

Testing for Airlines

Capgemini offers an effective and comprehensive testing system to help minimize risks during implementation or migration



TMap™, a proven test management methodology

Our Test Management Approach, TMap™, can help deliver more complex, high-quality software, faster -- saving organizations both time and money. TMap™ provides a complete toolbox for setting up and executing tests, including detailed and logical instruction to testers.

It relies on four main streams:

- Test Lifecycle, describing the activities to be completed within the test process
- Strong integration with the organization (internal testing organization, as well as integration with the overall project organization itself)
- Tools and Infrastructure
- Techniques, facilitating test execution and reproducibility.

This structured, proven and recognized approach for testing services is reinforced by our RightShore™ delivery model, including dedicated testing centers in our locations in India, allowing us to benefit from both their cost effectiveness and their flexible staffing model.

Inadequate or insufficient software testing can increase an airline's risk of losing both revenue and customer trust when it affects how services are provided.

However, if effectively managed, testing can play a crucial role in an airline's ability to adapt and respond to changing market requirements. The aim of Capgemini's Testing for Airlines service is to provide a package that covers all testing activities deemed essential to ensuring a smooth system integration, thereby freeing up the airline to focus on its core businesses.

Airline Information Systems have become more and more complex, with both bespoke and off-the-shelf components as part of the production chain. Airlines are looking to move from these legacy systems to new solutions that can more efficiently run many of their operations (i.e., reservation, inventory, departure control and customer management).

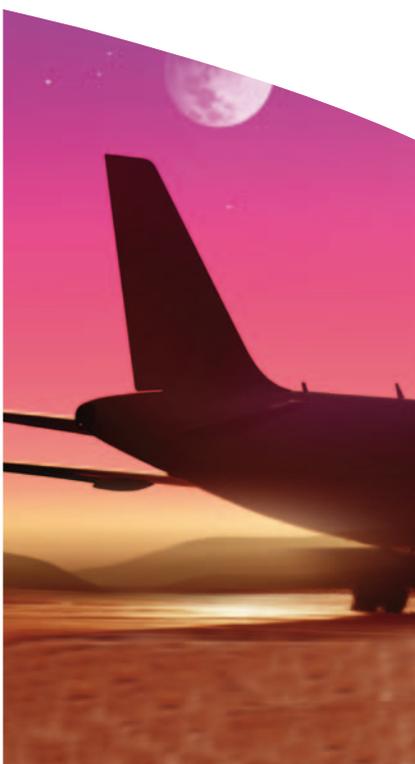
Service Components

We've identified five Service Components that combine to provide a powerful, reliable testing solution using controlled, repeatable methodology. These are:

Project Governance: Capitalizes on past experience to provide a customized strategy and schedule for the tests adapted to the specific airline's test environment cycle. It also covers management, monitoring and control, in order to ensure the effective and efficient execution of the project.

Configuration Management: Establishes and maintains the integrity of the work products and systems of the software project, ensuring their control throughout the project life cycle.

Test Data Management: Handles data-preparation schedules and creation, and maintenance of test data, possibly in coordination with third-party providers hosting (parts of) the running solution.



Functional Regression Testing: Tests the correct operation of the program and the changes introduced (“does it do what it is supposed to do?”) and verifies that no additional errors are being introduced with the program changes.

Performance and Load Testing: Tests the speed and usage of the program to ensure it will be capable of providing the services at the level required. Ensures the end-to-end performance of the new program and all other impacted systems.

What We Offer

Let’s explore Capgemini’s approach to each of these components:

Project Governance studies the airline’s requirements for testing, the deadlines required to provide consultancy, and project management expertise to produce the most appropriate testing strategy and schedule for its system integration.

Our consultants draw on their experience and knowledge to ensure that the project is correctly managed, monitored, controlled and provides the appropriate deliverables and reporting.

It can be delivered as a “stand-alone” component.

Configuration Management involves identifying configuration items and systematically controlling the changes to them. We institute a number of activities that enable us to specifically control the testing environment and make it more efficient and reliable, ensuring high quality. They are:

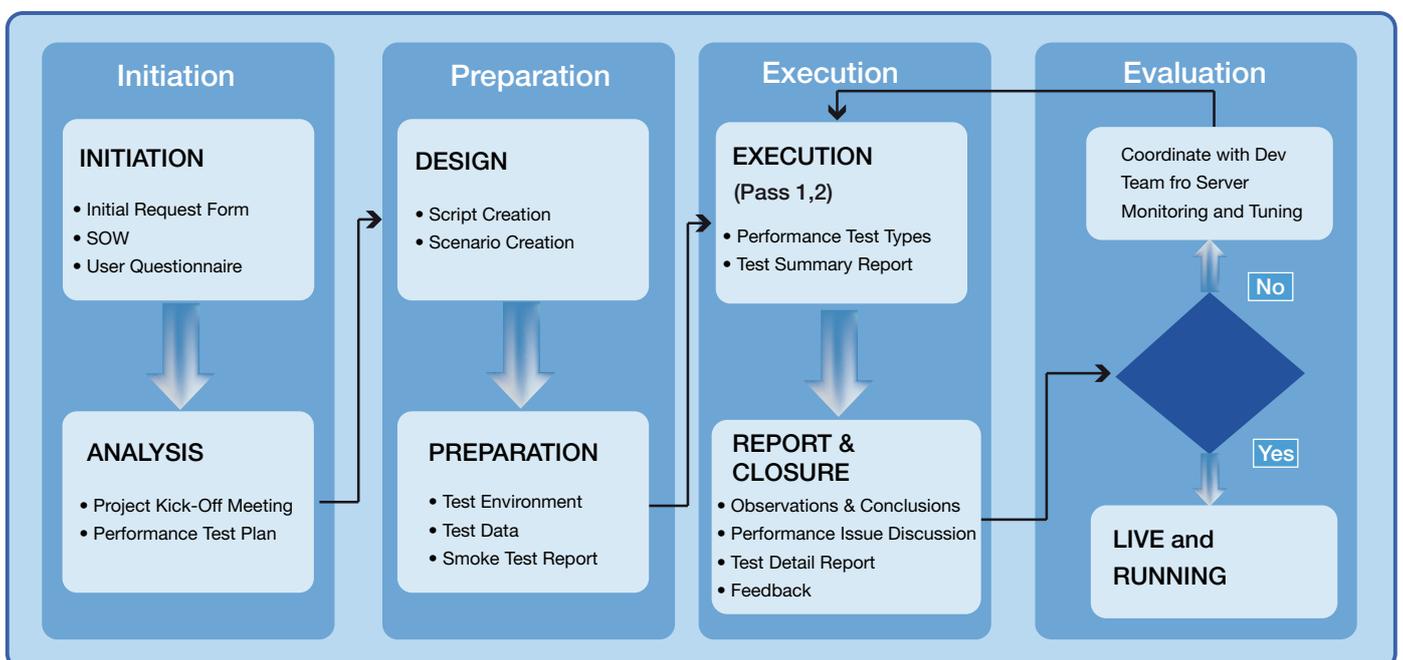
- Assign explicit responsibility for configuration
- Implement Configuration Management throughout the project’s entire lifecycle
- Ensure Configuration Management is used for all externally deliverable software products, designated internal software work products and designated support tools used for the project

- Establish access to a repository for storing configuration items and their essential records
- Audit software baselines and Configuration Management activities on a periodic basis.

All of these activities are handled in close coordination with **Test Data Management** throughout the project lifecycle.

With our **Functional Regression Testing Process**, Capgemini can provide a maximized set of automated and reusable test cases, providing the airline with an optimal and efficient testing solution.

Performance and Load Testing covers the testing of not only the robustness and performance of the new program, but also of the whole end-to-end service that the airline provides to its customers (including all airline systems and terminals). The recommended changes often impact other internal airline IT systems and may require a larger, more holistic overview of what needs to change.





About Capgemini and the Collaborative Business Experience™

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies. Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™. The Group relies on its global delivery model called Rightshore®, which aims to get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients. Present in more than 30 countries, Capgemini reported 2009 global revenues of EUR 8.4 billion and employs 95,000 people worldwide.

Over 300 Capgemini professionals in over 35 countries have worked or are working on projects for the air transport industry. We have a dedicated Aviation Consulting group and an Aviation Center of Excellence, putting us at the leading edge of the international aviation market. Our extensive airline experience covers Passenger Service System (PSS) implementation, Business Process Engineering and Optimization, Application Management, Business Intelligence, Loyalty and Revenue Management.

More information is available at www.capgemini.com

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