

Business Analytics for Telecommunications

Finding the truth in your data

Critical Business Issue

Communication companies were among the earliest adopters of analytics for internal and external metrics to manage and drive their business. Over time, divestures, mergers and acquisitions have resulted in a complicated metric-ecosystem that often includes a combination of highly and loosely regulated set of data platforms and information delivery outlets within the enterprise.

Regardless of the genealogy of this problem, companies face the issue of determining, evangelizing and regulating a “single and complete version of the truth” that is widely accepted across the enterprise for decision making.

To further compound the problem, the Business Information Management (BIM) area is one of the few areas where solutions are mostly based on addressing “one off” or “point in time” needs instead of relying on strategic, industrialized, tried and trusted solutions.

In the face of increased competition and saturation rates companies and their executives are now being challenged by the need to:

- Understand their customer across all their products and services
- Make each interaction with the customer personal and meaningful
- Predict and analyze customer behavior to increase revenue and retention



- Retain high-value customers with the right retention offers
- Optimize customer interactions across all channels and all products & services Revenue Generating Units (RGUs) with real-time offer management
- Increase the effectiveness of marketing campaigns

In a recent survey of communication executives it was noted that the lack of a “reliable” set of widely accepted strategic key performance indicators (KPIs) and reports was one of the main inhibitors to achieving their goals.

Industry Trends and Current State

The problems with BIM within the communication industry have been well known and as a result, several solutions have attempted to fill large voids to alleviate specific symptoms.

Early attempts to address the problem include industry specific data models (E.g. Teradata’s Communications Industry Logical Data Model (CLDM). Other attempts include solutions such as Siebel’s (now Oracle) Data Warehouse solution that included a combination of a select set of reports, data models, and Informatica based Extract, Transform and Load (ETL) to address reporting needs out of Siebel’s customer relationship management (CRM) solution. More recent solutions focus exclusively on the front end by offering a set of dashboards and reports that may be used by certain executives. These recent solutions focus on the end state allowing the enterprise to choose and develop other components of the solution on their own.

None of these offerings yet provide an end-to-end comprehensive solution that will alleviate the fragmented BIM picture within the enterprise addressing its strategic needs across all of its products, services and offerings.

The Solution

Capgemini’s **Business Analytics for Telecommunications** (BAT) solution is a comprehensive solution kit that will accelerate the achievement of an end state solution directly addressing the strategic needs of the enterprise and its executives. The solution kit includes

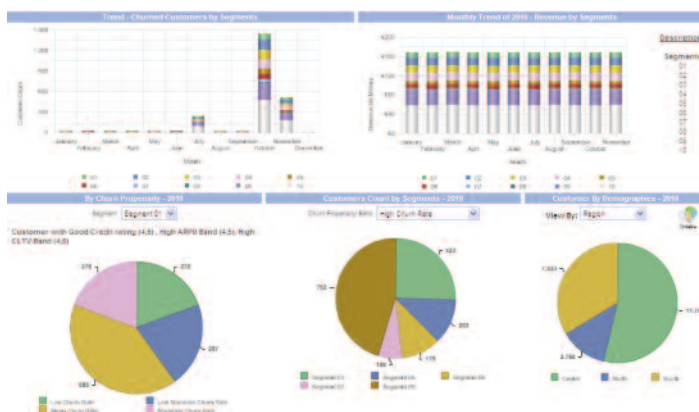
1. Communications Industry KPI repository
2. A comprehensive set of operational and strategic dashboards and reports

3. A summarized mart model to support the reports (initially based on Oracle’s OCDM)
4. Detailed data model (initially based on Oracle’s Communication Data Model (OCDM)
5. Quick start kit to configure and customize the solution or select components for the company’s unique needs

Executive Dashboard



Segmentation



The power of the solution is that Capgemini balances the need to depict an end state picture with the fact that each communication company, given its legacy, has unique needs. The BAT kit provides a ready to deploy solution that is customized and configured within the context of each client.

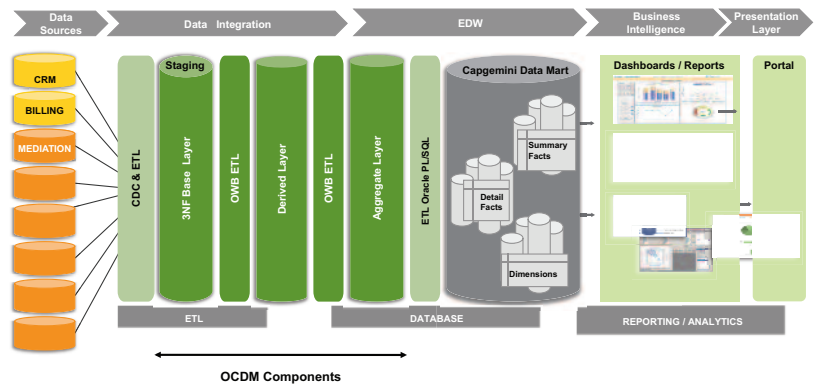
The quick start kit can reduce implementation times by as much as 60% by leveraging Capgemini's intellectual property through readily deployable data models, data adapters and reports. Furthermore the industry standard reports help facilitate consensus building across business units further reducing time to market while setting expectations right from the beginning thereby improving customer satisfaction.

The BAT solution can either as a whole or can be deployed in parts. Examples of the solution being selectively deployed include using the detailed data model to support existing marts and canned reports, deploying the BAT mart and reports on top of an existing custom or industry standard (e.g. Teradata's Communications Data Model (CDM) data warehouse. However one must keep in mind that when BAT is selectively deployed, the dependent components must be complete and robust to ensure effectiveness. Selectively deploying BAT enables leveraging existing investments in data warehousing or reporting platforms.

The BAT solution includes a repository of best-practice telecommunications KPIs set within a defined framework. These are deployed within role based analytical dashboards. Users also have the option of building their own reports for ad-hoc analysis.

The data models included are designed to specifically support analytics and does not replicate or replace leading telecom entity data

Business Analytics for Telecommunications Analytics Solution Architecture: with OCDM



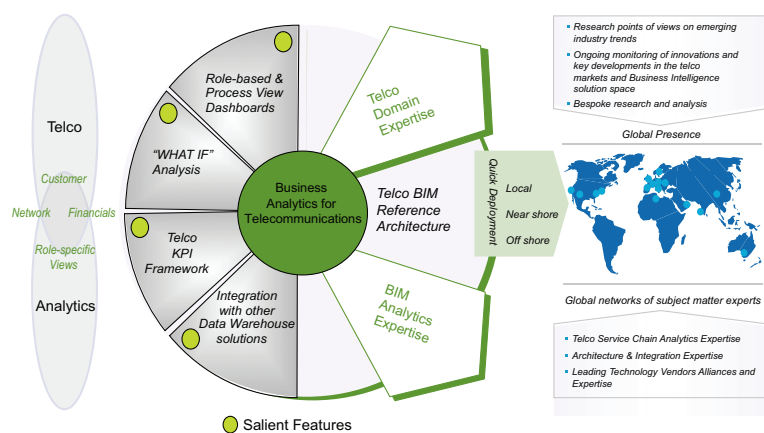
models such as the OCDM or Teradata's CDM.

Although the BAT solution is primarily built using the Oracle stack, it has been successfully implemented leveraging solutions from other partners most notably Teradata and SAP BusinessObjects amongst others.

Salient features of the solution include

- Prebuilt role based dashboards e.g. Sales, Marketing, Churn, Call Center Management
- Specialized dashboards including 360 degree view of the customer, Permission Marketing and Next Best Offer analysis.
- Support for real time decision making through Next Best Offer analysis

Business Analytics for Telecommunications



- “What If?” analysis and “Value driver tree” (VDT) depiction of cause and effect

The following diagram depicts the business areas already being addressed by BAT and the areas that are under construction. All in all the BAT solution is a comprehensive reporting solution specifically designed and constructed for the communications industry.

The solution uses the Capgemini Telecommunications KPI framework which covers key aspects of a communication enterprise including customer and agent operations, customer management, enterprise management, products and services, marketing, resourcing and supplier management.

BAT is built using common and accepted commodity frameworks resulting in a component-based

building block solution architecture that can be deployed whole or in support of an existing eco-system. The framework is scalable to allow the inclusion of new KPIs and to modify existing ones based on each enterprise’s unique situation and business processes. Each KPI is represented once and is used multiple times across different dashboards, reports and subjects, thus ensuring one single version of the truth.

To find out more about Capgemini’s Business Analytics for Telecommunications please contact us at bim@capgemini.com

Prioritized Areas for Analysis

| Key Business Processes | TELECOM INDUSTRY (BILLING, MARKETING, SALES, NETWORK MANAGEMENT) | | | | |
|---------------------------------|--|---------------------------|-----------------------------------|----------------------|--------------------------------|
| Customer Management | Customer Segmentation | Customer 360 View | Other CRM Analytics | Churn Management | Customer Service |
| Network Management | Utilization / Traffic | Reliability/ Availability | Capacity Analysis | Inventory Management | |
| Marketing - Campaign Management | Marketing Analytics | Permission Marketing | Campaign/ Promotion effectiveness | Competitor Analysis | |
| Sales | Sales Reporting | Next Best Offer | Cross Sell/UpSell Opportunities | Channel Analytics | |
| Finance Management | Financial reporting | Revenue Assurance | Fraud Detection | Revenue Leakage | Payments & Collection |
| Services | Services Usage | Services Profiling | Product Planning | Service Activation | Service Fulfillment /Assurance |

Available
 WIP
 Potential new areas

Capgemini’s Business Information Management (BIM) Group

With over 5,000 BIM practitioners around the globe, Capgemini provides resources, combining expertise of information strategy, business consulting and a deep understanding of BI technologies to ensure seamless and effective implementation. Our BIM Center of Excellence in Bangalore, India also consists of 1,500 skilled consultants as a part of our differentiated Rightshore® model.

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get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients. Present in more than 35 countries, Capgemini reported 2009 global revenues of EUR 8.4 billion (approximately USD \$11.6 billion) and employs 106,500 people worldwide.

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