CASE STUDY

BUILDING AN AUTOMATED CI/CD PIPELINE TO PERFORM PRODUCTION DEPLOYMENTS IN 65% LESS TIME
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In today’s digital world, enterprises are only as good as their underlying applications. With so many enterprise applications requiring new releases of features and functionality on a regular basis, businesses are looking to automate testing by deploying a DevOps-enabled continuous integration/continuous delivery (CI/CD) pipeline that saves time, ensures security and reduces risk.

When a leading multinational hotel chain and longtime EPAM customer needed to automate deployment for its loyalty apps and reduce reliance on manual testing, EPAM stepped in to deliver a complex technology solution for a major business challenge. Keep reading to hear the full story…

RECOGNIZING THE CHALLENGE FROM WITHIN

Over the course of its successful eight-year partnership with the customer, EPAM has helped the hotel chain develop and deliver a wide variety of solutions, ranging from creating KPI dashboards to monitor hotel performance to refactoring points and cash to achieve an estimated 760% ROI in the next five years.

Having worked with the client across a variety of projects, EPAM is close enough to the customer’s business to identify areas for improvement, which is exactly what happened to jumpstart this project. When an EPAM team member noticed that the customer did not have an efficient process to perform production deployments for its loyalty applications, he developed a PoC for improving the process and presented it to the team. The customer accepted the proposal and EPAM started working on constructing a CI/CD pipeline to automate deployment.
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BUILDING THE CI/CD PIPELINE

Prior to working with EPAM to optimize its deployment process, the customer was running an average of two deployments per month with a team comprised of a resource manager, project manager, delivery manager and developers distributed across the client’s operation command center (OCC) and network operation center (NOC). This team created an implementation plan and then executed deployment using a lengthy process that had to be repeated for each node update. Furthermore, team members had to wait to perform their duties based on the progress of each update, so while one team member was implementing one step, everyone else was waiting for them to finish.
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With these parameters in place, the production deployment process was overly complex and looked like this:

OLD PROCESS

FULL TEAM CREATES IMPLEMENTATION PLAN

TEAM BEGINS IMPLEMENTATION

START

<OCC> DEFINES NODE TO BE UPDATED

<DEV> VALIDATES APPLICATION (CHECKS LOGS AND RUNS SAMPLE REQUESTS)

<OCC> DEPLOYS CODE

<NOC> PULLS NODE FROM F5 TRAFFIC BALANCER AND WAITS FOR CONNECTIONS TO DROP

<NOC> PULLS OFF NODE FROM F5 AND WAITS FOR TRAFFIC TO BE RESTORED

~2 TO 5 TOTAL HOURS PER DEPLOYMENT
EPAM enlisted a team of expert developers, testers and managers to automate and improve the old process. As a result of the automated integration and deployment pipelines, the client’s new process only requires a resource manager and project manager to complete each release. It’s simple: the resource manager presses a button, and then the project manager reports on the results. It looks like this:

**NEW PROCESS**

1. TEAM CREATES IMPLEMENTATION PLAN (10 MINS)
2. <RM> DEPLOYS RELEASE (10 MINS)
3. RELEASE IS REPEATED FOR EACH NODE (10 MINS)

~20 TO 40 MINUTES PER DEPLOYMENT
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DELIVERING TIME & COST SAVINGS OF MORE THAN 65%

“This is a major milestone. Thank you all for your hard work and dedication!”

THE CUSTOMER’S DIRECTOR OF CLM PRODUCT MANAGEMENT

EPAM built and implemented the solution across two enterprise apps in just two weeks, accomplishing the following milestones for the customer:

- Reduced loyalty application deployment time from 2 hours to 40 minutes, which equates to ~67% time and cost savings
- Developed a roadmap to implement the solution across all other enterprise apps (30+) as well as new applications
- Created a turnkey solution that can be re-used across the customer’s business to save time and money

With plans to deploy over 100 releases every year, the savings will add up quickly for the customer, and users will have access to better, more bug-free applications faster than ever before.
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ABOUT EPAM

EPAM is a trusted DevOps partner to some of the world’s leading companies, helping them to bring products to market faster, improve responsiveness to shifting business goals and lower costs through automation. Specifically in the Travel & Hospitality industry, we have over a decade of experience serving hotels, airlines, OTAs and other organizations with our full suite of services for digital business.