Capgemini

Standardizing European railway management

Working with Capgemini ADMnext, a European railway manager optimizes its applications portfolio to support better decision making

Getting on the right track with ADMnext

With today's average business now utilizing hundreds of applications that support critical and non-critical business functionalities, a large European railway manager was struggling to keep pace as its application landscape became increasingly complex and inefficient. Each application followed an exclusive change cycle, which impacted other applications and led to dysfunctional business processes. The business' chaotic IT landscape brought an unnecessary rise in IT costs and was hampering competitive advantages by increasing the time to market for new products.

The organization wanted better control over its applications portfolio to ensure that it derived maximum business and technology benefits from the IT estate while avoiding the common pitfalls stated above. With control over thousands of kilometers of track and a wide network of passenger stations and freight terminals, this public sector company was responsible for managing an entire country's railway infrastructure. To help with the development and management of a safe, efficient, and sustainable infrastructure, Capgemini assumed responsibility for the development and corrective maintenance of the organization's entire application portfolio with ADMnext.

Overview

Client: A large European railway infrastructure manager

Sector: Government and Public Sector; Transportation and Distribution

Client Challenge:

With an ever-growing applications portfolio, the European railway manager wanted an integrated mechanism to manage its application portfolio and improve efficiency by standardizing its approach to application management

Solution:

Capgemini ADMnext worked with the organization to move away from a fragmented, heterogeneous delivery model to a comprehensive, standardized delivery model

Benefits:

- 65% reduction in go-live time
- 50% reduction in the number of software code quality incidents
- 60% reduction in the number of incidents in the production environment
- Improved decision making, governance, and real-time access to various DevOps metrics
- 80% increase in deployment rate
- 20.62% increase in contribution margin from 2016 to 2018, a 53% reduction in work-in-progress inventory (from €894K in 2016 to €419K in 2018), and €602K in incremental revenue

Comprehensive, standardized management for dynamic, heterogeneous applications

Over the course of time, the company has added new applications to its IT landscape to support core functions such as rail infrastructure and traffic management, capacity distribution to rail operators, and fee collection for infrastructure, station, and freight terminal usage. Naturally, this proliferation of applications led to a corresponding growth in IT vendors, technologies, and project sites to support these applications. As the organization's major IT provider, Capgemini was tasked with moving the organization away from a fragmented, heterogeneous delivery model to a more comprehensive, standardized delivery model with ADMnext.

Firstly, the Capgemini delivery team incorporated ADMnext's ADM Office to address growing application needs and establish a centralized governance system that could provide industrial planning and execution. In addition, the solution was able to assess benefits and progress through continuous tracking and reporting.

After ADM Office was brought in, the team discovered that the organization's application systems were based upon obsolete technologies, demanded a lot of human intervention, exposed the company to loss, and lacked control in delivery processes. As a result of the above challenges, the client had experienced an increase in IT costs.

Based on the identified gaps, Capgemini laid out a roadmap for the optimization of the operating model. Capgemini then worked with the organization to pave the way for a smooth DevOps journey. To boost business agility and application efficiency, the delivery team initiated continuous improvement and deployment programs for 700 applications, redefined delivery flows, and redesigned procedures to help teams operate within their new ways of working.

By embedding DevOps across design, build, test, and operate functions, Capgemini delivered incremental benefits to the business through an iterative approach. The organization observed dissolution of silos, increased transparency in communication, the speedy launch of new business functionalities, and IT process automation.

With a greater variety of tools in place, more metrics were generated across different dimensions of application management. Though each tool provided its own dashboard to track relevant metrics, the organization lacked an integrated view of all metrics generated by different tools. Therefore, diagnosis and prevention of erroneous application behavior were tough and time-consuming.

ADM Office best practices, ADMnext business benefits

As a part of ADM Office best practices, Capgemini and the railway manager implemented a DevOps dashboard, which provided a consolidated view of the entire applications portfolio from security, quality, performance, and a speed-to-market perspective. Grafana and InfluxDB, both open source technologies, were leveraged to build the dashboard and store the metrics data, respectively. While Jenkins (an open-source automation server), generated data that was stored on the database and then fetched by Grafana for real-time reporting.

Overall, the client reaped the following benefits from ADM Office and Capgemini DevOps journey:

- 65% reduction in go-live time through improved speed to market
- 50% reduction in the number of software code quality incidents with enhanced application portfolio visibility and code quality
- 60% reduction in the number of incidents in the production environment with better application control
- Improved decision making, governance, and real-time access to various DevOps metrics with 95% of the applications portfolio managed through a comprehensive DevOps platform
- 80% increase in deployment rate through Agile methodologies enabling accelerated continuous improvement and deployment
- A 20.62% increase in the contribution margin from 2016 to 2018, a 53% reduction in work-in-progress inventory (from €894K in 2016 to €419K in 2018), and €602K in incremental revenue through delivery add-ons.

The road ahead with ADMnext

After moving to a comprehensive, standardized delivery model, the railway manager is now planning to work with Capgemini to expand through new maintenance service initiatives. These include projects in the operations area, the automation of electric energy billing, and reengineering of the CCO application (civil works certifications) through microservices.

With a modern application landscape and a new set of tools to enable better order tracking, the retailer is now committed to providing its customers with the tools they desire and overall better delivery.

About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of €17billion.

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