

Product Overview Features, benefits and product architecture

Ideal-Analytics is a suite of software tools to glean information and therefore knowledge, from raw data. Self-service, real-time, on-demand ad-hoc analysis and high performance exploration functionality with plug-ability, scalability & security, available in both SaaS and on-premise model

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A. Product Description

Product Summary

Business Intelligence (BI) can be defined as a suite of applications to collect, organize, store & analyze business data and provide access to users to help them in making better business decisions. BI allows organizations to get a more accurate and detailed picture of what is going on in terms of business and customers through various analysis and reports e.g., accurate view of costs, liabilities, risks, customer buying patterns, supplier cost-effectiveness, etc. BI can bring visibility into the organization at granular levels and help link different aspects together.

A number of BI tools are available in the market, but there are a few short-comings in traditional BI tools. The most important of them is the ability to model ad-hoc queries using an intuitive user-friendly UI and get the answers to those quickly without annoying delay. It has been noticed that most of the time due to lack of flexibility in the application, modeling and answering the ad-hoc queries take a lot of time, and so people try to avoid that; instead they take decision depending on their gut feeling and other available reports which are already existing which are not appropriate in the relevant context.

IDEAL ANALYTICS is a BI tool with some unique features – it's completely based on open-source technology to provide a low-cost and high quality solution to customers, it provides complete flexibility to the user to design the query and customize the reports and it uses cutting edge technology of column based database for lightning performance; on top of this IDEAL ANALYTICS is conceptualised on a SaaS model so that the customers get the benefits in a more cost-effective manner without going through the pains of hosting, maintenance and associated overheads.

Features

Some of the major features (both functional and technical) of Ideal Analytics are described below:

• FUNCTIONAL

- ✓ **Dynamic Modeller** for modelling the queries dynamically and view the reports & graphs in real-time
- ✓ Multi-dimensional OLAP Viewer to generate reports and graphs that can be drilled down or rolled up along multiple dimensions
- ✓ Hierarchical Access Control to restrict the users' domain of visibility
- ✓ Multiple Data Sources to enable data loading from virtually any data source e.g., DBMS, XLS, SDS, etc
- ✓ Web Interface to access anything from anywhere
- ✓ Calculated Columns either within a single data source or across multiple data sources
- ✓ Customized Dashboards can be generated and stored for individual users according to their designed layouts
- Through Dashboard Externalization the dashboard components can be embedded from other application / website
- ✓ **Export facility** to export the reports in different formats
- ✓ Verticalization Infrastructure to allow domain specific application development
- ✓ Mobile Access from Tablet PCs (Android and Playbook)
- ✓ Mobile Access from Blackberry, Android, iPhone, Java phones and windows mobile based devices to bridge the last mile between users and system

- ✓ Forecasting and Trend Analysis using statistical modelling tools
- ✓ Real Time Streaming Analysis (in roadmap)
- TECHNICAL

idealanalytics

- ✓ SaaS Framework with proper administration and accountability
- ✓ Column based Databases for performance improvement
- ✓ **RIA based UI** for better user experience
- ✓ Robust Security Framework to ensure confidentiality of sensitive data while they move through the internet or stored in the database or files
- ✓ Cluster Enabled for scalability
- ✓ Data-type based Intelligence for filtration, drilldown and visualization

Benefits

Apart from the usual benefits of traditional BI tools, IDEAL ANALYTICS provides their users some additional benefits which are briefly described below:

- SaaS model frees the user from the cost of application hosting, server maintenance, etc. Deployment on secure clouds ensures high availability and reduced risk for the customers.
- DSA layer provides capability to provide capability to load data from different data sources. Integrated Data Source Previewer allows the administrator to easily define the data mapping
- Web-based access and mobile accessibility allows users to access the system from virtually any place
- Dynamic viewer provides users the complete flexibility to select any set of dimensions and to filter them on any criteria to generate exactly the required view in real-time
- Statistical tools for trend analysis and forecasting helps users to take business decisions much more easily
- Calculated columns based on the existing data fields helps users to analyze from various aspects

B. FEATURES AND SERVICES

| Product Features | Availability |
|--|---|
| Multi-Account Installation | \checkmark |
| Account Administration | · · · · · · · · · · · · · · · · · · · |
| Account Management | |
| Profile Management | • • • • • • • • • • • • • • • • • • • |
| User and Group Management | • • |
| Chart Customization | • • • • • • • • • • • • • • • • • • • |
| | ▼ |
| Activity Audit | ✓ |
| Connector, Datasource and Dataset Management | |
| Connectors and Datasource | |
| RDBMS Connector | \checkmark |
| File Connector | |
| Excel Connector | \checkmark |
| CSV Connector | \checkmark |
| Web Service | \checkmark |
| REST Connector | \checkmark |
| Google Analytics Connector | <u></u> |
| Social Media Connector | • |
| LinkedIn Connector | \checkmark |
| Facebook Connector | ✓ ✓ |
| Twitter Connector | ✓ |
| Cloud File System | |
| Box Connector | \checkmark |
| Application Connectors | |
| Salesforce Connector | \checkmark |
| ERP/CRM Connector ** | On-Demand |
| System Connector | \checkmark |
| Custom Connector | \checkmark |
| Dataset | |
| Preview and Configuration | \checkmark |
| Hybrid Datasets | \checkmark |
| Flexible Data Loading Strategy | \checkmark |
| Dataset Explorer and Collaboration | \checkmark |
| Dataset Explorer | \checkmark |
| Dataset Sharing | \checkmark |
| Dataset Access Control | \checkmark |
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| analysis | alysis Fields Probability performance |

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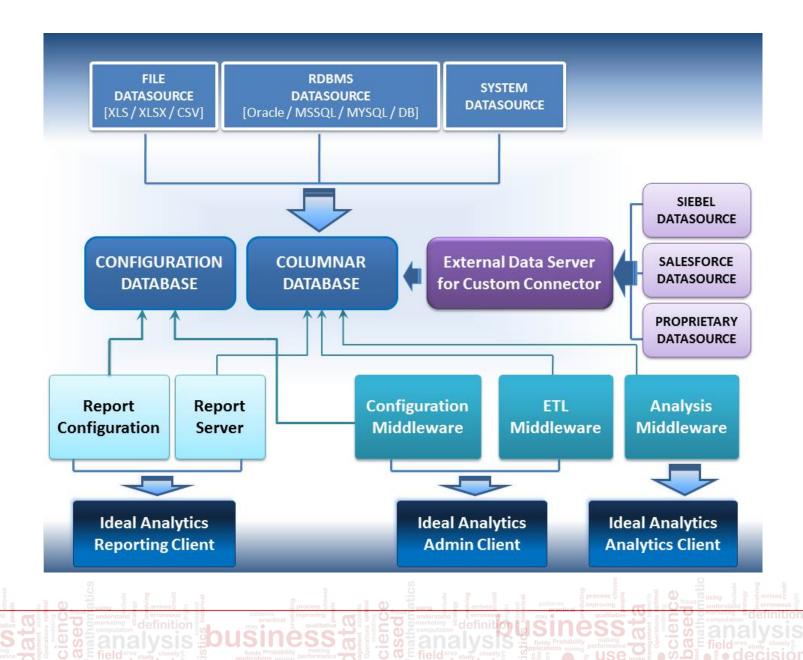
| External Data Management Tool / Data Modeler Incremental Data Loading Cross Dataset Linking | ✓ ✓ |
|---|--------------|
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| | Ý |
| Analytics | |
| Multi-Dimensional and Multi-Fact Dynamic Viewer | ✓ |
| Dynamic Filter | <u>√</u> |
| In-Place Filter and Value Column based Search | \checkmark |
| Drill Down | \checkmark |
| Calculated Columns | <u> </u> |
| Calculations on Aggregation | √ |
| Custom Sorting | ✓ |
| Visualization | |
| Single Dimensional View | ✓ |
| Comparison View | <u>√</u> |
| Tabular View | ✓ |
| Chart | |
| Comparison Charts | \checkmark |
| Contribution Charts | \checkmark |
| Correlation Charts | \checkmark |
| Trend Charts | ✓ |
| Gauge / Slab Charts | \checkmark |
| Accumulation Charts | V |
| Target Analysis | v |
| View Persistence | v |
| Auxiliary Dimension and Mapping | ✓ |
| Dashboard | |
| Corporate Dashboard | \checkmark |
| Personal Dashboard | \checkmark |
| Customizable Layout | V |
| Dashboard Component Externalization | v |
| Report | |
| Template based Reporting | v |
| Flexible Report Launching Configuration | |
| Graphical / Tabular / OLAP Report Components | · · |
| Export | • |
| Export to Excel / Image | |
| Export to PDF | v |
| Mobile & Tablet Access | v |

at

| BlackBerry | \checkmark |
|--|--------------|
| Android | \checkmark |
| IOS | TBD |
| Windows Mobile | \checkmark |
| Integration / Plug-in Services | |
| API Abstraction for Connectors and Analytical Services | \checkmark |
| Verticalization Infrastructure | \checkmark |
| Internationalization | \checkmark |
| Postmortem | \checkmark |

** These datasources can be made available now through custom connetors plugins.

C. ARCHITECTURAL HIGHLIGHTS



On-demand Self-serving Analytics

Ideal Analytics incorporates an on-demand analytics methodology. We have moved away from traditional datawarehousing concept of transforming and loading transactional data from OLTP (or other data sources) to OLAP, and querying the data-marts with proprietary languages like MDX. Instead, we just load (without transforming) the transactional data into columnar storage and create an interactive and complete visualization over the aggregation of the transactional data with the help of standard SQL queries. This approach has the following advantages.

- We do not need any analysis storage (like OLAP store) and are not dependent on specific technologies like MDX. Instead we create interactive visualizations with the help of SQL queries, but without compromising performance as compared to OLAP store, by using columnar stores.
- There is no design phase for analytics views, as opposed to traditional data-warehousing tools, which need customized design models (created by tool consultants) to create the views on. In Ideal Analytics, the users themselves (administrative as well as end users) can configure the data-sources and interactive views are created off-the-shelf.
- Another advantage of this approach is micro batching for frequent incremental update, which is practically impossible for traditional systems with OLAP storage for data warehousing.

Data-sources, Data-sets and Intermediate Relational Model

Ideal Analytics caters to multiple types of data-sources like Excel, RDBMS and web-services. Administrative users have the option of creating an intermediate relational model, which can be populated from heterogeneous data-sources (e.g. one table being populated from excel, whereas another table is being populated from a web-service). The administrator can then create and configure multiple data-sets on top of the relational model. Each data-set will have its own dimension/fact mapping, data-types assigned to the columns and hierarchical relationship among dimensions, facilitating multi-path drill-down functionality in the analysis view for the data-set.

Data Load and View Update Strategy

Ideal Analytics has the capability to load data to its column storage both on-demand (pull) and automatically by receiving the data (push).

- Pull strategy: This methodology is primarily used to reload the complete data-set. In case, the backing datasource allows installation of custom agents (e.g. a database agent installed in the backing RDBMS, which has the capability of providing incremental data-set), this strategy will cater for on-demand incremental data load.
- Push strategy: In case, the backing data-store allows for installation of real-time synchronizing agents, ideal Analytics can listen for updates in the datasets and update the data-sets on a real-time basis.

The Ideal Analytics view has the capability of updating the view automatically, in case the underlying data-set is updated (as mentioned above). The view update frequency can be configured while configuring the dataset, according to the nature of the dataset.

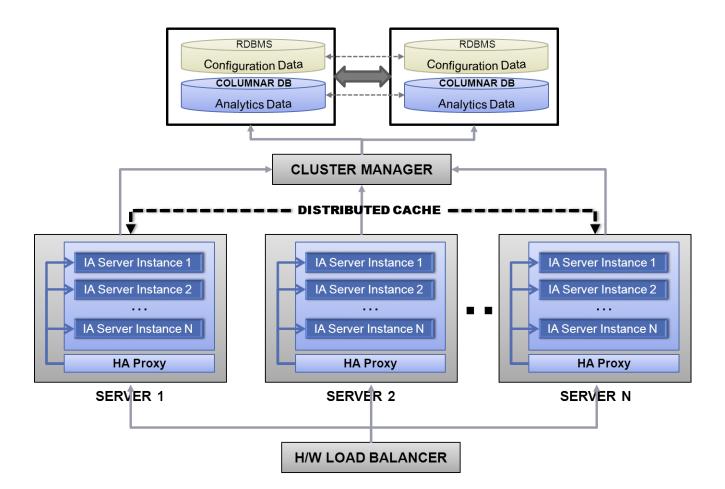
Vertical specific adapter architecture

Ideal Analytics provides an API base for developing a custom connector to a proprietary data-source/system. As a result, analysis of data stored in a proprietary system becomes easy with quick turnaround time for development. It also provides out of the box implementations of industry standard platforms like Sales-Force.

Scalability

Ideal Analytics servers are linearly scalable. Ideal Analyticss instances are mostly stateless, backed by centralized and replicable instances of RDBMS storage and column storage and fronted by High availability proxy server and hardware load balancers. The only state-full nature of the server is the authentication state, i.e. login sessions, which are by default distributed cache enabled. So, a new Ideal Analytics server instance can be added to the existing cluster seamlessly, to scale up the performance.

Deployment Architecture



definition

Analytics On-Demand

www.ideal-analytics.com

Self-service, real-time, on-demand ad-hoc analysis and high performance exploration functionality with plug-ability, scalability & security, available in both SaaS and on-premise model



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