

Overview

Telecom companies, grappling with large amounts of call data and other information, are looking for telecom specific business intelligence tools for handling this data in order to address issues such as fine tuning of service offerings, reducing subscriber churn and identifying revenue leakages. Generic BI solutions meant for traditional applications are not able to meet the specific needs of Telecom companies.

Functionalities inherent in traditional BI solutions need to be customized and extended across the ETL, Data warehousing, query, analysis and reporting elements in order to meet the needs of the fast growing telecom sector.

Need

Customizations for the Telecom sector require the following considerations:-

- Capabilities to visualize potential applications of BI to a Telecom Carrier– Churn Management, Fraud Management, Network Capacity planning, Subscriber Usage pattern Discovery and many more.
- Technical expertise to extract information from complex data structures, like CDRs, Billing and Routing policies, for making informed business decisions.
- Clear understanding of the operator's working environment and the nature and volume of data existing in the organization.
- Custom Data integration connectors to access data from assorted data sources such as Billing Systems, CRM systems
- Data warehousing designs tuned for performance – to handle complex, resource intensive analyses.
- Addition of traceability to analytic results to facilitate Fraud Management and Regulatory compliance.
- Algorithms for Quality Control, subscriber behavior pattern discovery and predictive analysis
- Specialized visualization techniques for analysis of data from varied data sources.
- Pre-prepared reports and dashboards to evaluate results, trends and patterns.

Our Offering

Persistent has over 16 years of experience in delivering customized BI solutions for the Telecom industry by leveraging its out of the box components and experience in the Telecom Domain. The figure below describes our offering to BI solution providers looking to customize their existing generic BI solutions.

- Pre developed off the shelf tools, systems and frameworks specialized for Telecom data.
- Deep expertise in Telecom Domain
- Established Business Intelligence Practice
- 16 years of experience in providing product development services to 170 + customers the world over, with 1000+ product releases.

**Generic BI solutions do not address key concerns of telecom companies such as –
Reducing customer churn, Fraud detection, & Revenue leakage**

Relevant Expertise

ETL

- Managing very high daily volumes of XDR records
- Correlation of reference data with mediated XDR records

Data Warehousing

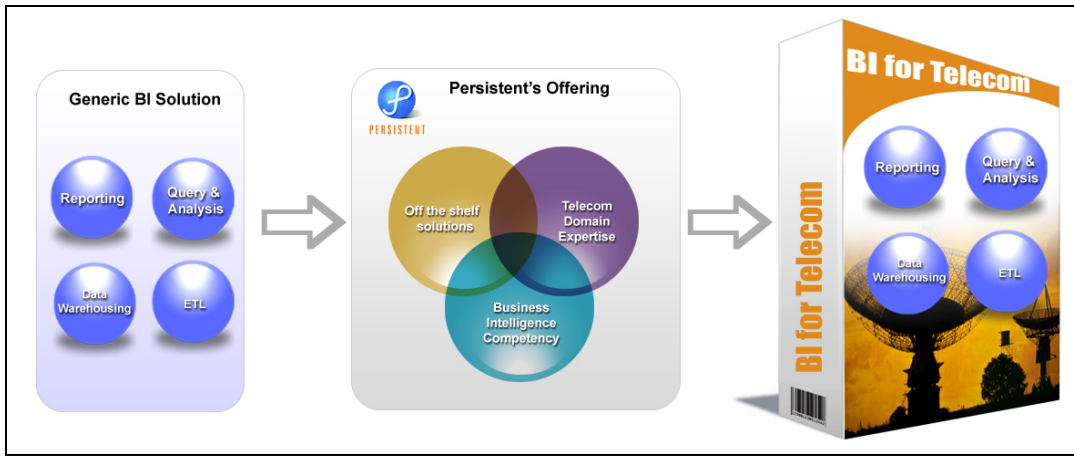
- Repository of network and service usage data for regulatory compliance
- Drill down and drill through ability for Root Cause Analysis
- Billing reconciliation

Query and Analysis

- Service and Network monitoring and surveillance
- Aggregation of data into KPIs and KQIs
- SLA monitoring and verification

Reporting

- Direct Retail marketing solution
- Web portal development
- Integrated reports



Off the Shelf Solutions

- Active Dashboard framework
- Customer Assurance Portal
- BI solutions for TEM
- Spend Analytics module
- Data modeling for predictive analysis

Case Study

A multi billion-dollar company engaged in the areas of communications, electronics, semi conductor and life sciences products faced challenges in integrating Business Intelligence capabilities with their existing Network Monitoring and OSS product suite.

Persistent, with extensive expertise in both the BI and Telecom space, took complete ownership of their data mining, traffic and network monitoring components to build a solution that could analyze and explore the Call Detail Records (CDRs) collected from the network using sophisticated dimensional analysis techniques. In addition components were developed to extract Key Performance Indicators from the data to evaluate service level agreements provided by the operator's interconnect partners. Persistent was involved in all stages of the Product Development Life Cycle, from prototyping to deployment.

The company benefited significantly as they could now analyze massive amounts of real time call data records generated from their networks by using these BI components and were also able to identify network performance and service related problems, helping them in providing a better service to their customers

Telecom Domain Expertise

- Data warehousing for XDR records
- Data mining for identifying 3G network issues and service usage
- Dashboards for KQIs and KPIs – corporate and operational performance for converged networks
- Web Analytics for mobile content portals
- Customer Analytics for cross sell, up-sell and retention
- Predictive Analytics for churn prediction of mobile users
- Service Analysis for market trending and segmentation
- Service and Network Assurance
- BI and Reporting for bill reconciliation

BI Competency

- Teradata and Informatica ETL tools
- SPSS and Business Objects BI tools
- Connector development
- Custom ETL solution Engineering
- Data Warehousing
- Solution Specific Data modeling
- Data mining
- Predictive analysis
- Performance Engineering
- Usability Engineering
- Identity management

About Persistent

Persistent systems is a leading provider of Custom Software Product Development Services. Our customers range from Fortune 500 companies to companies in the Startup phase. We have over 16+ years of experience and a strong focus across the BI and Telecom Stacks – ETL, Data warehousing, OSS, CRM, and Network Management.