

Alibaba Cloud

Quick BI Product Introduction

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Document conventions









Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
<code>Courier font</code>	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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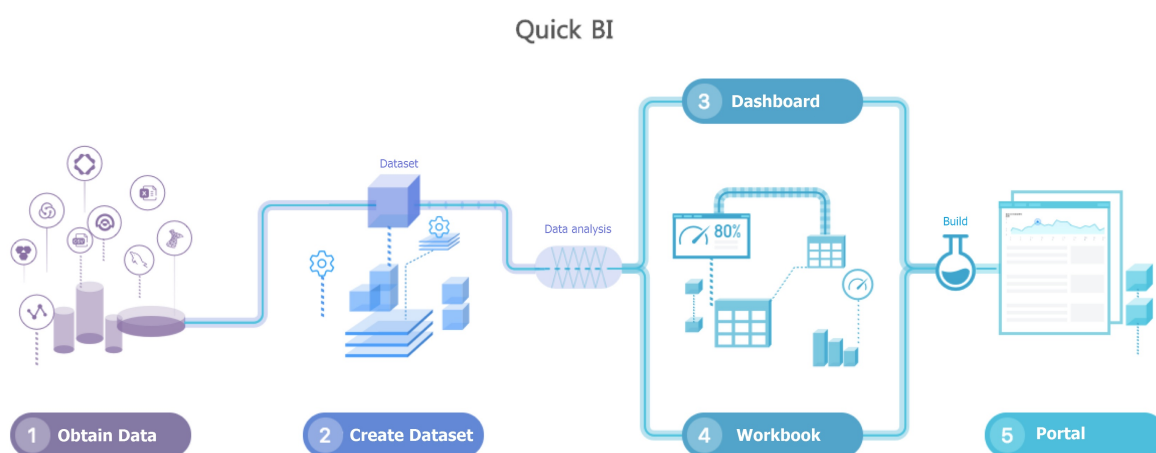
1. What is Quick BI?

This topic describes the key workflow, application example, features, benefits, and development of Quick BI.

Overview

Alibaba Cloud Quick BI is a next-generation intelligent business intelligence (BI) service platform. It is designed for users on the cloud. Quick BI allows you to analyze large amounts of data online in real time. It also supports drag-and-drop operations and rich visualization features to help you analyze data, explore business data, and generate reports. Quick BI is a tool that allows you to view data. It can also be used to accelerate digital operations.

The following figure shows the core workflow of Quick BI.



Features

- **Powerful data engine:** The built-in high-speed cloud computing engine can be used to compute hundreds of millions of data records within seconds.
 - **Rich data sources:** Quick BI can access online data sources, local data sources, and cloud databases.
 - **High-speed query engine:** A high-performance engine is used. It adopts patented technologies to accelerate queries.
 - **Data association:** Heterogeneous data of different sources can be associated for data query.
- **Rich and flexible data visualization and analysis components:** Rich built-in charts are provided to support multi-dimensional Online Analytical Processing (OLAP) analysis.
 - **Rich visualization components:** Quick BI provides 40 types of charts for data visualization, including cross table, kanban, and pie chart.
 - **Flexible, intelligent OLAP analysis capabilities:** Drill-down analysis, filter interaction, and intelligent prediction analysis are supported.
 - **Workbooks:** Workbooks allow you to perform row and column filtering, data filtering, subtotal and total calculation, and conditional formatting. Workbooks also allow you to export data and process text and tables.
- **Platform for enterprise-level data permission management:** Quick BI provides fine-grained data

permission management, and supports adaptive data presentation on mobile terminals, large screens, and multiple terminals.

- Enterprise-level data security control: Quick BI provides fine-grained permission management based on user groups of all levels.
- Data sharing: You can share workspaces with other users, make them public, or embed them in other systems. This meets the requirements of different data sharing scenarios.
- Seamless integration with mobile terminals and large screens: After you configure Quick BI on a PC, Quick BI automatically adapts to mobile terminals and large screens.

For more information about Quick BI features, see [Quick BI details page](#).

Benefits

- Seamless integration with cloud databases

Supports multiple data sources, including cloud databases, relational databases, and Hadoop and MPP data sources.

- Quick building of BI portals

Supports drag-and-drop operations and provides powerful data modeling capabilities and various visual charts to help you build BI portals.

- Intelligent data analysis and interaction

Provides chatbots for intelligent data insights and alerts.

- Data permission management

Supports member management and row-level permission management. Different users can be authorized to view different parts of a report.

History

In August 2017, Quick BI was upgraded based on the experience of developers and users to include the advantages of related Alibaba Cloud services and the features of domestic and international competitive products. Quick BI is now widely used in retail, financial, media, catering, and Fast Moving Consumer Goods (FMCG) industries.

In September 2018, Quick BI was upgraded to V3.0. In V3.0 and later versions, data sources such as OSS, Sybase IQ, SAP HANA, and Vertica are supported. Quick BI uses multi-dimensional OLAP analysis and a high-speed query engine to achieve high-performance queries and analysis. The BI process is simplified to improve user experience.

Quick BI works with Dataphin to help enterprises build their in-house Data Mid-Ends and achieve the goal of intelligent business. Dataphin provides an end-to-end intelligent solution to create and manage data. Quick BI is designed to analyze and present data that is created by using Dataphin with various visual charts and reports.

2.Scenarios

Quick BI has a large global customer base. Its rich features meet the requirements in different scenarios.

Instant data analysis and effective decision-making

In data-driven business operations of a technology enterprise, user data such as retention and activation must be analyzed for decision-making. In this scenario, Quick BI provides the following benefits:

- Easy data retrieval

To implement better decision-making, business managers must ask technical personnel to write SQL statements for querying data of different dimensions. When Quick BI is used, business managers can independently retrieve data.

- Efficient report generation and maintenance

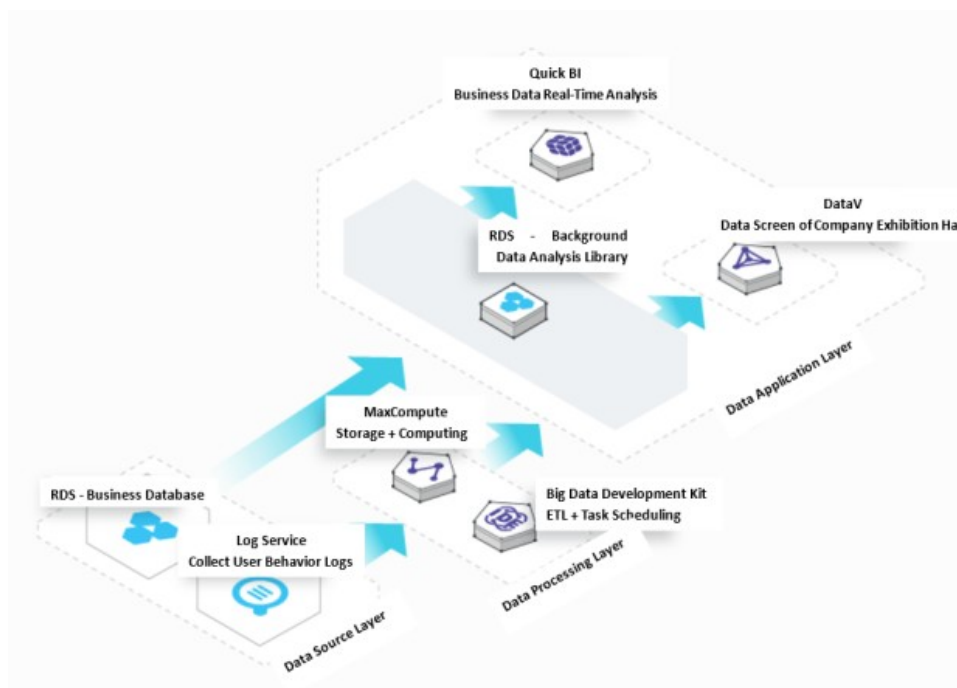
Quick BI shortens the duration that is required to deliver updates and new code to an analytics system. It also allows you to simplify system maintenance.

- Low labor costs

Reports that are created by using tools such as Highcharts have plain visualization and require high labor costs. Quick BI provides better visualization effects and reduces labor costs.

Recommended service combination

RDS + Quick BI



Integration with existing systems

Assume that a shipping service provider wants to build a simple BI platform for data visualization and analysis at the lowest costs and in the shortest time. A platform is required to integrate important business data into the management system of the shipping company and provide data support for employees in different departments and regions. In this scenario, Quick BI provides the following benefits:

- Ease of use

Quick BI is quick to get started and easy to use. It meets the data requirements for various different departments.

- High efficiency for data visualization

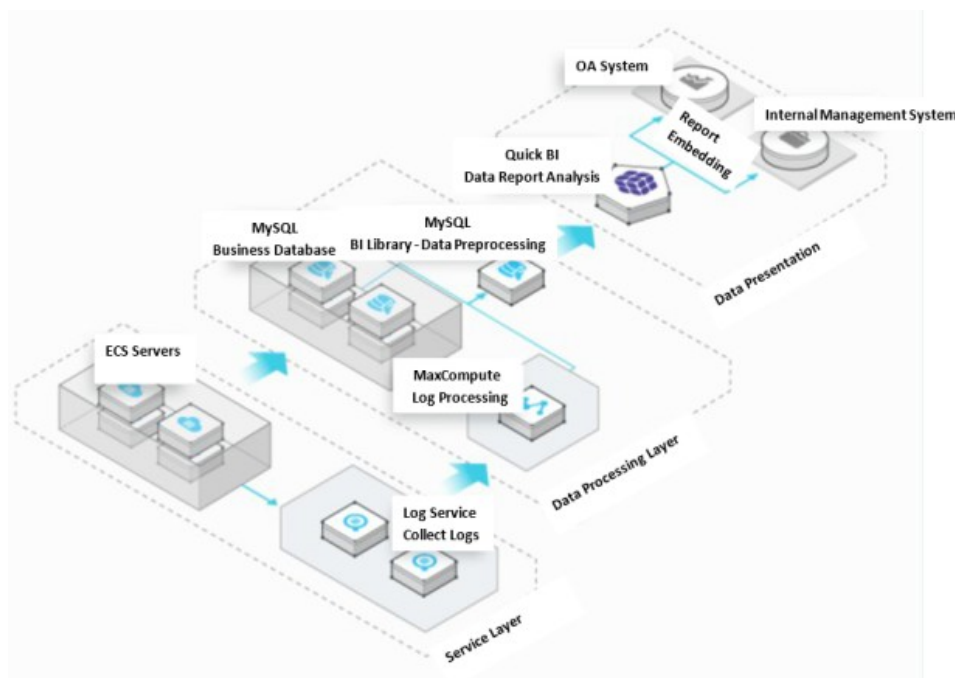
Quick BI can integrate with existing systems to analyze data.

- Unified management platform

Employees can use and manage data on a unified platform.

Recommended service combination

RDS + Quick BI



Permission management of transaction data

Assume that a manager of a municipal branch of a payment platform must analyze transaction data to assess business development and identify risks. Also, a data management team must analyze data and manage data permissions. In these scenarios, Quick BI provides the following benefits:

- Row-level permission management

A report displays different data for different user roles. For example, the manager of Shanghai Branch can view only data that is related to the Shanghai marketplace.

- Adaptation to changing business requirements

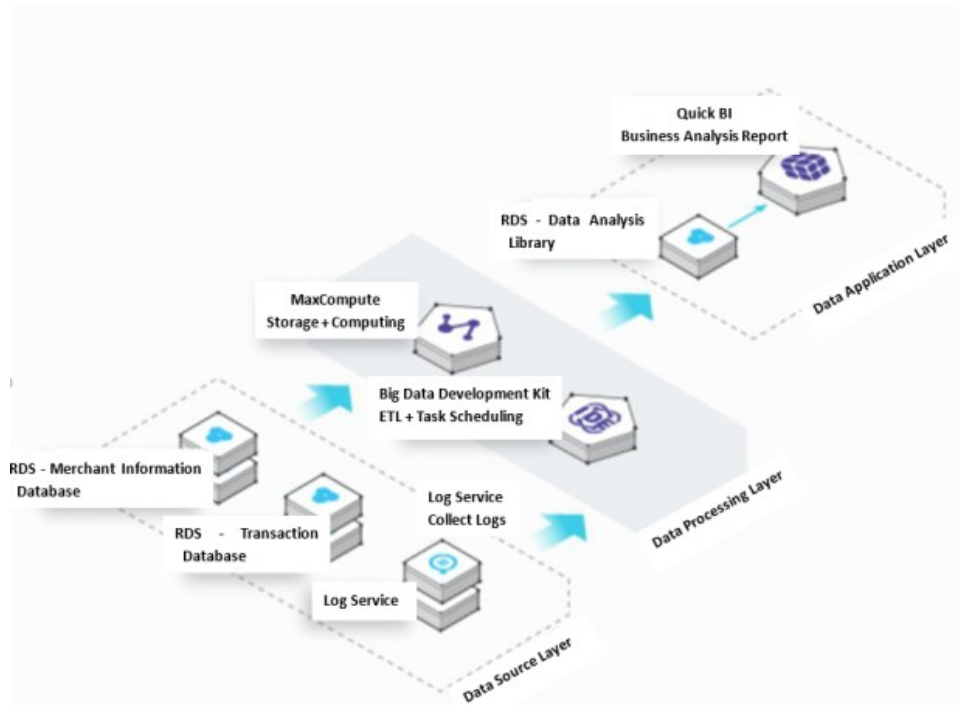
Quick BI responds to numerous changes in statistical indicators as business increases.

- Data integration across data sources and high computing performance

Quick BI leverages the BI capabilities of Alibaba Cloud to fix the issues of data analysis across data sources and the computing performance bottleneck.

Recommended service combination

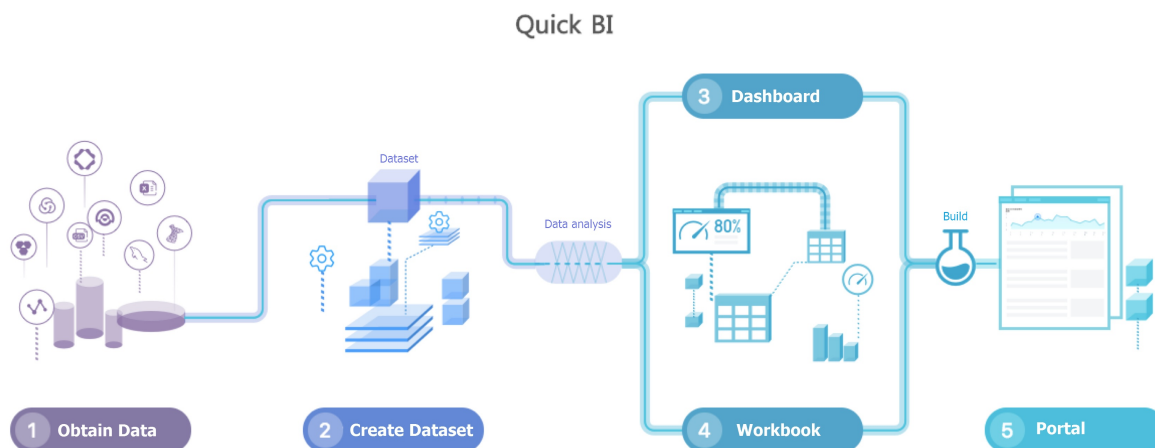
Log + RDS + Quick BI + MaxCompute



3. Basic concepts

This topic describes the key workflow and basic concepts of Quick BI. Understanding these concepts allows you to better use Quick BI.

Key workflow



Basic concepts

- Data source
- Dataset
- Workbook (available in Quick BI Pro and Quick BI Enterprise Standard)
- Dashboard
- BI portal

Note The following figure shows function differences between Quick BI editions.

Features			
Features	Quick BI Basic	Quick BI Pro	Quick BI Enterprise Standard
Workspaces	Personal Workspaces	Personal workspace (as in Quick BI Basic) Group Workspaces	Personal workspace (as in Quick BI Basic) Group Workspaces
User space	1 GB capacity is provided for each account.	1 GB capacity is provided for each account.	1 GB capacity is provided for each account.
Connect to Alibaba Cloud's cloud databases	MaxCompute (ADS)Analytic DB (RDS)MySQL (RDS)SQL Server HybridDB for MySQL HybridDB for PostgreSQL (RDS)PostgreSQL (RDS)PPAS	MaxCompute (ADS)Analytic DB (RDS)MySQL (RDS)SQL Server HybridDB for MySQL HybridDB for PostgreSQL (RDS)PostgreSQL (RDS)PPAS DLA	MaxCompute (ADS)Analytic DB (RDS)MySQL (RDS)SQL Server HybridDB for MySQL HybridDB for PostgreSQL (RDS)PostgreSQL (RDS)PPAS DLA OSS DRDS

Data source

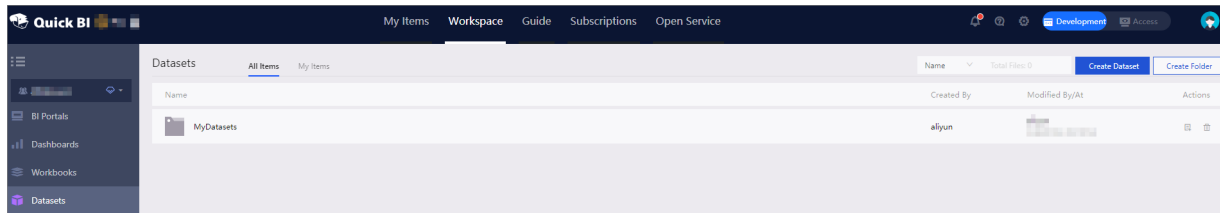
Before you use Quick BI to analyze data, you must specify the data source of the raw data. A data source stores your raw data. You can add data sources by using one of the following methods:

- Connect to a cloud database.
- Connect to a user-created database.
- Upload a local file.

For more information, see [Overview](#).

Dataset

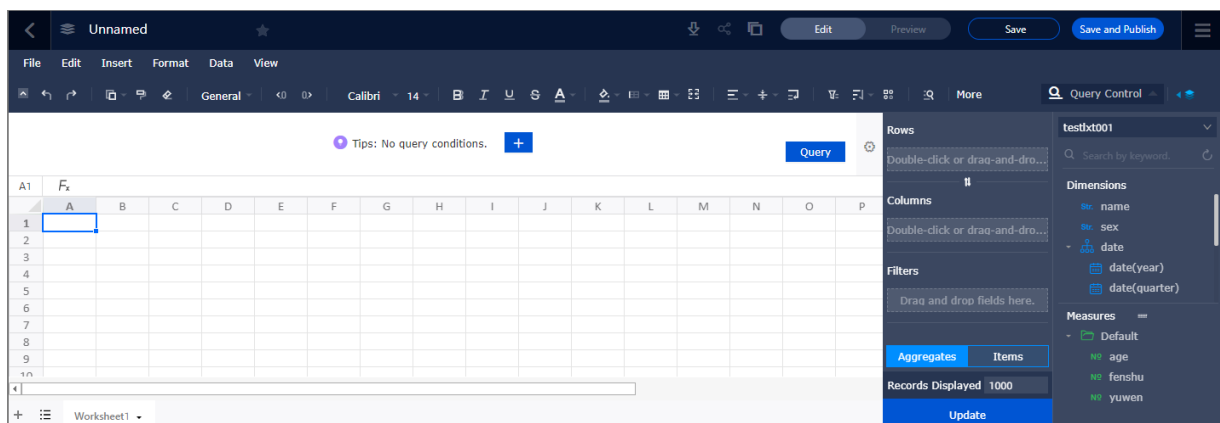
You can create datasets by using tables from different data sources. You can edit, move, or delete a dataset in the dataset list.



For more information, see [Overview](#).

Workbook

Workbooks are available in group workspaces. You can analyze and process a dataset to obtain a workbook. You can select a dataset and analyze data in the dataset.



For more information, see [Create a workbook](#).

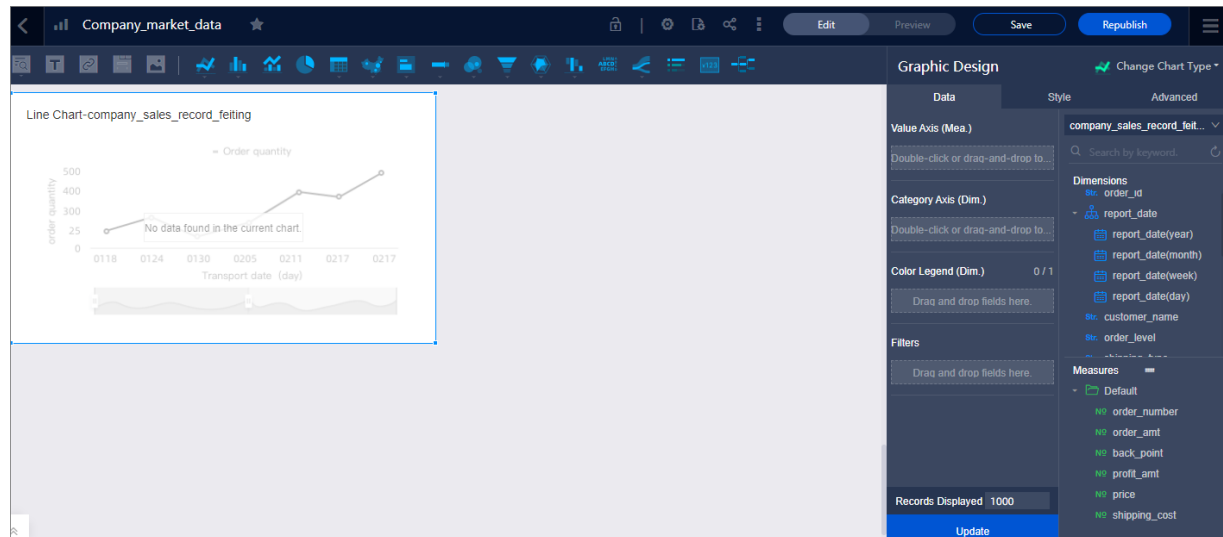
Dashboard

Dashboards employ a dynamic tile layout. This layout allows you to create interactive reports. Dashboards support data filtering and data query, and adopt various charts to display data.

Dashboards support two display modes:

- Standard mode (available in Quick BI Pro and Quick BI Enterprise Standard)
- Full screen mode (available in Quick BI Enterprise Standard)

In the standard mode, multiple types of charts and five widgets are provided.



In the full screen mode, multiple types of charts and three widgets are provided.

For more information, see [Dashboard overview](#).

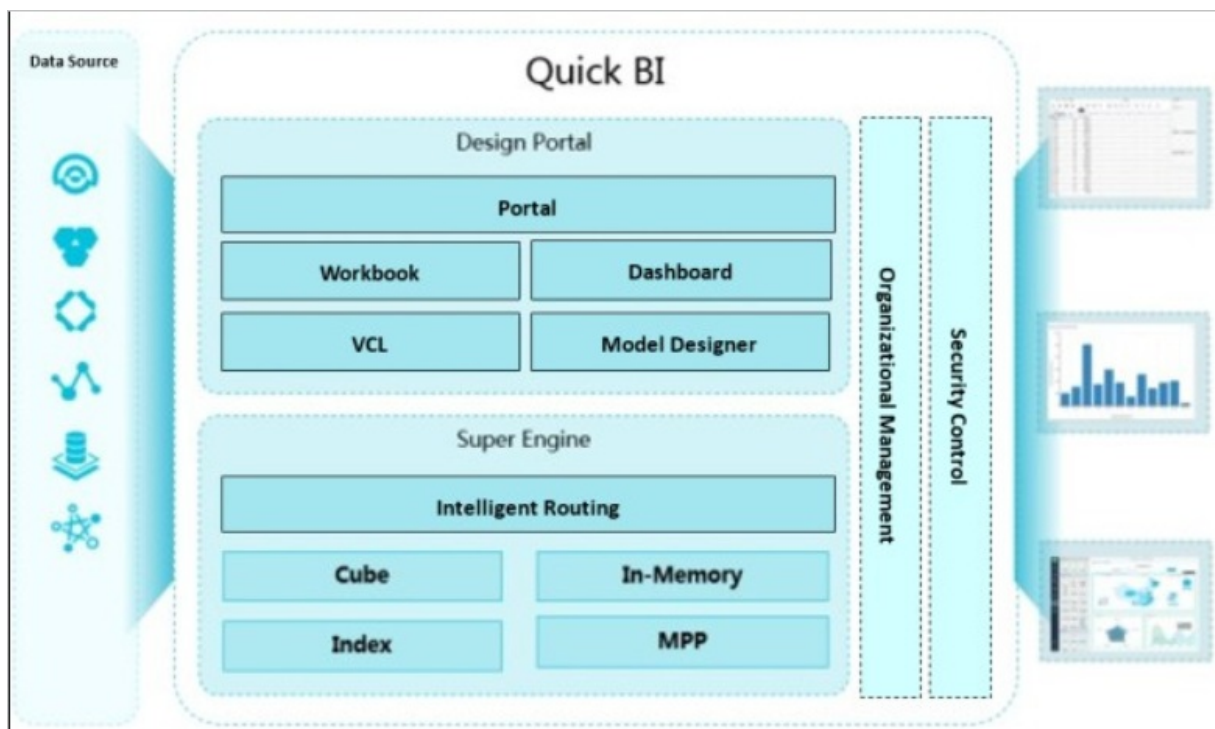
BI portal

A BI portal is also known as a data product. You can use a BI portal to build an application such as a sales analysis system. A BI portal references analyzed data from Quick BI and supports external links.

For more information, see [BI portal overview](#).

Architecture

The following figure shows the architecture of Quick BI.



The following sections describe major Quick BI modules and related features:

- Data connection module

Quick BI accesses data from multiple cloud data sources, including MaxCompute, ApsaraDB for RDS (MySQL, PostgreSQL, and SQL Server), Analytic DB, AnalyticDB for PostgreSQL, and HybridDB for MySQL. Quick BI encapsulates standard APIs that are used to query the schema and data of these data sources.

- Data modeling module

Controls OLAP modeling of data sources and transforms data sources into multidimensional analysis models. This feature supports standard semantics such as dimensions (date-type and geo-type dimensions), measures, and galaxy schemas. It also provides calculated fields. These fields allow you to process dimensions and measures by using SQL syntax for existing data sources.

- Data visualization module

- Workbook: allows you to perform operations on web excel files with ease. These operations include row filtering, column filtering, advanced filtering, subtotals, AutoSum, conditional formatting, data export, text processing, and table processing.
- Dashboard: allows you to drag and drop charts and widgets to build dashboards. Quick BI provides more than 40 types of charts, including line chart, pie chart, vertical bar chart, funnel chart, bubble map, colored map, and kanban. Quick BI provides five widgets: Query Control, Tab, iFrame, Image, and Text Area. Also, Quick BI supports filter interactions that allow you to filter data across multiple charts.
- BI portal: allows you to drag and drop dashboards to build BI portals. BI portals support embedded links (linked dashboards) and basic settings of the template and the menu bar.
- Share/Publish: allows you to share workbooks, dashboards, and BI portals with other logged-on users, and publish dashboards on the Internet for non-logged-on users to access.

- Permission management module

- Organization permission management: allows you to manage permissions at the workspace and organization levels. This feature also supports role-based permissions in a workspace. You can authorize different users to view different reports.
- Row-level permission management: allows you to control access to individual rows in a table. You can authorize users to view different parts of a report.