

CARGONAUT, INSIGHT IN AIR CARGO TRAFFIC WITH ORACLE ADF ESSENTIALS ON TOMCAT



Cargonaut Nederland B.V.
Schiphol, Amsterdam

www.cargonaut.nl

Industry: Logistics

Oracle Products & Services:

- Oracle JDeveloper / Oracle ADF Essentials
- ADF Faces Rich Client Components
- ADF Task Flows
- ADF Business Components
- Oracle 11g database

Related Software

- Tomcat 6

Oracle



AMIS

www.amis.nl

Key benefits:

- Low maintenance thanks to usage of default framework components.
- High performance and high load thanks to limited JavaScript and additional performance tuning
- Recognizable and default user interface
- Highly adaptable application
- Low cost implementation of rich ADF functionality.

“Developing with Oracle ADF Essentials simplified our application development eliminating most of the manual JavaScript coding and cutting 50% of the Java code used in our older system. This resulted in increased application performance, easier maintainability and richer user interface.” – Paco van der Linden, AMIS Services

Executive Summary

Cargonaut was searching for a structured development environment to replace their Cargo information system. This system contains near real-time detailed information of all cargo transports from and to Amsterdam Schiphol Airport. The system requirements included a standard development framework, low costs and limited custom code. Because their in-house expertise was focused on Apache Tomcat servers, the customer did not want to introduce another server platform. For Cargonaut, the usage of ADF Essentials and Apache Tomcat resulted in a stable platform with low license costs that exceeded their expectations.

Organization

Cargonaut is the vital link for optimal handling of goods at Schiphol. Cargonaut takes care of the logistics chain by always providing the logistics chain and authorities with accurate and complete information. Cargonaut directs the information flow for the entire ecosystem at Schiphol and enables the airlines, ground handling companies, forwarders, truckers, shippers and authorities to better control their own processes. The platform and community services strengthen the competitive position of the Netherlands as the logistics port of access in Europe. Cargonaut has an impressive track record of more than 25 years in developing solutions for exchanging information, value-added services and supply-chain applications in the (air) freight industry. Cargonaut stores and re-uses data, controls, converts, routes and distributes information, and takes care of archives and security. In addition, the Cargonaut system acts as a data collection hub in the network of information flows.



The Business Issue

Cargonaut offers real-time information to customs officers for inspection of goods at Amsterdam Airport. The previous application suffered from very slow performance and limited usability. Secondly, the time to market of changes in the application was very long. This resulted in discontented customers and less flexibility in innovation for Cargonaut.

Key Challenges

The existing application was built using Apache Trinidad combined with the Dojo

JS framework, containing over 15,000 lines of JavaScript code and over 50,000 lines of Java code. It had become a performance and maintainability challenge. Cargonaut asked AMIS Services to rebuild the entire application in only a few months, maintaining look-and-feel, but improving performance and maintainability.

The key challenge was to create a faster, responsive application that would be able to support the future plans for Cargonaut. The system had to be able to operate on their standardized application platform, the Apache Tomcat environment. The solution had to implement a framework that is able to support the future creation of multiple smaller applications with the same look and feel and re-use of generic components.



Solution

Oracle ADF Essentials enabled AMIS Services to build an application that met or exceeded all Cargonaut requirements. Virtually all features that required custom JavaScript coding in the old application were available declaratively in Oracle ADF Essentials and developed with Oracle JDeveloper.

“The Migration of our system to Oracle ADF Essentials brought us improved performance. Almost all functionality was provided out-of-the-box with ADF Essentials. After detailed impact analysis of our requirements by our supplier, AMIS Services, we were advised to implement our application with ADF Essentials on our Tomcat environment resulting in a rich user interface and a lean development process.” – Marnix Harbers, Director IT of Cargonaut

Credits:

Cargonaut Nederland B.V.

AMIS Services

Oracle Product Management

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Nederland B.V.

Cargonaut was able to re-use the most complex part of the old application, which is the processing logic of the high volume of incoming data. This logic was implemented in the Oracle Database and made available through functions and views. These functions and views were consumed in the old application using complex SQL queries. All of these queries were immediately compatible with Oracle ADF Business Components.

Cargonaut readily complied with the desired practical look-and-feel requirements of the original application using Oracle ADF skinning.



Business Value

Because most features were available out-of-the-box the code complexity was very low. Cargonaut was able to process several change requests in one day that might have taken weeks to complete in the old system. The value-add of using Oracle ADF Essentials was the high amount of reuse of standard out of the box Oracle ADF components that drastically improved the quality, maintainability and usability of the application. The perceived performance on the side of the application users showed a dramatic performance improvement ranging from 10 or 20 second response times, to less than one second. This was accomplished without any tuning of the database queries.

Software Architecture

The existing infrastructure consisted of Tomcat combined with JOSSO for authentication with Single Sign On. Cargonaut preferred to use Tomcat because of their existing expertise and experience and thus required the use of Tomcat as a container. Results showed that Oracle ADF Essentials ran perfectly on Tomcat and exceeded stability and performance targets and expectations

