BayaTree QRA System

Ad Hoc Query, Reporting, and Analytics solution

The Reporting Challenge

There is a growing need amongst users of software applications to analyze and report on their data. If such reporting is conducted on the production system, it can adversely impact operational performance and response time. Software end-users need an operationally efficient solution that incorporates flexible Query, Reporting, Analytics, and Visualization functionality.

The BayaTree QRA System

BayaTree has designed and developed an extensible and elastic solution for Reporting and Data Analytics. We have architected a solution that moves data seamlessly from your Production Database into a reporting/analytics Data Mart. It separates reporting/analytics data from Production Data, and improves operational performance by reducing the load on the Production environment. The solution has three primary components:

- Data Extraction
- Data Mart Setup and Maintenance
- Query, Reporting, and Visualization

Data Extraction

BayaTree's Data Transfer Utility (DTU) is a web based software application that can connect to various sources of Transaction Data. This application is designed to move data seamlessly from the source databases into a target reporting/analytics Data Mart of your choice. It can be configured to allow users to:

- Select data to be extracted at the field level
- Apply filtering capabilities to selected data
- Copy selected data to a Data Mart
- Specify time of extraction or define an extraction schedule
- Monitor "Data Extraction Agents" and obtain alerts in case of malfunction

Data Mart Setup and Maintenance

Customers can select their reporting/analytics Data Mart architecture (Oracle, SQL Server, MySQL, text file, etc.). This can be a completely separate repository or comingled with your existing Data Mart. We can work with your requirements to define a Data Mart structure suitable to your needs. The Data Extraction utility can be customized to move selected Production Data to your target Data Mart structure. To facilitate ease of use, the Data Mart structure is simplified from the complex

normalized relational Transaction Data models utilized by most Production Systems. On an ongoing basis, the Data Mart can be updated with fresh data using one of two approaches:

- Complete Refresh
- Incremental Updates

Query, Reporting, and Visualization

BayaTree can deploy the Business Intelligence (BI) tools of your choice for query, reporting, data analytics, and visualization (MS Excel, i2b2, SAS, Crystal Reports, Oracle, SAP, Tableau, iDashboards, etc.). Drill-down reporting models specific to addressing key norms in data analytics are available. By utilizing the BI tool of choice, users can create queries and reports with little previous skills or experience.

BayaTree QRA System Advantages

Advantages of the BayaTree Query, Reporting, and Analytics Solution are many. The Data Extraction is configurable to suit your needs, and is not encumbered by transaction elements that are not meaningful to end-users. The reporting/analytics Data Mart is customized to your requirements and structured to be simple – no need for complex table joins. Other advantages of this type of reporting and analytics strategy include the following:

- On-Demand reporting of key metrics
- Faster answers to your queries
- Roll-up and drill-down reporting
- Validation of data quality
- Timely Regulatory Compliance
- Graphical displays
- Data Analytics support
- No adverse impact on Production Systems