



TelePOS 2.0 - An Enterprise Sales Management Solution for the Telecom Industry

A .NET Solution for India's second largest telecom operator - Hutch

Hutch is a part of the Hong Kong based multinational conglomerate Hutchison Whampoa Limited, a Fortune 500 company, and one of the largest companies listed on the Hong Kong Stock Exchange. Its operations span 42 countries across the Asia Pacific region, Europe and Americas.

In 1995, Hutchison Max Telecom became the first operator in India to launch its cellular service. Today, Hutchison is the second largest provider of cellular services in India with presence in all the major regions - Orange in Mumbai and Hutch in Delhi, Karnataka, Andhra Pradesh, Chennai, Kolkata, Gujarat, Haryana, Rajasthan, UP (E), UP (W), Rest of Bengal and Punjab. Hutchison affiliates jointly account for the second largest number of cellular subscribers in India numbering over 7.6 million.

TelePOS 2.0 is an Enterprise Sales Management Application developed by Trisoft Systems for Hutch. It automates commercial activities at all Point-of-Sale locations, Central Warehouses, Verification Agencies, Back Office Teams and integrates with the back-end billing system.

The Situation

In 2001 Hutch had a medley of applications to handle the numerous Points-of-Sale spread over a large geography, Central Warehouses, Verification Agencies and Back-Office Teams. It was becoming difficult to integrate information from these applications. To resolve these issues Hutch decided to have an integrated solution developed which would cater to all their needs.

A 3rd party vendor was employed to develop the solution. It was to be built around Microsoft's .NET Framework. Over a period of more than a year the application was developed but unfortunately, the application failed to perform and Hutch was unable to deploy it into production. Due to extreme business pressures, Hutch approached Microsoft to help them rectify the application. Microsoft recommended that Hutch engage with Trisoft Systems for a remedial solution.

Trisoft began its engagement in May 2003 and were able to get the ePOS 1.0 system operational by October 2003. Although the system was made operational, there were still issues with scalability and performance due to poor architectural design and the use of legacy components. Trisoft advised Hutch that the rectified ePOS 1.0 was only a temporary solution and that the entire application had to be rearchitected to meet the performance and scalability requirements.

Over a 4 month period Hutch observed the performance of the application and concurred with Trisoft's recommendation. Trisoft was entrusted with

Solution Overview

Customer Profile

Hutchison Essar Telecom is India's second largest Mobile telephony service provider with operations in 13 telecom circles, more will be added over time.

Industry

Telecom

Business Situation

Hutch required an integrated Sales Management solution for the commercial operations that would cater to all aspects of their product and services sales.

Solution

Business Scenario

TelePOS 2.0 - A .NET-based Enterprise Sales Management solution.

Benefits

The solution enables Hutch to manage their Enterprise Sales as well as all the stakeholders in the selling and service cycle including retail shops, distributors, dealers and sales agents. This solution also integrates into their back-office operations.

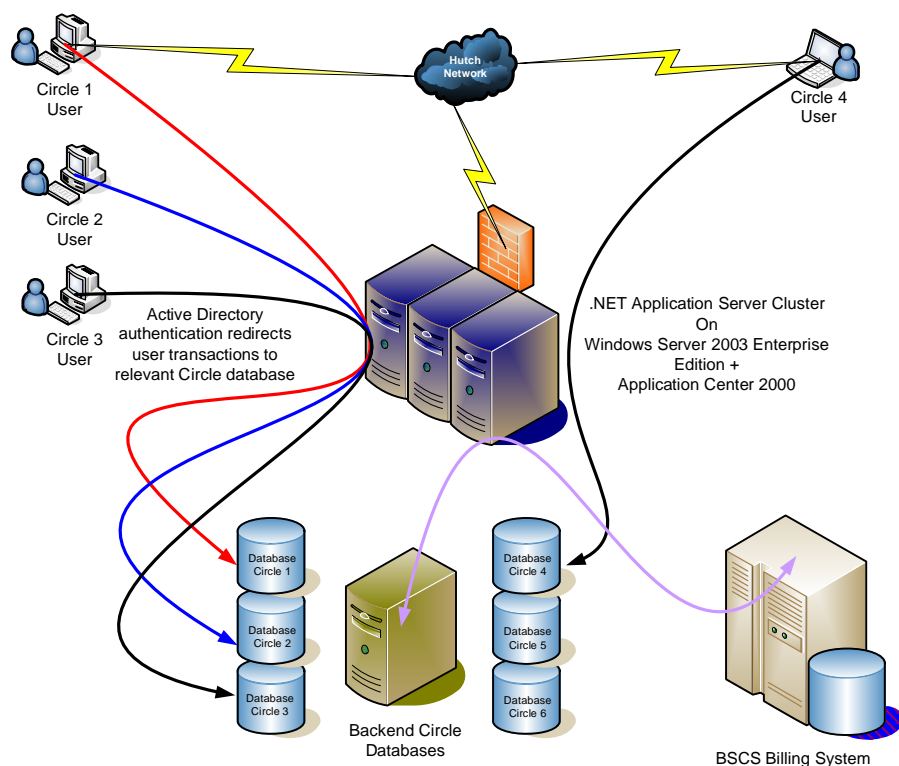
Some of the key benefits have been improved productivity, better quality of service through reduced SIM activation times, reduced wastage, improved cost control and materials management.

developing TelePOS 2.0. The application was re-designed and new functionality was added to cope up with the fast-changing business scenario.

The Solution

Trisoft recommended to Hutch to migrate and redesign ePOS based on the .NET framework to ensure high performance, scalability and reliability. This recommendation was accepted by Hutch in April 2004 and work began on TelePOS 2.0 in May 2004. TelePOS 2.0 has been designed around an n-tier architecture using the MVC design pattern. The design facilitates component reuse and incorporates multithreading, connection pooling and MSMQ Services. Whereas the old ePOS could handle only one telecom circle, the new version was designed to handle multiple telecom circles using an Active Directory based authentication system built into the Business Layer which redirects sessions to their respective circles' back-end database.

TelePOS 2.0 has been live since January 2005 and has brought major performance improvements for Hutch.



TelePOS 2.0 has been integrated with the SEMA Billing Application BSCS through export and import of data. In addition, Hutch can operate their various circles through a single clustered application instance, transacting with the circle databases in a secure and fault tolerant operating environment. Pro-active alerts using gap analysis keeps the administrative users well informed in advance and allows them to take preventive measures.

Features

TelePOS 2.0 is an Enterprise Sales Management Application developed by Trisoft Systems for Hutch. It automates commercial activities at all Point-of-Sale locations, Central Warehouses, Verification Agencies, Back-Office Teams and integrates with the back-end billing system. The following are the key features of TelePOS 2.0.

- Channel management

Microsoft Products Used

- Microsoft Windows Server 2003 Enterprise Edition
- Microsoft .NET Framework 1.1
- Microsoft Visual Studio.NET 2003
- Microsoft Application Center 2000 SP2

- Inventory Management
- CAF, CIF, SRE
- Primary Sales
- Secondary Sales for all type of sales at Hutch Shops and Channels
- Categorization of customer
- Verification
- Post Activation Activities (e.g. SIM Replacement, Mobile Replacement SRE)
- Air Time Bill Collection Management
- Connection Activation through Billing System
- MIS Reports

Some of the other key features

- Single Instance of Application for multiple Circles through AD authentication using Single-Sign-On. No need to select circle.
- Enhanced security as user's password is not saved in database
- Auto selection of circle based on user id in Active Directory
- Multiple Central Warehouse for interstate transactions
- Inventory Management up to Dealer level
- Large account (Corporate) handling
- Mapping of specific Rate Plans Credit Limit Code, Billing Cycle Schemes to Corporates.
- Mapping of Payment mode to channels for AirTime Bill Collection and Commercials
- Dynamic CAF Page
- Allocation of CAF for Verification
- Add On Mobile Integration with BSCS
- e-TopUp Invoicing for Channels and Walk-in customers
- Defective Coupon Replacement from Channel and End Customer
- Bounced Cheque handling
- Stock Swapping
- Stock Transfer of inventory
- Air Time Collection
- Day End Reports for Cash Collection
- Financial Reports
- Cash Collection, Activation Status, CAF Status Report
- Mobile Replacement
- Credit Note Generation
- Integration with Document Management System for uploading scanned images of Physical CAF and Id Proof document

Benefits

With TelePOS 2.0, Hutch has been able to effectively manage its sales processes. It has helped reduce their SIM activation times and thereby improving service, reduce wastage, improve production quality and provide improved cost control and materials management. In the future, when all Hutch retail outlets are provided with dedicated communications links, the entire supply chain will transact in real-time by making effective use of web services that are the foundation of the .Net platform.

The TelePOS 2.0 solution is built around Microsoft .Net technology. The architecture is based upon the MVC Design Pattern and the language used is C#. The design provides for excellent performance, exceptional scalability and modularity and utilizes open standards like XML, UDDI and SOAP.

Future Plans

Trisoft plans to add the following modules in the near future.

1. Pre-pay Integration with Billing System
2. Inventory Management of Handsets
3. Channel Commission Module
4. Land-Line Services
5. Integration with Oracle Financials

About .NET

.NET is Microsoft's platform for XML Web services, the next generation of software that connects our world of information, devices and people in a unified, personalized way. The .NET platform enables the creation and use of XML based applications, processes and Web sites as services which share and combine information and functionality with each other by design, on any platform or smart device, to provide tailored solutions for organizations and individuals. For more information please visit: <http://www.microsoft.com/net>

This case study is for informational purposes only. TRISOFT SYSTEMS PVT. LTD. MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

© 1996 - 2005 Trisoft Systems Ltd. All rights reserved.