

# Self-Checkout Point-of-Sale

## *Technology Innovation - Back Office/Business Support*

### THE NEED

Rodan + Fields® was about to announce a breakthrough innovation to 8,000 excited Consultants, representing a critical milestone in company history: ACUTE CARE™ Skincare for Expression Lines was being unveiled at the 2014 Convention. This highly anticipated and revolutionary skincare product would be available to buy immediately after its main stage announcement—in an exclusive offer just for attendees.

Immediately after the reveal, thousands of excited shoppers would simultaneously rush into the exhibit hall for the chance to get their hands on the product. With the excitement around ACUTE CARE and the limited quantities of product, we needed to plan for a frenzy of demand. The previous year we'd learned that traditional store checkout methods didn't work, with Consultants waiting upwards of four hours in line to buy products. While we were able to provide entertainment to appease the crowds in line, we knew there had to be a better way this time around.

We'd set ourselves a new goal. In 2014, no Consultant was going to wait more than 20 minutes to get through the end-to-end shopping experience. The challenge was for Rodan + Fields to deliver a stress-free shopping experience, giving as many Consultants as possible the chance to try ACUTE CARE for themselves and more time to experience the rest of the Convention.

### THE SOLUTION

Rodan + Fields developed a state-of-the-art self-service checkout station. With a few taps on the touch-screen interface, Consultants could seamlessly complete their purchase and pick it up at their convenience at the fulfillment counter.

The self-checkout system was deployed on over 300 Windows tablets. Consultants would interact with a self-service tablet, transact and receive a text-message pick-up notification. The entire shopping experience could be completed in under 90 seconds without requiring any staff assistance. Using advanced scheduling and inventory algorithms, the system allocated smart pick-up times to avoid any waits at the fulfillment counters.

At the heart of the self-checkout system, was a leading-edge, secure, scalable and configurable platform that powered the



entire shopping experience end-to-end. With a single tap, this multi-purpose system meant that a self-checkout station could be converted into a fulfillment station for use by the staff to look up order details and fulfill the customer order in under 30 seconds. The same stations were also leveraged for the swag store. With another tap, any station could be converted into a traditional checkout register.

This innovative solution allowed a single tablet station to toggle between self-checkout, fulfillment and traditional register modes. As a result, the event planning team gained the flexibility to react in real-time to changing shopping dynamics, reconfiguring the store layout and traffic flows based on need.

A real-time analytics dashboard was developed on top of the platform to monitor down-to-second order volumes, sales number and the entire ecosystem of devices.

## IMPLEMENTATION

### DISCOVERY

After the previous year's customer wait times exceeded four hours, the goal was to ensure the wait in 2014 would not exceed 20 minutes. Simply increasing the numbers of registers was not a feasible option because that would require over 300 staff members to support the registers.

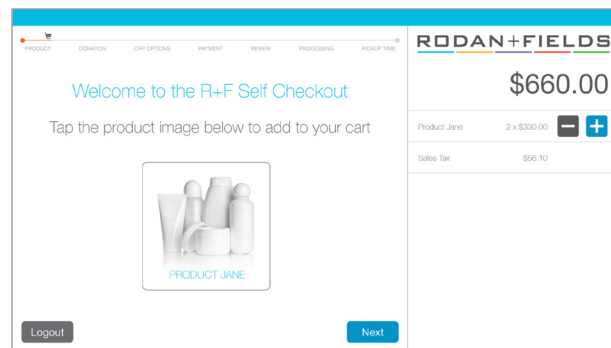
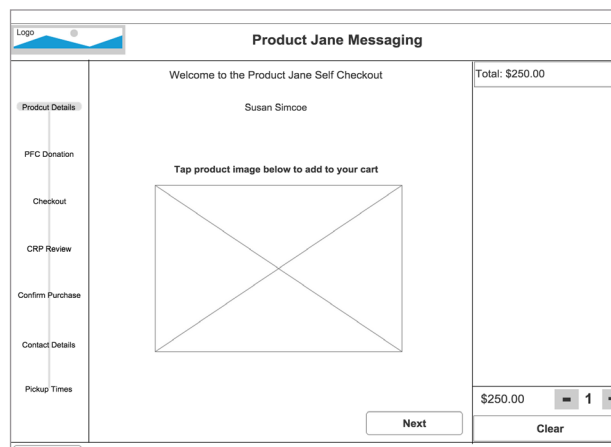
The first step was to assess self-checkout system vendors. None met Rodan + Fields' strict SLAs and requirements. Each one was dismissed due to poor integration support, cost prohibitiveness or lack of aesthetics. This required developing a custom software and hardware solution in-house.

When sourcing hardware, the team hit the physical limit of wireless communication. Consumer tablets like iPads were an obvious hardware choice: They were easy to obtain, easy to develop on and shoppers were used to them. But thousands of Consultants in a single exhibit hall meant thousands of Internet-connected devices competing for radio waves and potentially canceling each other out. A wired connection was required, eliminating almost every tablet option the team was exploring at the time. Hundreds of tablets were evaluated and a suitable Windows tablet was eventually discovered.

Building a scalable software solution that could handle burst loads of thousands of Consultants suddenly using the system was the next challenge. Typically, the hardware for this could cost upwards of \$100,000 with a large lead-time. Instead, the team leveraged Amazon's highly scalable cloud infrastructure to dynamically scale the software platform based on shopper numbers. This meant the system could easily handle tens of thousands of customers without a hiccup.

### SOLUTION DESIGN & BUILD

The team developed various low- and high-fidelity prototypes and tested them with users repeatedly to refine the flow. Before development even started, the customer experience had already been tested with over 30 users and required less than 90 seconds to checkout.





To diagnose any issues that could occur in real-time, the team created a sophisticated phone-home mechanism. Each of the 300 tablets would periodically submit a health check to the central system. The tablets would self-diagnose any problems, and a member of the technical team would be dispatched to assist.

The final product was 300 state-of-art custom self-checkout stations organized into pods and distributed throughout the exhibit hall. The end experience was customers completing checkout in a few taps without staff assistance, using their account and payment information on file, and receiving a pickup time and an additional text message reminder. Advanced features such as ability to pay with multiple credit cards and easily adding a donation to Rodan + Fields' Prescription for Change™ foundation without disrupting the checkout flow were included as well.

A portion of the self-checkout stations were converted with a single tap to fulfillment counters that the staff then used to look up Consultant orders via their badge and give them their purchased goods.



## RESULTS

The results were absolutely ground breaking. The system performed flawlessly with maximum wait times of only 10 minutes during the highest peak time when over 1,000 Consultants were shopping at the same time.

Over 7,000 orders processed with system uptime at 100%. The state-of-the-art platform scaling algorithms adapted the system in real-time to meet the ebb and flow of the customers.

But the benefits lasted long after Convention. The core platform performed so well that it has subsequently been repurposed and used to power Rodan + Fields flash sales events that attract tens of thousands of customers. This technology offering has fundamentally changed the way Rodan + Fields looks at the shopping experience. We now have the opportunity to leverage our Convention event spaces in totally different ways, and we no longer need to anchor the event schedule around hours of Consultant “down time” while waiting in line to shop.

Product Sales	\$3.6M
Product Orders	7,282
System Uptime	100%
Checkout Time (median)	70 seconds
Wait Time (avg)	5m
Orders using credit card on file	46%
Donations collected during checkout upsell	\$31,000

