

Network Considerations for Restaurants Adopting a Cloud POS

Point-of-sale (POS) systems are the lifeblood of restaurants and retail food service organizations, doing everything from ringing up transactions to aligning with critical back-office applications for inventory and other business-critical functions. As restaurants and food retailers look to make smarter financial decisions on capital investments and implement more scalable back-office applications, cloud-based POS systems have become increasingly popular for optimizing and securing customer transactions.

Although cloud is still a fairly new segment of the overall POS industry, it represents a rapidly growing one, expected to hit \$3.7 billion by 2023—an average compound growth rate of more than 22%.¹ The economic, operational and security benefits for cloud POS' dramatic

growth have quickly become apparent to restaurant operators, from quick-service restaurants to upscale culinary experiences.

However, moving POS to the cloud still requires restaurants to pay proper attention to the network infrastructure connecting them and their data to and from the cloud. Restaurant operators and their IT teams—both in-house technical staff and outside service providers—have come to realize that they must continue to invest in their own networking capabilities in order to ensure that their cloud POS is reliable, secure, cost efficient, agile and flexible.

This paper highlights the most important networking considerations that restaurant executives need to keep in mind when adopting a cloud POS system in order to ensure maximum benefit from those new systems.

¹ "Cloud POS Market by Component, Organization Size, Application Area (Retail and Consumer Goods, Travel and Hospitality, Transportation and Logistics, Media and Entertainment, and Healthcare), and Region—Global Forecast to 2023," Research and Markets, October 2018.

Both the explosion of customer touchpoints and available data means that restaurants need powerful, secure, scalable and easily managed network infrastructure to move that data to and from the cloud, as well as to integrate it with other applications over local- and wide-area networks.



Why networking matters for cloud-based POS

Cloud-based POS is exciting for restaurant operators because it allows them to process customer orders in new and innovative ways that can often accelerate the rate of sales while improving the customer experience. Whether you're talking about mobile ordering, online payments or use of multi-outlet delivery services, customers are interacting with restaurants in new, groundbreaking ways.

As a result of the "digitization" of the dining experience, restaurants also now have more data available to them to make smarter and more efficient business decisions, which often requires transporting that data to headquarters for analysis.

Both the explosion of customer touchpoints and available data means that restaurants need powerful, secure, scalable and easily managed network infrastructure to move that data to and from the cloud, as well as to integrate it with other applications over local- and wide-area networks.

Key networking considerations for supporting cloud POS

There are important technical, operational and business considerations restaurants must keep in mind when ensuring they have the right networking assets in place to support cloud-based POS. These include:

Bandwidth

Getting large amounts of data to and from the cloud requires a robust infrastructure. Not only does a restaurant's network infrastructure need to have consistent and sufficient bandwidth, that bandwidth must be able to scale at a moment's notice to handle spikes in business caused by the introduction of new purchasing channels or promotions. Availability, performance, reliability and stability are essential for networks interfacing with cloud-based POS; imagine what happens to revenue and profits when networks can't connect to the cloud in order to take orders or process payments. Another critical part of ensuring adequate network performance is selecting an infrastructure platform that future-proofs the network's ability to support and integrate next-generation, bandwidth-heavy technologies while minimizing latency.

Security and compliance

Restaurants are hardly immune to the global trend of cyberattacks. Reports of millions of credit card records being compromised or stolen from major retail and restaurant chains has become common, often because of a malware incursion into POS systems. And compliance with mandates such as Payment Card Interface,² as well as regulations for everything from ensuring workers

² "How PCI-Compliant SD-WAN Helps Retailers Effectively Boost Security," Comcast Business Community, January 2020.

are paid for proper overtime to food-handling safety requirements, puts a big emphasis on security, compliance, governance and risk management for networking infrastructure. It is critical to have consistent security policies across an entire system to ensure the network infrastructure is both originally designed and deployed, and then subsequently kept up to date, with firewall configurations and best practices necessary to protect your business. A deviation at even one location can put the entire system at risk for exposure.

“Additional network security considerations to keep in mind include the establishment of a ‘brand standard’ for security policies that have been developed and tested at the corporate level to ensure policies meet and exceed industry standards and legal requirements,” says Marybeth Pearce, Senior Director, Food & Beverage, Enterprise Solutions at Comcast Business. “It is imperative to keep security consistency and control across your brand, with updates occurring regularly in concert with new local and national mandates, while not burdening individual restaurant operators.”

WiFi

A cloud POS allows managers and headquarters to access and monitor performance data in near real-time, but connectivity is key. Additionally, as customers look for more ways to order, both in and out of the restaurant, having guest WiFi access for customers to connect and leverage mobile applications for ordering is key. Customer WiFi access also enables restaurants to identify and better serve their customers, for example triggering mobile orders to be prepared when customers are approaching/entering the restaurant.



Line-busting applications tied back to the POS system need fast, highly reliable WiFi, since those applications are used both inside and outside the restaurant to improve the customer experience. The alternative is long lines, slow order processing and ultimately customer abandonment.

Finally, restaurants must be able not only to support mobile ordering and payments, but it is also critical for restaurant and IT managers to remotely control, update and access the cloud POS system from anywhere inside or outside the facility.

Hardware

Your networking infrastructure needs to be kept current and will need technology refreshes that provide new functionality and support new services. Having the foundation of a network that can flex and change as more enhancements to a cloud POS are introduced ensures you are implementing solutions to grow with your business.

Of course, a major benefit in adopting a cloud-based POS system is the ability to move from a hardware-based Capex model to an Opex model. The Opex model enables a timely, efficient and reliable software refresh without losing “sunk” costs in already-purchased equipment that has become outdated. This enables stores to quickly and easily transition to new technology without the burden of carrying old equipment on the books. It also eliminates the need to invest in purchasing spare parts for break/fix requirements or to manage software upgrades to expiring licenses; those are often the responsibility of the managed service provider.

“As the speed at which technology is changing continues to accelerate, we are seeing a shift in approach across the industry from Capex to Opex investments,” say Pearce. “Rather than the corporate brand or its franchisees investing in hardware or systems that will be outdated before the depreciation can be realized, more brands are relying on managed service providers to supply and manage the necessary equipment so refreshes can occur without any loss of invested capital.”

Expertise and experience

Restaurants understandably want to spend the bulk of their labor dollars on talented, dedicated people who interface with diners—or who prepare the food that brings them there in the first place. Additionally, IT personnel are rarely stationed in restaurant locations themselves, so employees who should be focused on serving customers and running the kitchen are forced to engage in troubleshooting IT issues. Not only does this distract from delivering a superior guest experience, but it also puts the health of the network in the hands of a non-IT professional. This is why it is critical to align with managed network service partners that have the expertise and scale to manage the network needed to support current applications, as well as being able to grow in size and scale as the physical and technical landscape evolves.

A major benefit in adopting a cloud-based POS system is the ability to move from a hardware-based Capex model to an Opex model. The Opex model enables a timely, efficient and reliable software refresh without losing “sunk” costs in already-purchased equipment that has become outdated.



Selecting the right networking partner

When looking for the right partner to provide the network infrastructure and/or the ideal collection of managed networking services to support a successful cloud-based POS implementation, restaurants need to look for some fundamental traits and abilities. These include:

- **The ability to deploy at scale.** Whether through organic growth or strategic acquisitions, size and scale are often the name of the game for successful restaurateurs. Pick a partner that can grow with your organization and ensure that your brand is supported with great technology and services.
- **Consistent and fast deployment of systems.** If your cloud-based POS rollout takes a week in your flagship New York restaurant but a month in Los Angeles, you're going to have inconsistent data flows and more than likely will run into data anomalies across your network. Just like you want a consistent customer experience for every diner, you want to have a consistent rollout for your systems.
- **Security services that align with the corporate organization's critical initiatives.** Solutions for individual restaurants need to be vetted by security professionals working in concert with the headquarters team. Service providers must keep in mind that even a seemingly appropriate security tool for an individual restaurant's network needs to be part of the "greater good" of overall network security.
- **A solutions architecture team that vets how the network is deployed, managed, upgraded and scaled over time.** It's important to work with a provider that takes a strategic, long-term approach to all forms of networking, from fixed to mobile and from local to wide-area.

Comcast Business

[Learn how Comcast Business can help the restaurant and food services industry better serve their customers.](#)