Modern restaurant payments: Fast, secure, and scalable for every service model

eBook

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Introduction

The drive-thru is the most unforgiving payment environment in commerce. Ninety-five percent of QSR guests say speed is critical. A four-minute drive-thru becomes a six-minute drive-thru, and you start losing cars. A payment failure during the lunch rush doesn't just cost a transaction; it affects the entire line behind it.

Verifone powers payment infrastructure for some of the world's highest-volume QSR operations because we built for exactly this environment. The discipline that performance requires — unified architecture, peak reliability, and real-time data visibility — is what every restaurant operator needs, regardless of service model.

Verifone powers payment infrastructure for some of the world's highest-volume QSR operations

When the lunch rush hits, Friday dinner turns are back-to-back, or your drive-thru is wrapped around the building, this is the exact moment you don't want your payment systems to fail because the operational and financial impact can be staggering. One study found that payment outages cost restaurants and retailers $44 billion annually, with operators reporting that 63% of those outages occur during peak business hours.

You may already suspect your payment infrastructure is part of the problem. The real question is whether you're seeing the full extent of its impact on your operations and bottom line. Payment issues are often behind slow lines, missed orders, failed loyalty redemptions, ticket-time creep, and inconsistent guest experiences across locations.

Whether you operate a quick-service, fast-casual, full-service, or multi-brand portfolio of restaurants, your payment technology stack is either accelerating growth or holding it back. For operators whose stack has become a patchwork of systems added one service model at a time, fragmented technology can create operational complexity across channels and locations.

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Fragmentation starts with your payment architecture, but it can be solved by modernizing your restaurant payment infrastructure. Here's how to identify and address payment system issues without replatforming your entire technology stack.

Five service models, one payment infrastructure

Today's restaurants run as many as five service models inside a single brand: dine-in, drive-thru, takeout and curbside, third-party delivery through services like DoorDash and Uber Eats, and app-based mobile ordering. Serving each of these channels often demands add-on hardware and software, pieced together one at a time.

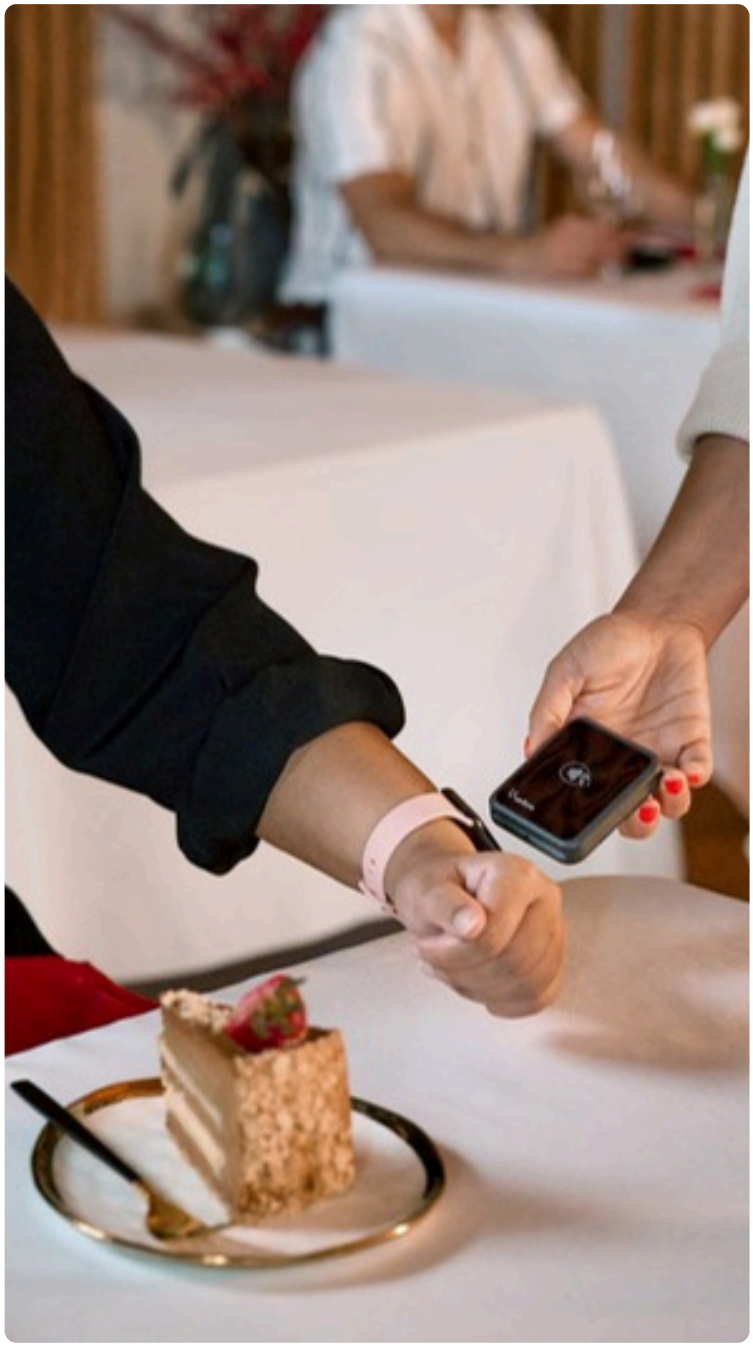
The visible symptoms operators report most often include:

- **Speed of service**: According to the National Restaurant Association, 95% of guests say speed is "critical," and 90% rate it as their top priority. But every system added to your stack adds a fraction of a second to checkout. At peak, those fractions become the difference between a 90-second and a 130-second drive-thru window.
- **Vendor sprawl**: When the POS goes down during the lunch rush, frustrated managers are under pressure to get it back online and must decide whether to call the POS vendor, the payment processor, the gateway provider, or the network ISP.
- **Slow reconciliation**: Finance teams spend their week reconciling transactions across processors, aggregator settlements, and tip pools, rather than doing strategic work. Restaurants lose up to 30 hours per month handling manual reconciliation and accounting tasks that fragmented systems simply can't deliver.

At the time, each add-on solved the immediate challenge of delivering a new service that your closed-loop, core payment stack wasn't ready to handle. However, by focusing solely on short-term challenges, you're inadvertently creating a more serious long-term issue with a fragmented payment stack.

- **Loyalty silos**: Without a unified payment system, one guest may look like three different customers depending on whether they ordered through the app, the drive-thru, or DoorDash. When loyalty data fragments, it's hard to recognize and reward your best customers.
- **Daypart performance gaps**: Breakfast, lunch, and late-night each have unique transaction styles and purchase patterns that stress your stack differently. Fragmented systems can't be tuned to handle them differently, even if you recognize how you'd like to optimize for different parts of the day.
- **Franchise standardization headaches**: Corporate rolls out a new loyalty program, but stores running older POS firmware realize they can't support it. The operator is left with urgent upgrade costs and frustrated customers who can't access the loyalty rewards.

How fragmentation breaks the guest experience



Recent research from PwC shows that 52% of consumers stop buying from brands after bad experiences with products or services, and another 29% quit after a bad service incident. Multiply that across 200 locations and 50,000 guests a week, and a guest experience problem quickly becomes a revenue challenge. Many issues stem from a fragmented payment architecture.

For instance, suppose your guest opens your restaurant's mobile ordering app on their way home from work. They place an order for curbside pickup, apply a loyalty reward for a free dessert, and pay with their saved credit card.

When they pull into your designated pickup area, they're anxious to get their food and get home. However, when your server brings the order out, the customer sees that the loyalty discount didn't apply correctly because the kiosk system the app talks to and the POS don't actually have the same reward.

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With the right modular architectural approach, you can address your most critical challenges while gradually transitioning service models onto a shared, flexible architecture.

The guest asks the server to fix that and add a drink to the order. The server heads back inside, fixes the check, rings up the beverage, and brings out a printed receipt for the tip line because your curbside system doesn't support the same card-on-file as your app does. The process turns the fast pickup the customer wanted into a frustrating 10-minute process, and you're off the list of quick, easy places to hit for dinner on the way home.

Fragmentation leads to slower service, lower average ticket prices, broken loyalty engagement, and guests who just stop coming back. The impact builds over time, until you start to see cracks across every service model. You learn to work around the slow accumulation of friction until the workarounds themselves are your operating model and friction becomes your default.

The good news is that moving to a unified system is both achievable and less disruptive than many operators expect. With the right modular architectural approach, you can address your most critical challenges while gradually transitioning service models onto a shared, flexible architecture.

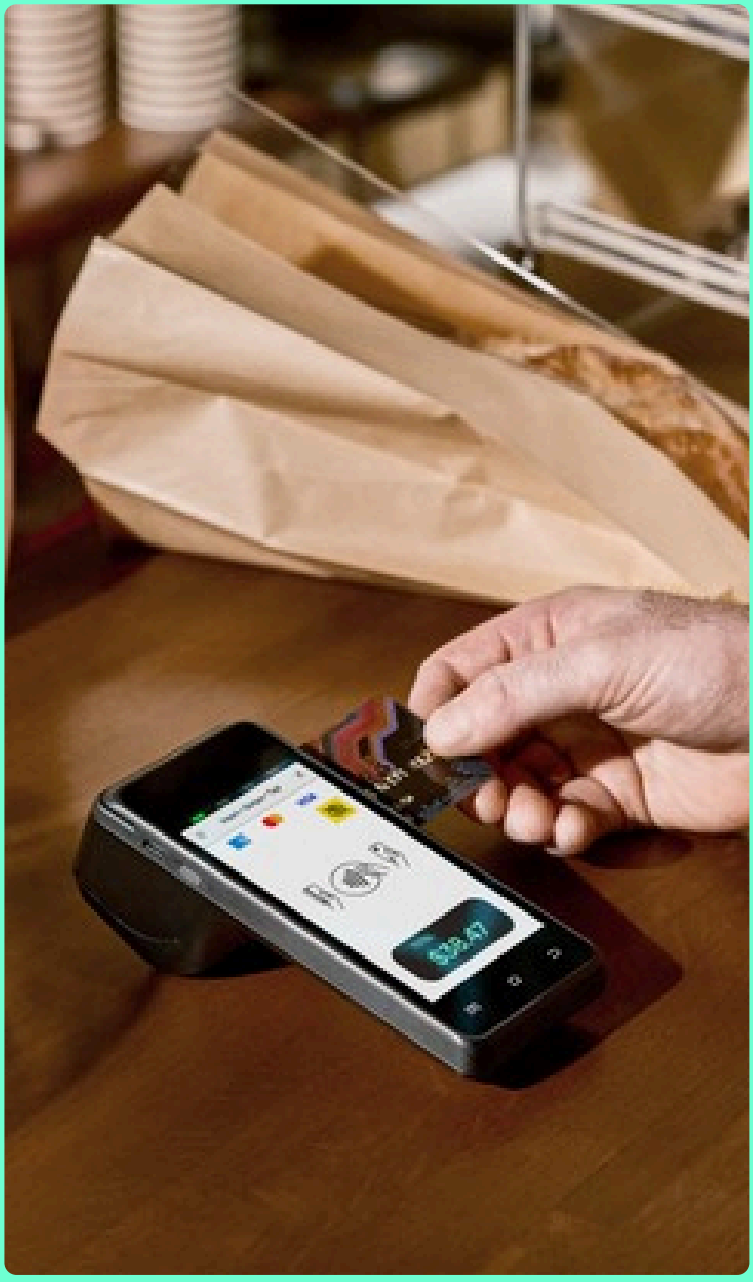
The multi-brand operator's compounding challenge

For restaurant holding companies, every challenge gets multiplied by the number of brands you operate.

A guest who visits your burger QSR for lunch on Tuesday and your fast-casual concept for dinner on Friday will likely appear as two separate customers in your data. When each brand has its own loyalty program, POS environment, customer database, and processor relationships, your team is fighting fragmentation and bad data at every level. Reconciliation takes forever, marketing can't cross-promote, and corporate IT is stuck supporting way too many systems.

Multi-brand operators that unify payment infrastructure across the portfolio see perhaps the greatest return: with one guest profile across every brand, cross-brand offers are possible, you're able to tap into portfolio-level loyalty insights, and your vendor and processing footprint scale without ever increasing complexity.

Architecturally, a unified payment infrastructure impacts both operational efficiency and revenue.



What a modern restaurant payment stack looks like

A modern restaurant payment stack has three layers that work together but can be upgraded independently. Modular architecture lets you evolve as your business does, whether that's adding new payment methods or service models, without ripping out what's already working.

Pillar 1

Devices and form factors

The right device portfolio depends on your service mix, but typically includes:

- Countertop terminals for dine-in and front counter QSR
- Self-service kiosks for QSR ordering and high-volume guest throughput
- Portables and mPOS devices for drive-thru, curbside pickup runners, and pay-at-the-table experiences in FSR environments
- Ruggedized devices built to withstand exterior drive-thru conditions and regular abuse for high-volume lines

Case study: Global QSR leader

A global quick-service restaurant chain operating more than 80,000 payment devices in the U.S. alone, undertook a large-scale modernization program to ensure compliance, consistency, and operational resilience across its estate.

Using Verifone's operational platform, the retailer gained centralized visibility into its device fleet, including identification of locations requiring upgrades to maintain PCI compliance across multiple environments, including kiosk deployments.

The program supported an 18-month conversion cycle across the installed base, enabling franchisees to transition with minimal disruption while maintaining confidence in uptime and support. The result is a more standardized and compliant payment environment across a highly distributed network.

The modern restaurant payment estate features multiple device types, but they connect to the same integrated payment architecture. In other words, a tip captured when a customer pays their bill, a transaction processed at a kiosk, and a card swiped at the drive-thru window all flow through the same gateway and are easy to track. Many portable and mPOS devices also let staff multitask and add functions beyond payments, such as order management, inventory updates, and barcode scanning.

Operationally, when your gateway and processor relationships are set up correctly, you can swap a kiosk vendor or roll out a new device type without a long processor recertification freeze. For multi-brand operators, that means your concept doesn't sit waiting for months on payment certification while real estate, marketing, and ops are ready to launch.

This level of flexibility and scale is critical in QSR environments, where reliability and speed directly impact throughput. Today, 7 of the top 10 North American QSR brands run on Verifone payment infrastructure, reflecting the operational demands modern restaurant payment systems are expected to support.

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Pillar 2

Platforms and the omnichannel gate

The platforms and gateways that power your experience across service models are often where the deepest fragmentation exists. Operators whose closed-loop payment systems lock them into a single processor have limited leverage when negotiating rates or service. Moving to a processor-agnostic gateway and modular architecture gives your brand the flexibility to operate across multiple processors and strengthens its negotiating position.

This also impacts the customer experience. An omnichannel-ready gateway issues onetoken per customer that works across all channels, including dine-in card-present transactions, kiosk orders, app-based mobile ordering, curbside pickup, drive-thru, and online delivery.

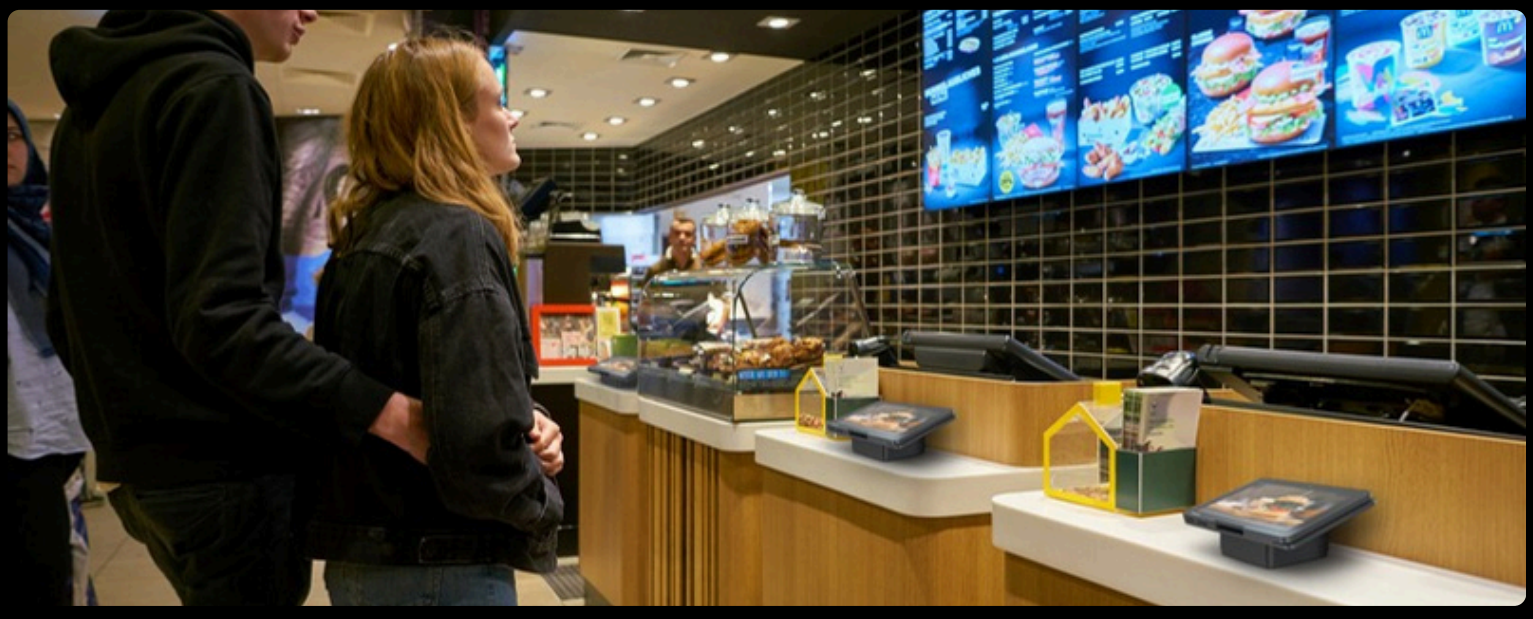
With one token, you can recognize and serve the same customer across every service model, whether they're tapping a card at the counter, paying in the app for curbside, or ordering through your website for tomorrow's lunch. Omnichannel puts your loyalty program to work across channels and lets multi-brand operators track customers across their portfolios.

Case study: Leading U.S. coffee chain

A rapidly growing drive-thru coffee chain with more than 850 locations across the U.S. was constrained by a legacy payment system that struggled with connectivity, lacked PCI compliance, and didn't support mobile wallets, creating delays during peak hours. As the business scaled, reliability and speed at the drive-thru became critical.

The retailer partnered with Verifone to deploy a modern, secure payment solution built for high-volume environments, including Bluetooth-enabled devices, P2PE encryption, mobile wallet support, and centralized device management.

The result is a more resilient payment foundation with fewer transaction failures and improved uptime — built to support continued growth.



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This becomes especially important as restaurants expand across first-party and third-party digital ordering channels. For many restaurants, delivery platforms, mobile ordering systems, loyalty programs, and payment environments operate separately, creating fragmented guest visibility and inconsistent operational reporting. A unified payment and gateway architecture helps operators connect transaction data, loyalty activity, and guest identity across channels, creating a more consistent operational and customer experience without forcing restaurants to replace the broader systems already running their business.

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Pillar 3

Processing and acquiring

Many restaurant payment environments are still tied to closed-loop systems that lock operators into a single processor or acquirer. That creates risk during the exact moments restaurants can least afford disruption: the lunch rush, Friday dinner service, or late-night drive-thru peaks.

Modern restaurant payment infrastructure gives operators more flexibility. With smart routing capabilities, transactions can be directed based on processor performance, authorization rates, uptime, or cost. If one processor experiences an outage or slowdown during peak hours, transactions can automatically route to another provider to help keep lines moving and orders flowing.

That flexibility matters even more in restaurant environments where payments are connected to loyalty programs, gift cards, stored value, and mobile ordering experiences. A fragmented or processor-locked system can create breakdowns across those workflows, leading to failed loyalty redemptions, gift card issues, or inconsistent guest experiences across channels and locations.

A unified, processor-agnostic architecture helps restaurants avoid those limitations. Operators can support loyalty and gift card programs consistently across in-store, drive-thru, kiosk, mobile, and online ordering environments while maintaining the flexibility to evolve processing relationships over time.

For growing restaurant brands, that flexibility becomes especially important. Operators expanding into new markets may want to work with regional acquirers, optimize processing costs by geography, or improve authorization performance without disrupting the broader technology environment. With a modern architecture, those decisions can happen independently rather than requiring a complete system overhaul.

For multi-location and franchise operators, centralized control is another major advantage. Corporate IT and payments teams can manage routing logic, gift card and loyalty integrations, and processor relationships centrally while giving franchisees a consistent, reliable payment experience across locations.

Case study: Global QSR chain

A global quick-service restaurant chain with approximately 50,000 devices is undergoing a large-scale transformation focused on modernizing in-store and kiosk payment experiences.

The retailer is migrating to next-generation Verifone devices while routing transactions through Verifone's payment gateway to support improved performance and flexibility. Heavy use of Verifone's operational platform enables centralized device management, API-driven workflows, and real-time visibility into estate health.

As part of its kiosk-led transformation, the retailer fast-tracked certification of new devices to support a 17,000-unit kiosk deployment, ensuring readiness for evolving digital and AI-enabled customer experiences. The result is a more agile payment foundation built to support ongoing innovation at scale.

Reliability at peak is the moment that reveals everything

Determining how your current stack is performing at peak — supporting your ticket time, table turns, speed of service, and throughput — is the true measure of its reliability. Your payment stack is only reliable if it can keep up during the lunch rush, Friday night wave, or the Sunday after you ran an ad during a sporting game.

For QSR, failure is often seen in the drive-thru: the line stops moving at lunch, and within four minutes, you've lost cars, ticket time spikes, and crew morale is down for the shift. For full-service operators, the failure can mean a server stuck rebooting a tablet while another table waits to check out, killing your turn time that should have started ten minutes ago.

Modern restaurant payment architecture is made to perform at peak with a focus on three key areas:

- **Always available**: Uptime is the holy grail, but devices with store-and-forward capabilities can complete transactions even if connectivity drops and send them to settle when the network is back up. Smart routing keeps transactions flowing if a processor goes down.
- **Fast under load**: Instead of choking on the extra seconds each additional system layer adds, modern architecture stays fast under peak loads. A unified system reduces latency by eliminating handoffs. At scale, that's faster ticket times, shorter drive-thru waits, and more turns per shift.
- **Consistent across locations**: Standardized architecture ensures a guest at your restaurant in Boston has the same experience in Omaha. Franchise rollouts are faster, and brand consistency is really possible.

Operators that modernize their payment stack are positioning themselves as the place where customers turn to when they're frustrated by unreliable dining experiences.

Tipping: The revenue and retention opportunity your payment stack needs to support

In QSR and fast casual environments, digital ordering channels are becoming an increasingly important driver of tip revenue. Kiosks, handheld devices, and pay-at-the-table experiences make it easier for guests to leave gratuities, while giving operators more flexibility in how tipping is presented across channels.

That matters at a time when restaurants continue to face significant labor pressure. PYMNTS reports that while 77% of restaurants say labor remains a challenge, digital ordering methods such as kiosks and pay-at-the-table can increase tips by 20–30%, helping improve hiring and retention. For operators competing to attract and keep staff, payment infrastructure can play a more meaningful role in workforce strategy than many realize.

But fragmented technology stacks often make tipping difficult to manage consistently. Different ordering and payment systems can create disconnected tip flows, inconsistent reporting, and operational headaches for managers trying to reconcile gratuities across channels and locations.

A unified payment architecture gives operators more control. Tip prompts can be configured differently by channel, allowing brands to tailor the experience based on their own guest expectations and service models. At the same time, tip data flows into a centralized reporting layer, making reconciliation and operational oversight significantly easier.

Most importantly, staff trust the system. When tip distribution is transparent, consistent, and easy to manage, it creates a better experience for both employees and operators. Investing in modern payment infrastructure is not just about improving transactions. It can also support labor retention, operational consistency, and the overall guest experience across every ordering channel.

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Loyalty and data are your most important assets

The biggest untapped opportunity in restaurant tech is the data connecting payments and loyalty. Most loyalty programs run on a separate system from payments. Guest loyalty IDs, cards on file, and live transactions are often in a silo. That leaves operators frustrated about loyalty programs with high enrollment and low engagement, redemption flows that break at peak times, and guest data that's too fragmented to create personalized experiences.

Tokenization at the payment layer makes it easy to solve this problem. One token per guest follows them across every channel. Whether they walk in, order through the app, pull through the drive-thru, or order delivery, your system sees them. As a result, every transaction touches your loyalty program, is personalized, and feeds into marketing programs.

For multi-brand operators, the payoff can be even bigger. With one identity across brands, you can target buyers with cross-brand offers, explore portfolio-level lifetime value, and identify your most important customers. You can run loyalty as a portfolio strategy.

For operators currently running on fragmented or legacy payment infrastructure, this level of unified loyalty and guest visibility is often exactly what's missing today. Just as importantly, modernizing your payment architecture does not have to mean replacing every system already in place. The right infrastructure strategy can unify loyalty and guest identity across channels while integrating with the broader technology stack operators already rely on.

That unified approach creates measurable business impact. When operators used Verifone payment solutions integrated with a payment loyalty partner to support minimum-spend loyalty strategies, participating brands saw average order value increases of 12–18%. By connecting payment and loyalty data in real time, operators can create more targeted offers, drive higher engagement, and unlock more value from every guest interaction.

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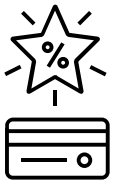
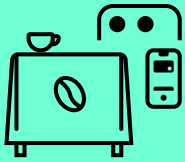


Verifone: Built for restaurants, from drive-thru to dining room

Today, 7 of the top 10 North American QSR brands run on Verifone payment infrastructure. Across thousands of locations globally, Verifone powers some of the most demanding payment environments in restaurants, where speed of service, uptime, and operational consistency directly impact revenue. The same infrastructure discipline that supports high-volume QSR environments helps fast-casual and full-service operators modernize their payment architecture as well.

Just as importantly, modernization does not have to mean operational disruption. Large restaurant operators routinely face the challenge of refreshing payment infrastructure across hundreds or thousands of locations while keeping drive-thrus, counters, kiosks, and mobile ordering channels running without interruption. In one large-scale QSR deployment, Verifone supported the replacement of tens of thousands of payment devices across multiple ordering environments while maintaining operational continuity throughout the rollout. For restaurant IT and operations leaders, that implementation flexibility is often just as important as the technology itself.

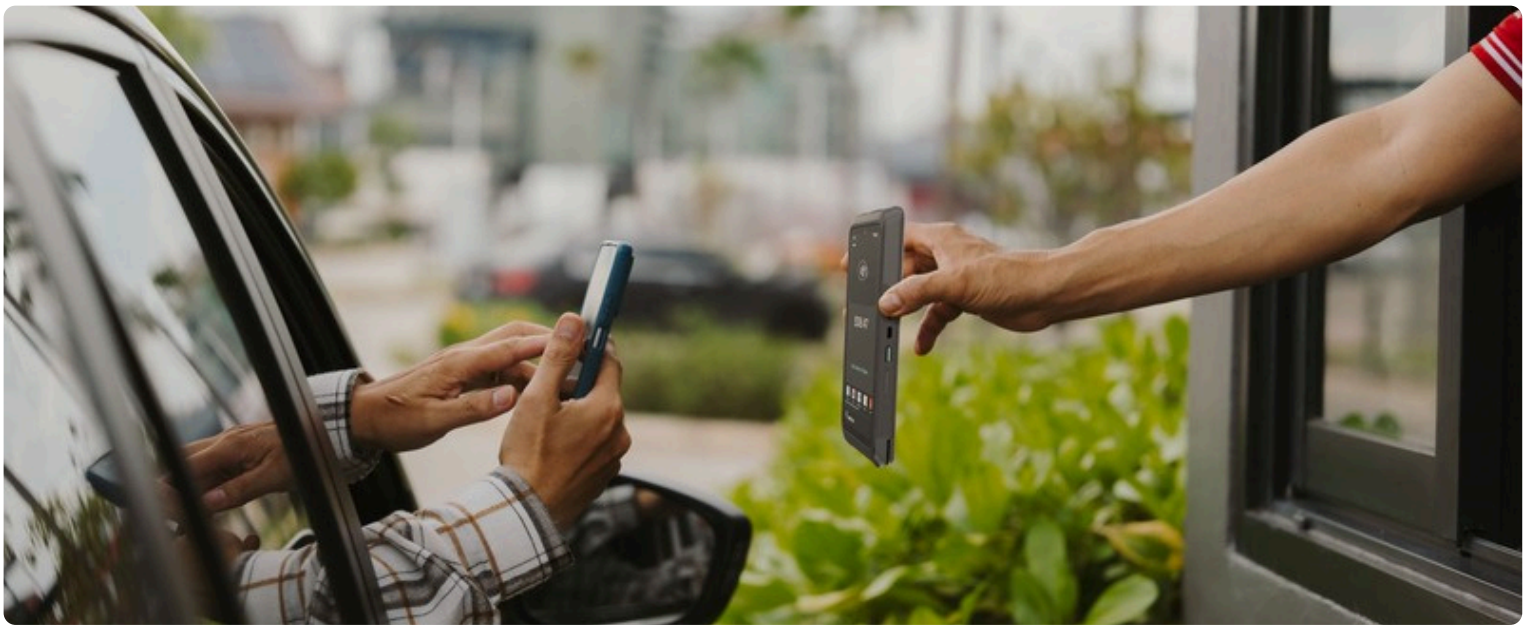
Verifone powers some of the most demanding payment environments in restaurants



Restaurant operators choose Verifone for an integrated architecture that helps solve the operational challenges created by fragmented restaurant technology environments:

- **An omnichannel gateway** that unifies card-present and card-not-present transactions under a single guest token, helping operators maintain loyalty continuity and personalized guest experiences across dine-in, drive-thru, curbside, kiosk, app, and delivery channels.
- **A partner ecosystem** with more than 2,500 pre-certified integrations across POS, ordering, kitchen, loyalty, and restaurant operations platforms, helping brands modernize payment infrastructure without replacing the broader systems already running their business.
- **Processor-agnostic routing** that helps operators improve resiliency during peak service periods, optimize authorization performance, and maintain flexibility in how transactions are processed across regions, brands, and franchise environments.
- **Devices built for every payment point and restaurant environment,** from dine-in and front counter service to kiosk, line busting, curbside, and drive-thru operations, including hardware designed to perform reliably in high-volume indoor and harsh outdoor conditions.

For restaurant IT leaders, that means modernizing an estate without creating new operational complexity. For marketing and loyalty teams, it means finally connecting guest identity and personalization consistently across channels. For finance leaders, it creates a clearer business case for modernization by reducing operational friction, improving resiliency, and giving brands more flexibility in how they manage payment costs and processor relationships over time.



In the modern restaurant landscape, payment infrastructure is no longer a back-end utility. It shapes throughput, loyalty performance, operational resiliency, and the guest experience itself. Every slow drive-thru, failed loyalty redemption, and disconnected ordering experience is a signal that legacy infrastructure is struggling to keep pace with how restaurants operate today.

Modern restaurant brands need payment infrastructure built for speed, flexibility, and scale. Verifone helps operators move beyond fragmented systems with an integrated, modular architecture designed specifically for the realities of restaurant commerce.

Discover why the world's leading restaurant brands trust Verifone to power their payment stack. Explore Verifone's restaurant solutions, or get in touch with us today for a personalized assessment of your current payment stack and a roadmap to modernization.

Get started today

The world's leading brands trust Verifone for global payments. We power the boundless payments grid — enabling distinctive commerce experiences for merchants, fintech companies, and financial institutions wherever commerce happens.

By combining a flexible payments platform comprised of devices, applications, services, acquiring and more, an open ecosystem of 2,500+ integrations, and four decades of payments expertise, Verifone eliminates complexity and expands what's possible across every payment channel.

Each year, Verifone processes $8 trillion in transaction value across 165+ countries around the world helping businesses of all sizes to grow without limits.

Learn more at verifone.com

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