tBIDS on Oracle: Comprehensive BI Solution for the Telecommunications Industry

FEATURES

**tBIDS BI Solution Framework**
- Comprehensive enterprise-wide BI platform:
  - Data integration & warehousing
  - Data purity & integrity
  - Built-in connectivity to operational datastores
  - Advanced OLAP & Data Mining capabilities
- Integrated with leading BI front-end tools & technologies
- Built on “Think Big - Build Step-By-Step” philosophy
- Provides end-to-end Single view of business
- Business process KPI driven
- Rapid Development & Cost Effective Delivery

**tBIDS on Oracle** provides the communications industry with a Customer Information Platform that enables telcos to transform to a customer-centric view of performance by consolidating customer information across all lines of business. With the only truly integrated platform for business intelligence, tBIDS on Oracle delivers a solution that incorporates each component of the transformation process. At its core, the solution is based on a proven Telco Data Model coupled with extract, transform, and load (ETL) tools that help populate the model with your institution’s data. With this foundation in place, telcos are able to leverage high performance analytics with Oracle's built-in online analytical processing (OLAP) engine, develop charts and reports, and deploy custom dashboards allowing management across network operations, line of business, call center and corporate to visualize performance and monitor customer behavior, thereby helping to improve and expand customer relationships.

**Moving from Product Focus to Customer Centricity**

The telecom industry is fiercely competitive, quickly evolving and is continuously reinventing itself. There is a strong emphasis on streamlining operations, while focusing on profitable customers to provide them differentiated products and services using the most appropriate channel. With fickle customer loyalties, quick decision-making becomes imperative. Customer focus is replacing traditional product focus where customer satisfaction and loyalty are driven increasingly by personalized products & services and managed customer care.

Telecom companies have always been data rich. Advances in technology and new products and services often overwhelm the corporate IT infrastructure with information. At the same time, changing customer behaviors, the emergence of new competitors, global economic expansion, deregulation in key emerging markets, and rapid technological advances have made leveraging enterprise-wide data imperative for success.

Thus, telcos now need to harness analytics across a range of operational areas:

- To streamline processes achieving higher profitability
- To cross-sell / up-sell products and service plans
- To enhance operational efficiency across departments and distribution channels
- To analyze customer loyalty and share of wallet
- To predict and prevent bottlenecks in key network elements
- To build predictive models for fraud detection and customer exits
- To detect risk of default by customer and market segment.
The Foundation – tBIDS Comprehensive BI Solution Framework

Information often lies in "silos" of different business units and lines of business, severely limiting its availability on the enterprise level. TCS through its tBIDS framework allows you to leverage its expertise in building BI systems in the telecom industry and strengthen your organization’s decision-making. The tBIDS framework consists of an enterprise wide Logical Data Model (LDM), Analytical Templates (AT) and High-end Analytics (HA).

TCS’ tBIDS data model has been developed to address the full range of complex, telco-specific business process flows and analytic requirements. It enables a 360-degree view of critical operations and provides leverages an integrated set of relational and OLAP analytic templates that accelerate implementation and provide significant cost savings and rapid ROI. The data model also includes a standardized metadata layer.

tBIDS’ data model enables and integrated, 360-degree view of customer activity across all critical operations, including:

- Call Analysis
- Product Analysis
- Subscriber Analysis/Churn Analysis
- Fraud Detection
- Network Analysis
- ARPU/ARPM Analysis
- Roaming Analysis
- Campaign Analysis
- Customer Acquisition Analysis
- Customer Segmentation Analysis

Analytic Templates
tBIDS provides standard templates for business analytics in the form of vanilla reports, OLAP reports and dashboards. Each template can be readily adapted to address multiple reporting needs and can be customized for your choice of reporting / OLAP tools. Typical analyses you can do using tBIDS:

- Most valued customers (based on usage, revenue, age, income, gender)
- Customer acquisition based on sales channel
- Profitability analysis: customer, channel, product
- ARPU/ARPM analysis
- Product sales – by customer segment, channel, time period, geography
- Customer response analysis - up sell/ cross sell, new campaigns etc
- Subscriber analysis – activation, exits / churn, port back, reactivation etc
- Market share analysis
- Billing and payments analysis
- History of customer complaints and resolutions (for different complaint types)
- Inter-carrier call analysis
- Network traffic and utilization analysis
- Network fault analysis
- Organizational planning and performance measurements
- Communication management

High-end analytics include support for data mining, predictive models, forecasting and scenario building. These can be leveraged for: customer segmentation for churn, fraud detection, delinquency pattern, cross/up-selling, market segmentation, product configuration, and channel utilization.

**Dynamic Dashboarding and Predictive Insight**

tBIDS on Oracle is based on Oracle BI Enterprise Edition (OBI EE), a comprehensive and integrated suite of analytic tools designed to bring greater business visibility and insight to users across the enterprise, providing web-based self-service access to real-time, relevant and actionable intelligence.

OBI EE includes the Oracle BI Server, a highly scalable, efficient query and analysis server that efficiently integrates data from multiple unstructured, relational, OLAP and pre-packaged application sources. Additionally, Oracle BI Server includes powerful web-based ad-hoc query and analysis tools, interactive dashboards, comprehensive reporting and publishing, ad hoc analysis proactive detection and alerts, disconnected analytics, and integration with MS-Office.

OBI EE is an integrated suite sharing a common service-oriented architecture, common data access services, common analytic and calculation infrastructure, common metadata management services, common semantic business model, common security model, and common administration tools. It is designed to provide mission-critical scalability and performance with data source specific optimized request generation,
optimized data access, advanced calculation and integration, intelligent caching services, and clustering.

**Disciplined Implementation Methodology**
TCS’ tBIDS framework is supported by a disciplined, integrated approach to quality management, metadata management, data migration, case modeling, and performance management. Its modular but comprehensive footprint across key process areas enables each organization to adopt those aspects of the solution that are most relevant to its goals.

TbIDS also provides for a modular approach to development with defined guidelines and standards that include:

- **Solution processes and tools.** TCS has documented procedures for implementing business analytics software across the project life cycle, from planning and design to implementation and post-deployment support.
- **Domain assets.** TCS develops and maintains industry-specific logical data models, analytic templates, high-end analytics, key metrics, and report templates. This reusable knowledge, based on the experience of implementing solutions for leading organizations across verticals, speeds project delivery while providing refined best practices to a client engagement. At the same time, the solutions are always customizable and extensible to accurately match clients’ needs. Such domain assets help TCS create industry-specific extensions of its BIDS™ framework.

**Oracle and TCS**
TCS and Oracle are global organizations completely focused on customer success. This alliance is fundamentally drawn from our joint commitment; TCS and Oracle solidly stand behind customers with solutions, product support, expert consultations, training and other resources. The alliance draws upon the strength of TCS and Oracle’s vast experience to help customers with not just its Oracle product knowledge, but also that of the industry.

**About TATA Consultancy Services Limited**
Tata Consultancy Services (TCS) is among the leading global information technology consulting, services and business process outsourcing organizations. Pioneer of the flexible global delivery model for IT services that enables organizations to operate more efficiently and produce more value, TCS focuses on Delivering technology led business solutions to its international customers across varied industries.

**About Oracle Corporation**
Oracle’s business is information—how to manage it, use it, share it, protect it. For nearly three decades, Oracle Corporation (Nasdaq: ORCL), the world’s largest enterprise software company, has provided the software and services that let organizations get the most up-to-date and accurate information from their business systems. With annual revenues of more than $11.8 billion, the company offers its database, tools, and application products, along with related consulting, education, and support services to help governments and businesses around the world become information-driven.

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