

# **ULTRABILL IMPLEMENTATION**

## **For**

# **A VIRTUAL NETWORK OPERATOR (VNO) IN UK**



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## Client

The client is a Virtual Network Operator in the UK. They wanted a Customer care and billing system to interact with their suppliers, partners, resellers and the customers.

## Aim of New System

To achieve a fully integrated, flexible and scalable Billing and Customer Care system that is easy to use and effective in carrying out day-to-day tasks. The platform needs to be able to deal with large amounts of data without crashing and be fast and reliable.

Client requires a system which will allow them the following:

- A system that has all the required functionality out-of-the-box.
- Flexibility to continue to add and make changes ensuring continued business
- Scalability, to ensure client can successfully manage their growing database
- Simple and ease to use so anyone can do anything and not require an IT qualified person to run systems or make simple amends to data
- Fast turnaround on additional development required to system or faults/bugs
- An effective accounting system to effectively chase money and record payments history/transactions
- A suite of daily, monthly and quarterly business reports which can be easily extracted.

## The Challenge

### 1. Overall Requirements

There are some key factors that were required to be considered when developing the new system for this client:

- a. The platform needs to be able to cope with and logically store huge amounts of data without crashing
- b. The data stored needs to be accessible for interrogation to produce a suite of business reports to help us run our business and ascertain the performance of employees, associates and the company
- c. The platform needs to be remotely accessed by home workers to have up to date information.
- d. The system must allow for business clients who have bespoke requests from the standard such as branding, charges etc.
- e. The system must be simple to use and ensure that anyone can operate the systems without the need for a highly skilled IT person to carry out important functions.
- f. The system must have a comprehensive back-up program to ensure that no data is lost in the event of a crash or hard-drive malfunction.
- g. The system needs to be able to integrate with all the differing systems internal and external
- h. The system needs to have a level of access rights so only certain operators can have access to certain elements which is determined in the User Admin facility with one Super User



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## **2. Sales Channel Management**

As a company, the client does not employ a direct sales force; instead he has a network of “Associates” which sell on their behalf and get success based % commissions on their sales. The system will need to provide the following to help manage and inform the channel:

- These associates are contractually bound to achieve certain sales targets, which the new system will need to track and report on.
- Client need to keep an Associate record for customer services
- Client need to provide associates with an extranet (as explained in the web specification), which contains information to aid sales plus a customer information suite which associates use to input new customers and view the progress of orders. Client should also be able to display their commission statements, which they are able to invoice once a £50 target has been reached.

In order to maximize the sales potential of this associate channel, the client has to provide certain flexibilities called the “AFFINITY PROGRAMME”. Associates will be able to access their extranet and download a wizard which will guide them through building a simple co-branded or white labeled information page web site explaining the deal with an online form. These pages can be accessed via a link from the organization’s web site.

## **3. CRM Specifications**

All users should have to log on to the system so that client can automatically record who made what amends and communications/amends to customer accounts/accounts and associate records. There should be an admin facility to allow a super user to allocate usage levels for staff.

## **4. Accounting System**

- Ability to search for invoices by reference
- Ability to search by customer to view their invoices
- Ability to allow for part payment
- Ability to make write offs once pre-approved
- Ability to generate credit notes with customer details within and record them to his account
- Ability to mark accounts paid when check or late payment received
- All daily transactions e.g. checks in, direct debits in, credit card payments should be batched up daily and given a batch number that can then be accessed by operator to view each day’s incomings. The outgoings such as credit notes should be batched daily also.
- Every month or whenever billing takes place, the customer ledgers should record the amount invoiced as a debit. When the payment is received, it is recorded as a credit to balance the account to 0.00.
- The bank will inform the system electronically of DD failures and once received, the client should be able to upload and populate the sales ledges accordingly.



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- The system should automatically send email to customers whose DD has failed (unless postal customer) the first credit control and the cycle starts from there.
- Aged debtors are very important and needs to be displayed.

## **5. Web Specification**

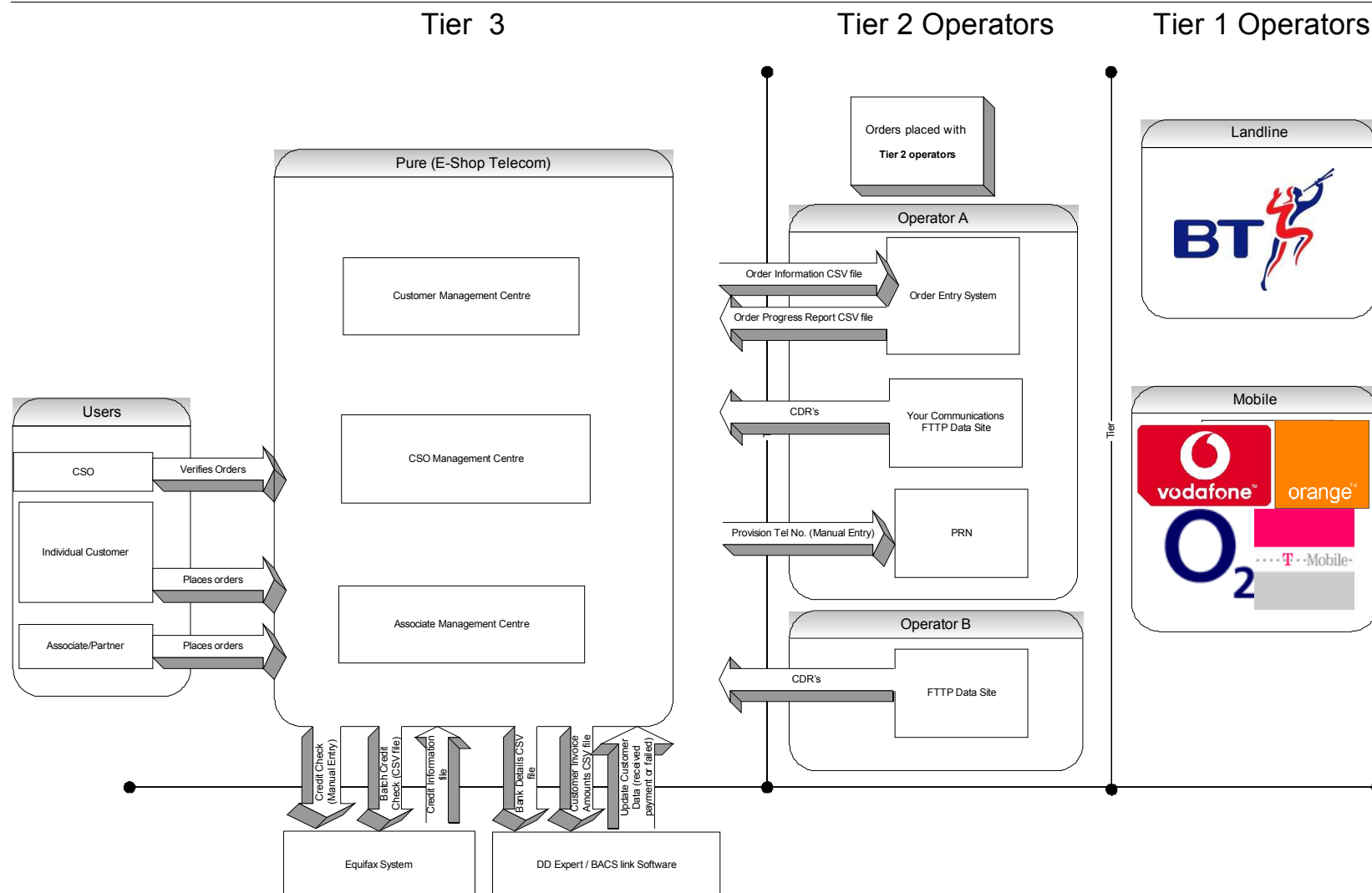
- The site will offer an order form for order acquisition which will populate a customer record on the CRM system and can be viewed on a new order screen
- The site will service existing customers with information and options on other products
- The site will offer an extranet where customers can log on and view information relevant to their account
- The site will offer an extranet facility to affiliates for them to log on and view reports and data relating to their account and customers
- the site will allow customers and associates to edit personal data which will populate an updates screen on the CRM system and be recorded on the customers account notes
- The web site should also be easy to update and all parts should be accessible to facilitate changes and make amends whenever necessary i.e. have a back office system to the web site.



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## Design



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## Implementation

BrainRoots implemented UltraBill for the client to provide them the following functionalities:

- CDR Collection and Rating
- Branded User Interfaces
- Order Management
- Provisioning
- CRM
- Interface with supplier carriers
- Interface with external systems for payment and credit checking.
- Branded Invoicing functionality.
- Commission functionality.

### 1. CDR Collection

Multiple types of CDRs are collected from different types of switches through FTP process. The different CDR Formats are converted into a common format (CDR Enrichment and Normalization) and then the CDRs are sent through the flexible rating engine to be rated for each user.

### 2. Rating

The following types of rating are implemented:

1. Fixed Monthly Fee for plan rental
2. Peak and Off-Peak rates based on Time of Day – Peak rates are during working hours on weekdays, and off-peak rates during evenings and night weekdays and on weekends.
3. Zone based rating for International Calls (based on Area Codes)
4. Zone based rating for Domestic Calls (based on distance between the area codes)
5. Volume Discounts for more than 1000 minutes of calling per month
6. Pulse of 30 seconds for domestic calls and 1 second for international calls
7. Rounding rules at billing time
8. Tax application at billing time – Flat rate of taxation

### 3. User Interfaces

There are three different kinds of interfaces implemented:

1. Customer Interface
2. Partner Interface
3. CSR Interface

Customer Interface is used by customers for registration if they are registering themselves or to access their usage or bill details online.

Partner Interface is used by partners of the client to register new orders, manage their own customers through them and provided a branded interface to their customers. Partners can also create new shadow accounts for managing the customers.



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CSR Interface is for the employees of the client to manage all the customers, check the validity of partners and handle call center queries.

#### **4. Order Management**

Customers and Partners can place orders in the system through online interface. The CSR can then check the orders for correctness and on approving the credit check, can convert them into accounts. The system provides partners the functionality to save unfinished orders and complete them once they have all the information.

#### **5. Provisioning**

Since the client is a switchless reseller, for each order they have to interface with the supplier's (carrier with switches) order management system. This system is a two way interface to provide the information of new orders and update the information in the billing system, when the order is provisioned.

The billing start date is provided by the provisioning system in the return message. Depending on the billing start date, the monthly charges for that month are be prorated.

#### **6. CRM**

The system provides the functionality to record all interactions with customers in terms of email, invoices, disputes or any calls from the customers. All these interactions can be looked up by the CSR when they get a call from the customer.

#### **7. Branded Invoice Functionality**

The system allows the user to configure a different branded invoice for each of their partner. The invoice also calculates the charges of the carrier and shows the savings that the user has each month, compared to the competitor.

#### **8. Commission functionality**

The system calculates commissions for the partners based on the payments received by customers. The commission is calculated using a multi-level marketing model, where different percentage of commission based on the level of hierarchy of partner in the system can be defined.

The commission is directly credited to the partner's account using the direct debit interface. Partners can view their commission using the online partner extranet interface.



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