BrainRoots Profile

BrainRoots Solutions (Pvt.) Ltd. is an IT Product and Consulting Organization focusing on Mediation, AAA, and Convergent Billing & Customer Care.

NASSCOM *MEMBER*

BrainRoots has strategic partnerships with the following:

PORTAL.   IBM   SIEMENS

Deloitte.
Technology Fast50
INDIA

RED HERRING ASIA 2005
FINALIST

WINNER of

Deloitte Technology Fast
500 Asia Pacific 2005

WINNER of

Deloitte Technology Fast
500 Asia Pacific 2004

BrainRoots - Technologies

- J2EEE architecture and framework

- BrainRoots has experience in live deployments on:

  - Sun Solaris, Linux Redhat

  - Oracle, MySQL, DB2, PostGres

  - Capabilities in the J2EE Framework include deep experience in:

    - Struts

    - EJBs

    - XML

- Other areas of expertise

  - IBM Tivoli, Open LDAP, Netscape SuiteSpot

  - C/C++ Capabilities, PERL

BrainRoots - Middleware Used

- **MQSeries** – EAI platform used in making disparate systems talk to each other using XML tags

- **Vitria BusinessWare** – As an Order Management and Provisioning engine for interfacing with a BSS system downstream.

- **Fiorano Tifosi** – BrainRoots is an implementation partner for Fiorano, a market leader in the Java Messaging Bus space, who is promoting its EAI product Tifosi in the Middleware space.

BrainRoots - Application Servers

- **WebSphere software** – IBM **WebSphere** is the leading software for on demand business, delivering business integration, application & transaction infrastructure, portals.

- **PRAMATI** – Pramati Technologies is an end-to-end Enterprise Java platform vendor with a product suite that includes application servers, component development tools, and an extensible web based management framework.

- **Tomcat** – Deployed for a large carrier in Mumbai for its Customer GUIs.

Brainroots - Third Party Applications

BrainRoots has extensive experience with integration of third-party OSS/BSS systems.

- **P7** – BrainRoots is a prime implementation partner for Portal. We have done over **10 implementations** of pre-paid or post-paid BSS systems on Portal.

- **Kenan** – BrainRoots has limited experience on the Kenan platform.

- **InterConnect –** BrainRoots has implemented the system that includes setting up Rate Plans for each partner, Hubbing, Refile, Invoicing, Settlements, CDR Bashing.

- **CDR Collection and Enrichment – C**omplete process of CDR collection, Enrichment and Normalization (E.164 Number Formats, Time Zones etc) through the Integrate platform of Portal Software.

- **Xacct** – Interface with Xacct and BSS was implemented for a carrier in Singapore.

Brainroots – Available Interfaces

- **Interface with the legacy A/R systems**

- **Interface with Vitria** – we built a real-time interface between Vitria and the downstream BSS for exchanging provisioning information.

- **Interface with Credit Card Payment Gateways**

- **Interface with SMSC –** Implemented a real-time interface between the SMSC and BSS for a large provider in Australia to enable pre-paid and real-time SMS billing.

- **Interface with Ericsson IN platform and Ericsson MMSC – For a** leading Telco in New Zealand

  – Real-time rating from the Ericsson MMSC to the BSS

  – The rated events exported in real-time from the BSS to the IN platform

  – IN Platform deducts pre-paid balances in real-time.

Success Story
WorldSpace Satellite Radio

WorldSpace (NASDAQ: WRSP) is the world's only global media and entertainment company positioned to offer a satellite radio experience to consumers in more than 130 countries with five billion people, driving 300 million cars. WorldSpace is a pioneer of satellite-based digital radio services (DARS)

WorldSpace will use **Portal's Revenue Management platform, Portal 7**, to manage billing for all customer equipment purchases, activation fees, and monthly satellite radio subscription services in company's global operations. The Portal solution will integrate with WorldSpace's SAP system to provide an integrated financial and Revenue Management solution to optimize profitability, maximize growth, and ensure customer satisfaction.

Implementation Details
PORTAL 7 Implementation includes following Functional Specification (FNS):

1. AUTH SERVER Interface
2. Customer Registration
3. Voucher Management
4. Receiver Management
5. OAAC (Over-the-Air Authorization Channel) System

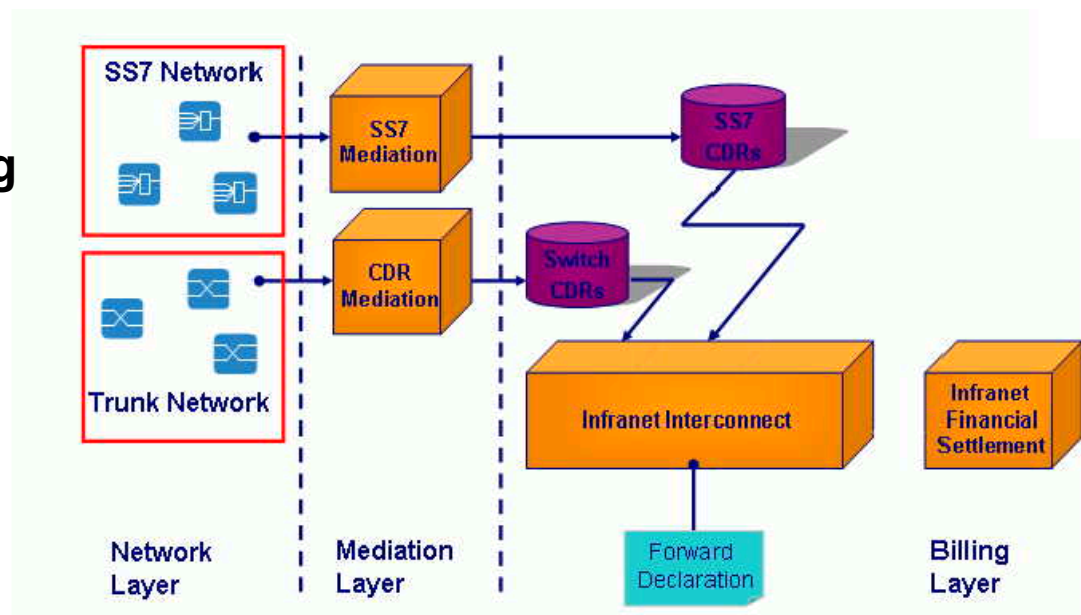6. Pricing System
7. Trouble Ticket
8. WEBKIT
9. E-Mail Notifications

Bayantel is the third biggest operator in Philippines providing fixed line, national long distance and international long distance services and ISP services in all provinces of Manila.

The client was operating three different in-house systems for interconnect settlement with over 110 partners with over *15 million CDRs per month.*

Solution

- **Post Mediation and Rating**
- **Billing**
- **Dispute management**
- **Trading**
- **Revenue Assurance**
- **Reporting**

Mobily is one of the fastest growing mobile operator in the Middle East & North Africa.

SBM is working as system integrator for Mobily who launched Telco services in Saudi Arab. BrainRoots responsibilities involved testing of Infranet components (Customer registration, billing, invoicing, collections, Number/SIM management etc.), building custom applications to support operations, generation of reports after billing.

Our resources worked as a team members in CRM interface team. Helped EAI team in writing applications that communicated directly with Infranet and was also involved in the monthly billing/invoicing activities such as resolution of discrepancies found during pre-billing/invoicing activities so that final billing/invoicing can be performed smoothly.

Project Description

The client is the leading mobile operator in Colombia and BrainRoots was involved into setup and configure the billing system for client as per his business needs.

Responsibilities:

• Responsible for design and creation of Payment Data Manager for handling Credit/Direct Debit Card payments, batch billing.

• Responsible for creation of formatter script in Perl, which formats the output files generated by DM, and split/combine them to convert into multiple files based on bank, credit card names.

• Responsible for creation of complex new wrapper Infranet opcodes used for loading payments, finding account based on certain search criteria etc.

• Built UEL template to load payments based on input file received from Bank.

• Assisted in Production Testing Environment.

CABLE & WIRELESS

Project Description

The client is the one of the leading service provider for both wire-line and wireless services across the globe, and the task was to configure the billing system to support their EMessaging services used for sending bulk emails and faxes, as per the client's business needs.

Responsibilities:

•Responsible for creation of a LockBox application that automates the loading of payment process.

•Responsible for creation of Multi Threaded Application (to be executed while billing), to support the discounting requirements of client for few services.

•Responsible for creation of complex new Infranet opcodes used for account creation, account modification, creation/modification of contacts etc. to satisfy the business requirements of client.

•Responsible to maintaining their database.

•Responsible for maintaining the Infranet Billing System and assisted in Production Testing Environment.

Project Description

The client (Pantel) is the leading telecom operator in Budapest' Hungary and the task was to install Portal's Billing Software - Infranet 6.2, and configure the billing system for client as per his business needs.

Responsibilities:

•Responsible for setting up fraud prevention system to inactivate the voice services, if a user tries to make more than five unsuccessful login attempts.

•Responsible to setting up Data Archiving.

•Responsible to maintaining their database.

•Installing Infranet 6.2, upgrade from 6.1 to 6.2.

•Responsible for maintaining the Infranet Billing System.

- Worked with Portal UK team and BASE team to implement Wholesale System Phase 1 using Infranet 6.5 SP1, integrated with Infranet Wireless 6.5 SP1 on HPUX platform.
- Responsible to assist the client directly to prepare multiple environments for development system, by installing Infranet 6.5 SP1 and required managers.
- Upgraded Infranet from release 6.2 SP1 to Infranet release 6.5 SP1 with Branding.
- Modified the existing Infranet 6.2 SP1 customization codes to adapt the Infranet 6.5 Wireless SP1 codes.
- Installed and configured GSM Manager, SIM Manager, Number Manager to implement GSM Service.
- Configured GSM Service Price Plan for Wholesale with Provisioning.
- Installed and configured Account Synchronization DM (6.5 SP1) to integrate the Infranet 6.5 with Infranet Wireless 6.5.
- Configuring the Infranet 6.5 SP1 to synchronize with Infranet Wireless 6.5SP1.
- Involved with Batch Controller, Batch Handler and UEL.
- Involved in end to end testing for phase 1 on BASE Wholesale project.

Wataniya Telecom is Kuwait's first privately owned operator and has been a driving force in increasing the mobile communications market penetration in Kuwait to over 93 percent of the population; one of the highest penetration rates in the region.

•Worked with Kuwait Computer Company team to implement the Wataniya Telecom billing system phase 1 and phase 2 using Infranet 6.2 on HPUX platform.

•Involved in gathering the requirements for phase 1 and phase 2 Infranet implementation.

•Involved in designing the solution for phase 1 and phase 2 Infranet implementation.

•Involved in designing the data migration strategy.

GMO Global Media Online INC.

An ISP based in Japan that is currently providing dial up and email service to about **150,000 people** all over Japan.

Description of work done

- LDAP Implementation for Mail and Web Servers

- Radius Implementation

- Provisioning and Workflow System Interface

- Custom Interface with Payment Gateways

- Web based Registration and Account Maintenance

- Internationalization

- **<u>Vodafone,New zealand</u>**

Vodafone New Zealand was starting MMS Service. A solution was deployed for real-time rating from Ericsson MMSC into Infranet and then exported to the prepaid and the post paid billing solution. A real-time interface was developed with the prepaid billing solution to deduct balances real-time.

- **<u>Vodafone K.K. Japan</u>**

Vodafone K.K. was implementing the new billing system under Accenture and BrainRoots resources worked with them in implementing specific functionalities includes installation and configuration of Portal's Infranet billing system, training of customer to upgrade from older Infranet system to the latest one. BrainRoots had worked on PERL scripts to automate the multi-instance installation procedure and the post Installation configuration. Also worked and trained customer to upgrade older MultiDB Infranet instance to a latest Infranet build. Other work included installation and configuration of Multi database Infranet instances for the customer for their system test environment.

BrainRoots Solutions undertook the complete installation and customization of InterConnect Billing.

Solution

•**Price Plans and Rating Engine** - Zone based pricing, time of day pricing and QoS. The rating had to be highly scalable to enable the rating of 1 Mn CDRs per day.

•**Aggregation and Billing -** Aggregated on the basis of carrier, zone and date. Billing an Invoice presentation is done based on the rated CDRs. The invoices are generated in real-time using the XML format.

•**Least Cost Routing**

•**Payments and GLIDs -** The system can take care of Payments made by the partners, as well as interface with the Accounting Packages through General Ledger IDs created in the InterConnect system.

•**Audit and Reconciliation**

VSNL is India's leading operator of long-distance telecommunications services, with bilateral relations with traffic carriers in over 75 countries. The company also provides Internet access, email and electronic data interchange services.

The company operates a network of earth stations, switches, submarine cable systems, and value added service nodes to provide a range of basic and value added services .

BrainRoots performed consulting services includes customization and deployment of Infranet web interface Webkit. Also performed the stress analysis of Webkit when deployed on JRun and also on Tomcat by using the tools JProbe (Quest Software) and JMeter (Apache).

NOW (Network of the World) is one of the biggest ISPs in the Asia-Pacific region. Brainroots has worked on several consulting assignments in Infranet (the ISP billing solution that has been implemented by NOW).

•**Customization to incorporate tax, streamline payment processes and Invoicing**

•**Auditing and logging to plug revenue leakage**

•**Performance tuning and QA**

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