

# Vertex O Series - Global Enterprise Tax Management for Oracle, Peoplesoft and JD Edwards Users

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## **Introduction:**

Learn how Vertex is successfully helping Oracle, Peoplesoft and JD Edwards users address global tax compliance management through its Service Oriented Architecture (SOA) solution, Vertex O Series. We will discuss the reasons why companies choose to use Vertex and we'll review the business issues companies were able to address through successful implementing Vertex O Series for U.S. Sales Tax, Consumer Use Tax and International Tax.

## **Vertex Background:**

Vertex Inc has been development and marketing partners with Oracle Corporation and the PeopleSoft and JD Edwards entities since the 1980s. As tax rules and regulations have changed, so too have tax technology solutions. Vertex has provided solutions for the Mainframe/Midrange era, the Client/Server era, and now the SOA or Web Services era. This paper and presentation will focus on our current tax compliance solution product family – Vertex O Series – and the integrations available for current users of E-Business Suite, Enterprise and EnterpriseOne.

The Vertex O Series solution was released in 2004. Currently there are over 350 companies who have selected to use O Series to help them maintain their tax compliance processes. Over 70 of these companies are running Oracle applications. Within this document, we'll explore some of the reasons they turned to Vertex rather than use the native functionality provided within their ERP, their experiences in implementing Vertex O Series, and some of the benefits gained by automating their compliance tasks. Finally, we'll explore the integrations for each Oracle ERP, E-Business Suite, Enterprise and EnterpriseOne.

## **Addressing Tax Compliance:**

There are several reasons why companies are choosing to implement Vertex O Series to address their complex tax compliance processes. Both internal and external factors play a role in this decision. From an external standpoint state and local government audits, especially in the area of Consumer Use Tax, has been the leading factor.

However, in recent years, Sarbanes-Oxley compliance has increasingly been another reason why companies have looked to automate their tax processes. Stricter controls on business processes and the enforcement of these processes have led many corporate executives to take tax decision and maintenance out of the hands of order entry personnel and back into the hands of the tax department.

These tax departments, in many situations, are being pressured to reduce overall compliance costs, while also being asked not to sacrifice accuracy. Because most taxes are viewed as a necessary evil, IT budgets for implementing tax systems are very limited. It's a common belief that ERPs provide the adequate functionality to maintain product taxability and rates. Decisions are made by the tax department and implemented by IT departments in the ERP instance. However, many large corporations have multiple ERP or financial systems. Now tax departments are forced to maintain two or three sets of tax data for each ERP their company utilizes. This increases the overall cost of internal tax compliance – exactly the opposite of what tax departments are being asked to reduce.

In addition the functionality provided in ERP systems may work for companies with very limited tax exposure or "nexus." These companies may not encounter complex taxing situations that require something more sophisticated than tax rates and customer or product exemption tables. Some examples of limited tax functionality in ERP systems include:

- The inability to calculate origin based tax, quantity thresholds, or district taxes
- Everything is taxed at the ship to location
- No tax rate information

- Manual research and update process which is time consuming and costly on tax department
- No address validation when creating new customers/vendors
- The inability to estimate tax on purchases
- The inability to verify that vendors are charging your company the proper amount of tax
- The inability to determine taxation based on how a product is being used
- No automated solution to prepare and file returns

## **Vertex O Series – Global Tax Automation**

Identifying the dynamics that are occurring in your company and those that match up with the capabilities of the Vertex O Series system is the key to planning the most efficient and effective strategy for implementing an automated tax compliance solution

Consider the following factors and trends that may be taking place within your company:

- Management of consumer use tax is becoming a high priority within the tax department.
- Company growth has resulted in expanded international operations and value added tax is no longer manageable as a manual effort.
- Evaluations of the current ERP implementations are occurring and upgrades to newer versions are in the planning stages.
- Merging operations of acquisitions to a centrally managed structure is on the planning horizon.
- A new business initiative such as a new on-line storefront or purchasing system will be implemented with web technologies.
- Transactional tax management for multiple divisions will be centralized in a single corporate tax department.
- The IT department has begun a strategy of adopting Web Services technologies for interoperability among applications.
- The IT department has initiated a strategy to reduce maintenance costs across the organization by limiting application support on client stations.

Another consideration for planning a migration is the modularity of Vertex O Series that allows for a gradual implementation if necessary. For example:

- Divisions can be added seamlessly over time
- Additional connections to ERP/Financial systems can be added to a central instance as needed
- Implementation can start with sales tax, expand to consumer use tax, and then value added tax as the project requirements grow

This modular approach allows for a staged progression to full transaction tax automation that can be matched to your organization's timeline, with low overhead for each planned stage.

When evaluating a plan for implementation, the following benefits of Vertex O Series will likely be a consideration:

### **EFFICIENT MANAGEMENT OF TRANSACTION TAX PROCESSES**

As the tax department becomes more efficient, effectiveness within the organization is increased, costs associated with tax administration are decreased and the overall value of the tax department to the company is increased. The right choice of a tax automation system will be a key driver to achieve tax processing efficiency. Getting to the information needed to perform tasks quickly and easily translates into the tax department's ability to focus on high value deliverables.

Vertex O Series puts all of the tasks associated with the management of transaction taxes at the fingertips of the tax professional through a single user interface, Vertex Central. From this browser-accessible user interface the tax professional can:

- Manage mappings to tax categories and overall taxability determination

- Test the taxability setup using a built-in transaction tester
- Look up sales, use, and value added tax rates stored in the system
- Run reports of transaction result data for audit support, internal analysis or returns processing

Vertex provides a rich set of content with the Vertex O Series system. Content is updated monthly and supplied as a downloadable file that can be easily applied to the system. In addition to standard rates the following types of rules are included in the data set:

- Taxability based on what the item is or how it is used with an associated tax result of: exempt, non-taxable or non-standard rate
- Situs determination (identifies the jurisdiction(s) that impose the tax for the transaction)
- Tiered tax rates
- Maximum tax and maximum basis amounts
- Quantity based rules
- Percentage basis rules
- Rounding rules
- Jurisdiction override rules

The appropriate rules are applied to transactions as they are processed by the system based on the set of input elements included on the request message. Vertex's in-house research staff has developed and performs monthly maintenance on a comprehensive data set of approximately 70,000 rules for over 8,000 tax jurisdictions covering over 200 tax categories. With Vertex as your partner, your tax department can rest easy knowing that the necessary, time consuming research for compliance is accurate and up-to-date.

#### **GREATER CONTROL**

Amplified visibility and improved access to information provides increased value to users of the Vertex O Series system. As user access increases, the need to have greater control over the system's user environment becomes very important and is managed in two ways:

- Role based security – an administrator defines the areas of the application that are accessible by different users of the system.
- Activity Log – an on-line log tracks user activity by documenting the user name, date, and time of changes that could affect taxability.

These features, when deployed appropriately, can become an important component of an effective internal control environment. This benefits companies that are reviewing their control environments, particularly those subject to the Sarbanes-Oxley Section 404 audit requirements.

#### **EXPANDED CALCULATION CAPABILITY**

Automating sales tax calculations can be just the beginning of a fully automated transactional tax system that includes calculations for consumer use and value added taxes. Increased focus by many states on consumer use tax compliance is making automation in this area of transaction tax a top priority. Unlike sales tax which is collected from purchasers, consumer use tax is a direct expense to a company's bottom line. Accurately tracking these calculations can have a direct cost savings that will quickly return the investment in a tax automation system. Vertex Consumer Use Tax O Series can automate the calculation of tax on purchases, verify that accurate tax is charged on invoices from vendors and supply the proper tax to be included on Evaluated Receipts Settlement (ERS) processing.

Expansion into global markets is a common growth strategy for many corporations. But with this new opportunity comes the responsibility for the tax department to stay current with complex rules and regulations associated with value added tax, which vary greatly from country to country. Non-compliance can result in unexpected penalties and fees. Vertex Value Added Tax O Series can provide the level of automation that is needed to stay on top of the complex and ever-changing rules associated with selling goods and services across borders.

#### **INCREASED GRANULARITY OF TAX DETERMINATION**

Vertex O Series calculates with a high level of precision for both jurisdiction identification and taxability determination.

Jurisdiction Identification – the Vertex TaxGIS™ component of the system identifies a set of tax jurisdictions applicable to a given address. Proper identification of tax jurisdictions is the foundation for accurate tax calculation and is achieved with the following features:

- US Postal Service Data, Geographic Information System (GIS) Data, and Vertex Research are combined for precise identification of tax jurisdiction boundaries.
- Highly granular with unique tax areas for district level jurisdictions. Examples include: Police Jurisdictions, Transportation Districts, Hospital Service Districts, Community Library Districts, Metropolitan Transportation Authority Districts, Football Stadium Districts and many others.
- The system handles scenarios when multiple overlapping jurisdictions are relevant to a specific location.
- Web Services Interface can be used for pre-assignment of Tax Area IDs to Customer Address information in ERP/Financial System.
- Taxability Determination – Vertex O Series can calculate tax using a set of input data elements that drive taxability such as:
  - Customer and Customer Class
  - Product and Product Class
  - Purchase and Purchase Class
  - Vendor and Vendor Class
  - Company and Division

In addition, a greater degree of precision is available with an extendable set of flexible input parameters. These input parameters can be defined as any set of data elements that are relevant for taxability determination for your company's specific implementation. Flexible input parameters can be effectively used for conditions like a specific usage for an item, or a type of business purchasing the item. When even greater flexibility is needed for very specific tax scenarios, logical expressions and mathematical operations can be performed on any combination of inputs to determine single or multiple conclusions. All of these input options can be used to invoke either Vertex supplied or user-defined rules in the system.

### **GREATER FLEXIBILITY AND CONTROL FOR REPORTING**

To be fully effective at managing transaction taxes, a tax department needs a view into the transaction result data history and a set of tools to transform the data into valuable information. The Vertex O Series reporting database provides valuable information that is needed for audit preparation and support, and management of day-to-day tax administration and compliance. With the reporting database as a single source, the tax department can:

- Run standard, pre-formatted reports with flexible input filter criteria for:
  - Transaction data at the line item level, jurisdiction summary level, and state level recap summary
  - Taxability data such as product, customer, exemption certificates, and others
- Create ad-hoc, custom reports using the Vertex Reporting and Analysis™ module. With this tool the user can:
  - Limit and sort the data set using advanced techniques and drag and drop selection of the data fields
  - Create a Pivot table that will automatically roll-up totals to appropriate rows and columns
  - Create a chart (of any type, bar, pie, line, area, etc.) by simply selecting the data fields of interest
  - Create a formatted report that can use any combination of elements (charts, pivots tables, etc.)
  - Add corporate standard title pages, headers and footers to the custom reports
- Manage the historical data using archive, purge and restore utilities:
  - Archive historical data sets to manage database size
  - Restore selected data sets as needs arise
  - Create reports and perform analysis on restored data sets

### **REDUCED IT MAINTENANCE COSTS**

Vertex O Series has the following benefits for the IT department that is implementing and maintaining the product:

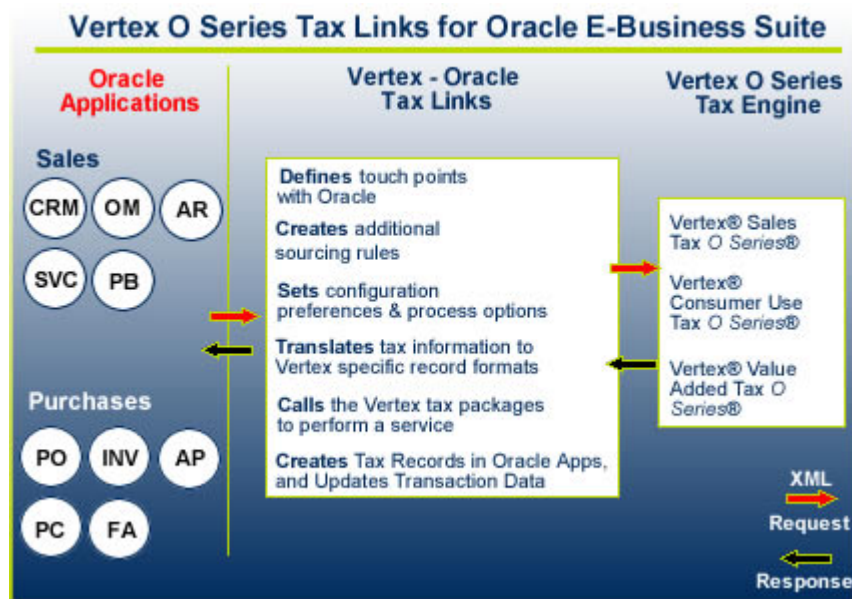
- Vertex O Series is deployed on a web application server. Clients only require an Internet browser to access Vertex Central. This centralizes maintenance and reduces costs for multi-user environments.
- The calculation engine in Vertex O Series is integrated with the ERP/Financial system using XML standard messages and web services. Upgrades to the tax calculation system can occur independent of financial system upgrades for easier maintenance.

- Implemented with Java, Vertex O Series is platform independent and supported on a broad set of operating systems, web application servers and databases. This solution can adapt to your IT department's chosen technical environment without forcing specific technologies that may be expensive to support.
- Tax determination rules are all represented in data and not embedded in calculation engine code. As jurisdictions change laws, the system can be maintained in compliance with a simple data update rather than a software upgrade that may be more time consuming to deploy in production.
- Vertex O Series can be deployed either in a remote call or a direct call model. The calculation engine is deployed on the same server as the calling application or on a separate central tax server where messages are exchanged over a network. Centralization can support multiple internal systems such as ERP, CRM, eCommerce applications, or Purchasing/Procurement systems - any system that has a need for an accurate sales, use, or value added tax calculation.

## Vertex O Series – Integration with Oracle Applications

### Oracle E-Business Suite

Vertex O Series Tax Links serve as the dynamic integration channel between the Vertex O Series tax engine and the Oracle E-Business Suite. The innovative design and configuration options of Vertex O Series Tax Links for Oracle allow tax departments to take control of tax decisions and make changes that affect their companies' revenue with minimal IT assistance.



### PeopleSoft Enterprise

PeopleSoft supports the integration with Vertex O Series as a web-services integration. PeopleSoft applications communicate with these web services through the PeopleSoft Integration Broker. The Integration Broker uses the URL of the web service to conduct transactions with these tax solutions.

A streamlined connection method is available for Vertex O Series. The *Java Direct XML Post* method provides faster transaction speed; however, because this method bypasses the integration gateway, there is no transaction logging, which can be useful when troubleshooting problems. The connection method can be specified in PeopleSoft, on the Setup Financials/Supply Chain, Install, Tax Provider Installation page.

PeopleSoft Billing, PeopleSoft Order Management, and PeopleSoft Purchasing interact with Vertex O Series for the following:

- Geocode lookup (Tax Area Identification)
- Online tax calculation in PeopleSoft Order Management, PeopleSoft Billing, and PeopleSoft Purchasing.

- Order completion processing (batch processing in PeopleSoft Order Management).
- Invoicing (batch processing in PeopleSoft Billing).
- Procurement card processing (batch processing in PeopleSoft Purchasing).

### **JD Edwards EnterpriseOne**

The *EnterpriseOne* solution is provided as a Vertex Consulting service. Each EnterpriseOne customer interested in using O Series will require an assessment by Vertex Consulting, so a Statement of Work will need to be developed to outline best practices for a successful implementation of the integration. The integration requires changes to some of EnterpriseOne's business functions; therefore a design and deployment strategy for the integration will need to be developed for each O Series opportunity.

The integration's design will not only allow Vertex to continue to support the Order to Cash and the Procure-to-Pay modules in EnterpriseOne, but we now have the internal expertise to provide integrations to modules that weren't supported with the Q Series integration.(i.e. Goods Movement) The integration currently interfaces to the following modules:

- Sales Order Management
- Contract Billing
- Service Billing
- Accounts Receivable
- Procurement
- Accounts Payables

### **Vertex O Series – Successful Customer Implementations**

Since releasing O Series in 2004, Vertex has added approximately forty Oracle E-Business Suite customers, twenty-five PeopleSoft customers and ten JD Edwards customers. Some of these clients have chosen to handle the implementation tasks themselves or with other partners. However, the majority of clients have had tremendous success when engaging Vertex Consulting to deliver elements of the implementation. Specifically, Vertex Consulting is engaged for providing the installation and configuration of the O Series application and the appropriate interface.

Our approach to these projects is to utilize Vertex Consulting's standard implementation methodology, which is tailored to address client's unique tax requirements. This methodology includes a project plan and tools to facilitate the successful integration of Sales Tax O Series, Consumer Use Tax O Series and Value Added Tax O Series with the applicable modules of Oracle, PeopleSoft or JD Edwards.

We follow an interactive process with the client in which the progress and any issues identified in each phase is discussed and addressed on an as-needed basis. Vertex Consulting has performed numerous implementations and our approach is to function with the client and their resources as an integrated team.

Our methodology and approach is structured to provide each client with the right combination experience and expertise in project management, transaction tax knowledge, and proficiency in Oracle applications.

### **Implementation Realizations**

Clients realize a number of significant benefits from Vertex implementations.

- noticeable cost savings resulting from the verification of taxes assessed on purchase orders
- increased cash flow by not having to put as much money in reserves to pay future taxes
  - with Vertex they could accurately assess what their future tax bills would be
- staff in the Tax, Accounts Payable, Purchasing and Finance departments were freed to work on more strategic projects since they were no longer handling the manual tax efforts
- gained confidence in the data and felt less exposed for audits

- Having a central place to store and retrieve data along with a defined set of taxation parameters has made an enormous impact on the organization.

## Implementation Challenges

Along with the realized benefits of an O Series implementation, clients have experienced some challenges as well. One client indicated that the most challenging aspect to the implementation was a mid-stream change in client leadership. This required Vertex and client to review the project objectives and timelines midway through the engagement before proceeding with the implementation project plan – causing a delay in the planned go-live date.

Other clients have expressed that they were not as prepared for the implementation as they should have been. Factors here included:

- Preparing your tax decision matrices and spreadsheets
- Identifying internal liabilities and weaknesses
- Preparing for potential technical set-backs

Below is a sampling from each practice of the successful engagements that we've completed:

<b>Oracle E-Business Suite</b> Fidelity National Financial Teva Pharmaceuticals Raytheon Corporation NCH Corporation HBMA Management	<b>PeopleSoft Enterprise</b> U.S. Oncology, Inc. Labcorp Dolby Laboratories Sunrise Senior Living	<b>JDE EnterpriseOne</b> Mannatech Tetra Technologies
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