



# **Case Study on Implementation of Magnum HIS at Bokamoso Private Hospital**



## **Bokamoso Private Hospital— An Introduction**

Bokamoso Private Hospital is a private 230 bed health care provider that distinguishes itself through its skilled and caring staff that provides patient centered care of the highest clinical excellence in a state-of-the-art facility. Bokamoso

Private Hospital brings a future of good health to thousands of people in the southern Africa region. Bokamoso is an internationally recognized center of medical excellence providing state-of-the-art health care services and an advanced nursing practice model for global implementation.



## **Business Setting**

The project at Bokamoso Hospital was a Greenfield project. Bokamoso noted that there is a need to implement an efficient, comprehensive health care delivery system that is able to integrate various administrative and care related areas.

## **Solution**

We provided a completely integrated solution to Bokamoso consisting of Magnum HIS, Magnum Web Clinicals, Magnum RIS-PACS, xTransEDI (Integration & Interface Engine) and Human Resource Management System (HRMS)

Magnum HIS is a hospital management solution for managing the automation needs of every segment of the healthcare environment. To achieve complete automation, Magnum HIS is tightly integrated with other Healthcare products like Magnum PACS – Picture Archival and Communication System (PACS), Patient Relationship Management, Knowledge Management and Business Intelligence applications. It is comprehensive and compact with over 30 modules. It covers the best practices followed in the hospitals world over, for better patient service, both administratively and clinically.



## Architecture

Magnum HIS is built on Rsql framework which is based on the Services Oriented Architecture (SoA).

Service-orientation describes an architecture that uses loosely coupled services to support the requirements of business processes and users.

The key is independent services with defined interfaces that can be called to perform their tasks in a standard way, without the service having foreknowledge of the calling application, and without the application having or needing knowledge of how the service actually performs its tasks.

SOA-based systems can therefore be independent of development technologies and platforms (such as Java, .NET etc). Services written in C# running on .NET platforms and services written in Java, for example, can both be consumed by a common composite application. Applications running on either platform can also consume services running on the other as Web services, which facilitates reuse.

SOA can help businesses respond more quickly and cost-effectively to changing market conditions

## Implementation Methodology

### Stage 1:

- Project initiation with an effective system study

- Constant interaction with the users and management
- Process and Gap identification
- Freezing upon the proposed process flow and requirements of the hospital
- Recording and signing-off from management on the frozen requirements and modifications

### Stage 2:

- Frozen requirements analyzed by the offshore team, leading to finalized design output
- Design output released to the engineering team to develop the build with modifications and sent to the quality control for testing
- Build sent to the site after an approval from the quality control team

### Stage 3:

- Collection of master data and setting up the database by Implementation team
- Training given to the champion users (train the trainer concept)
- Implementation of the application in a phased manner, with Back Office modules going live initially, followed by the Out-Patients flow
- In-Patient flow functioning to complete the system live in Bokamoso



## Current Status

The application is currently live for the past 2 years and we are providing both onsite and offshore support.

The CPOE module fully integrated with Magnum HIS's Electronic Medical Records, Nursing Workbench, Doctors Workbench & Billing modules has helped streamline workflow, maximize user adoption and minimize turnaround time in the ordering process.

CPOE provides powerful clinical decision-support and intuitive workflows, enabling Bokamoso to deliver better care while improving efficiency, simplifying decisions and minimizing errors.

Besides providing fundamental clinical decision support for determining default drug doses, routes and frequencies, the CPOE integrates advanced functionalities for checking drug allergy reactions, drug-laboratory values, drug-drug interactions, corollary order reminders and drug

guidelines at the time of ordering. Availability of this information at the point of care has ensured patient safety by eliminating the chance for error. There is improved cost control through integrated management of key business processes across the hospital and improved process standardization, efficiency, and adaptability by utilizing enterprise service-oriented architecture

Bokamoso Hospital has greatly reduced duplication of medical, laboratory and radiology orders, and considerably reduced allergic reactions and drug interactions. The overall reductions in times of stay enabled by the HIMS system hold benefits for both patient and hospital. Bokamoso Hospital is proof that careful planning with staff involvement and training that accommodates physician's schedules are real keys to HIMS success.

The system is an integrated environment using Magnum HIS, Magnum Web (Under implementation), Magnum RIS-PACS and HRMS.

### **About HealthFore:**

*Religare Technologies' has a focused healthcare IT division, HealthFore. It is uniquely positioned to offer transformational B2B and B2C IT solutions to both providers and consumers; solutions built on leading edge technology and backed by healthcare expertise.*

*HealthFore's Magnum suite of products provide feature rich HIS and RIS-PACS solutions which span the entire clinical, administrative and back office functions of clinics, labs and hospitals. Magnum solutions are currently supporting healthcare providers in 11 countries.*

*HealthFore's mHealth platforms provide consumers in India, round the clock access to healthcare information, counseling and consulting, through telephony and internet. These technology-enabled platforms aim to address the challenging issues of healthcare awareness, accessibility and affordability that plague the country today.*

*To know more about how HealthFore, please visit [www.Healthfore.com](http://www.Healthfore.com)*

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