Application Transformation Delivers Lower Costs, Greater Agility for Financial Services

Cognizant’s industry expertise and Pivotal Cloud Foundry skills slash deployment times, put bank on path to cloud native infrastructure

Financial services organizations were among the earliest, and heaviest, users of information technology. As increased competition requires them to reduce costs and deploy new applications more quickly, they can find it challenging to transform their legacy applications and platforms to lower cost, more nimble cloud-based development and deployment models.

Cognizant, working closely with cloud deployment experts from Pivotal, is helping a major European bank reduce costs and complexity while increasing business agility and developer productivity by refactoring a critical application used by its global wealth management unit. The movement of this application onto the PCF platform and related workflow improvements not only improve employee productivity and customer service, but have reduced the time required to deploy new application functionality and given the bank’s IT staff valuable experience in and tools for moving legacy applications to cloud native platforms.

**AGILITY, SIMPLICITY, LOWER COST**

This target of this proof of concept was an application that gives employees access to information from other financial services applications. By refactoring the application onto a cloud native architecture, Cognizant improved performance and reduced deployment times, demonstrating the integration of legacy technologies with cloud native platforms.

**AT A GLANCE**

A major bank sought help moving legacy applications onto a cloud native architecture to reduce costs and complexity, increase developer productivity and become more agile. Drawing on our deep knowledge of the bank's systems, we worked with Pivotal Software to refactor a legacy application onto the Pivotal Cloud Foundry (PCF) platform.

**OUTCOMES**

- Refactored legacy application to cloud native architecture.
- Reduced code deployment times from 15 days to 45 seconds.
- Demonstrated the integration of legacy technologies with the cloud native architecture.
- Provided agile capabilities such as auto scaling and auto recovery.
- Provided a reference architecture for integrating existing development and deployment tools into the cloud native architecture.
- Reduced mean time to repair and the overhead required for problem management.

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cial firms about assets the bank manages for its clients. Objectives included making it easier and quicker for the bank to roll out new application features, such as the ability to import information about new types of assets, while reducing the complexity and cost of maintaining and enhancing the application. The bank also sought to streamline its development and operational workflows, integrate the new application with its legacy services, and provide a reference architecture that would help its developers bring other new capabilities to market more quickly.

While many organizations never get further than assessing such application transformation, our close relationship with the bank, proven track record and in-depth relationship with Pivotal helped deliver actual results. Our approach includes identifying and working with transformation champions at the client, explaining the business and technology trends in cloud adoption to them, and helping them compare technology options and identify use cases. We also immersed our own PCF experts in the bank's business so they could better understand its short- and long-term requirements.

We also helped the bank made difficult tradeoffs, such as between containerization (which would be easier in the short term but provide only limited benefits) and a move to a full micro services architecture, which would be more challenging but provide far more simplification, agility and lower maintenance costs in the long run.

We also helped the client integrate a new, internally created development platform with PCF. This leverages the greater simplicity and agility provided by PCF while preserving the bank's investment in that new development platform.

**BENEFITS**

In the proof of concept we successfully refactored the target application and demonstrated the ability to integrate the bank's legacy technologies, such as IBM MQ and Microsoft SQL Server 2008, into a cloud native architecture. This provides agile capabilities including auto scaling and auto recovery of cloud applications, and reduced the time needed to move code into production from 15 days to 45 seconds. We also provided the bank a reference architecture for integrating existing development and deployment tools into the cloud native architecture, as well as tools to enable DevOps centric workflows and a continuous integration/continuous delivery pipeline. The cloud architecture is also reducing Mean Time to Repair (MTTR) and the overhead required for problem management.

With the completion of this proof of concept, we are working with the bank to move this refactored application into production, and provide similar transformation for other applications in its portfolio. This transformation will help improve the user experience for bank employees and enhance their productivity.