Shared Oracle Applications in the Health Sector

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Introduction

healthAlliance is a shared services entity set-up to perform the business functions for i-Procurement, Supply Chain, Finance, Human Resources and Information Technology.

A key part of the healthAlliance vision is to fully leverage the capability of the Oracle applications to expand its i-Procurement, Supply Chain, Finance and Business Intelligence systems to other candidate organisations.

This paper presents a working example of a New Zealand implementation of shared services at Taranaki District Health Board. We will discuss the approach to integrating an additional DHB on the same system, within the same structures but still allowing independence.

Who is healthAlliance?

The shared services entity healthAlliance came about as a natural development of having successfully implemented the Oracle Application suite and delivered promised benefits at a large healthcare organisation – Waitemata District Health Board (WDHB). It is a human desire that if you do something well that you want to share it with others. The first organisation wanting to take advantage of the shared processes and systems was another large organisation - Counties Manukau District Health Board (CMDHB).

Some points to note about healthAlliance:

- Currently co-owned 50:50 by Waitemata and Counties Manukau District Health Boards
- Not a profit-based entity
- Low cost structure
- Operationally efficient in the delivery of services to NZ public health

healthAlliance was set-up to perform the business functions for Finance, Supply Chain, Procurement, Human Resources and IT. The sixth division of healthAlliance is Business solutions. Business Solutions is the business process design and improvement division for healthAlliance. One of Business Solutions key roles is to develop the healthAlliance vision to use the immense capability of the Oracle Applications to expand its Finance, Supply Chain and Procurement system to other DHB's.

What is Shared Services?

Shared Services is a business support model that has proven successful over the last decade. It involves the consolidation of duplicated internal support/"back office" functions into a single market-efficient entity whose core business is delivering these services back to its multiple "customers" more efficiently. Typically, cost savings of around 30% are achieved over time whilst customer service and quality are improved providing greater staff satisfaction.

Shared Services achieves these benefits through multiple levels of performance improvement:

- Economies of scale yield benefits in terms of transactional processing activities
- Creation of centres of expertise leads to the specialisation of labour, providing benefits in knowledge-based activities
- Development of the customer/supplier relationship exposes the true cost of services as managers become responsible for the financial impact of consumption. This leads to the reduction of demand surplus to business needs.
- With the pressures of customers or the market-place competition drives shared services to focus on Best Practice in terms of both processes and systems in order to be more efficient and improve effectiveness

An essential pre-requisite for Shared Services is the ability to centrally access and process data sourced from geographically spread operating units. The ability to do this efficiently is attributable to the advent of internet technology and applications.

Current knowledge suggests that shared services will not deliver full benefits when set up merely as a central consolidation of functions. Shared services organisations need to commit to three establishment rules:

- It operates as a separate business unit.
- Customers will be charged for services at full cost.
- Duplication of shared services activities within the organisation cannot be allowed.

It should focus on establishing a customer/supplier relationship that is similar to the relationship that typically exists between a business and its external customers. Charging the customer for services to recover costs distinguishes shared services from centralised services.

The NZ Public Health environment is a complex and difficult one, in which District Health Boards must live within the reality of limited budgets. Greater efficiencies must be squeezed out of processes, automation increased whether as part of workflow or through leveraging new functionality. This creates significant change at all levels and it helps to have a team that is experienced in managing that change. Your team needs to understand stakeholders' needs, identify issues and risks and subsequently manage them sensitively through communication and change management.

Most importantly, the full commitment of senior management is required to obtain the benefits available from a shared services model.

What is the foundation?

With the experience of having successfully implemented the Oracle Applications suite and delivered promised benefits, WDHB recognised that the greater benefits and the support for future growth to shared services and other shared system solutions, could only be achieved through moving the current WDHB Oracle system to multi-organisation set-up.

The Oracle Applications multiple organisation model defines organisations and the relationships among them in an enterprise. This organisation model serves as the cornerstone for all of the Oracle Applications products. It determines how transactions flow through different organisations and how those organisations interact with each other.

Multiple Organisation support provides data partitioning and inter-organisation transaction functionality. It takes advantage of native Oracle Database features to build a security layer on top of a single installation of each product without any changes to the applications code. This enables transactional data to be kept separate and secure. Users can be limited to viewing and maintaining information relevant to their organisation.

In defining the new system structure under multi-org for WDHB, two other major objectives were achieved. The first was to migrate WDHB to the New Zealand common chart of accounts agreed nationally. The second was to set-up the operational framework for healthAlliance.

The healthAlliance organisation structure and processing essentially relies in defining all operating units within the same set of books, this allows the healthAlliance to procure on behalf of all entities. healthAlliance users are given access to all balancing segment values and inventory organisations for which they procure. This allows these users to create purchase orders coded to multiple entities and select any inventory organisation for receipt. Standard intercompany balancing functionality generates the appropriate intercompany entries between the healthAlliance and the other business entities.

It should be noted that Oracle Applications does not currently support a model of centralised purchasing and decentralised accounts payable. Therefore purchase orders raised within the health Alliance are matched and paid within that operating unit.

In parallel to defining the foundation single system, the newly formed entity healthAlliance focused on its initial objective 'Procurement Shared Services'. Part of our undertaking was to move to a common catalogue between WDHB and CMDHB. This exercise generated the initial rules and guidelines that have led to the comprehensive health care catalogue in place today.

The healthAlliance catalogue is not just a range of product offerings from Suppliers but also an evaluated and agreed list of products the DHB's will purchase. This includes clinical safety, quality, and performance to specification checks. The foundation of a shared catalogue is standard descriptions, standard categories, shared agreements and common approved Suppliers.

The core of i-Procurement is the catalogue - all pre-defined items exist in the master item list within healthAlliance and global approved suppliers' lists exist under healthAlliance. The following is the definition of the input sources that define the healthAlliance Catalogue:

Full Application Catalogue - An application catalogue is the comprehensive Catalogue definition employed by healthAlliance. This defines standard rules for categorisation and describing, this also defines specific pre-defined agreements with Suppliers of items and prices fixed for a pre-defined term. Rules on sourcing and Supplier preferences also form part of the catalogue. This information is consolidated and passed to the unified catalogue, where depending on security a user may or may not see the items.

Category based items – healthAlliance have a comprehensive set of categories, every item whether on the catalogue or not is always associated with a category for reporting purposes. In this situation items that are part of a Suppliers complete suite of offering can be loaded and linked to these categories. These are not necessarily subject to the comprehensive rules of a full application catalogue item, although they may eventually migrate in this direction.

Non-Catalogue/Ad-hoc – this involves the requisitioner using iProcurement to requisition goods or services for which the details such as supplier or price are not known. There is no catalogue item to support the purchase.

healthAlliance moved into continued expansion of the shared services in 2002, by implementing CMDHB Finance, Supply Chain and Procurement into the healthAlliance Oracle Applications on a single system. CMDHB were integrated into the healthAlliance environment in May 2002.

Throughout the initial definition of healthAlliance in both WDHB and CMDHB it was essential that current business processes and systems were streamlined and consolidated with as much commonality as practical. This formed the basis for the standard processes and practices employed today. These continue to be developed and improved inline with new system enhancements and changing business needs.

The Implementation of Shared Systems
(Working example TDHB)

Late 2001 healthAlliance and TDHB discussed the prospect of TDHB sharing in the benefits of the healthAlliance system, with a view to moving later to comprehensive shared services.

For TDHB they needed to move on from their existing Oracle Application version, which is out dated and required upgrading. Their current system did not have available the much sought after Self Service applications, in particular the Internet Procurement application for requisitioning. Through healthAlliance TDHB perceived that they could achieve:

- Benefits of leading ERP with the extra's at a shared cost
- i-Procurement and full application catalogue
- Shared upgrade costs
- Shared improvement costs
- Lower overall cost of ownership

For healthAlliance and the current shareholder DHB's there was also improvements and benefits in bringing TDHB on to the shared application.

- Greater cost sharing between three DHB's
- Taking advantage of beneficial features implemented at TDHB currently not included in our standard model
- Lower overall cost of ownership

New organisations are added to the shared Oracle Applications following a standard model. The model consists of the following business rules:

- A single Business Group, shared between the DHB's
- A shared Set of Books
- A unique Operating unit organisation for each legal entity within the DHB's.
- A central item master for Health Alliance, available across both CMDHB, WDHB and the entering organisation
- Individual inventory organisations, for management of CMDHB, WDHB and the entering organisation

In implementing TDHB, we defined TDHB and its corresponding subsidiaries (Labcare and Trusts) as separate operating units and legal entities with the single Set of Books in the healthAlliance system. TDHB will operate within the healthAlliance framework independently of the other DHB's. Security profiles will be used to provide clear boundaries between the organisations.

Where modules are operating unit specific, that is; Accounts Payable, Accounts Receivable, Purchasing, and Cash Management, each customer organisation is set up according to their business needs, with the exception of common structure definitions.

General Ledger, Fixed Assets, Human Resources and Inventory are shared modules, i.e. are not operating unit specific. The set up of these modules is extended to support the requirements of each new organisation. Inventory for TDHB is to be separated for ease of management with access to the central item master and global supplier list of Health Alliance, sharing the item definition data in existence.

The model that we have defined for the healthAlliance system relies on this commonality to maximise the benefits of the system.

The stakeholder DHB's and TDHB have moved to the common chart of accounts which defines standard natural account and subaccount values. healthAlliance has extended this concept further by developing common cost center or department codes based upon the similar services and business structures across District Health Boards. Sharing chart of account values has given us the ability to undertake benchmarking across District Health Boards.

The healthAlliance core catalogue formed the basis for the development of TDHB comprehensive system catalogue, where none was in existence within TDHB. Unique TDHB items were evaluated based on the standard healthAlliance cataloging rules:

- Full Applications Catalogue - High frequency, negotiated items often evaluated and accepted clinically
- Category based – low frequency, adhoc, no predefined contracts

All of the pre-defined healthAlliance items were loaded to the core applications, specific purchase prices were defined for TDHB for these items. New items unique to TDHB were defined using;

- Single number conversion
- Standard policy for categorization and description for items
- Global sourcing rules in existence were applicable

A major aspect of the implementation is in the area of common reporting. In any new implementation there is always considerable time spent in the development of standard reports, such as purchase orders, invoices, cheques. In addition, there is also a need to develop standard financial reports through FSG, Intelligence tools and Analyser products.

The healthAlliance delivered suite has a pre-configured set of reports to suit the initial requirements of an entering organisation. healthAlliance holds logo and bank account signature data inside the database as Binary Large Objects (Blobs) that are linked to organisation information. healthAlliance standard programs developed for document printing, such as purchase orders, invoices, and cheques, select the image from the database based on this set up. In this way, healthAlliance minimise the customisation activity required to add a new customer.

During the analysis and design phase of the implementation project healthAlliance evaluate the organisation current business processes and how these align with the healthAlliance practise. While healthAlliance recognise that all business processes continually evolve it is essential that practices be consolidated with as much commonality as practical.

In moving an organisation to healthAlliance applications, the largest task in the implementation is in the area of conversion. healthAlliance has developed a suite of conversion programs taking advantage of the standard Interfaces and application programming interfaces (API's) of Oracle Applications. This minimises the programming effort, however from system to system the impact varies.

For TDHB, like any implementation we have had our challenges. While the healthAlliance-shared system minimises the areas we are impacted, conversion data from another system will always pose its own unique issues given the varying nature of legacy systems.

The other major area is in the mechanism for connection between the healthAlliance application and the entering organisation. While Oracle is an internet based product, you must consider that when you are crossing organisations each will have its own internal security. Our purpose is shared systems and services, we are not focused in all areas, each organisation must retain its own security.

With TDHB we were faced with the need to exit the TDHB firewall and enter through healthAlliance's firewall. The actual routing is handled through the health Intranet which is a facility available to all DHB's. This option was chosen for two reasons, it is already in existence and there is a greater level of security in place as this facility also supports patient information. Configuration of this connection arrangement has taken considerable time during the implementation project. This would be present in any future implementation given each participating organisation will always have their own security restrictions.

By collaborating with healthAlliance, TDHB obtain the advantage of a developed ERP implementation while still retaining their own identity.

Conclusion

A shared system implementation provides a catalyst for propagating best practices and, by enforcing consistency, all of the participating organisations become better equipped to absorb new and additional processes, to quickly assimilate new technologies and new business units seamlessly.

"Albert Einstein once said that knowledge is experience, everything else is just information. "

By using the healthAlliance processes, and leveraging the collective experience of the team we have been put into the privileged position of sharing knowledge with partners in the health sector. Sharing knowledge with these partners helps them to develop rapidly and realise hard business benefits.

About the Authors

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