Identify and Avoid Common Obstacles When Migrating Your Sales Tax Function to the Cloud

Planning and collaboration can help realize the benefits and minimize the missteps

VERTEX®

By anticipating impacts on the user experience and the dependencies between tax and other applications, organizations can move more quickly and confidently while taking the opportunity to modernize data and leverage their existing indirect tax functionality in new ways.

With the worldwide cloud computing market on track to exceed $331 billion by 2022, there is little doubt that the cloud has now become the de facto standard for deployment of enterprise applications. Vendors of mainstream business applications such as enterprise resource planning (ERP) and customer relationship management (CRM) systems have all adopted cloud-first strategies and are encouraging their customers to do the same.

Because tax applications complement these mission-critical functions, organizations should take a hard look at migrating indirect tax applications to the cloud as part of their broader digital transformation. However, a successful migration is more than just a matter of lifting and shifting existing software. User experience will be impacted, as well as the dependencies between tax and other applications.

By anticipating these impacts, organizations can move more quickly and confidently while taking the opportunity to modernize data and leverage their existing indirect tax functionality in new ways.

The Cloud Beckons, With Caveats

The reasons to move to the cloud are compelling.

1. **Total cost of ownership is lowered** by shifting IT operational responsibilities to cloud and software-as-a-service (SaaS) providers. Savings are usually seen in IT administration, security, and software maintenance practices such as applying patches and updates. Cloud providers assume full responsibility for providing reliable infrastructure and SaaS providers keep applications current without requiring customer intervention.
2. **Cloud offerings have robust business continuity and disaster recovery options** that would be expensive for most organizations to duplicate on their own.
3. **Scalability and availability are part of the package** that most public cloud providers offer, which guarantees availability of at least 99.9%—equivalent to less than nine hours of downtime year. Enhanced service-level agreements may reduce annual downtime to less than an hour. Cloud infrastructure is also almost limitlessly scalable. Customers can expand and contract resources as necessary rather than paying for on-premises infrastructure that may sit idle much of the year.

That said, there are also reasons some organizations might not want to move their tax systems to the cloud.

1. **Some legacy applications are limited** from freely exchanging data with or issuing calls to a cloud application. In those cases, the customer may need to consider a hybrid option in which some or all workloads are processed locally.
2. **IT, corporate, or regulatory policies may require that some systems remain on premises** for data protection or ownership purposes. This does not preclude a move to cloud-like delivery, as companies can often gain the benefits of elasticity and automation by moving workloads to a private cloud infrastructure.

A cloud migration of sales tax applications is an excellent opportunity to address data quality problems, such as verifying contact and account information, identifying missing or incomplete records, purging information that no longer needs to be kept, cleaning up access directories, and verifying that sales tax exemption certificates are current.

Addressing Four Universal Challenges

Most organizations will find that the additional flexibility and cost savings of cloud platforms are more than worth the migration effort. Based upon experience with hundreds of cloud migrations, we have identified four common challenges.

1. User Expectations

Depending upon the version of the tax application an organization is using, the user experience in the cloud may require some adjustment. Interfaces may be somewhat different, response times slightly slower, and logging in may require new credentials and procedures. Support functions may also be transferred from an in-house help desk to the cloud provider, which has its own ticketing procedures.

Users should be prepared for these changes, understand why they are necessary, and learn adaptation strategies. For example, adapting workloads against cloud applications may include taking into consideration the latency of the intranet. This negligible impact on productivity is more than offset by the benefits of using cloud infrastructure, but it is important that users understand the bigger picture, so they do not see changes as a net loss.

In fact, small process changes may actually improve performance. For example, "instead of calling 100 transactions individually, you can call them at the same time," says Chris Zangrilli, vice president of product solutions and technology at Vertex. Reformatting web service calls in this manner can take advantage of the superior processing power of cloud infrastructure and negate any latency-induced performance penalties users may otherwise see.

Application and infrastructure administrators should meet with users before a migration begins, outline the business reasons behind the changes, and explain any short-term disruptions users are likely to see, along with changes to processes and performance. By minimizing surprises and providing business context, most user resistance can be avoided.

2. Data Quality

Few organizations like to admit that they have a data quality problem, but the reality is that even the best companies have information that is outdated, incorrectly formatted, or simply wrong. Gartner estimates that poor data quality costs the average organization $15 million per year and Experian reports that 77% of C-level executives say bad data has greatly disrupted their operations.

A cloud migration of sales tax applications is an excellent opportunity to address data quality problems, such as verifying contact and account information, identifying missing or incomplete records, purging information that no longer needs to be kept, cleaning up access directories, and verifying that sales tax exemption certificates are current. The time to do this is before the migration, however, not once the process has started.

"Customers generally move everything over and then clean it up," Zangrilli says. That approach can make the data quality problem worse. Instead of one bad record, the organization now has duplicates in the cloud. Fixing data quality problems after migration can also require sorting through log files, which aren't necessarily exposed by the vendor and may be different from those captured on-site.

A better practice is to use data integration software to detect and repair quality problems while they are fully in the customer's control. Cleaning data "is not the proper use of the tax system," Zangrilli says. "That should happen before the data is migrated."

3. Project Planning

There is no standard benchmark for the time required to complete a cloud migration. While two months is average, a project that involves multiple applications could last much longer.

"The biggest thing customers underestimate is testing," says Zangrilli. "They either don't include it in the plan at all or they isolate it to just a few transactions. Provisioning can be rather quick, but the time to test and fix issues is often underestimated."

Customers should understand the status of their current software installation and their ultimate goals: which systems to connect, the final application architecture, and whether the shift is a simple data import or a full re-implementation. Test plans should then be built that cover configuration, access, performance, and compatibility.

When customers move to the cloud, they often adopt a new version of the software, which requires integration testing. Functions may not work the same way, particularly if the originating application is several years old. Software vendors should be happy to provide guidance on how to create a test suite that encompasses the full range of capabilities of the new application. Additional time spent on testing up front prevents much bigger disruptions once the software is in production.

Customers may also underestimate the number of stakeholders in the migration decision. Among the business constituents to involve are finance, compliance, e-commerce, and legal. IT stakeholders include people responsible for software development and maintenance, network engineering, and systems configuration.

Involving all affected parties from the beginning not only minimizes surprises but also enables each partner to bring their expertise to the project. Special attention should be paid to integration with ERP, e-commerce, and CRM, which all may be impacted by tax processing.

A migration is also a good opportunity to explore a company's tax configuration and ensure that it covers all areas of the business. There may be opportunities to integrate other systems that could benefit from tax calculation capabilities or to catch dependencies that may be broken.

Taking all of these factors into account may add months to the migration process. However, the result is usually worth the effort if an organization uses the opportunity to take a fresh look at the role of tax in the business.

4. Security and Availability

Misperceptions still exist about the robustness and security of cloud platforms. It is important to address these concerns, so they do not become impediments.

The reality is that all major cloud application and platform providers deliver level security that matches or exceeds that of the very largest enterprises. Cloud deployments typically come with a full complement of network and perimeter security protections as well as integrated patch management, vulnerability scanning, security information

> Customers may underestimate the number of stakeholders in the migration decision. Among the business constituents to involve are finance, compliance, e-commerce, and legal. IT stakeholders include people responsible for software development and maintenance, network engineering, and systems configuration.

and event management (SIEM), and end-to-end encryption. Customers should request a SOC 2 report to verify compliance with established security procedures.

What customers often don't understand is their own role in the security process. Cloud platforms operate under a "shared responsibility model" in which customers are responsible for securing data and access to applications while service providers attend to infrastructure. Failure to understand customer responsibility is a leading cause of inadvertent data disclosure. Gartner has estimated that 99% of cloud security failures are the results of customer mistakes or misunderstandings. Security firm DivvyCloud has estimated that misconfiguration errors in cloud services such as firewalls, file permissions, and storage—which are the number one cause of inadvertent data disclosure— cost $5 trillion in 2018 and 2019.

Customers that apply sound security principles like strong authentication and access management as well as educate their users about correct configuration procedures and basic data protection can be confident that the integrity of their data in the cloud is at least as strong as it is in their data center.

Outages at some of the major cloud platforms in their early years have led some people to believe that they may not have access to their applications when they need it. While outages do sometimes occur, they are extremely rare, and cloud providers' backup protections insure against data loss. Gartner estimates the leading public cloud providers delivered better than 99.998% uptime during 2018.

A Modern Approach

Modern cloud architectures are designed for reliability and availability with redundancy, scalability, and telemetry built into the solutions. Published service-level agreements specify a provider's commitment to availability as well as remedies if these contracts aren't met. Customers also have access to world-class business continuity and disaster recovery options that only the largest enterprises can match.

Cloud migration isn't always easy, but with the proper planning, it never needs to be unpredictable. Preparing for these challenges can ensure that the most important bases are covered.

About Vertex

Vertex Inc., Vertex, Inc. is a trusted global provider of indirect tax software and solutions. The company's mission is to deliver the most trusted tax technology enabling global businesses to transact, comply and grow with confidence. Vertex provides cloud-based and on-premise solutions that serve specific industries for every major line of indirect tax, including sales and consumer use, value added and payroll. Headquartered in North America, and with offices in South America and Europe, Vertex employs over 1,100 professionals and serves companies across the globe.

For more information, follow Vertex on Twitter and LinkedIn.

North America	Latin America	Europe	Asia Pacific
King of Prussia, PA, USA	São Paulo, BR	London, UK	Chennai, IN

VERTEX®

vertexinc.com