



INTEGRATION PLATFORM MIGRATION TO **TIBCO BUSINESSWORKS 6** Case Study

Client background & business context

Client profile: one of the top 5 Romanian banking institutions

Project: Integration platform migration

Being part of an important European banking group, having to deal with complex business logic and connecting multiple integration components, the customer has put in place an integration platform based on ESB architecture.

This was based on two integration platforms from which one was considerably old and outdated, fact that led to various technical issues, additional costs, and an unwanted overall complexity.

Having in mind the future requirements and capabilities that the new platform should provide while following the latest trends in Enterprise Application Integration, a platform migration project has been started.

As Tibco ActiveMatrix BusinessWorks platform emphasizes on the importance of API's and microservice architectures, provides multiple out of the box connectors, implements EAI patterns, and support containerization, it has been chosen as the best match.

Challenges

● **Agility**

follow the agile manifesto and principles to achieve a better cross-team collaboration and communication

● **Standardization**

understand the current functionalities and decide whether to migrate "as is" or redesign them in order to achieve a higher level of standardization and reusability

● **Business continuity**

integrate the migrated components into the existing architecture and decommission the old ones, while ensuring minimum downtime

● **Security**

maintain the client's security regulations in place and prevent any sensitive data leakage

Our approach

As technology advances, the financial industry is also changing at a fast pace.

To accommodate those changes, choosing the SCRUM methodology was the right solution to meet the required balance between agility, efficiency, and cost. Customizing it was the next step in achieving a high level of agility and facilitating the interactions between involved business domains in the complex context of the banking industry.

Together with the customer, we put in place two agile teams, working “as one” to migrate high-quality software components in a timely manner.

Having knowledge in the existing integration platform, helped us to understand the overall business architecture and the interactions between technical components. We could easily follow the migration plan and achieve business continuity by working with concepts such as CI/CD pipelines, delta deployments, and comprehensive end-to-end testing.

This led to a successful integration of new services while supporting the legacy ones until decommission.

One of our goals was to get closer to a microservices oriented architecture. Tibco BusinessWorks facilitates the development of applications that fit perfectly inside this type of architecture.

Migrating the applications was not always enough. In some of our migration scenarios we also had to analyze current flows and propose redesign sessions. Some of the redesign proposals also had in scope removing redundant code and business logic that didn't belong to the integration layer.

We successfully replaced SOAP webservice implementations with lightweight and reusable services by applying the REST API pattern.

To integrate with other systems we took advantage of out-of-the-box functionalities provided in Tibco BusinessWorks 6. However, there were some scenarios when we needed to develop custom plugins and activities to address specific data transformation and integration requirements, keeping in focus standardization and reusability of these components.

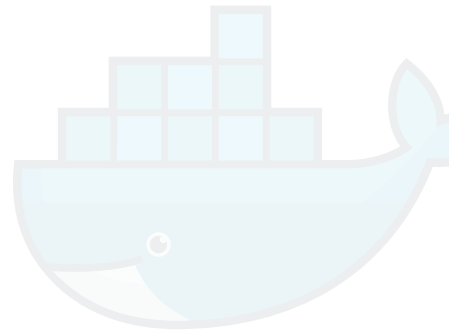
Using Tibco BusinessWorks as integration solution we could easily use the out-of-the-box functionalities that implement the required service security concerns.

In order to match the security concerns of our customer, Tibco BusinessWorks platform provided us all the necessary tools.

We secured the communication between our services using the latest HTTPS protocols and user authentication and authorization mechanisms and administered access to integration APIs in a secure way using user management at the platform level.

Technologies

- TIBCO ActiveMatrix BusinessWorks 6
- IBM WebSphere Enterprise Service Bus
- IBM MQ
- Java, Spring Boot
- GIT
- Jenkins
- Maven
- Docker, OpenShift
- Confluence
- Jira Software



Java

IBM



Results

Acting as an implementation partner, we supported the customer in achieving its migration goals.

We released in time the required functionalities that helped the company to better adapt to changes and facilitate integration of new business requirements.

More than 200 ESB interfaces have been successfully migrated to an API-first architecture, creating an ecosystems of applications that are modular and reusable, an ideal prerequisite for microservices.

The new platform has been successfully integrated in the existing landscape with minimal impact on the customer business.

The migration to TIBCO BusinessWorks proved to be a great solution for moving to a singular integration platform and taking advantage of modern features and concepts, such as API-first architecture, containerization, and custom integration plugins development.