrading the company's application services.

A better way to get the job done

Capgemini implemented a Blue-Green deployment strategy to combat downtime across the enterprise.

Previously, servers were shut down so engineers could implement changes in code to application services. These servers were then reopened once the process was complete.

With the Blue-Green strategy, two distinct virtual environments exist. The "Blue" environment serves all user traffic, while the "Green" environment runs idly in the background. When it's time to deploy upgrades to the application environment, changes in code are implemented on the "Green" side. Once complete, a custom-built Traffic Manager sends users from the "Blue" environment to the "Green" environment. Instead of each application user depending on the uptime of a single server, engineers can deploy updates while users continue to access application services.

This approach allows for safe code deployments during business hours and removes the requirement to implement code hastily to avoid downtime. It also provides an opportunity to test upgraded environments with live traffic.

This process removed deployment downtime and transformed upgrades to the enterprise's applications efficiently.

Capgemini deployed this strategy throughout the entire application infrastructure. We ensured that these enhancements in app services were integrated into every API, and that the Traffic Manager script was effective in redirecting user traffic between each application environment.

Making a difference with Blue-Green

Following the implementation of the Blue-Green strategy, an entire deployment now takes less than five minutes to complete, resulting in minimal, if any, downtime on release nights. This strategy also reduced the deployment timeframe by 95 percent. Previously, deployment would take between one to three hours to complete.

By deploying on idle servers, engineers can test functionality in a variety of business scenarios prior to the release date, ensuring business readiness. The use of idle servers also allowed for flexibility in the rollback process. Before users interact with the newly upgraded application, external teams must validate the readiness of the application. The dual-server solution means rolling back to a previous version of the application in the event of any hiccups in the validation process is seamless, and no longer a laborious, time-consuming process.

Additionally, the Quality Team can discern distinct variations in functionality between new and old servers, enabling improved comparison testing.

Welcoming a better future

Capgemini's Cloud and Custom Applications team revitalized the enterprise's application upgrade procedure, ensuring it was equipped to deploy enhancements in services with improved efficiency and accuracy.

The improved deployment process means the telecommunications giant is enjoying increased efficiency as it focuses on connecting customers from around the world.



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