

TOP TO BOTTOM

we know

they know

END TO END

## St. James's Hospital cuts inventory costs with SAP and IBM

### Overview

#### ■ The Challenge

To deliver maximum value for public money, St. James's Hospital needs to keep tight control over its finances. Without integration between financial and materials management systems, the hospital faced delays and deficits – an increasing problem as activity within the hospital increased. The IT department realized that implementing a centralized ERP system could facilitate integration and improve process efficiency.

#### ■ The Solution

St James's Hospital selected SAP applications as the solution to support its core financial and materials management processes. IBM Global Business Services helped St. James's implement the core ERP applications, introducing consistent inventory management practices to streamline operational processes and improve stock control. Enhancements to hospital ward storage replenishment processes were facilitated by the introduction of Pocket PC devices, running SAP GuiXt Mobile. The hospital's entire SAP application

environment is hosted and maintained by IBM Application Management Services (AMS) in Dublin.

#### ■ The Benefits

St. James's growth in net spending over the last five years has grown by approximately half that of most other hospitals in Ireland. The SAP solution contributed to a large degree in achieving these savings. SAP applications provide real-time financial transparency and improve efficiencies, especially in terms of better invoice processing and faster month-end reporting – enabling better budget management. IBM and SAP support the hospital's program of continuous operational improvement – for example, introducing Pocket PCs has reduced stock replenishment workload by 77 per cent, even though the volume of stock managed has increased by 40 per cent. Outsourcing the infrastructure and SAP application management to IBM has provided a highly reliable and available solution with full disaster recovery capabilities at a highly competitive price.

#### ■ Key Solution Components

Industry: Healthcare  
Applications: SAP® R/3® 4.6c with financial accounting, controlling and materials management functionalities; SAP ERP Human Capital Management; Synactive GuiXT® Mobile  
Hardware: IBM® System x™ 3650, Cisco® 1100, Cisco Concentrator  
Software: IBM Tivoli® Monitoring, Oracle® 10g, Microsoft® Windows® 2000  
Services: IBM Global Business Services, IBM Global Technology Services



*“IBM is an ideal partner – providing a full-service solution including everything from infrastructure and application management to business consultancy and development support.”*

Martin Buckley  
IT Director  
St. James's Hospital

In the discharge of its remits for the delivery of health care services and as an Academic Teaching Hospital, St James's Hospital aspires to meet the highest possible standards and levels of efficiency, effectiveness and quality. It is driven by criteria of excellence, continuous improvement and innovation.

The modern hospital was founded in 1971 as an amalgamation of existing hospitals dating back as far as 1667. Today, St. James's occupies a 60-acre campus in Dublin, and has become one of Ireland's leading medical institutions. Since the opening of its Teaching Centre in 1994, St. James's has become the largest university teaching hospital in Dublin, with strong links to the University of Dublin. The hospital employs 4,500 people.

In 2000, as part of a national Health Sector initiative, St. James's introduced the SAP ERP Human Capital Management (HCM) application. Following the success of this initiative, St. James's decided to investigate the possibility of implementing further enterprise applications in the areas of financial accounting, controlling and materials management.

The subsequent project – jointly led by IBM Global Business Services and hospital corporate management, and known as 'Genesis' – was given the remit to develop innovative IT-enabled business processes that would help the hospital's management team to achieve and maintain excellence in healthcare services and as an academic teaching hospital. The SAP applications would provide better management information to aid decision making, improvements in process efficiencies, and faster communication and integration between systems and business units.

The SAP applications chosen to support back office activity included functionalities for materials management, financials, and controlling, as well as a number of interfaces with other systems such as the SAP ERP HCM payroll system.

IBM was the implementation partner for the project, which needed to leverage four different sets of resources: first, the processes and business expertise of key hospital staff; second, the functional consulting expertise for process design, configuration and end-user training of IBM GBS; third, the SAP Basis and ABAP development skills of IBM GBS; and fourth, the infrastructure support of specialists within IBM Global Technology Services (GTS).

“We wanted the functionality of the SAP applications, but we didn't want to manage and maintain them ourselves,” adds Martin Buckley, IT Director at St. James's. “IBM was already hosting the SAP ERP HCM environment, so we asked for a proposal for hosting the new environment too. We negotiated an excellent fixed-price deal, which meant we knew the costs up front and could plan our finances more easily.”

#### **Leveraging outsourced services**

As part of an Application Management Services (AMS) contract, IBM set up the infrastructure for St. James's Hospital's new ERP environment at the IBM campus outside Dublin, and took responsibility for a comprehensive set of support services, including SAP Basis and Windows support, as well as hardware, network, operations and security management, backups and disaster recovery.

The new production, development and quality assurance environments run on three IBM System x3650 servers,

running Microsoft Windows 2000 on high-performance Intel® Xeon® processors. The SAP applications are supported by an Oracle 10g database, and use the on-board storage within the servers, as well as some direct-attached disk arrays.

A disaster recovery service is also in place, delivered by IBM GTS Business Continuity and Recovery Services (BCRS). If a major disaster were to strike the main data center, BCRS would provide a new server landscape at a second data center in Dublin city center and rebuild the environment – getting St. James's Hospital back online in a matter of hours. In addition, IBM Tivoli Storage Manager performs nightly backups of the hospital's ERP environment, and the tapes are held at a third location, to ensure that the data remains safe.

"The hosted infrastructure has proven to be highly reliable, and we are very satisfied with the IT management services provided by IBM GTS AMS," says Martin Buckley. "They handle everything from the network and servers up to the operating system and SAP Basis support, which means we can concentrate on introducing new functionalities and operational improvements."

#### **SAP ERP: enabling continuous improvement**

With the infrastructure and SAP applications in place, St. James's Hospital embarked on a number of projects as part of its program to deliver continuous improvements to internal processes. One of the most successful projects focused on improving the management and control of stock replenishment on the wards.

The project was managed by a combined team from IBM GBS, the St.

James's Hospital project team, and internal materials / finance divisions. The objective was to optimize inventory management processes using an innovative mobile solution that would allow staff to check stock levels in the stores and send replenishment requests immediately to the SAP ERP materials management function.

Brian Fitzgerald, Director of Finance at St. James's, explains: "Hospitals get through a lot of stock. On every ward there are stores of bandages, syringes and so on. We saw that there was a real opportunity there for enhancing our processes and increasing efficiency. By monitoring consumption on a very detailed level, we would be able to introduce a Kanban or 'Just-In-Time' approach – where we only buy exactly what we need, just before we are going to need it. This would help us reduce overall stock levels and eliminate waste."

With guidance from IBM GBS, the hospital chose to install GuiXT Mobile from Synactive – a solution that enables mobile devices to communicate wirelessly with SAP applications using a simplified interface. IBM GBS helped to configure the Symbol Pocket PC devices for access to a new wireless LAN. The combined IBM and St James's team then trained the hospital staff to use the devices and follow the new procedures.

Staff can now visit the ward stores and use the Pocket PC devices to scan the barcodes of items that need to be replenished. The Pocket PC devices then create stock reservation transactions in the SAP materials management application in a matter of seconds.

Requested items can now be replenished from the hospital's warehouse within ten minutes – a

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process which previously took three-quarters of an hour. Information about the stock requirements of the entire hospital is fed automatically into the hospital's warehouse system, helping to reduce the average lead time for stock replenishment from three days to just one.

"IBM GBS and our in-house materials management team did a great job of devising the best practice for the Kanban process and developing a technical solution to integrate the process with our SAP applications," says Martin Buckley. "Projects like this make a major contribution to our vision of driving continuous improvement throughout our operational processes."

"Replacing our old paper-based systems has given us a much more comprehensive record of what we actually possess – we can track and manage 40 per cent more of our stock than was possible previously," says Brian Fitzgerald. "This means that we know exactly what we've got and where it is – so we can easily ensure that every ward is well supplied, without overstocking."

### Reaping the benefits

Aside from specific project-related benefits, the introduction of the SAP applications has also provided a number of broader advantages for St. James's Hospital. The new solution delivers real-time financial and operational transparency across the entire organization – a major advantage over the legacy systems, which produced a variety of reports that took time to collate and analyze.

Improved operational efficiencies have been achieved in many areas – including invoice processing and month-end reporting. For example, an interface that brings financial data from the SAP ERP HCM payroll system

into the main SAP ERP application has led to enhanced financial reporting.

Closer integration between financial and materials management systems has also delivered a number of improvements – for example, an automated three-way match of purchase orders, goods receipts and invoices; faster month-end and year-end closing cycles; and a budgeting system that is integrated with the purchasing process, allowing closer management of the hospital's annual budget.

As a result of its pursuit of continuous improvement in operational processes, and the support provided by SAP applications and IBM services, St James's Hospital has seen its spending increase at just 50 per cent of the rate experienced by other Irish hospitals over the last five years.

### Future plans

St. James's is considering a number of SAP-related projects in the coming months – including document management for receipts and invoices, electronic contract management, and more advanced asset management.

"St. James's is always looking for new ways to innovate around its SAP applications and develop new processes to improve operational efficiencies and service levels," concludes Martin Buckley. "IBM is an ideal partner – providing a full-service solution including everything from infrastructure and application management to business consultancy and development support."



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