

A Data-Driven Guide to User Onboarding



A Data-Driven Guide to User Onboarding

Businesses have been tightening their belts. Fears of a recession, higher operational costs from inflation, and a stop-start supply chain has everyone taking a more cautious approach to their budgets. In times of economic uncertainty, the question becomes: how can we weather the storm?

While the past few years have best been described as unprecedented, we can look to how businesses survived previous economic downturns to help guide us. In fact, research from The Harvard Business Review found a pattern among companies that successfully navigated a recession: they didn't take a blanket approach to cutting costs. Instead, they made strategic investments that were rooted in [customer's core needs](#) and [digital transformation](#).

“Companies that put customer needs under the microscope, take a scalpel rather than a cleaver to the marketing budget, and nimbly adjust strategies, tactics, and product offerings in response to shifting demand are more likely than others to flourish both during and after a recession.”

[Harvard Business Review](#)

Even in the best of times, [customer retention has been lauded as a fundamental strategy for both growth](#) and profitability. A [5% increase](#) in customer retention can produce 25% more profit. And it's roughly [5x more expensive to acquire a new customer](#) than to retain a current one.

That's why, for the purpose of this guide, we decided to focus on a foundational part of the customer relationship – the interactions that can set you up for failure or success when it comes to retention, loyalty, and lifetime value. That is: user onboarding.

The benefits of user onboarding

Onboarding is the process of training and familiarizing a new user with your product.

It typically plays out over three stages:

1. **Introducing** customers to your brand or interface (e.g. guiding them through their first few interactions so they establish a familiarity.)
2. **Familiarizing** them on the details of your products and services and how they can help address their pain points (demonstrating value).
3. Ensuring new customers have **acclimatized** or reached **activation** (i.e. have a high level of comfort navigating your interface, established a routine, and *received* value).

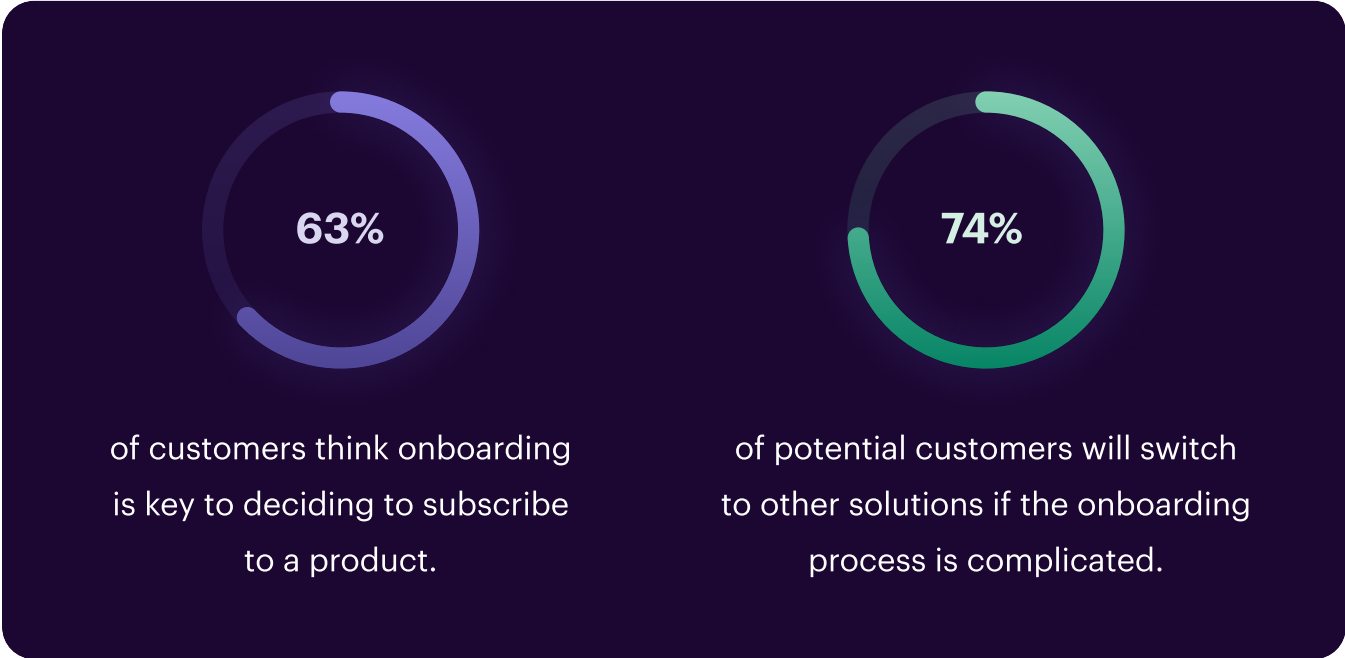
TIP:

We recommend verifying users before getting them started on the onboarding path to safeguard against bad actors, fake accounts, and to increase account security for your new users. This avoids fraudulent activity that could hurt your brand reputation and your budget.

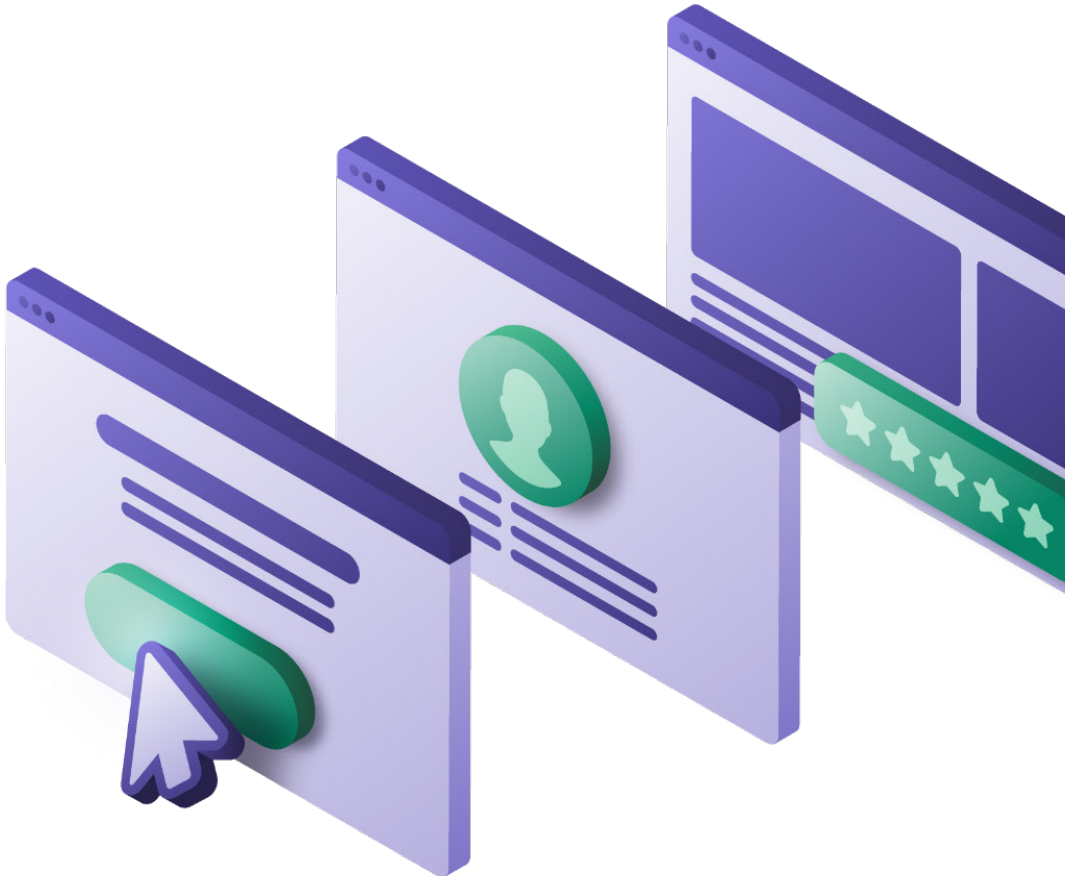
Twilio APIs can make this process seamless. [Learn more about Authy, Verify, and Lookup here.](#)

While this seems straightforward, user onboarding can be difficult to pull off. It requires a real-time view of how users are engaging with your product or platform, a personalized touch, and proactive intervention if you identify a churn risk. And if user onboarding is unsuccessful? You've lost that customer.

But the benefits of getting user onboarding right can have a compounding effect, such as: higher rates of product adoption, greater customer retention (which translates to lower customer acquisition costs), along with better chances of cross-selling and upselling.



[Source](#)

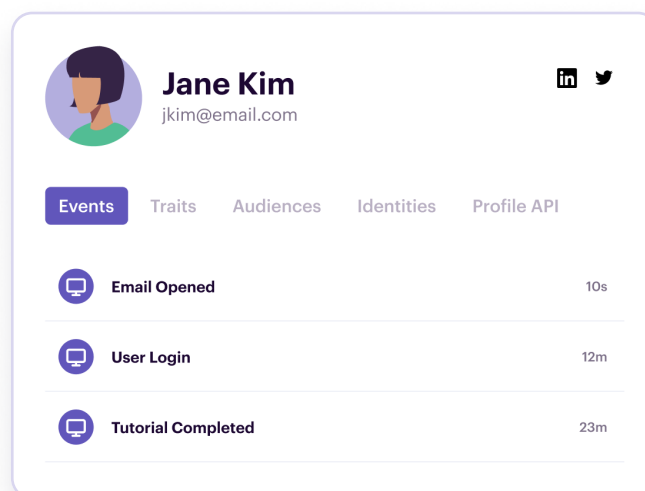


How to build the ultimate onboarding flow

To build out a successful onboarding flow, you'll need to have the right data infrastructure in place and integrations with the right tools. Onboarding can be a complex process to set up behind the scenes, but needs to flow seamlessly for the user. Having the ability to track and consolidate customer data from every interaction will be essential. And just as important is the ability to share this data with your marketing and analytics tools (e.g. to send perfectly timed reminder emails, analyze cohorts, etc.)

Here's a high level overview of what you'll need to do:

- Collect and consolidate customer data from every interaction (e.g. email, product usage, customer support requests). This data infrastructure can be [built internally, or businesses can use a CDP like Twilio Segment](#).
- Funnel this first-party data into unified customer profiles, which are updated in real time. This holistic customer view is essential for personalization and automation (e.g. customer journey orchestration).
- Share this data (and specific audience segments) with downstream marketing, analytics, or customer support tools to launch highly granular campaigns.



Unified user profiles provide a holistic view of how users are interacting with your brand, across every touchpoint and channel.







Identify the Aha Moment

There's a pivotal moment for new customers when everything just clicks. For a music streaming service like Spotify, it could be when a new user creates a playlist. For a grocery delivery service like Instacart, it could be when someone places their first order. This is when a customer perceives the value of your product, and how it will positively impact them. Or as it's often referred to, the "aha moment."

When designing your onboarding flow, this is the moment you want to work toward (and what will eventually give way to **activation**, or when a customer starts habitually using your product or service).

The aha moment will differ depending on the business, and the persona using the product. You'll likely have an idea of what this moment will be based on your product offering – but you shouldn't rely on gut instinct alone. As you can see in the image below, there's usually a time constraint or a quantity benchmark that comes into play. Take Twitter: their aha moment isn't when someone follows their first account, it's when someone starts following 30 users.

Aha Moments for Tech Companies

	Connect with 7 friends in first 10 days Chamath Palihapitiya, Former Head of Growth		2000 messages sent within a team Stewart Butterfield, Co-Founder and CEO
	Save 1 file in folder on 1 device ChenLi Wang, Former Growth		Returning 1 day after sign up Nabeel Hyatt, Former GM
	Follow 30 users Josh Elman, Former Head of Growth		X connections in Y days Elliot Schmukler, Former Product Manager

[Source](#)

Identifying the particulars of your own aha moment will come down to customer data. For the customers you retain, is there a similar pattern of behavior in their first few weeks using your product? Is there an action that loyal customers have taken, which churned users have not? These are the questions you should seek to answer, and cohort analysis (which can be used to compare retained vs. churned users at various time intervals) is a great way to get started.

 **TIP:**

To discover your aha moment, run a time-specific cohort analysis for your retained users. What actions did they take week-to-week (or month-to-month) to reach activation? Compare this data with a cohort analysis of churned users, on the same time frame.



46%

of consumers say a successful onboarding process would increase their likelihood of spending more on a product or service.

[Source](#)

Map out the onboarding journey

Next, you'll want to create a customer onboarding journey map to understand how your business guides new users to your aha moment and beyond. Since many teams (like marketing, UX, product, and customer success) play a role in user onboarding, you'll want to include them in this exercise to ensure everyone is on the same page.

Aside from improving internal alignment, this map can also give you a deeper understanding of where your current process can be improved. When building a journey for each of your target personas, you'll want to think critically about:

- **Questions:** What questions users might have at this stage, and how your current process addresses or fails to address them?
- **Actions:** What actions will your users want to take, and how can you help them to be successful?
- **Emotions:** What emotions might an individual feel at this stage, and how can you help amplify or modify these feelings?
- **Obstacles:** What obstacles, if any, might keep a new user from reaching the next stage of your onboarding process and how can you address them?

So, what should your journey map include? You'll want to create a holistic timeline of every major user touchpoint, so be sure to include elements like:

- **Welcome emails:** Emails thanking users for signing up, highlighting specific products and services, sharing best practices, and more.
- **Resource center:** On-demand content (like FAQs, how-to blog post, technical documentation, and webinars) that users can use to self-serve.
- **Guided tutorials:** Interactive guides that prompt users to explore and try key areas of your platform or website.

- **In-app or in-platform tool tips:** Helpful hints users can scroll over to define specialized terms or explain on-page elements.
- **Surveys:** A way users can share their interests, intent, communication preferences, and other helpful information that can be used for personalization.
- **Customer support:** Any calls or messages from your internal team.
- **Milestone celebrations:** A way to gamify onboarding and celebrate a user reaching a particular milestone.

Understanding how each of these interactions leads into the next – and guides individuals along their journeys – will help your business build a seamless experience for all users.

Leave a good first impression in customer inboxes. Check out our 11 Best Welcome Email Examples + Email Writing Tips. [Read now >](#)

Just remember, you can't take a one-size-fits-all approach to onboarding. Every audience persona should have its own unique journey, catered to their unique set of needs, pain points, and goals. The specialized approach allows you to create experiences that resonate better with your audiences and drive them to reach your aha moment quicker.

Need help mapping your onboarding journey? Flip to page 21 to view two sample B2B and B2C onboarding processes.

Shorten the time-to-value

There can be a few reasons why user onboarding doesn't resonate with a customer: too many steps to complete, not enough time spent on training, or it felt irrelevant to that user. In all these instances, onboarding loses the race against a customer's attention span and patience. Often, a person ends up quitting before ever reaching the aha moment – which you want to prevent at all costs.

Time-to-value refers to how long it takes a new customer to see the benefit of using your product – and ideally, you want this timeframe to be as short as possible.



[Source](#)

The first rule of thumb is to not overwhelm new users. Don't ramble about the functionality of every single feature, or require a user to complete a long list of steps to get set up. You have to strike the right balance between education and encouraging action.

The design app Snappa is a great case study in how a [streamlined onboarding flow](#) can impact retention (and your bottom line). Their team started to notice a significant drop after users signed up for their app – a 27% loss in new users to be exact. Investigating further, Snappa found the cause: early into onboarding, users were asked to verify the email address they'd given to create their account.

Not only was their team asking for a double opt-in, this step was taking users outside the app. Snappa decided to run a split test to see what would happen if users didn't have to complete this extra step. The result? Higher activation rates, and 20% revenue increase.

Personalize in real time

Every user is unique, and their onboarding experience should be too. Tailoring onboarding to each user's needs will help them find the value in your product or service quicker, ensuring they stay motivated and advance further along their journey.

Here's how to pull off a personalized onboarding process at scale:

1. Learn about your users through zero-party data

During the early stages of onboarding, ask new users to share more information about themselves, their interests, and their communication preferences via your account creation process or a post-sign-up survey. Many customers are willing to share their information if it means receiving a more personalized experience down the line.

What will you be using Canva for?

We'll use this to recommend designs and templates especially for you.



Personal

You're here to make anything and everything



Large company

You're here to scale your brand and keep it consistent



Student

You're here to impress your teachers and classmates



Non-profit or charity

You're here to design for the greater good



Teacher

You're here to empower your students



Small business

You're here to design your brand from the ground up

[Canva](#) uses a post-sign-up survey to learn how new users plan to use its platform so it can provide relevant templates and designs.

Here, graphic design platform Canva asks new users how they plan on using their platform. This simple survey helps Canva customize the onboarding experience based on people's answers. For example, someone setting up an account for a large company might be interested in Canva's team/enterprise features, which wouldn't be as relevant to a student. It also explicitly states what customers stand to gain by sharing this information: recommended designs and templates. Not only does this allow the company to learn more about its user, but also the individual gets an in-app experience catered to their needs from day-one.

2. Collect first-party data

Monitor your users' in-app or on-page behavior, so your business can learn what features and content your customers like or where they're getting stuck on your site. For example, if a user repeatedly checks out a clothing website's page for jeans, the company can use this data to customize their homepage, send styling tips, or even send them a targeted offer, like free shipping or 10% off denim to push them to convert.

Learn the difference between first-party and third-party data, including how it is collected in our guide. [Read now >](#)

3. Automate personalization

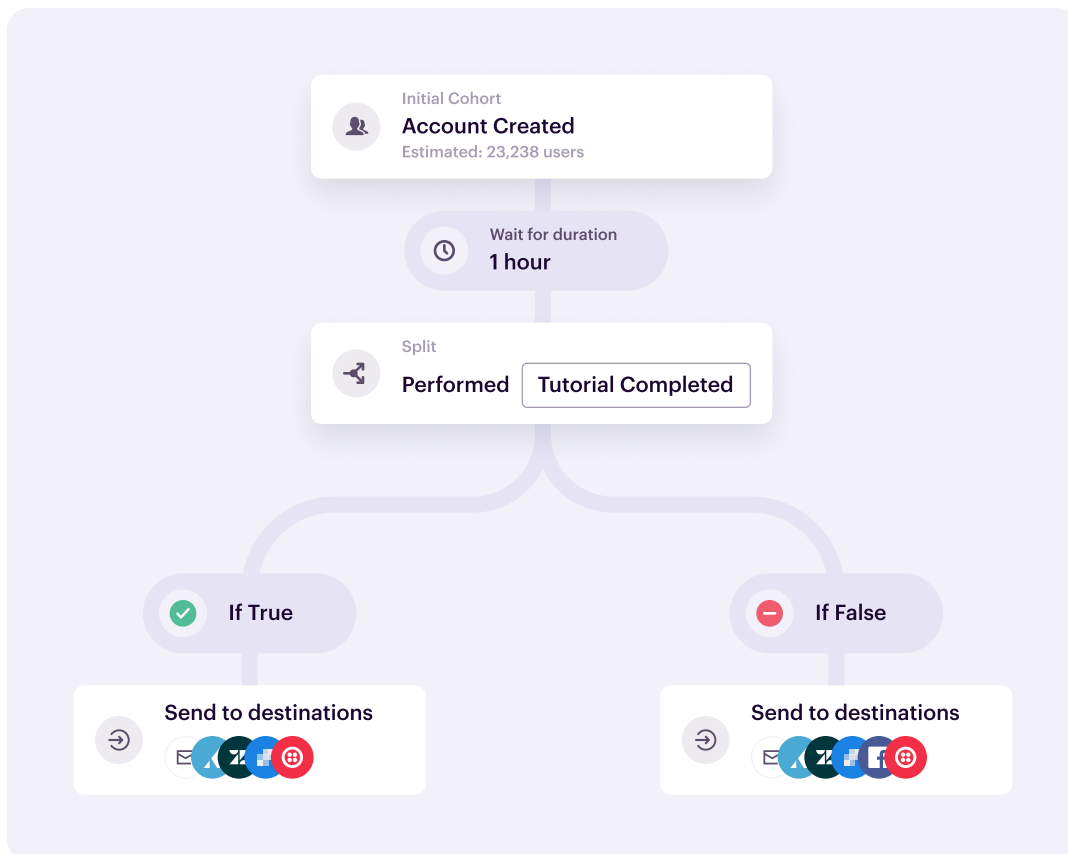
In order to get the most out of all the zero- and first-party data you've collected, you'll need a [customer engagement platform \(CEP\)](#). A CEP collects and consolidates data from every user interaction to build unified user profiles that integrate with your existing customer engagement systems — like an email service provider or direct messaging tool.

This allows you to respond to customer needs in real-time, using data to power automated, personalized workflows based on:

- **Time-based data** (e.g. an email arriving one day after sign up)
- **Behavior-based data** (e.g. sending more in-depth resources on a feature that a user recently used for the first time)

For example, say a new user completes a tutorial in your application. Your CEP can track that an individual completed this event, send this information to an email service provider (like Twilio SendGrid), and kick off an automated workflow to congratulate them on the accomplishment. Should the new user fail to complete a tutorial, you can also use this information to send relevant how-to content, or notify your customer support team to reach out.

Destinations	Advertising platforms, Email service providers, Support applications
Required Events	Account Created, Tutorial Completed



A sample customer journey that leverages automation to determine how a business responds to a customer completing (or not completing) a tutorial.

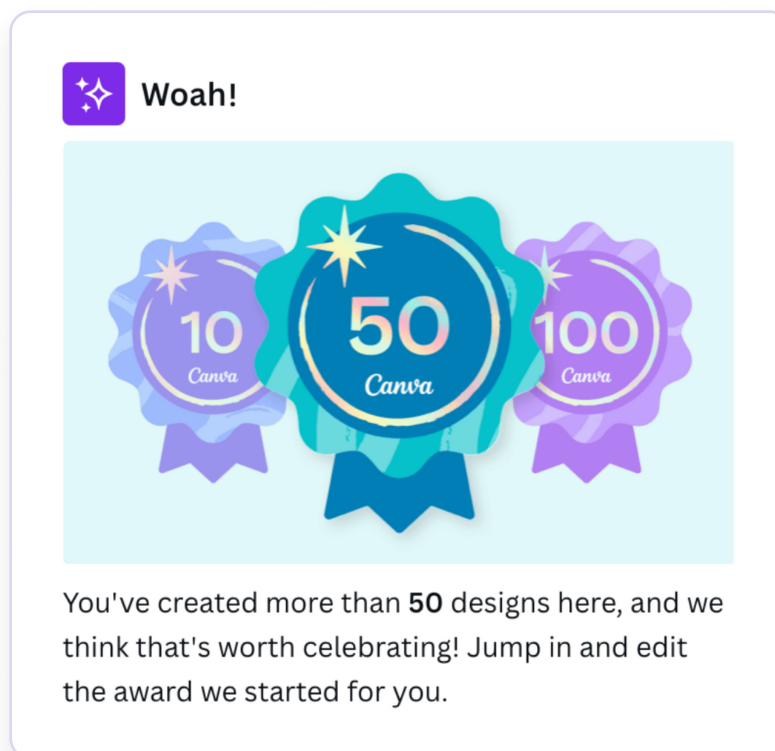
Personalization in action

[Learn how The Motley Fool leveraged unified profiles](#) to customize their on-site tours during onboarding, based on user's membership level, interests, and behavior.

Highlight milestones to reaffirm product value

Onboarding is an exciting time. New users are learning about your brand and discovering how it can help solve their pain points. While this excitement may fade over time, your business can replace this emotion with another powerful feeling: a sense of accomplishment. As individuals transition from newbies to burgeoning pros, your business can recognize the hard work they've put in learning about your brand by celebrating their noteworthy achievements.

Canva, for example, does a great job of recognizing when users hit monumental milestones. The image below is from an email triggered once a user creates more than 50 designs within the platform (although similar emails are sent for completing 10 and 100 designs). These fun awards keep customers engaged, and link back to how much they've achieved with the Canva platform.



[Source](#)

Identify churn risks and proactively intervene

Churn is an inevitability for all businesses. But the rate of customer churn can be curbed. Just as you want to know why customers stay, it's essential to figure out why they leave – especially when it's early on in the customer relationship, like during onboarding.

Maybe new customers experienced information overload, or gave up when a credit card was required for a free trial. Using a blend of quantitative and qualitative data can help pinpoint the specific churn risks for your business. (Tracking in-app behavior, identifying high drop-off rates, or asking customers for feedback via surveys and NPS are just a few examples of data worth collecting.)

To use Twilio Segment as an example, we discovered that a new user's first two weeks using our platform were critical to set them up for success. Customers who successfully set up a data Source and Destination in this time tended to have a much lower likelihood of churning. Now, if our team notices a new user hasn't completed this step – and the two weeks are almost up – we'll send a personalized in-app message asking if they need support.

By continuing to analyze time-specific cohorts, our Customer Success team identified another important milestone: the three-month mark. This is when new users started to take advantage of our platform's more advanced capabilities. By having this point of reference – of what successful onboarding looked like – we were able to create a framework to measure customer health. This included metrics like:

- How many Sources a customer has set up
- What tracking they've implemented
- How they're acting on data
- Their investment in business intelligence
- If they're acting on intent (e.g. using Segment as they initially specified)

If we see new users failing to complete these actions within these specified timeframes, our account managers can proactively intervene, and hopefully avoid losing that customer.



“As we gather more data on customers’ in-app behavior and internal engagements, we can gain more insight into which interventions are helping to influence renewals and expansions – all while improving our forecasting capabilities.”

Stephanie Cheong
Manager, Twilio Segment Customer Success Operations



of consumers think businesses “could do better” with onboarding new customers.

[Source](#)

Continue to optimize and test

User needs are constantly evolving (as is your business). To avoid stagnation, it's worth revisiting your onboarding flow and seeing how it can be optimized.

Start by identifying which steps have the highest churn rate or lowest engagement – these are prime areas worth running experiments on (in the hopes of creating a better experience). Here are a few ideas of what you can test throughout onboarding:

- Highlighting different product features at different stages in the user journey
- A/B testing email subject lines, design, length, and timing
- Incorporating more video content on resource pages
- Testing different copy during in-app or platform tutorials
- Experimenting with overall onboarding length

Looking for more ideas to test? Check out our [The Fundamentals of Experimentation](#) guide for inspiration.

How PagerDuty personalized user onboarding to increase mobile app downloads by 178%

[PagerDuty](#) is an incident management platform that unifies developers, DevOps, IT, and business leaders to respond to critical disruptions.

With a rapidly expanding user base, PagerDuty wanted to quickly and efficiently onboard new users – and ensure they became lifelong customers. But there was an obstacle in their way: how could they deliver highly personalized onboarding experiences at scale?

Hailey Hickman, a program manager at PagerDuty, was given the task of figuring this out. Her goal was to design an onboarding flow that didn't feel obtrusive to new visitors. She wanted people to learn at their own pace without becoming overwhelmed (or annoyed).

Using Twilio Segment's bi-directional Pendo integration, Hickman was able to personalize user messaging based on their needs at that exact moment. With Segment, Hickman's team was able to collect users' behavioral data and then send it to Pendo (a tool that helps optimize in-app experiences). With this data, PagerDuty could then design a responsive, guide-based onboarding flow that morphed as each user completed an action in the app.

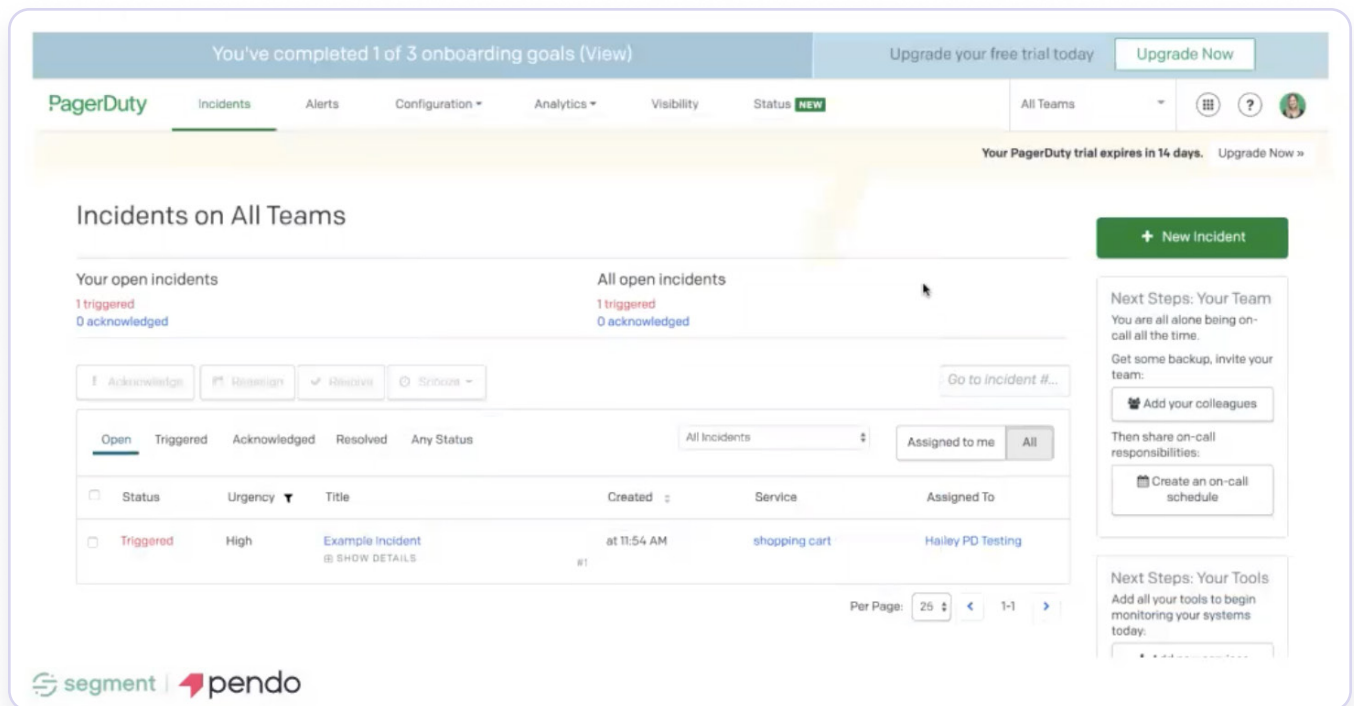
As an initial test of concept, PagerDuty created a campaign to convert free trial users. Hickman's team analyzed their customer data to identify the behaviors that often led to a conversion, which were:

1. Accounts where admins add one or more users.
2. Accounts where they set up an integration.
3. Accounts where users download the mobile app.

PagerDuty sent a series of guides to their customers in the hopes that it would encourage them to take one of the above actions. And it worked: PagerDuty netted a 178% increase in mobile app downloads when users were shown a guide.

With that proof in hand, Hickman and the team decided to push this idea beyond one-off guides, which a user could dismiss and then not see again. Hickman noted: “We don't want them to feel like they are constantly getting guides popping up in their face. We want it to be helpful. We don't want it to be disruptive.”

To uplevel their campaign, [PagerDuty used Twilio Segment to develop an onboarding nurture bar](#) – a subtle, omnipresent guide placed at the top of their UI that displayed these three goals (add more users, set up an integration, and download the app). As users complete each of the three goals on the platform, Twilio Segment detects those actions and feeds them into Pendo, which updates the bar to reflect when each task is complete.

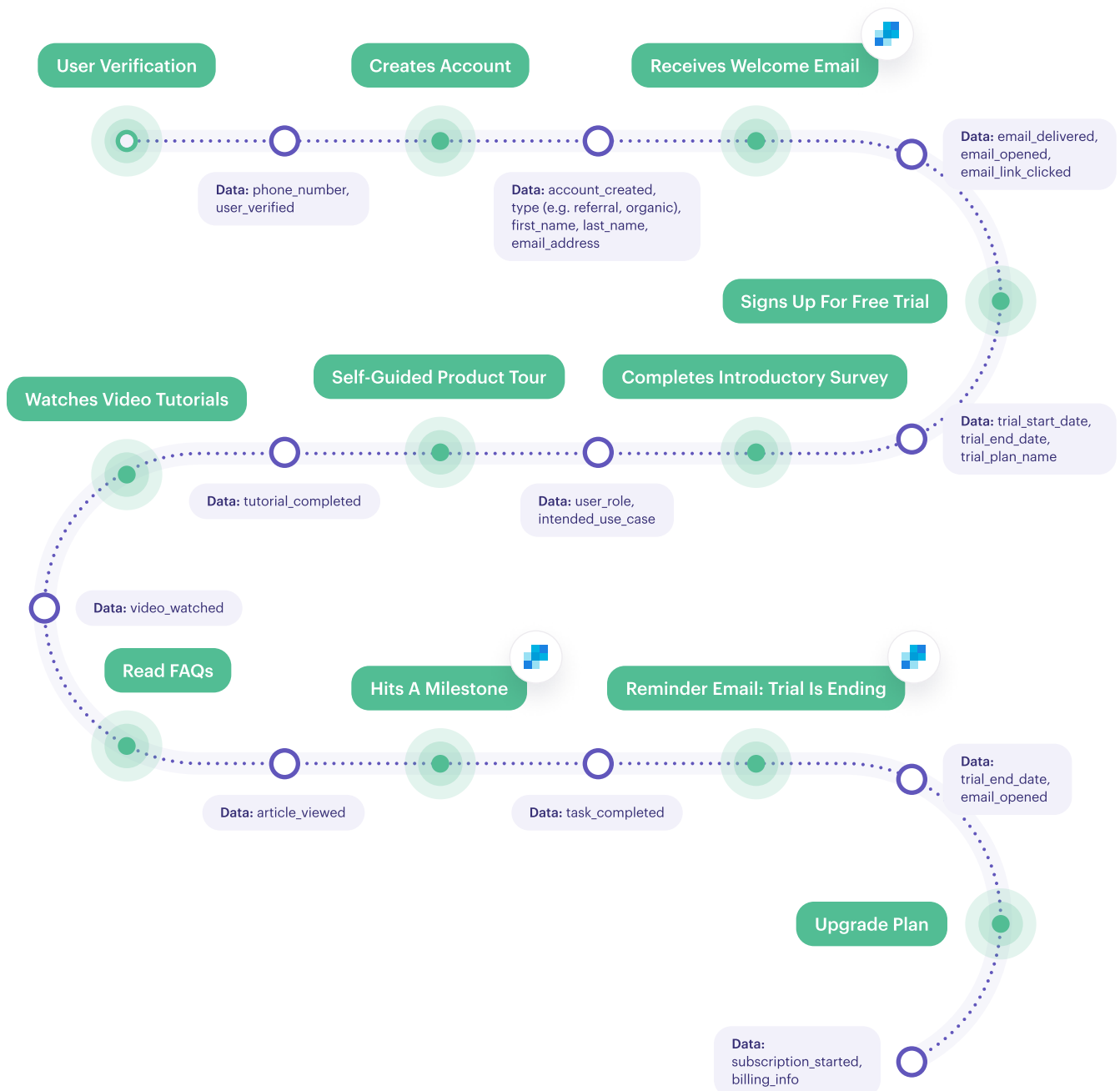


PagerDuty tracks user's onboarding progress with a dynamic homescreen banner

Sample User Onboarding Maps

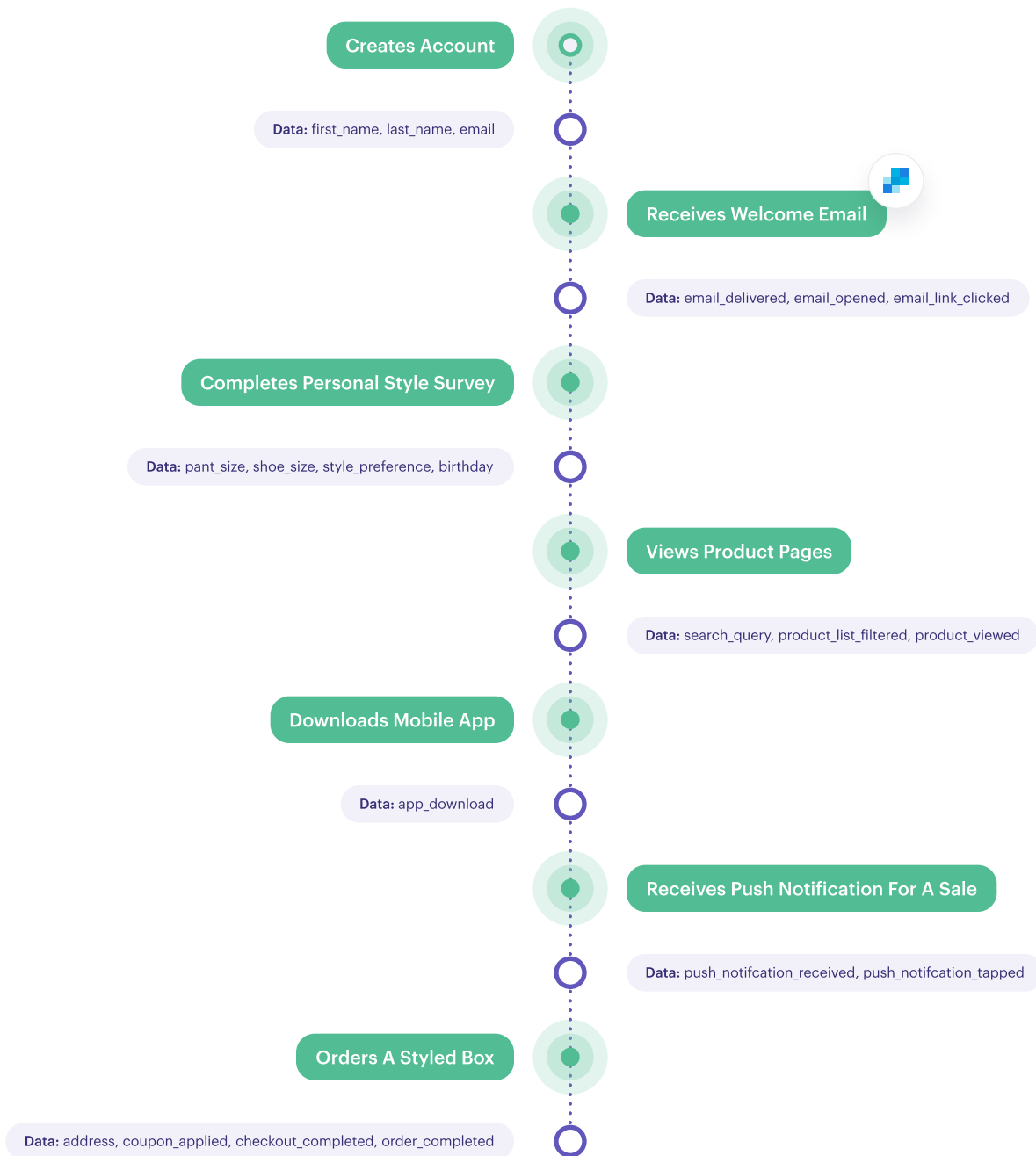
B2B Example

The following is a mock-up of a sample onboarding workflow for a B2B company, including the data they would need to track for each stage.



B2C Onboarding Example

The following is a mock-up for a B2C e-commerce company that delivers personalized clothing boxes each month to their subscribers. This onboarding flow focuses on a new user's journey from setting up an account to committing to a monthly subscription.



Wrapping up

A great onboarding experience leaves a lasting impression. It helps new users understand the full value of your products and services, and sets them up to be loyal, hopefully lifetime customers.

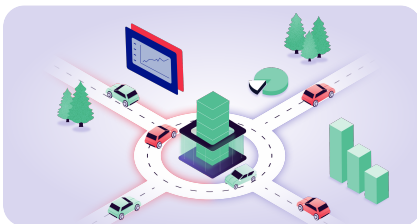
While user onboarding will look different for every business, the pillars of any successful strategy remain the same. You'll need a way to quickly and reliably:

- Collect first-party data from every touchpoint
- Build dynamic, real-time customer profiles
- Share this data with downstream engagement tools to launch personalized campaigns and delight users

And all these capabilities exist in a customer engagement platform like [Twilio Engage](#). With Twilio Engage, you can build personalized marketing campaigns across every channel and build meaningful experiences for both new and longtime customers.

Start building more personalized marketing campaigns for your new users and customers.
[Learn more about Twilio Engage](#)

Recommended reading



15 Ways to Use Data to Engage Your Customers

How to use Segment and Twilio to power your customer engagement strategy.

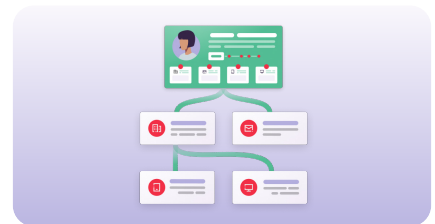
[Download the ebook >](#)



The Fundamentals of User Activation

Grow your user activation rates with these best practices.

[Download the ebook >](#)



The Ultimate Guide to Omnichannel

The secret to implementing omnichannel customer experiences at scale.

[Download the ebook >](#)