

# Testing - Healthcare

## How THBS helped

THBS successfully tested the newly built applications meticulously to ensure that there were no tangible or intangible losses (financial or customer satisfaction) observed. This helped us to measure any gap which might have existed periodically and thus provide proper feedback in order to ensure a bug-free application deployed for business use. All the findings, workarounds were documented in a repository that served as a knowledge base for future assignments and references. To achieve a successful operational acceptance test, the entire test was divided into multiple sequential phases:

- **Test Builds:** Seamless integration between the various interfaces & the new application was required. THBS wrote stubs & emulators to redefine the interfaces so they work with external components. HL7 messages between applications were thoroughly tested for accurate transfer of data.

### CLIENT BENEFIT

“THBS increased the application availability from 95% to 99.9%”

- **Dry Runs:** A simulated production environment was created with the replication of LIVE Data in the environment. High risk business scenarios were identified and reviewed by the Technical architects, Business Analysts and Business Users. Test cases were designed and executed in dry run build. Major issues encountered during this phase were brain stormed and root cause analysis was conducted.
- **Live Rehearsals:** Typical Business scenarios were identified and tested on live data. The live data was recorded to enable reverting to the original state.
- **Testing Centre of Excellence (TCOE):** Resources with deep Domain and Process knowledge were deployed to establish the TCOE. Torry Harris implemented the enhanced test process in test life cycle methodology with best practices across each stage.

THBS made sure that the new applications made a difference to the business operation thus helping the customers to make a difference in their offerings.

### CLIENT

A premier hospital, under the National Health Care Group (NHG), Singapore.

### BUSINESS CHALLENGE

The Emergency Department Clinical Support System (EDCSS) is a mission critical patient management system for use in the Emergency Department at the hospital. EDCSS leverages on the use of Internet Technology – allows seamless sharing of clinical information and collaborative integrated care for patient management. It allows the hospital to ensure the level of care provided, as the system is envisaged to have alerts and checks on the quality of care. It also allows the hospital administration to generate data for quality clinical indicators. The challenges NHG had to overcome were

- Scalability of the existing applications due to increased load
- Performance of the applications was becoming an issue due to increased load
- Dealing with multiple vendors

To address the management, scalability and performance issues NHG's strategy was to adopt the services offered by an external vendor for testing their applications.

## Value Delivered

- The new enhanced system helped the Hospital in providing a far better customer experience. The number of production defects reduced by 47% compared to before
- The performance optimization reduced the response time of the applications by around 30%, enabling the staff to respond immediately to the emergency needs of the patients. The efficiency of the staff has increased to a great extent, which in turn has brought down the operating cost of the hospital
- Torry Harris completed the assignment in 4 months with a team size of 6. The team comprised of 1 senior test architect based at the customer location in Singapore and 5 testers based offshore in India
- Due to the excellent work done by THBS on this assignment, the relationship with the hospital has grown wherein THBS has executed other critical enhancements to the EDCSS application and has started maintaining the application on a regular basis

### About THBS

Torry Harris Business Solutions is a US based IT service provider with offshore development facilities in India & China.

With a large pool of highly skilled technologists, the company remains focused on middleware & integration with a commitment to Service Oriented Architecture (SOA) & Cloud Computing.

We build a wide range of innovative solutions which provide a strategic differentiation & an operational superiority to our clients

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