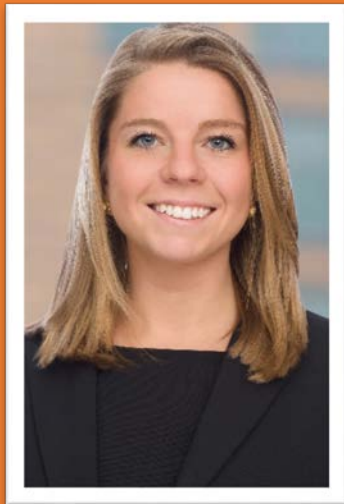




## Franchise Restaurant and Retail Technology

---

Network Connectivity: Outages, Security and Speed Oh My!



Anya Nowakowski  
RESEARCH ANALYST | FRANDATA

## Introduction

In this increasingly connected world, mobile ordering, video-based training and cloud-based apps are becoming the norm for business owners. Franchises are increasingly relying on technology to automate operations and drive business success in their restaurants and retail stores.

The goal of this Technology Template is to create a series of standards and guidelines for franchisor executives, and franchise owners to assess the effectiveness and improve the performance of new technologies used in restaurant and retail businesses.



## The Evolution of the Restaurant and Retail Technology Stack

The restaurant and retail technology stack – meaning the ecosystem of technologies, software and tools that go into the backend and front end of a business’s operations – is growing.

Incorporating technology in restaurants and retail operations drive three primary business outcomes,

1. Enhancing the customer experience
2. Improving employee engagement
3. Creating operational efficiencies



All of these functions are interconnected and as such, have the potential to impact the efficiency and profitability of your business, both negatively and positively. When operations are streamlined, and employees are happy and engaged, the customer experience improves.

With so many technologies and capabilities available, its easy to get lost and lose sight of what will actually improve the business and performance. Each individual element of the restaurant technology stack is a strategic

decision for franchisors and franchisee owners. Just because kiosk ordering works for one restaurant, doesn’t mean it’s the best option for all restaurants. The bottom line when any business considers investment in technology are the returns. As such, this report does not attempt to assess which technologies are good and/or bad, but rather helps in assessing the performance of the existing technologies incorporated in a business’s operations. More specifically, examining the infrastructure and network connectivity needs to support the growing technology platforms and enterprise software systems used in daily franchised business operations.

## Enhancing the Customer Experience

Customer facing technologies have been giving business owners additional channels to interface with their customers. Business owners have the opportunity to engage with customers through technology before they even walk through the door of their store. Social media monitoring, loyalty programs, and mobile apps create additional touchpoints for communication with the customer. These tools also have the ability to harness information and big data about the customers and their preferences. In order to take advantage of the big data, the information must be transmitted and stored in a timely and secure manner, requiring an efficient connection to the network. Visibility into this kind of data analytics can drive informed strategic business decisions giving business owners a competitive advantage over competition.

“The franchisor recently rolled out a mobile app-based loyalty program, and we have been going through some growing pains with that recently. We have a loyal customer base that has been with our brand since the beginning, so they notice when the app went down last Friday.”

■ *multi-unit franchisee of national QSR concept*

Customers expect everything to be at their fingertips, and half of franchised restaurants have started offering online and mobile ordering. Online ordering and delivery services are expanding restaurants' reach and attracting new customers they wouldn't have traditionally gotten, by creating an additional element of convenience. Of restaurants that offer online ordering, 10% say they experience failures in mobile orders all the time, and another 40% say they experience failures but rarely. Mobile orders generate anywhere from 1% to 45% of all orders for those restaurants that offer the service. Every time a mobile order fails or is delayed, it not only impacts that immediate order, but also affects customer perception, potentially losing that customer forever.

“We definitely have failed mobile transactions, customers would order online and then come to the store to pick it up, but we hadn't received any orders. The customer is frustrated. Our crew has to drop everything and scramble to prepare the lost order. It throws off our workflow and efficiency.”

■ *multi-unit franchisee of national burger concept*

Customers are constantly on their phones and devices with access to any and all information at the palm of their hands. In order to provide a seamless in-store experience, they expect a smooth internet connection to look up customer reviews on social media, check the nutrition value of menu items before they place their order, download your mobile app or loyalty program, or catch up on email while they wait for their order or shop around.



Providing customer Wi-Fi comes with risks as well as business advantages. For security reasons, some franchisors have hesitated to allow franchisees to provide customer Wi-Fi in their businesses. Providing customers with a fast and reliable Wi-Fi not only improves the customer experience but can also increase adoption of mobile apps or loyalty programs, by allowing customers to download and use the app when they are in your location. Recognizing those business advantages, more recently, franchisors are establishing security measures to enable franchisees to provide customer Wi-Fi without exposing their overall network to security breaches. Many franchisors now require franchisees to meet a defined minimum network

security standard in order to provide customer Wi-Fi in their location. This requires the capability to monitor the security and performance of network connection in all franchised locations in real time. Currently, 68% of franchised retail and restaurant owners offer customer Wi-Fi in their business.

“We have been going through a number of strategic planning steps to improve the in-lobby customer experience. We knew that part of this had to incorporate customer Wi-Fi in our franchised businesses, something we hadn’t allowed franchisees to do in the past. We partner with a third-party security provider that has developed a set of security standards that franchisees must comply with in order to provide customer Wi-Fi at their restaurant. Prior to this, we didn’t allow franchisees to have customer Wi-Fi because we were protecting the franchisees from themselves.”

■ *IT director for a national pizza brand*

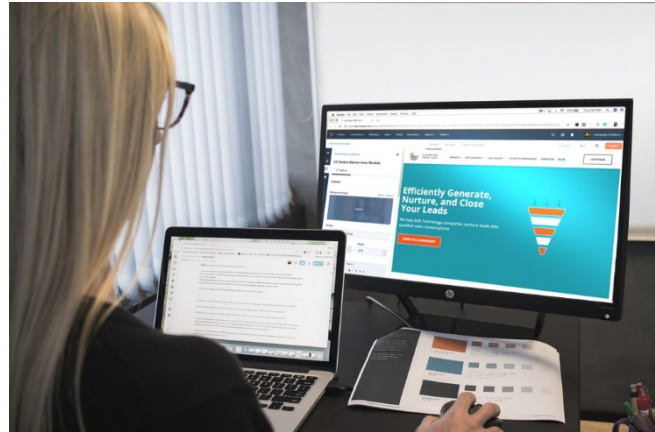
## Employee Engagement

Increasing labor costs are a common reality for franchised business owners across all sectors. Business owners are looking for ways to control labor costs and retain talented employees. Wages are on the rise, and the unemployment rate is at its lowest point in decades creating a competitive employment environment with high employee turnover.

“When it comes to my employees, I’ve realized over the years how important it is for a new employee to feel comfortable and not overwhelmed, when they start a new job. The franchisor’s online training program has really helped me retain good employees in the competitive job market. I don’t have the exact numbers, but I know we used to have somewhere in the 150% - 200% turnover rate, and now its somewhere in the 20% to 30% range.”

■ *Multi-unit franchisee of a national QSR concept*

Training is one of the fundamental functions of a franchisor. Learning management solutions (LMS) and video training tools facilitate the delivery of training to both franchisees and their employees in a streamlined and efficient manner. Franchisors are increasingly incorporating online training into their existing training programs, with three-quarters of franchisors using video-based training, and 20% using LMS platforms. While these platforms facilitate the mass delivery of training materials and instructional resources throughout the system, franchisors are still learning how to deploy and enforce them well.



“The brand rolls out new menu items and limited time offers every 10 weeks. The franchisor’s LMS platform give me and my managers visibility into employees’ progress, ensuring that all of my employees have completed the video trainings and quizzes and each restaurant is prepared prior to each rollout.”

■ *Multi-unit franchisee of a national Mexican QSR concept*

Franchisor training programs are critical to ensuring brand consistency across all locations in the system. Franchisees love online training programs because they reduce the resources and costs required to onboard and train employees. This ultimately reduces employee turnover and the associated costs, and promotes employee engagements and satisfaction.

“While technology is important, the people are still critical to my business’ success.”

■ *Multi-unit franchisee of a national QSR concept*

The actions of employees at individual franchised locations get a lot of social media attention recently, both good and bad, affecting brand image and perception for the system as a whole. By reducing employee turnover and keeping employees engaged, businesses benefit from having satisfied employees. Customers can tell when employees are engaged, or worse, when they're not!

## Operational Efficiency

POS systems and cloud-based applications are taking over every element of a business's back office operations. POS providers are integrating new functionalities and capabilities into their platforms to help business owners manage and monitor their operations from one platform. This increased dependence on the network creates greater risk to the business in the event of a network outage or bottleneck. One-fifth of business owners occasionally experience slow POS transaction processing times, slowing down the customer experience, and potentially losing revenues.

"Most recently, we incorporated food safety technologies that monitor food temperature and alert the team when there is an issue. We only have a four-hour window to break bacterial growth in food, so timely reporting is an absolute must. We are starting to see some signs of weakness with connectivity issues arising usually because of an unpredictable software update."

■ *Multi-unit franchisee of a national QSR concept*

Franchisees are automating back office functionalities like food safety, scheduling, inventory, and supply chain management. Almost half of franchisees use labor management software, and one-third use inventory management solutions. In addition to creating operational efficiencies, these technologies collect, store, and transmit data that can drive important strategic decisions. Data collected and stored through these applications must be efficiently transmitted to all other applications that are integrated, as well as the franchisee, their managers, and the franchisor's corporate office.

"I've been in the business since before computers existed and I can honestly say that technology has helped me make a decent profit, especially in controlling labor costs, food costs. Sometimes I miss the customer interaction, but controlling costs has been a huge benefit to my businesses"

■ *Multi-unit franchisee of a national pizza concept*

Franchisees can track, analyze and monitor every element of their business, their customers, and their employees. Business owners are harnessing more data than they know what to do with. However, data needs to be transmitted in a timely and efficient way between numerous platforms and stakeholders.

The QSR Pizza sector is the best example of big data analytic capabilities. The sector has been the envy of the QSR industry because of their experience and the magnitude of their data collection, thanks in large part to delivery services. Decades of using a multi-channel approach to interact with customers first through phone orders, delivery, then online and mobile orders, and now through voice command

and social media orders, pizza concepts have been collecting large volumes of data over the years through their various touchpoints.

## Network Infrastructure & Security

While all of these exciting new technologies have the potential to create competitive advantages and improve business performance, they increase the business's dependence on the network. Businesses are excited to talk about the latest mobile ordering app, or food safety and temperature monitoring devices they recently integrated into their business operations, the much less popular issue of network infrastructure is often omitted or ignored. Seventy-three percent of franchisees have increased the amount of technologies they use in their daily business operations over the past three years. All of these increases in the retail and restaurant technology stack are straining the network, causing congestion, slow connections, and network outages.

Outdated networks are a huge problem for franchised businesses. Forty percent of the franchisees that have increased their dependence on technology in the last three years, have not made similar increases in the capacity of their network connectivity. A third of franchisees said they sometimes experience network outages in their business. Even occasional outages could translate into numerous failed orders, dissatisfied customers, and lost revenues. When businesses invest heavily in new technology, they have to have the infrastructure in place to support that increased use. What is the point of investing in the latest and greatest technologies, if they don't work properly?

## Compounded Impact of Franchisor-Franchisee Technology Silos

Like many businesses, franchise systems face resource and financial constraints. The unique dynamic of the franchisee-franchisor relationship adds an additional layer to decision making, and the adoption of technology initiatives.

This dynamic is largely driven by the nature of the business model and the balance between the franchisor and franchisee population. The more centralized the system is, the more the technology used in their franchised units is defined by the franchisor. The technology stack in most franchised restaurants and retail stores results from a combination of the franchisor's mandated technology, and the franchisee's own technology initiatives.

In any franchise system, the notion that there are too many cooks in the kitchen is a delicate balancing act that has to be managed properly. Many franchise systems operate in silos when it comes to technology. Everyone is rushing to adopt the latest technologies and it isn't always properly coordinated among all components of a franchise system. The franchisor's training, marketing, finance and compliance departments are each pushing out their own technology requirements for franchisees. Concurrently, franchisees often independently implement their own technology initiatives in their businesses. Each of these initiatives creates additional burdens on the network, collectively having a compounding impact on network congestion and security within each franchised business. Sprinkle in constant software updates, new training videos, and digital menu board updates, and you have a recipe

for disaster. This siloed thinking creates a greater need for centralized management and visibility into the network performance.

Most franchisees are small business owners who don't necessarily have a technology background or the resources to invest in the research and development for major technology innovations. As such, the franchisor's support and guidance on strategic technology initiatives often drives innovation across the system. More than half of franchisees said they want their franchisors to provide much more support with technology innovations for their business. When it comes to network connectivity, due to liability concerns, the franchisor is usually even more hands off, with only 32% of franchisors providing franchisees with minimum network standard requirements, and only 5% providing a specific provider for the services.

“When I set up my back office, there were wires everywhere. Ideally, the franchisor would provide a package for the network connection, just like they do for POS. I needed a magic network connectivity box with instructions and labels connecting ports and wires for the POS system, my desktop, music, video cameras, etc. I plug it in and it works!”

■ *multi-unit franchisee of a national burger concept*

Whether it's a franchisor initiative or the franchisees decision, technologies deployed strategically in the business have the potential to ultimately increase the efficiency and profitability of the business. The one common denominator driving the performance of every element of the technology stack is the infrastructure and network connectivity. Just like these technologies keep your business connected with your customers, your employees, and the franchisor, all of these technologies rely on a system of transport technologies to talk to each other and send information over the internet.

In order to have one interconnected system of technologies that talk to each other and perform optimally, the infrastructure has to be in place to support the increased usage. When you start to develop your new physical restaurant, you don't start with the tables and chairs, you first build the foundation of the structure. Similarly with technology, you start by building the infrastructure and network to support and connect the various elements of your technology stack. Just like in a restaurant building with foundation problems, the infrastructure behind your technology can have a detrimental impact on even the best mobile ordering app or any other platform.

The financial impact of network disruptions for any business can be astronomical. The impact is further compounded for an entire franchise system. The direct impact of network downtime or outages on lost revenues is only half of the loss. The indirect economic impact to the business can escalate quickly when you consider employee productivity and payroll costs, disruptions in business efficiency, lost customers, and the longer-term effect on customer perception.

## Considerations

However, there are steps restaurant owners and franchisors can take to ensure smooth performance of the technologies that they do employ in their restaurants.



**Think long-term.** Always maintain a three to five year vision and stop to re-assess goals and development timelines annually. With so many technologies and capabilities available, it's easy to lose sight of what will actually improve your business. When considering new technology initiatives and investments, consider their connectivity needs and their impact on network traffic in franchised businesses. Devise a three to five year strategy that aligns technology usage with connectivity needs.

**Engage a network professional or consultant to advise on longer term strategies.** Every business should have a network engineer who maintains and monitors their network, and troubleshoots if there are any issues. Whether that role is hired in house, outsourced to a third party, or provided by the franchisor, depends on the size of the operations and its network demands. A quarter of franchisees don't have anyone monitoring their network, exposing them to network congestion and security breaches.

**Monitor network performance in real-time.** Franchise systems are structurally predisposed to centralized network monitoring platforms. Managed network services can work on top of your internet service provider to administer and proactively monitor your business's connectivity. These services help ensure that the entire network infrastructure is performing optimally in your business, and across the system.

New optimization tools and managed services allow franchised businesses to incorporate lower cost broadband services into their network without sacrificing the performance of their connectivity. These new tools monitor and dynamically route network traffic across multiple transport technologies based on current network status. By monitoring real time network demands, these tools provision traffic based on individual application requirements and connectivity needs. That close monitoring of the network also gives the franchisor and franchise business owners visibility into the network performance and security at each of their locations.

**Monitor network security.** Ensuring a secure connection within your business and franchise system overall remains a top priority. In a franchise brand, a security breach at one business impacts all businesses in the brand. Customers don't associate this type of event with a particular franchisee or location, but rather with the brand overall, tarnishing the entire brand name.

While PCI compliance is a good first step, security threats continue to evolve faster than regulation can keep pace. Staying ahead of the security threats is an issue of brand protection for franchisors. Retail and hospitality businesses are the top targets for data breaches, and business owners must invest in monitoring and securing their network. Everyone heard about the recent security breach to the Marriott system, considered to be among the biggest of its kind ever.

## Conclusion

Markets are putting more pressure on franchise brands to increase their investment and adoption of technology to maintain a competitive advantage in the crowded franchise marketplace. The power of technology is bolstered by its ability to create operational efficiencies to businesses in a cost-effective way. Franchised businesses need to be equipped for the future in order to maintain their competitive advantage.



For more than 30 years, FRANdata has been the industry leader in the strategic analysis, forecasting and measuring of franchise performance and operations. Leveraging the largest database of franchise information in the industry, FRANdata helps any business that touches franchising by providing the objective information and analytical expertise they need to make smarter and better business decisions. FRANdata, headquartered in Arlington, Va., is often cited as a franchise expert in such leading media as The New York Times, The Wall Street Journal, Forbes Magazine and The Washington Post.

1.800.485.9570 | [www.frandata.com](http://www.frandata.com) | [www.franchiseregistry.com](http://www.franchiseregistry.com)