

Regional Tier-1 Telecommunications Carrier Achieves Single Unified Customer View

The client required an urgent project rescue after a 'Big 4' Consultancy delivered poorly analysed business requirements and a subsequent failed closed tender to the top dozen system integrators. The lowest quote from the failed tender overshot the client's budget by almost four times and was conceptually flawed. The consultant was called in to properly engage users, re-analyse requirements, to architect a working solution, lead prototypes and national pilot and to manage and operate the system in a full life-cycle turn-key delivery.

The Client

This regional tier-1 telecommunications carrier is amongst top ten global carriers with fully vertically integrated business. The carrier operates across almost a complete spectrum of telecommunications including, wholesale, international, mobile, broadband, IP data services, major terrestrial and submarine fibre optic assets, and a Customer Access Network envy of the world with an engineering capability second to none since the days AT&T Bell Labs was broken up. The client is working in a very difficult regulatory environment like most of its peers.

The Challenge

The client's problem was lack of a single unified customer view across network, charging and billing:

- Who are our customers? How do we dissect our customers?
- What services do our customers have? How do we cross sell?
- Who is impacted when we change the network or a network element fails?
- How do we identify customers not billed or under billed?
- How do we resolve hard customer complaints e.g. about their business failing claims due to us?
- How do we report and provide evidence to the regulator?
- How do resolve inter carrier interconnect disputes?

These problems were compounded by a complex, dynamic and rich business environment. The technical challenge was integrating disparate views and models of network, call charging, customer configuration and billing. This would not only enable solving the single customer view problem but also provide major savings as well as assist in the cost-effective deployment of new technology such as fibre, cable and ADSL. The solution had to serve diverse business units including terrestrial, mobile, international, wholesale, data and voice to name a few. The principal users of this major Business Support System included some 300 product managers, communications consultants and a number of engineering groups.

The Approach

The client originally attempted solving the problem by issuing a closed tender to the top dozen system integrators. The quotes exceeded 3-4 times the client's budget and the client felt that the tenders did not sufficiently master the client's business requirements that were both complex and dynamic in a highly competitive business environment. The client then decided to engage the consultant to build and lead a combined team of best of breed in-house and contracted resources. The consultant's approach was best practice business analysis, data modelling and architecture, extensive prototyping and piloting in a national scale before taking the system live. Some 100 users and stakeholders were involved. The consultant delivered:

1. Business Analysis and Architecture of the largest and most strategic of the client's data warehouse projects that feeds some 30 downstream systems. The consultant's database architecture and design was the client's first multi-tiered implementation with front-end, middleware, Oracle database and a fully distributed architecture for data acquisition, mediation, database loading, and middleware access and is still today considered an advanced state-of-the-art architecture. Its operations have been highly successful. This system collects telephone call acquisition data from the thousands telephone exchanges nationally, enhances the acquisition by data acquired from the client's reference systems, including Network, Call Charge, Customer Reference, Billing, Customer Complaint and Customer Perception data;
2. Client Liaison, Development and System Integration Management and Training. The consultant managed the design and implementation of three pilots with incrementally increasing capability based on a near real-time client feedback and was responsible for delivering the national production system;
3. Provision of both Analytics and National Reporting;
4. Training more than a hundred client staff in the use of the system.

The Outcome

The consultant managed to:

1. Deliver a \$15m project delivered for \$4m – the \$15m was the lowest quote of the initially failed Request For Quote RFQ from a dozen of the biggest Telco service providers;
2. Created a recurrent saving of \$9m pa by customer data matching including identifying 80,000 customers with major revenue leak;
3. Enable the client to comply with ITU M.30 Network Service Performance Criteria;
4. The system was a world first for a carrier integrating all data models including network, call charging and customer configuration providing the first unified single customer view;
5. The system is unique in enabling complex investigations across multiple business units and multiple voice and data technologies for a new framework of mediation devices;
6. Enabled the client to optimally deal with the regulator, industry watch dogs, settle carrier Interconnect and business customer disputes;
7. Provided Analytics to support planning and design of a multi-billion dollar Hybrid Fibre Cable HFC network.