



## Smooth Transactions: Improving the Retail Tax Calculation Process

As retail has become more complex, so too has the task of accounting for tax transactions. E-commerce, for instance, continues to grow rapidly. More than 263 million US consumers—or roughly 80% of the population—shop online, and this number is projected to climb to 291.2 million by 2025. While e-commerce allows retailers to significantly expand their reach, it also means they'll need to comply with a dizzying array of regional and even international tax laws.

These regulations also change frequently; the Vertex [End of Year 2020 Sales Tax Rates and Rules Report](#) found that there were 592 total sales tax rate changes in just that year. The subsequent [Mid-Year 2021 Report](#) showed that the pace of change accelerated, and in the first half of 2021 there were 7% more changes than the same period in 2020.

That said, in-store interactions remain vital, with 46% of consumers still preferring to shop at brick-and-mortar locations rather than online. Curbside pickup, which requires a physical store or facility, has also become increasingly popular as an alternative.

At the same time, retailers must also ensure that tax calculations don't slow down point-of-sale (POS) transactions—no matter if that sale originates in-store or online. The customer experience must always be fast, reliable, and seamless in any scenario.

This level of complexity cannot be untangled solely through manual tax processes. To achieve compliance across multiple regions without slowing down the checkout experience, retailers need a technology platform that can automate the entire process. A centralized system that automatically calculates indirect taxes across multiple channels, both online and in-person, and integrates with their financial systems, such as enterprise resource planning (ERP), POS, and e-commerce platforms, helps streamline tax processes. It also needs to be scalable so that the tax system can accommodate traffic spikes for holidays or big sales.

## Tax Calculation in the Cloud

The cloud is an ideal environment for deploying a retail tax technology solution. It provides a centralized hub that's accessible from anywhere in the world, enabling a retailer to use one platform for both online and in-person transactions.

Changes to local tax policy can be propagated from the cloud to relevant devices and servers where transaction processing happens. In this way, all locations—online and physical—work from the most current tax rules and rates. Retailers can accommodate sudden traffic spikes with ease thanks to the cloud's essentially limitless scalability, eliminating the bottlenecks that might ordinarily arise on Black Friday or Cyber Monday, for example. Deploying in the cloud also removes the need to buy, install and maintain physical infrastructure to support the tax system.

However, the cloud by itself isn't always the right solution, particularly for transactions occurring in physical locations. In many cases, a hybrid deployment model is more appropriate for retail customers doing business online and in-store. In the hybrid model, the retailer operates a mix of deployment models that operate within the merchant's own IT ecosystem.





## Multiple Deployment Options

A hybrid approach can improve performance for some companies because endpoint devices, such as POS and inventory management systems, can be equipped with the intelligence to make rapid decisions, and a cloud platform has the ability to send tax-rule. As a result, POS systems won't need to connect with services in the cloud to complete a transaction. Given that the hyperscale cloud providers' data centers are often located hundreds of miles away from large urban areas, even the speed of light isn't fast enough to overcome latency at those distances, especially during periods of peak transaction volume.

Additionally, a hybrid approach protects against latency during potential internet outages. If the system is completely dependent on a connection to the cloud, an interruption can potentially delay all sales until it's restored. In a hybrid deployment, local devices can keep calculating taxes for transactions.

Then there are compliance issues, such as data sovereignty laws that require information to be physically stored in the nation where it was created. A hybrid approach can make compliance simpler in some cases because data can be stored on-site and transaction details never leave the country in which they originate.

Implementing a central tax engine like Vertex solutions provides a reduced total cost of ownership (TCO) over time when compared to native indirect tax management. These are end-to-end solutions for managing indirect tax processes, and integrate seamlessly with ERP, e-commerce, procurement, POS, and subscription billing platforms to ensure an excellent customer experience. Vertex continually updates its global tax content and removes this maintenance burden from IT.

In short, Vertex provides indirect tax solutions that cut through all the complexity so retailers can focus on their core business and not worry about tax compliance.

**Focus on your retail business without tax processing distractions.**  
Find out more by visiting [vertexinc.com/solutions](https://vertexinc.com/solutions)

## About Vertex

[Vertex](https://vertexinc.com) is a leading 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 solutions that can be tailored to specific industries for major lines 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 1,300 professionals and serves companies across the globe.

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