

Charting the Path That Links Technology and Business Goals

ENSURING SEAMLESS MOBILE INTEGRATION

Mobility has become a business necessity for restaurants. From mobile loyalty to mobile payment, customers demand engagement and experiences that can be delivered via mobile devices. As this becomes a necessity, restaurants must recognize that a mobile strategy cannot exist in a vacuum; systems must talk to each other. Delivering a seamless and consistent digital experience, will require restaurants to take measures to integrate mobile technologies across the enterprise and at all customer touchpoints. To provide guidance and best practices for doing so, *HT* talks to operators, industry consultants and technology providers to offer a blueprint for successful execution of company-wide mobile integration.

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56%

OF DINERS' RESTAURANT SELECTIONS ARE INFLUENCED BY THE ABILITY TO USE MOBILE PAYMENT.

Source: HT's 2016 Customer Engagement Technology Study

Mobile is rapidly transitioning from add-on to table stakes. As mobile devices further infiltrate all aspects of daily life, operators are under increasing pressure to make mobile work in complex restaurant IT environments.

According to *Hospitality Technology's 2016 Customer Engagement Technology Study*, certain mobile technology offerings may influence diners' restaurant selections. Research findings reveal that the option to be able to use mobile payments is a deciding factor for 56% of potential guests and feature-rich, useful mobile apps makes the difference for 57%.

Operators are aware of these customer demands, which is influencing point-of-sale purchasing and upgrade plans for 2017. *HT's 2017 POS Software Trends Report* indicates that enabling mobility is top-of-mind for restaurant decision makers. Adding mobile POS was a top business driver influencing restaurants' upgrades for 52% of operators. This was followed by 46% reporting that enabling new payment options such as e-wallets was influencing POS investment decisions.

When asked to identify top functionalities for POS, 49% of operators tapped mobile wallet. Coming in second, with 48% was integration with other systems. Because mobile crosses so many boundaries, systems that happily co-existed in separate universes must now seamlessly connect in real-time. So setting a roadmap for mobile integration can mean creating an IT plan for the entire organization. Many use the introduction of mobile apps and mobile-enabled websites to redirect their future IT architecture.

The majority of IT moves that restaurants make in the near-future will touch mobile in some way. "Anything you're going to do moving forward probably requires mobile app integration at some point, even loyalty programs," says Robert Grimes, CEO of the International Food and Beverage Technology Association (IFBTA; www.iftba.org) and founder of ConStrata Technology Consulting (constratatech.com).

Laying careful groundwork for future mobile integration today gives restaurants the flexibility to respond nimbly to new mobile

52%

**OF OPERATORS SAY
ADDING MOBILE POS IS
A TOP BUSINESS DRIVER
INFLUENCING UPGRADES
FOR 2017.**

*Source: HT's 2017 POS Software
Trends Report*

demands tomorrow. A big undertaking to be sure, but *HT* queried technology experts and consultants to build this *HT* Roadmap: Mobile Integration. Through a series of best practices and step-by-step guidance, *HT* illustrates how restaurants can get it right through preparation and thoughtful vetting of partners.

STEP 1: FORM AN IT/PROJECT STEERING COMMITTEE

Organizations that think in silos when adding solutions results in poorly coordinated investments – particularly if IT does not report to the CEO. Every company needs an IT Steering Committee to recommend or govern IT projects, meeting at least quarterly.

Members should span the organization: IT, HR, marketing, operations, franchising, finance, accounting. Depending on the organization, this same group may oversee individual projects, but even the project committee must have broad representation. When Pita Pit (www.pitapit.com), a 600-unit quick service chain, formed a committee to oversee selection of cloud-enabled POS to set the stage for mobile, they initially understaffed.

“I recommend trying to get as many people on the team as early as possible so that they can hear the demos from different vendors,” says Jordy Patano, digital marketing manager, Pita Pit.

The IT steering committee sets the tech agenda according to overall business goals. If expanding delivery is an objective, that will shape how mobile is rolled out, for example. Departments should share upgrade and replacement plans. Before choosing a POS specifically because it’s already integrated is their backend systems, learn whether accounting has a replacement scheduled, notes Grimes. He suggests creating a three-year roadmap.

STEP 2: ASSESS CURRENT ENVIRONMENT FOR MOBILE READINESS

To lay a solid groundwork for mobile, it’s best to get the current IT house in order. That starts with thorough assessment and documentation. Look for overlapping solutions, isolated systems un-

Making Networks Mobile-Ready

JIM BIGGS, SENIOR DIRECTOR, MARKETING, CYBERA



Q: What considerations should operators keep in mind when assessing the state of current distributed networks prior to the addition of new mobile apps?

Biggs: The operator's goal should be to "rightsize" their network investments for a strong user experience across those mobile applications most critical to guest loyalty. For instance, how do applications that create the most frictionless guest experience such as mobile payments, tableside ordering, WiFi and IoT perform on their current network? What would it take to bridge the network gaps to that user experience? How much of their existing network investment could they preserve? How well would the new network investments integrate with current networks to "tap" into guest insights and analytics already residing in the network? How do they standardize their new network platform across all remote locations to reduce support costs, accelerate new mobile application roll outs and ensure a consistent guest experience? Just as importantly, what would it take to roll out these applications securely and transparently to the guest? Finally, what would it take to do this in a sustainable fashion? It's no secret that security is a constantly moving target and guests are demanding more convenient and personalized experiences — how does an operator cater to those continuous changes while maintaining their margins?

Q: What questions should customers ask potential vendors about how network product/service can deliver a fast and reliable user experience?

Biggs: Key vendor questions would include:

- Does the vendor require private broadband or can it provide a high performance network over inexpensive broadband?
- What types of wired and wireless connectivity does the solution accommodate for seamless connectivity?
- How does the vendor offer business continuity and network resilience in the event of an outage?
- What applications and customer deployments does the vendor have experience with?
- Is there a performance penalty on the user experience with security?
- What degree of interoperability does the vendor's

solution have with the operator's existing network?

- If the customer is interested in outsourcing the function, does the vendor offer a fully managed service for managing, operating, and supporting the distributed network in remote locations 24/7/365? And do they offer Service-Level-Agreements (SLAs)?
- Does the deployment and maintenance of the network require IT/security staff or knowledge and if so, to what degree?
- What is the typical payback period or total cost of ownership of the solution?

Q: How can operators ensure the introduction of new mobile services, especially payment, doesn't have a negative impact on security or PCI compliance status?

Biggs: A strong and rapid line of defense when introducing new mobile services, especially in networks carrying cardholder data such as payments or loyalty, is micro-segmentation. Micro-segmentation isolates each application into its own virtual network to prevent the intermingling of application traffic. This measure prevents lateral breach propagation across applications.

Q: What should restaurants expect in terms of ongoing support needs to ensure networks remain secure and robust after implementation?

Biggs: Restaurant operators can eliminate the support costs and delay associated with onsite technicians by selecting a cloud-based platform for remote and rapid security updates. The "absolute zero-touch" design of the platform consolidates multiple layers of security into a simple device that restaurant personnel with no IT/security training can install in minutes, eliminating the cost and complexity of supporting a multi-box solution. Moreover, having a vendor that has a mature cloud-based solution and strong franchise expertise means threats seen in one customer location can be rapidly remediated across the vendor's entire customer base through the cloud. Finally, a vendor that provides continuous monitoring helps operators address attack vectors more proactively.



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“WHEN WIFI ROBUSTNESS IS A CHALLENGE, OPERATORS SHOULD LOOK AT THE AVAILABILITY OF 2G OR 3G NETWORKS.”

known to IT, and different databases with varied data formats.

Resolving the mishmash of franchisees’ databases with varying item numbering systems was a top priority for FSC Franchise Company, which operates 220 Beef ‘O’ Brady (www.beefobradys.com) sports pubs and 43 The Brass Tap (www.brasstapbeerbar.com) bars.

“You want to be able to pull your information using the same language to get the correct sales and to use mobile technology of any kind,” says Joe Uhl, COO, FSC Franchise Company.

Also determine what is on premise versus centralized? How do orders flow? If there are mobile solutions in place, how are they integrated? Pita Pit had a siloed third party online ordering system.

“Everything that came in online operated on the fax machine and everything in the store happened on POS,” says Patano. “It was probably one of our biggest mistakes.”

The current state of POS will shape how to approach mobile. Document all brands and versions in use as well as hardware age and condition.

Mobile brings new traffic, carrying sensitive data, so it’s important to assess the network. Networks must be robust, secure and well-maintained. Look at availability of 2G or 3G where WiFi is challenging, and don’t forget to test wireless signal in both empty and full conditions.

A final check is cultural. Leadership and franchisee buy-in can make or break a mobile project.

STEP 3: ASSESS AND SELECT VENDORS

Preserving investment and avoiding complexity are important. Start by considering mobile products from current POS vendor(s) or their partners.

CHECKLIST

1. Do these products suit your needs?
2. Is there more than one choice per category?
3. What is the vendors’ roadmap for future development?

48%

**OF OPERATORS NAME
INTEGRATION AS A TOP
FUNCTIONALITY FOR POS
IN 2017.**

*Source: HT's 2017 POS Software
Trends Report*

After narrowing its search to two vendors, restaurant holding company Parasole Restaurants Holdings (www.parasole.com) chose QikServe (www.qikserve.com) for its new fast casual brand Field Day by Good Earth because it was already integrated with its Oracle Micros Symphony (www.oracle.com) POS system, minimizing integration costs.

The path of least resistance is not automatically best, however. It's important to determine how solutions are integrated and what flexibility they offer to add other solutions. Are there open, fully documented APIs? Cloud providers such as Omnivore (www.omnivore.io) promotes its architecture as facilitating easier, standardized integrations.

Pita Pit learned to probe "we can integrate with anything" claims, according to Patano. The company would ask, "Does this functionality between the two companies work today or is it 60 percent complete, as far as it can be completed because other pieces don't work together?" Ask for specifics and then ask for examples to see how they work together.

"We make sure that they're also thinking about other vendors when they're publishing updates because some companies push updates but they don't make them accessible," she adds.

Another useful exercise is defining customer journeys to establish what apps are needed and how they must integrate. If you want an office group to call up its order history, view offers and place a delivery order on a mobile device, for example, CRM, marketing, mobile ordering and delivery dispatching must all communicate in real-time.

When its current POS vendor didn't fulfill its mobile requirements, Pita Pit spent a year determining its needs and interviewing vendors with help from a consultant. Cloud-based POS was a priority, to ensure the system could pull in data from online ordering and loyalty partners.

"We really questioned vendors," says Patano. "What does it mean when they say that they have APIs? Are those integrations working today?"

Key Decisions for Integrating Mobile Payment

MARY DAILEY RICHARDSON, VICE PRESIDENT - RESTAURANT VERTICAL, ELAVON



Q: What important decisions will restaurants need to make regarding how mobile touchpoint(s) will integrate payment?

Richardson: STRATEGIZE and PLAN; identify your long-term objectives with clear vetted directives. Be it acceptance of mobile payments as an addition to traditional payments, guest interaction, or to achieve operational efficiencies, each will have its own unique set of complexities with varying interdependent requirements. Be sure to interview and select vendors that support a consultative partnered approach to execute on your objectives.

Q: Is mobile payment best integrated with the current payment processing solution?

Richardson: Specific to payment enablement; credit, debit, gift and mobile payments should all be treated holistically as payment form factors enabling payments for goods and services. The addition of mobile payment acceptance via a mobile device expands your payment options to include frictionless payments via mobile wallets and bank cards. The reporting, funding and reconciliation process should be treated equally for all payment form factors.

Q: What tools and standards should restaurants be aware of that will help ease integration of payment into mobile touchpoints?

Richardson: Ensure you and any applicable vendors adhere to the Payment Card Industry Security Standards Council (PCI SSC) compliance guidelines and best practices. Be it a mobile device payment, an integrated in-app payment with your mobile application or the use of a shopping cart; proper security tools should be used across all platforms to ensure sensitive card data is kept isolated from the POS utilizing encryption and tokenization services.

Q: How can restaurants add mobile payment while minimizing additional security and PCI compliance risk?

Richardson: Contact your acquirer and/or POS provider to vet your specific requirements and processing configuration. The acceptance of payments via Apple Pay, Google Wallet or Samsung Pay removes clear card data and incorporates an added authentication step that identifies the owner to the device. This authentication, be it a fingerprint or PIN code, ensures the rightful owner is authorizing the payment. The transition of traditional card acceptance to a mobile payment application removes clear card data from the POS environment and adds an extra authentication step to the process. Less card data in the ecosystem and an extra layer of authentication equals a more secure environment, which is the objective of PCI compliance. While standard in-store card acceptance practices should be adhered to, the use of a stolen phone without proper authentication is eliminated.

**“CRAWL,
WALK, RUN
— THE BEST WAY FOR
RESTAURANTS TO
APPROACH A MOBILE
PROJECT.”**

The final decision came down to all-in-one versus best-of-breed, a critical decision point for many restaurants.

FSC spent two years trying to make its current POS fulfill its mobile needs, and finally decided to scrap it and move to cloud POS.

“You constantly are challenged with older platforms having different versions of software. With cloud-based you’re pretty much guaranteed you’re going to be on the same platform,” says Uhl.

FSC tested multiple legacy and cloud solutions and decided that working with the legacy POS would lock them into certain mobile vendors, or cost them money if they wanted someone else. They chose an Android-based, open architecture solution.

“They’re younger but they’re also a little hungrier,” Uhl says. “Their technology is very strong and we tested it for quite a while before we put it out there.”

STEP 4: FIRST PROJECT PLANNING & PREP

Most experts advise a crawl/walk/run approach to adding mobile. Many start with wait list and reservations. Integrated online ordering and payment or a staff-facing app comes next; this is more complex because it involves mapping to the menu and POS. Many add marketing, loyalty and delivery later. This also helps restaurants avoid making a mobile app too complex.

“Do you want to have a super online presence with a mobile app that does everything? Or do you want to have something that functions and is reliable and you can train the staff to use?” says Pita Pit’s Patano.

As the first project begins, use customer journeys to guide integration tasks. Omnivore notes that systems must be stable before adding third party integrations. It’s critical to record all changes made to the system to identify the root causes of problems as they emerge.

Many restaurants hire systems integrators, particularly if they are layering new solutions onto older platforms and the POS vendor is not cooperative, notes DMI (www.dminc.com). Vigorous testing is essential to drive out bugs and build confidence. Organizations

CONSIDERING THE OPERATIONS IMPACT

CHECKLIST

1. Can the kitchen handle a spike in orders during the dinner rush?
2. Do you need an alert when the customer is seven minutes away so you can serve the order at peak freshness?
3. Do you need orders consolidated before they hit the kitchen?

with franchisees should consider a managed services provider to centrally manage channels, menus, and so on.

DMI has found preparing location data for mobile can be a small project unto itself. Many retailers store locations as a flat file, which cannot be queried. This file must be turned into an API to enable location-based services.

FSC simplified its menu for the consumer, including only those dishes that travel well, and offered operations guidelines to franchisees. Parasole engineered its menu to dovetail with 15-minute order times and five-minute prep times, says Kip Clayton, VP business development and marketing, Parasole.

Plan for change management and communication. Toast (<https://pos.toasttab.com/>) has found that if some guests are ordering via an app, skipping a long line and grabbing food, this can upset customers in line who may not understand the process; the restaurant must communicate clearly. Staff can be resistant without good salesmanship, and will work around apps that present obstacles.

A pain point for many operators is integrating third-party online ordering (TOOS) companies. Several POS providers align with Chowly (www.chowlyinc.com) to integrate TOOS directly into POS, replacing each service's separate tablet and consolidating orders. At the same time restaurants must create mobile experiences that coax diners away from those services.

Another consideration restaurants should keep in mind is how mobile payment will integrate with processing and enable alternative payments. Will it trigger card-not-present rates? Does your gift card provider have an API? (Many don't.)

There are two common approaches to mobile payment integration. One is capturing the card number, encrypting it, sending it through the POS, and then the POS processes it as if it were swiped. Apps can store the number on the phone and encrypt it, while mobile web requires a log-in to store a card. But because of PCI, more POS companies are requiring authorization of the transaction before it hits the POS. In that case, the retailer will need

“YOU WANT CUSTOMERS TO HAVE THE SAME EXPERIENCE AT EVERY STORE, ESPECIALLY IN A FRANCHISE.”

**JORDY PATANO,
DIGITAL MARKETING
MANAGER,
PITA PIT**

a separate merchant account for mobile. Often contract terms prevent moving POS over to the new provider.

Don't forget to test payment in real-life. Parasole found restaurant lighting glare made it hard to capture a credit card image. Offering EMV or NFC requires physical contact with the card and reader.

STEP 5: SOLUTION IMPLEMENTATION

Piloting a mobile solution helps work out kinks in the interface, integrations and operations. Pita Pit refined its project in corporate stores before rollout to franchisees, while Parasole hit its system with every item on the menu during the holiday rush.

Pita Pit's Patano advises taking your time: Customers will quickly abandon a bad app or a bad store experience, unlikely to return. Donna Fahs, COO at Parasole, advises that having patience is important.

Training is critical, but so is a user interface that minimizes training requirements and makes it easy to onboard new servers. Is training live, video- or document-based?

For franchise operations, mobile often forces standardization of platforms.

“You want customers to have the same experience at every store, especially in a franchise,” says Patano.

That change can be a tough sell. Pita Pit and FSC worked hard to sell franchisees on the benefits, each attracting 90 to 95 percent of franchisees to sign on without a mandate.

“They realized they have to give up some freedoms to make it work,” says FSC's Uhl.

FSC phased in mobile which involved adding online and mobile ordering after installing new POS and server-facing ordering in 25 stores, to be followed by loyalty. Stores scheduled later get every available system at once.

STEP 6: SUPPORT & MAINTENANCE

Support and maintenance of mobile solutions should not be an afterthought; ask for specifics during the RFP process, such as

“MOBILE INTRODUCES MORE POINTS OF ACCESS, SO SEGMENTED NETWORKS AND ROBUST SECURITY FROM CERTIFIED TECHNOLOGIES IS PARAMOUNT.”

how the vendor will spot problems before they affect users.

Support needs differ across corporate, franchisees and customers, so a plan must address all three. Technology suppliers suggest asking if support includes calls as well as email. Offering in-house, live support is advisable for servers to ensure high server participation.

Assign responsibility for maintaining integrations.

“I’m a big fan of weekly calls with all vendors,” says Pita Pit’s Patano. “When they’re publishing updates are they actively communicating with other systems?”

Many operators hire network service providers to manage firewalls and maintain WiFi and cellular activity. Mobile introduces more points of access, so segmented networks and robust security from certified technologies is paramount. It is recommended to inquire about provisions to restrict access and protect against fraud, viruses and data breaches.

Lower costs mean hardware maintenance is often different for mobile devices than fixed hardware, but mobile device management helps keep track of devices and maintains images to bring on new devices. To deal with damage and battery issues, plan for a spare pool at each location.

“We tell franchisees to take your maximum number of servers and add 20 percent,” says FSC’s Uhl.

IFBTA’s Grimes encourages asking if a POS vendor will support other companies’ hardware – some do, some don’t.

CONCLUSION

Taking the complete customer journey into consideration will be the key to creating frictionless and engaging mobile experiences for guests. In order to streamline service and operations while maintaining seamless interactions, restaurants will need to identify where mobile will come into play and then ask the right questions of technology partners to map out needs. As customers expect and demand more and more mobile options and capabilities, having the right infrastructure in place to support these initiatives will ensure smooth rollouts without interrupting service. Restaurants need to identify priorities and then lay the groundwork that will allow for flexibility as the evolution of mobile continues.