

## Case Study



### Transformation of POS Operations at Retail Outlets for Australian Telco

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#### Abstract

A leading Australian telecommunications service provider wanted to upgrade its Point of Sale (POS) operations at its retail outlets by replacing the business system and to leverage best practices followed in industry with standard package implementation.

The telco engaged Infosys for the solution transformation and Infosys delivered the solution using best-of-breed Oracle packages and seamless integration with existing applications and peripherals. The solution has been successfully deployed to all outlets across Australia and the telco has started seeing the benefits emerging from use of the new system.



## BACKGROUND

A leading Australian telecommunications and information services company commenced a strategic Retail IT Transformation initiative to upgrade and modernise the technology aspects of its retail outlet POS operations. The initiative aimed to improve operational performance, reduce costs, enhance and extend capabilities and provide a consistent view of the organisation by enabling cross-channel integration. The scope of this transformation was 140 outlets across Australia in multiple time zones.

The telco's existing retail system was a 12 year old 'green screen' system used in its retail outlets, nearing its 'end of life', and used outdated architecture which did not allow any enhancements. It did not have the capability to support a multi-channel strategy nor could it deliver a 'one click, one touch' customer experience. After 3 unsuccessful attempts of enhancing POS operations within the existing legacy system and considered alternatives, a business case was prepared and approved to implement a best-of-breed application package available in the market.

The new business system had to accommodate existing core functionalities available in the legacy POS system, seamless integration with existing business systems, and some enhancements required as a result of implementing a standard package application:

**POS**(including cash drawer management, perpetual/non-perpetual stock sales, complex pricing structures, complex promotions, multiple payment methods, configurable reporting)

**Inventory Management** (including product lifecycle management, stock/location relationships, stock movements/central distribution, forecast/demand & supply, live stocktaking, configurable reporting)

**Repairs & Returns** (including track & trace, replacement pool stock management, loan assets management, parts inventory for repairs, payment options, integration with manufacturer systems for warranty claims, configurable reporting)

**Bill Payments** (including cash drawer management, bill detail validation, multiple payment methods, configurable reporting)

In addition to the above, the new system was required to have the capability to incorporate future technology, multi-channel retailing, customer self-service, handheld/portable devices, RFID, etc.

Successful delivery of the initiative would ensure that the telco can operate with excellence in a dynamic retail environment - providing the operational processing and support mechanisms required to meet and exceed their retail objectives.

## Business Objectives

The telco's business objectives can be summarised in three categories:

① **Deliver superior customer experience**

② **Create demand-driven supply chain**

③ **Drive operational excellence**

The initiative aimed to deliver a solution that meets these objectives by providing the required capability in all the above-listed functional areas, scope for adoption and integration of future technologies and seamless integration with existing and proposed business systems.

Successful delivery of the initiative would ensure that outlets can operate with excellence in a dynamic retail environment - providing the operational processing and support mechanisms required to meet and exceed retail objectives.

## KEY CHALLENGES

*There were several key challenges in this transformation program*

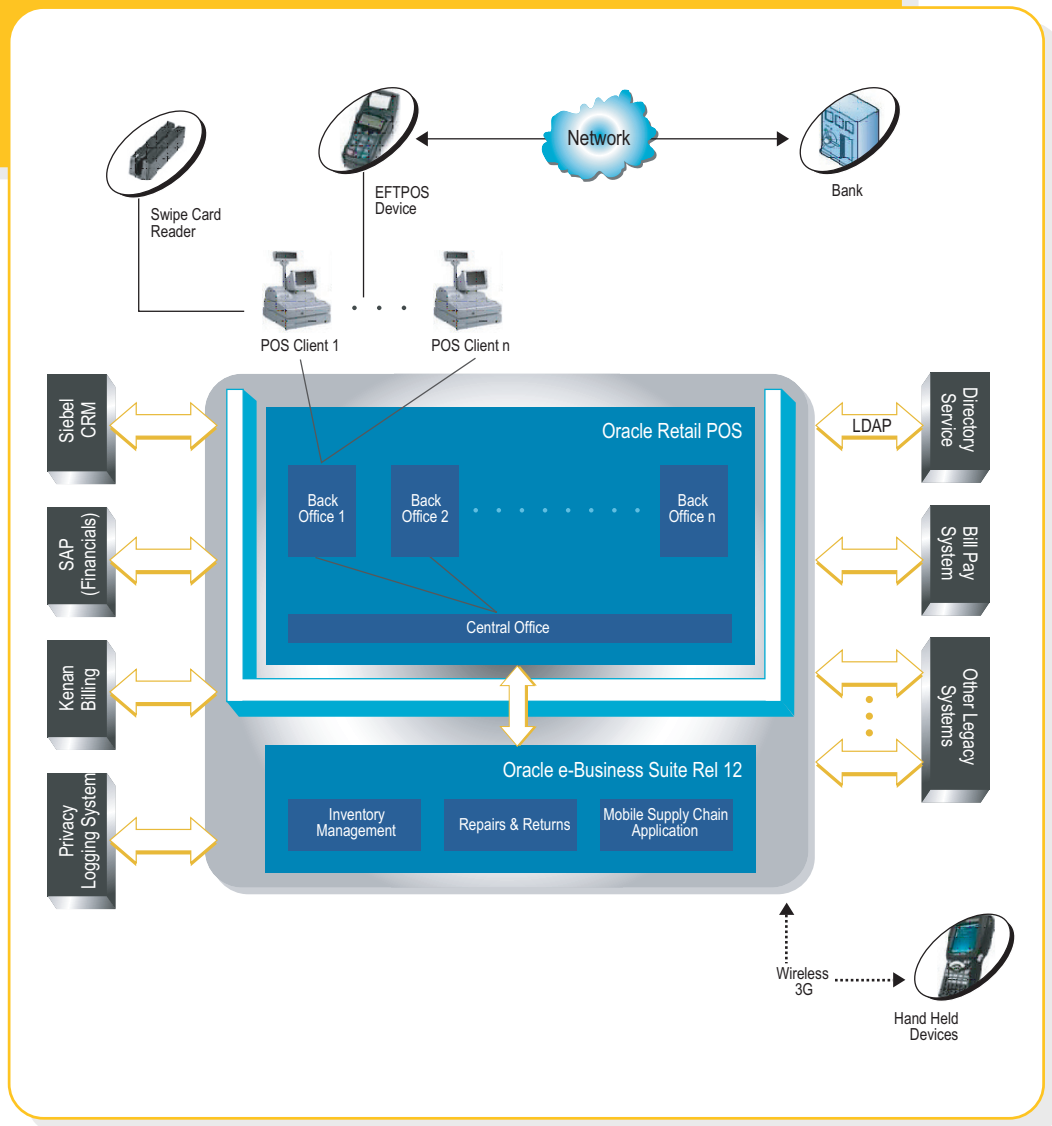
- The new solution architecture was expected to be highly available and in case of any issues in one outlet should not impact the operations of any other outlet. The solution design was expected to be decentralised at outlet operations level and centralised at inventory, finance and reporting level
- The existing legacy application was running on very old architecture and obsolete technology which could not be upgraded, and provided limited opportunities to integrate with other channels
- There were 3 unsuccessful attempts for this transformation program earlier and there was skepticism about success in this 4th attempt
- The selected Oracle Retail POS package was made for retail business and was not a direct fit for the telco's retail business. Several customisations were required to fit the telco industry
- The retail outlets did not have any application requiring heavy client or heavy hardware footprint; this was a requirement for the Oracle Retail POS standard package
- This was the first Oracle Retail POS implementation in Australia; it did not have the required region-specific features such as locale, time format, currency, etc.
- The solution needed to comply with bank security requirements for EFTPOS transactions, and certification needed to be obtained from the bank before deployment
- Manual processes used to manage user credentials, authorisation rights and profile information leading to potential fraud at outlets
- Non-existence of IT personnel onsite at outlets for deployment activities; business requirement for no manual intervention during deployment
- Solution required to be compliant with stringent security policies and procedures (eg. PCI DSS, PCI PED and PCI PA-DSS)
- Oracle packages to be implemented not compliant with existing Infrastructure standards
- Obtaining appropriate priority for this transformation program with multiple applications and vendors involved in multiple business initiatives
- Change management and end-user training was a challenge because of outlet distribution across Australia and in multiple time zones

## Infosys Solution

Infosys was the Lead Provider for the program with more than 13 vendors working in a 20 month timeframe. The solution was successfully deployed in a staggered rollout with initial pilot outlets followed by rollout groups. The solution is now being used for all POS, Inventory, Repairs and Returns across all outlets in Australia. Infosys has also been awarded Production and Support and Maintenance of the new solution.

Infosys' solution comprises a number of integrated best-of-breed Oracle products, combined with the reuse of existing strategic platforms.

The following diagram depicts high-level architecture of the solution.



Oracle Retail POS Suite Ver. 13.0.2.2 was implemented as point of sales application in the sales outlets. Topology of this package was customised to bring the back office component in centralised data centre along with the central office (instead of physical servers at each outlet). There were 600+ POS terminals across all outlets connected via WAN to the data centre to access back office and central office. In addition to existing peripherals (ie. cash drawers, barcode scanners and printers), each POS terminal was integrated with new devices (eg. a swipe card reader for authentication and EFTPOS machine for credit and debit card transactions with the bank).

Oracle e-Business Suite Rel. 12 was implemented as back of house ERP application. Implementation included Purchasing, Inventory Management, Bill of Material, Depot Repair, Financials, Advance Security, Install Base, CRM Foundation and Order Management modules.

TIBCO was used as a middleware for seamless integration with legacy applications and new packages implemented.

Key features of the Infosys's solution include:

- Minimum customisation to out-of-the-box products and leverage from industry best practice by implementation of best of breed Oracle packages
- Seamless integration of new solution with 21 existing applications, and data migration from legacy application for products, price, orders, on-hand, etc.
- Deployment of highly available architecture with redundancy built in for applications and for infrastructure integrating solution with bank. Oracle Real Application Clusters (RAC) and load balancers were installed to spread web/application traffic across web/application servers
- User authentication through swipe card management for increased audit control and tighter fraud management for all POS transactions
- Leverage LDAP (Lightweight Directory Access Protocol) authentication based on Windows domain user id and password for all users across all applications (instead of user and password management in each application)
- Implementation of MSCA (Mobile Supply Chain Application) for stock take transactions on a hand-held device connected to server by a secure VPN connection on 3G network
- Provisioning of back office servers on cost effective VM farm for ease of maintenance and scalability of solution (instead of physical servers)
- Silent installation and patch deployment solution using RADIA for POS client to remote terminals in outlets without manual intervention
- Privacy logging of customer information viewed by employees in PLR (Privacy Logging and Repository) data warehouse for compliance requirements
- Implementation of alarms and monitoring tools for automated alerts on any error in application or breakdown of infrastructure
- Use of Oracle Advance security module to encrypt the confidential PIN numbers for vouchers and gift cards

# Benefits



<p>PRODUCTIVITY GAIN</p>	<p>Introduction of new business processes as part of new solution streamlined the processes and improved efficiency across of sales support and service operations. This provided a material reduction in net handling times which in turn released retail resources into sales activities providing a stepped increase in sales.</p>
<p>REVENUE INCREASE</p>	<p>New pricing and promotion capability enhanced suggested sell functionality resulting in revenue increase. Capability within the POS client and pricing office functionality associated with related items and discount options is expected to lead to a stepped increase in unit sales and revenue for mobile accessories.</p>
<p>REDUCTION IN OPERATIONAL EXPENSES</p>	<p>Tighter control on sales and inventory and efficient business processes lead to reduction in operational expenses:</p> <ul style="list-style-type: none"> <li>&gt;&gt; Improvements in inventory management processes are expected to deliver a stepped decrease in inventory write-downs on an annual basis</li> <li>&gt;&gt; Implementation of the integrated EPINS solution will remove EPIN revenue leakage on an annual basis</li> <li>&gt;&gt; Implementation of Depot Repairs is expected to see deliver a material reduction in manufacturer warranty revenue leakage</li> <li>&gt;&gt; Reduction in losses due to fraud because of additional controls implemented in the new business system</li> </ul>
<p>NON-TANGIBLE AND NON-FINANCIAL BENEFITS</p>	<ul style="list-style-type: none"> <li>&gt;&gt; Improved customer experience as AHT (Average Handling Time) in stores is reduced leading to Customer satisfaction and helping to build customer loyalty</li> <li>&gt;&gt; Aligning retail technology more closely to the corporate goals of "one-touch, one screen, one system", thus increasing employee satisfaction</li> <li>&gt;&gt; Providing an up-to-date platform by which further investments can be made to integrate the retail channel with other sales and contact channels (i.e. online integration)</li> </ul>



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#### About Infosys

Many of the world's most successful organizations rely on Infosys to deliver measurable business value. Infosys provides business consulting, technology, engineering and outsourcing services to help clients in over 30 countries build tomorrow's enterprise.

For more information about Infosys (NASDAQ:INFY), visit [www.infosys.com](http://www.infosys.com).