

## Healthcare

### Client Benefit

Migration, enhancement & performance optimization of critical Health Care Applications

### Client

The Health Care Group is a government organization, which works under the Ministry of Health. It comprises a conglomerate of leading hospitals, polyclinics, labs and research institutes.

### Value Delivered

The new enhanced system has helped the client in providing a far better customer experience.

The performance optimization has reduced the response time of the application, enabling the staff to respond immediately to the emergency needs of the patients. The increased staff efficiency brought down operating costs incurred by the hospitals.

Due to the excellent work done by THBS on this assignment, other critical enhancements to the applications, as well as day-to-day maintenance of applications, were awarded to THBS.

### Description

#### The Client

The client has implemented a set of web-based applications to cater to the needs of its member hospitals. These applications are central to the running of the hospitals and are 24x7x365 in nature. The applications are:

- **Emergency Department Clinical Support System (EDCSS):** It is a mission-critical Patient Management System for use in the Emergency Department of the hospitals. EDCSS leverages the use of Internet Technology and allows seamless sharing of clinical information and collaborative integrated care for Patient Management.
- **Medical Report System (MRS):** It helps in processing of the Medical Report Request, Report Tracking, and Workflow. Workflow allows routing the report request through various roles in the Health Information Service (HIS), the concerned department and tracking of the Turnaround Time. HIS maintains close to 750,000 medical records, supporting over 6,000 admissions and over 40,000 outpatients visits a month.
- **Medical Records Management System (MRMS):** The Health Information Service (HIS) department at one of the hospitals is the custodian of patient case-sheets. These case-sheets can be requested by clinics, wards or departments for various reasons, primarily for patient care or research. With the help of the MRMS, HIS is able to track and maintain the patient records that are available at various locations all over the hospital.
- **Patient Management and Patient Accounting (PMPA):** It supports the core business processes of patient registration, queue management, payment collection, appointment scheduling and order management, treatment, procedures or health screening performed, immunizations given, and referrals to hospitals.
- **Medifund Drug Application (MDA):** It is used to replace the manual processing of the Funds Application Form. This application helps the hospital process the application for funds assistance required for the drugs, as and when submitted by the patients.

## **Business Challenge**

The applications mentioned above were developed using different technologies through multiple vendors. The challenges that the client had to overcome were:

- Skills required to manage the applications developed using various technologies were hard to find.
- Scalability & performance of the applications were becoming an issue due to increased load.
- Each of the applications used different methods for user management. This had to be standardized.
- Infrastructure Management.
- Dealing with multiple vendors.

To address the management, scalability and performance issues, the client's strategy was to migrate all the applications to WebSphere Application Server 5.x, Oracle 9i and Elixir Reporting Server.

## **How THBS Helped**

THBS successfully completed the proof-of-concept (POC) to illustrate that the applications could be migrated without comprising on quality of the service of the applications. All the findings and work-arounds were documented in a repository that serves as a knowledge base for future migration assignments. After the successful completion of the POC, the client awarded the project to THBS.

THBS eliminated all the specific features from the applications to make sure the applications were J2EE compliant.

As first step towards modification of the application, THBS gathered the requirements for the application changes from the users. A thorough analysis was carried out to comprehend the feasibility, and the eventual impact of the changes on the existing application. The knowledge gathered and documented during the POC exercise was very useful in reducing timeframes for the migration. In addition to implementing the user requirements, THBS came up with suggestions to make the application more user-friendly, scalable and reliable.