Connect the Channels

Staples taps into the power of application programming interfaces to maintain a seamless shopping experience

by CRAIG GUILLOT

As retailers continue to adapt to the evolving world of omnichannel, they must frequently create apps and codes to keep up with new devices and changing customer digital preferences. Attempting to maintain a seamless experience across multiple channels with custom content and feeds can create a highly complex world for coders.

Application programming interfaces offer a digital backbone to easily support the transfer of information between systems and devices. APIs are programming protocols that help connect business processes, services, content and data in an easy and secure way. They are quickly becoming the de facto standard by which companies exchange data and build consistent cross-channel customer experiences.

They may seem like intangible, insignificant pieces of code but experts say APIs are a foundation for omnichannel retail in a world where hundreds of different devices, apps and software solutions need to communicate.

ENABLING OMNICHANNEL

APIs enable a seamless experience by easily pushing information between retailers and consumers on everything from mobile apps to in-store kiosks and cloud databases, with real-time delivery information.

Office products retailer Staples underwent an omnichannel expansion in recent years, opening its first fully omnichannel stores in 2013 in Massachusetts and Delaware. The idea was to combine the power of the company's retail network with its digital capabilities. Store locations feature kiosks and total digital functionality within the store to optimize the shopping experience. Staples also launched a series of omnichannel updates and enhancements in 2014 including in-store pickups, more kiosks and an iPad app.

Prakash Muppirala, vice president of global e-commerce for Staples, says behind the omnichannel strategy is a sophisticated background of development to enable a seamless experience across devices. Staples started working with technology and service provider

Apigee in 2012, and has since used the company's systems to create APIs that support new apps and facets of their omnichannel operations.

Developers at Staples had previously been using "screen scrapes," which simply pull information from the website and put it into a translatable format for the device the consumer is using. It's a common tactic used by many retailers, but screen scraping rarely creates a customizable

experience.

"With a screen scrape, you're using data then retrofitting it for the [device]," says Muppirala. "With APIs, you're easily creating a whole new experience customized specifically for that device."

SIMPLIFYING COMMUNICATION

Apigee provides an intelligent API platform for users to accelerate the pace of their digital business. From startups to Fortune 100 companies, Apigee uses enterprise data and services to help retailers create connected digital experiences across all platforms. Bryan Kirschner, director of the Apigee Institute, says the platform helps companies manage and analyze their digital business with tools that easily enable communication across devices.

According to *APIs for Dummies*, a free e-book produced by Apigee, APIs can be thought of as shipping containers transporting content between ports of call. For example, say a retailer wants to make a special "deal of the day" price available through its website. The app doesn't need to worry about internal pricing systems; the API simply responds with information in the proper device format and enables the app to display that to the end user.

APIs can address issues and provide a foundation for integrating content from partners to create cross-selling and upsell opportunities. They can also enable retailers to easily create new digital lines of business, extend product offerings and strengthen the brand by providing consistent personalized experiences across devices.

Kirschner says APIs allow networks like Facebook, Pinterest and Twitter to communicate with app interfaces on smartphones and other devices.

"APIs are just a way for different pieces of software to talk to one another. It's quick, easy and accelerates development," Kirschner says. "They have many uses" in retail.

Since it's been using Apigee's platform, Staples has been able to more easily and quickly create the apps and functionality it needs to optimize the omnichannel experience. The technology has allowed Staples to create a more seamless experience across its in-store kiosks, website, mobile website and apps.

The app allows consumers to access real-time rewards information, receive instant access to daily promotions and reorder past supply purchases with a few clicks. There's also a simplified checkout to build shopping lists and purchase items directly from mobile phones, even while in the store. Muppirala says using APIs has helped Staples get its omnichannel functionality up and running faster, and it provides

a robust infrastructure to adapt to new devices.

"It has given us more technical abilities to move away from screen scraping and build the device-specific experiences we were really looking for," Muppirala says. "It will be especially important in the future as the device ecosystem is exploding."

INCREASING IMPORTANCE

APIs will become an increasingly important tool for retailers, says Kirschner. Apigee Edge, an Internet-scale platform that allows retailers to build, share and manage APIs that securely deliver retail business data, can easily help retailers scale as needed for events like Black Friday.

The product can build personalized alerts, notifications and recommendation features, and can simplify support for retail customer use of new digital devices. Apigee Insights also helps retailers use APIs to analyze and learn more about individual interactions within or across all retail channels.

The growing use of smartphones in both the in-store and at-home omnichannel experience will further the need for effective API management. Kirschner says apps will continue to increase in importance to the omnichannel experience, and the bar is continuing to rise on what customers expect from those apps.

"APIs are essential for developing great apps and a seamless and personalized experience, and I think their relevance will continue to rise as more companies pursue apps," he says.

Having the technological ability to easily deliver fresh, customized offers can reduce customer flight and increase loyalty. Kirschner says that with sequence processing capabilities, Apigee can help retailers find time-based patterns in customer behavior across all channels, offering new sales and marketing opportunities.

Muppirala says Staples may soon use the Apigee platform to create a mobile-only coupon that can be used in stores.

APIs can also help retailers better measure performance across all channels. Apigee can aggregate analytics data such as clickthroughs and orders, and identify common behavioral patterns to drive better digital engagement.

"We can use APIs to optimize the experience for every single device and [track] the performance of the [device and individual] experience and how it's being used," says Muppirala. **STORES**

Craig Guillot is based in New Orleans and writes about retail, real estate, business and personal finance. Read more of his work at www.craigguillot.com.