

# ORACLE TAX ANALYTICS

## KEY FEATURES

- A set of comprehensive and compatible BI Applications.
- Advanced insight into tax performance
- Built on World Class Oracle's Database and BI Technology
- Design after the Oracle Data Warehouse Reference Architecture
- Prebuilt data mining models for compliance management
- Pre-built star schema for operational reporting
- Prebuilt Reports and dashboards
- Comprehensive metadata for business intelligence reporting and ad hoc query

*When facing a challenging economy Tax Authorities discover that effective business intelligence is more critical than ever. The release of Oracle Tax Analytics provides next-generation Business Intelligence by introducing foundational functionality built on Oracle's Business Intelligence and Data Warehouse platform and technology. Oracle Tax Analytics helps public sector agencies better understand their operations and make more informed decisions that can lead to better taxpayer service, improved operational efficiency, and increased collections and compliance.*

## The Solution

Oracle Tax Analytics is a pre-built Enterprise Data Warehouse solution. The pre-built content includes a foundational Oracle Tax Data Model, Analytical models for Compliance and Risk management, Operational reports, dashboards, metrics, Key Performance Indicators. This packaged solution includes all the components required to stand up a data warehouse solution quickly. It leverages the power of Oracle technology, lowering total cost of ownership and an assurance of a positive return on investment. .

## Oracle Tax Data Model

The Oracle Tax Data Model is a prebuilt data warehouse designed and pre-tuned for Oracle Database and Hardware. Oracle Tax Data Model combines market-leading tax & revenue management knowledge with the performance of Oracle's database and business intelligence platforms. Oracle Tax Data Model can be used in any application environment and is easily extendable. With it, you can jump-start the design and implementation of a tax data warehouse to quickly achieve a positive return on investment (ROI) for your data warehousing and business intelligence project with a predictable implementation effort.

Based on Oracle's leading data warehousing technology and reference architecture the Oracle Tax Data Model provides a foundation layer an analytical layer and automatic data movement across these layers that are modern, relevant and addresses the need of multiple tax & revenue management segments.

**Foundation Layer:** This normalized foundation schema serves as a detailed structured representation to hold transactional data of business process internal to the revenue agency as well as taxpayer data that may be obtained from other sources (banks, insurance companies, credit bureaus, census, dept of motor vehicles, social networks). It provides an integrated base for business information with fully defined entities and relationships.

## KEY BENEFITS

- Designed and optimized for Oracle database and Business Intelligence platform and technology.
- Works with any Tax & Revenue Management transactional application.
- Easy to extend and customize
- Expedient warehouse implementation with prebuilt components and embedded data warehousing best practices for revenue agencies.

**Analytical Layer:** Include models for Predictive Analytics and Operational Analytics.

### *Predictive Analytics:*

These pre-built analytical models, built on the Oracle Data Mining technology:

- Enables the **development of mathematical models** to help better understand the variables driving compliance, risk and fraud.
- Relies on **formulae that compare past successes and failures, and then uses those formulas to predict future outcomes**
- Supports pattern recognition and classification methodologies - long used in the financial services and insurance industries

The packaged predictive analytical models analyze current and historical facts in order to make predictions about future events. The model empowers public sector agencies with insight into taxpayer behavior and motivations and enables them to take the most effective compliance and risk management actions.

### *Operational Analytics:*

These pre-built dimensional models support the pre-built best practice metrics/KPIs, reports and dashboards created in OBIEE. The models also allow OBIEE users to make adhoc queries, and create their own KPIs, reports and dashboards.

## Operationalized Performance Monitoring

Tax Commissioners face unique challenges including the need to increase revenue without raising taxes, the need to improve and expand taxpayer and citizen services, and the need to run an efficient business operation that performs within budget. One challenge for Tax Commissioners is measuring the performance of the tax authority. The performance monitoring functionality in Oracle Tax Analytics allows commissioners to specify their strategic objectives, decide which KPIs should be used to measure their performance, gather data, monitor performance and revise objectives based on results. This functionality brings together KPIs from multiple subject areas or department to present an agency wide performance reports to the executives. It also provides the ability to drill into individual department's dashboards to better understand why an objective or KPI are above or below target.

Performance monitoring is a task that every agency performs today. The performance monitoring functionality in Oracle Tax Analytics automates this process making it possible to monitor continuously, get consistently accurate results, without IT intervention, without an army of business analyst manually calculating the KPI. Automation of the performance monitoring process makes:

- Calculations accurate and consistent across the agency
- Allow everyone to have access to the same information.
- Enables timely identification of issues

### Industry Specific Content:

- Reports, dashboards
- Facts, dimensions
- Metrics, Key Performance Indicators

Making the entire process more efficient and effective.

### Licensing

Oracle Tax Analytics consists of three separately licensable products that provide a modular approach to implementing data warehouse and business intelligence solution and meet each agency's unique information needs.

1. Oracle Tax Accounting Analytics
2. Oracle Tax Collections Analytics
3. Oracle Tax Registration Analytics

Each licensable product will include the pre-built Oracle Tax Data Model – that include the Foundation Layer and the models for Predictive and Operational analytics, and the pre-built operational dashboards, reports, metrics.

### Oracle Tax Accounting Analytics

These operational analytics on taxpayer accounting data analyzes tax, penalty, and interest assessments, waivers given, write offs made, payments, offsets, and any other credits allocated to assessments to respond to questions such as:

- Are assessed and collected taxes on target for this year? How does this year compare to last year? How do assessments compare to payment collections over the last 12 months?
- How do actual payments received compare to targeted payment collections? What is the percentage breakdown of payments by tax type?
- What is the tax balance? What is its age? What is the breakdown of the balance by tax type, by geography, by taxpayer type?
- What are the top 5 reasons for P&I, Waivers and Write Offs?
- How many taxpayers were given waivers over a certain amount? For what reason?

### Oracle Collections Analytics

The Organization for Economic Co-operation and Development (OECD) references the set of *Fiscal Blueprints*, developed by the European Commission (EC) to guide EU candidate countries in the strengthening of their revenue bodies, as an example of work that “define the desirable features and characteristics of institutional arrangements appropriate for effective administration of a country's tax system.” The blueprints are described as a set of practical guidelines laying down clear criteria based on EU best practice, against which a tax or fiscal administration is able to measure its own operational capacity. The blueprints, while developed as a tool for EU candidate countries to enhance their administrative capacity in the field of tax administration, have broad international application.

The Performance Indicators and metrics of Collections Analytics are based on the Outstanding Debt definitions specified in the Fiscal Blueprints.

### Consistent technology platform:

- Oracle Database
- Exadata and Db Machine
- Oracle Business Intelligence (OBIEE+)
- Oracle Data Integrator
- Oracle Exadata (optional)
- Oracle Data Miner (optional)
- Oracle OLAP (optional)

### SUPPORT

- Operating Systems
  - Oracle Enterprise Linux
  - AIX
  - Windows
- Training & Documentation

### Oracle Tax Registration Analytics

Registration Analytics provide an agency with information to understand how their taxpayer base is changing. Typical questions answered by registration analytics are:

- How many new businesses registered this month? What is their primary industry segment?
- How many businesses closed this month? What was their industry segment? What was the reason for closure? How closed businesses are geographically distributed?
- For types of tax are being registered?
- What is the percentage breakdown of businesses by Small, Medium Large?
- What are the demographics of the person taxpayers? Is the taxpayer population aging? What is the breakdown of the taxpayer population by tax area, tax office?
- How many business taxpayers migrated from one tax are to another?

### Using Latest Technology

The Oracle Tax Analytics solution includes features and technology from the same vendor. This simplifies both installation and ongoing operations, lowering costs and easing maintenance burdens. The following technology components comprise the platform:

**Oracle Database Enterprise Edition** delivers industry leading performance, scalability, security and reliability on a choice of clustered or single-servers running Windows, Linux, and UNIX. It provides comprehensive features to easily manage the most demanding transaction processing, business intelligence, and content management applications. Oracle Database comes with a wide range of options to extend the world's #1 database to help grow your business and meet your users' performance, security and availability service level expectations.

**Oracle Data Mining (ODM)** provides powerful data mining functionality as native SQL functions within the Oracle Database. Oracle Data Mining enables users to discover new insights hidden in data and to leverage investments in Oracle Database technology. With Oracle Data Mining, you can build and apply predictive models that help you target your best customers, develop detailed customer profiles, and find and prevent fraud. Oracle Data Mining, a component of the [Oracle Advanced Analytics Option](#), helps companies better "compete on analytics." The Oracle Data Miner "work flow" based GUI, an extension to SQL Developer, allows data analysts to explore their data, build and evaluate models, apply them to new data and save and share their analytical methodologies. Data analysts and application developers can use the SQL APIs to build next-generation applications that automatically mine star schema data to build and deploy predictive models that deliver real-time results and predictions throughout the enterprise. Because the data, models and results remain in the Oracle Database, data movement is eliminated, information latency is minimized and security is maintained. Additionally, Oracle Data Mining models can be included in SQL queries and embedded in applications to offer improved business intelligence.

**Oracle Business Intelligence Enterprise Edition Plus (OBIEE+)** is a comprehensive business intelligence platform that delivers a full range of analytic and reporting capabilities. Designed for scalability, reliability, and performance, OBIEE delivers contextual, relevant and actionable insight to everyone in an organization, resulting in improved decision-making, better-informed actions, and more efficient business processes. Oracle also provides the industry's only multi-sourced BI applications, as well as market-leading performance management applications that are powered by this BI platform.

**Oracle Data Integrator (ODI)** is a comprehensive data integration platform that covers all data integration requirements: from high-volume, high-performance batch loads, to event-driven, trickle-feed integration processes, to SOA-enabled data services.

The following technology components are related and can significantly enhance the overall solution:

**Oracle Exadata** is an engineered system that includes servers, storage, networking and system software optimized to work together and deliver the highest performance at low costs.

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