

# BAA

## BAA<sup>1</sup> Terminal 5 benefits from an effective SI plan

In March 2008, BAA opened Heathrow's new purpose-built Terminal 5 for British Airways. The main terminal building, T5A, and its remote pier, T5B, are linked by a number of underground tunnels that transport passengers, bags and utilities back and forth. During the T5A and T5B projects, preparations were already underway for developing a second remote pier, T5C, and a base infrastructure was installed for that purpose. T5C is almost a replica of T5B, except that T5B is a 15 gate pier, while T5C consists of 12 on-pier gates and 14 off-pier stands.

Building and commissioning new infrastructure is a complex, multiparty undertaking. Systems integration (SI) ensures that, as part of the broader organization, all aspects of each project involved align to ensure success. This way, projects that are very different can have a common meeting point and can function without any disruptions. Also, tests undertaken as a part of the SI process verify the end-to-end operational capabilities (facilities and systems) to enable the operational readiness activities that follow (people and processes).

### THE CHALLENGE

SI testing would ensure that the Terminal 5C facilities and integrated passenger and baggage systems would support the business and passenger processes. It would also minimize the risks of operational readiness activities.

For Terminal 5C, CGI developed an SI testing strategy in conjunction with British Airways (BA) and the Terminal 5C Complex Build Integrators (CBIs) Carillion and Vanderlande Industries (VI). The challenges were as follows:

- Coordinate joint SI testing with VI for baggage handling
- Use VI tests to identify those that support SI end-to-end requirements
- Agree on identified test setup with stakeholders
- Test data setup that supports end-to-end processes
- Ensure availability of airline resource to support end-to-end function during joint testing
- Agree on test schedule with VI and Carillion (CBIs)
- Agree on support and resource requirements for SI enhanced test

### CASE STUDY

#### AVIATION

BAA is a leading airport operator regulated by the Civil Aviation Authority. It's involved in almost every aspect of the day-to-day running of six U.K. airports, including the largest, London Heathrow.

Heathrow Airport, 15 miles from central London, is regarded as the hub of the aviation world. Flying to more than 180 destinations in more than 90 countries, some 90 airlines have made Heathrow their base.

<sup>1</sup> BAA is now known as Heathrow Airport Holdings Limited.

## THE SOLUTION

BAA is the world's leading airport company and is at the heart of a large, multifaceted set of business relationships. Heathrow, one of the world's busiest international airports, is a complex, real-time business. CGI executed SI testing for Terminal 5C, a complex process, in four phases identified below:

- Witnessing of Carillion and Bombardier integrated site acceptance tests (ISATs and SATs)
- Parallel testing with VI
- BAA enabling tests and British Airways Level 3 testing
- Joint BAA and British Airways SI end-to-end tests

Before T5C was handed over to BAA operations, it was vital to test the delivered systems, identify and resolve all known issues, and commence the joint BAA and BA SI end-to-end tests. Test execution with each of the T5C CBIs was undertaken during the respective CBI testing phases.

## THE RESULTS

CGI stuck to the plan and enabled the baggage commissioning activities to start on time and in line with the program. Our parallel and joint testing approach de-risked the joint BAA and BA SI end-to-end tests. This is because the available two-week period for the joint SI end-to-end testing did not support a series of iterative tests and issue resolution prior to the commencement of the BAA Commissioning and BA Operational Readiness work stream.

Here's how we executed SI testing:

- Witness testing of Carillion delivered systems (e.g., BSI, Fire Alarm, Lighting Control)
- Joint baggage testing with BA and VI
- British Airways Level 3 testing and BAA enabling tests
- End-to-end passenger and bag operational scenarios tested with British Airways

**Note: The project referenced in this case study was delivered by Logica, which CGI acquired in August 2012.**

For more information, please contact us at [info@cgi.com](mailto:info@cgi.com) or visit [www.cgi.com](http://www.cgi.com).

## WHY CGI?

Companies upgrading legacy systems and those adding new functionality depend on CGI's SI expertise. CGI has a world-class intelligent transport systems practice with experts who have a deep understanding of travel information, traffic management, transport safety, security, and the environment.

We have a flexible, collaborative culture. Our innovative, practical solutions are tailored to your needs. We're both global and local. We offer flexible delivery options, and we have the people, experience and knowledge you need to keep growing and evolving.

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With 69,000 professionals operating in 400 offices in 40 countries, CGI fosters local accountability for client success while bringing global delivery capabilities to clients' front doors. Founded in 1976, CGI applies a disciplined delivery approach that has achieved an industry-leading track record of on-time, on-budget projects. Our high-quality business consulting, systems integration and outsourcing services help clients leverage current investments while adopting new technology and business strategies that achieve top and bottom line results. As a demonstration of our commitment, our average client satisfaction score for the past 10 years has measured consistently higher than 9 out of 10.