

# TIM Brasil Standardizes Testing and Anticipates Application Errors with CA Service Virtualization



## Customer profile

**Industry:** Telecommunications

**Company:** TIM Brasil

**Employees:** 12,167

## BUSINESS

TIM has been present in Brazil since 1998 and is currently the 13th largest company in the country, and has approximately 29.9 billion in market capitalization. It is one of the largest mobile operators in the country. With more than 73.9 million customers and 27.02% market share, it holds the number two position in the market and is the leader of the prepaid segment.

## CHALLENGE

The IT department's key challenge is to promote technological advancement through the adoption of collaborative, innovative, effective solutions that enable business growth at TIM.

## SOLUTION

TIM Brasil adopted CA Service Virtualization and began to virtualize its services, perform tests and identify bugs before entering into production, enabling the execution of multiple parallel scenarios, meeting "time to market" projects in a timely fashion, reducing infrastructure costs and significantly improving quality.

## BENEFIT

TIM Brasil managed to eliminate limitations on having physical space ready in time to start the Integration Test, as well as optimizing the CRM training environment with synchronous and asynchronous services, in addition to anticipating development issues in critical environments.

## Business

### **One of the largest mobile phone operators in the country**

TIM is one of the largest mobile operators in Brazil, providing telecommunications services throughout the country through its subsidiaries TIM Celular and Intelig Telecomunicações. The company began its operations in Brazil in 1998 and became a nationwide company in 2002, as the first mobile operator with a presence in every Brazilian state. TIM invests in innovation and quality services, focusing on enhancing the life of customers through its technology.

TIM Brasil's business is focused on providing mobile broadband connections and wireless solutions to all customers in Brazil. TIM offers converged fixed-mobile services, including voice, data and mobility services.

Seeking to grow and increasingly strengthen its position in the market, in 2011 TIM completed an important acquisition: the purchase of AES Atimus, which provided the company an infrastructure of 5,500 kilometer fiber optic network in Rio de Janeiro and São Paulo. Besides benefiting the company's mobile internet users, with the company's fixed wireless connection to the fiber network, the deal allowed TIM's entry into the residential broadband market. With the offer of Live TIM, the company brought to market navigation plans 20 times faster than average, enabling customers to download and upload files more easily, play games without interruption and watch high-definition videos in real time.

Today, TIM acts as a mobile and long-distance fixed telephone and data transmission operator, always focusing on the quality of services rendered to its customers.

TIM always aims for excellence in its products and services, both in terms of quality and cost benefit, based on experience, excellent customer service and innovation.

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## Challenge

### **Promoting technological advancement through innovative and collaborative solutions**

To stay on top in a competitive market like Brazil – where almost 300 million mobile devices are in operation – TIM needs to constantly innovate, and the company's IT department is fundamental to achieve this.

**“The biggest challenge is to promote advancement through innovative and collaborative solutions.”**

**Raimondo Zizza**  
CIO, TIM Brasil

Raimondo Zizza, CIO of TIM Brasil, comments, "The biggest challenge is to promote technological advancement through the adoption of innovative, collaborative and effective solutions to enable TIM's business growth."

TIM's testing area has a strong focus on continuous improvement, and seeks to innovate processes and methods to free up resources to increase speed, coverage and reach of the tests.

To detect failures in application development, the test team was using mock objects and method stubs prior to fully integrated testing. This process, known as 'clean track', helped to troubleshoot proactively, as it enables changes to be made during the development process.

Terezinha Izabel Retore, Manager at TIM Brasil, comments, "We could anticipate potential bugs in the previous process, but only after integrations were finalized."

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## Solution

**More speed and greater productive capacity by detecting anomalies before they become critical**  
To optimize the development lifecycle, enhance speed and reduce costs in development, the IT department decided to seek a solution that was robust and innovative.

Leonida Auriemma, Executive Manager of TIM Brasil, comments, "We needed greater speed and productive capacity to enable us to detect coding anomalies before they became critical."

**"With the CA Technologies solution we were able to virtualize scenarios where other providers failed."**

**Leonida Auriemma**  
Executive Manager, TIM Brasil

After a visit to Argentina, TIM Brasil's leaders decided to conduct a proof of concept exercise, which demonstrated that CA Service Virtualization® was an extremely effective testing solution. The solution enables the virtualization of critical and urgent testing scenarios, for example, billing using Diameter protocol.

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## Benefits

### **Cost savings of 40 percent for application testing**

Following selection of the CA Technologies solution, the implementation of CA Service Virtualization was completed in October 2013. Since then, CA Service Virtualization has been used across critical and time-sensitive projects to identify integration issues while reducing the need for physical testing environments.

**“We improved our ability to deliver, thereby avoiding duplicate work and simplifying the test.”**

**Vitor Mazini**

IT Specialist, TIM Brasil

Benefits of using CA Service Virtualization include:

- Greater flexibility in testing as physical environments are no longer necessary
- Improved training in the CRM environment
- Easier identification of development problems in critical projects
- Savings of 40% through infrastructure optimization and freeing up of resources when testing a new CRM (customer relationship management) system

In between November and December 2013, TIM was able to identify approximately 50 development errors using CA Service Virtualization prior to integration testing.

The company was also able to provide virtualized services for its legacy CRM environment in just 20 days, rather than spending three to six months building highly complex physical environment for testing.

With the solution in place, TIM Brasil can anticipate problems in advance, allowing them to avoid duplicating work and reducing costs in the process.

\*Please note that, in September 2014, the product name in the original customer success story was updated from “CA LISA Service Virtualization” to “CA Service Virtualization”



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