

Identity Resolution

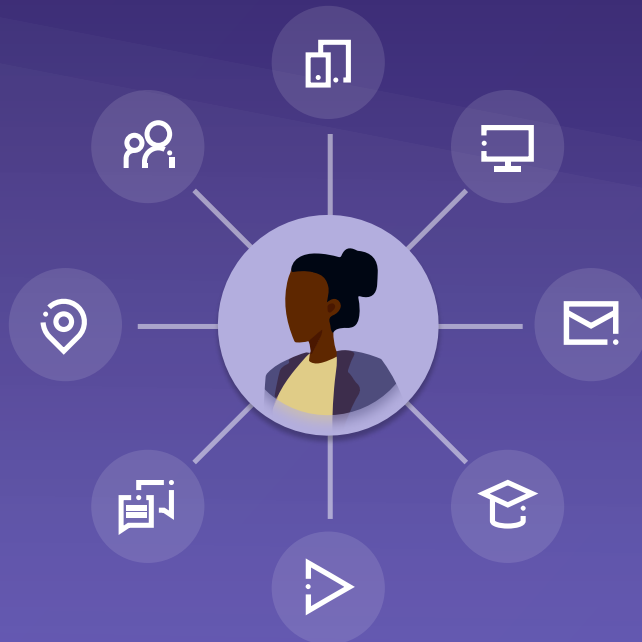
A guide to the post-cookie world



The future of personalized experiences

Delivering accurate and relevant customer experiences is now the expectation, not the exception.

2020 brought about an acceleration of business initiatives to meet consumer demands in a multi-channel, digital world. From introducing new business lines to orchestrating omnichannel campaigns, companies across all industries are overwhelmed by the pressure to “know thy customer” across all touch points to achieve personalization at scale.



If the expectations weren't already high enough, companies are also up against constantly evolving data privacy initiatives, from legislation like the [California Consumer Privacy Act \(CCPA\)](#) to the impending death of the third-party cookie. If companies don't take steps to future-proof their technology in light of these privacy regulations, they'll get left in the dust.

Given the growing privacy legislation and initiatives, companies need to take a hard look at their identity resolution strategy. First-party identity resolution, or the ability to stitch all customer data into accurate profiles, is key to improve marketing insights, optimize ad spend, and deliver a flawless customer experience. However, it's still a largely unsolved challenge.

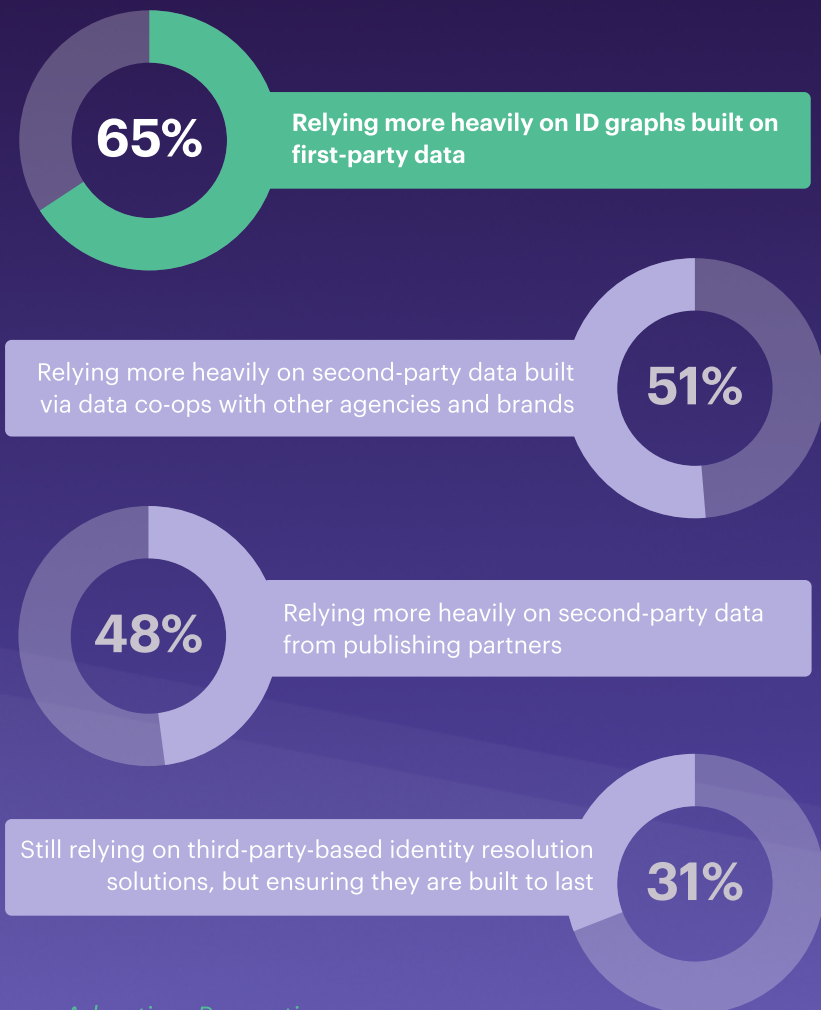
In this resource, we'll help you understand the market and technical challenges behind identity resolution, and the things you need to watch out for in designing your identity strategy.

The way the cookie crumbles

The impending death of the third-party cookie has left marketers uncertain of the future of digital advertising. Adtech companies may collaborate on a universal, collective cookie replacement, or advertisers may choose to dedicate their spend to the walled gardens of Facebook, Google, and Amazon.

In light of these announcements, companies are recognizing the growing importance in having a high-quality identity graph of their own customers. In fact, [Advertiser Perceptions reports](#) that 65% of advertisers intend to rely more heavily on ID graphs built on first-party data moving forward, whereas only 31% intend to still rely on third-party based ID resolution solutions.

As third-party cookies are being phased out, what are your [company's/main client's] tactics for addressing identity resolution in the future?



Source: [Advertiser Perceptions, Identity Resolution Report](#)



“ We accepted the death of the cookie. We double downed on our first-party data to develop a better, more personalized ad experience for all of our users. ”

GEORGE JENG

Head of Internal Product, Vice Media

[Watch George's talk at Segment Synapse 2019 >](#)

Using a customer data platform with identity resolution at the core, customers can activate on a single view of the customer to deliver relevant messaging without the need for cookie tracking or other nefarious third-party data.

For publishers, a powerful identity resolution solution enables a real-time data foundation that allows for personalization and maximizing ad revenue. From [Meredith's Data Studio](#) to [Vox Media's Forte](#), an increasing number of advertising publishers are moving away from their reliance on third-party cookies and building out proprietary data platforms with their high-value customer data.

The publisher movement to produce audiences with first-party data in turn benefits advertisers with higher converting users. With high-quality audiences, advertisers can feel confident in their advertising spend and witness more efficient return on ad spend (ROAS) and customer acquisition costs (CAC).

Whether publisher or advertiser, companies are seeing massive advantages in investing in first-party customer data strategies. And, the powerful engine behind these high-quality customer data foundations is identity resolution.

The problem with probabilistic

For many companies, one of the first considerations in an identity resolution strategy is leveraging deterministic and probabilistic methodologies.

Deterministic identity resolution uses what you know to be true. It merges identifiers like phone numbers, emails, device IDs, and user IDs that you have collected from the user. It's a high-confidence approach that uses first-party data, where you know with certainty the user's behavior and data points.

Probabilistic identity resolution uses what you predict to be true. Using predictive algorithms and/or third-party databases, it attempts to merge disparate identifiers to piece together a single view of the customer. Using a statistical model, a probabilistic approach creates a user profile within the bounds of a given confidence interval.

Deterministic	vs.	Probabilistic
Information from direct customer relationship		Information from direct and indirect customer relationship
Typically collected with consent		Not typically collected with explicit consent
Enables large audience targeting		Enables niche audience targeting
High accuracy		Medium to low accuracy

Nov 2009

EU Cookie
Legislation
(Directive
2009/136/EC)

June 2017

Apple Intelligent Tracking
Protection (ITP) 1.0

May 2018

EU GDPR in
effect

Oct 2018

Firefox Enhanced
Tracking Protection (ETP)

Feb 2019

Apple ITP 2.1 blocks
third-party cookies by
default

May 2019

Google Chrome
announces new cookie
controls

Sept 2019

Firefox ETP
blocks
third-party
cookies by
default

Jan 2020

CCPA in effect

Jan 2020

Google announces plan
to eliminate cookies by
2022

June 2020

Apple
announces
App Tracking
Transparency

With probabilistic identity resolution, stitching across devices is commonly accomplished implicitly through fingerprinting, IP matching, and other methods that customers have no way of knowing they're a part of, let alone opt out of.

In fact, the EU's General Data Protection Regulation (GDPR) already prohibits companies from taking advantage of probabilistic identity resolution. While the GDPR may seem like the most strict form of privacy regulations today, countries and technology companies around the world are taking action to be more respectful of consumer privacy.

For example, Apple's latest iOS 14 release includes a new privacy feature: [App Tracking Transparency \(ATT\)](#). With this feature, users are given more control over which apps can track them across sites and apps for advertising. As operating systems and browsers release more privacy features, and more users choose to opt out of tracking, the value of a probabilistic strategy will continue to decrease.

At Segment, our identity resolution approach is 100% deterministic. Not only does it result in more accurate, relevant customer data, but it's also based on high-quality, first-party data that your customers actually produce and consent to.



How identity resolution helps you exceed customer expectations

Driving customer-centric growth starts with a single view of the customer. But identity resolution isn't as easy as it looks on the surface. As the number of touchpoints rises, the more complex a customer record becomes and the more elusive a personalized customer experience can be.

Customer data platforms, like Segment, help businesses collect, clean, and control their customer data, and include identity resolution at its core to merge customer activity into a single profile in real time. With identity resolution, you can gather data across all touch points, tie it all to one unique user, and then use that data to delight your customers with messaging tailored to them.

This level of insight opens up a whole host of opportunities. Let's take a look at three common, but challenging, use cases that an effective identity resolution helps solve.



Analyze end-to-end customer journeys



Optimize your marketing efficiency



Deliver consistent experiences



Analyze end-to-end customer journeys

Most companies are bound to have anonymous visitors. Depending on the industry, it's common to have visitors who haven't converted yet, or users that are logged out upon arrival. Regardless of the reason, it's critical to marry unknown user activity to a user's profile once that user has made herself known.

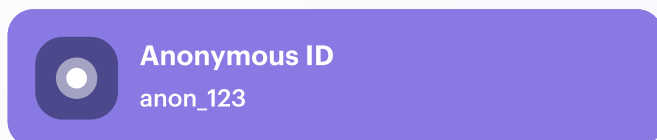
According to [Forrester's Future Of Enterprise Marketing Technology](#), 38% of marketing decision-makers surveyed say that customer retention rate is one of the most important metrics they use to understand the overall marketing impact of their B2C organization.

However, without a system to accurately stitch unknown and known users, end-to-end customer journey mapping becomes nearly impossible, as the tie between anonymous and post-sale activity is lost. Product owners, analysts, and growth marketers then lose the visibility they need to understand how users travel throughout the funnel or to drive customer retention campaigns.

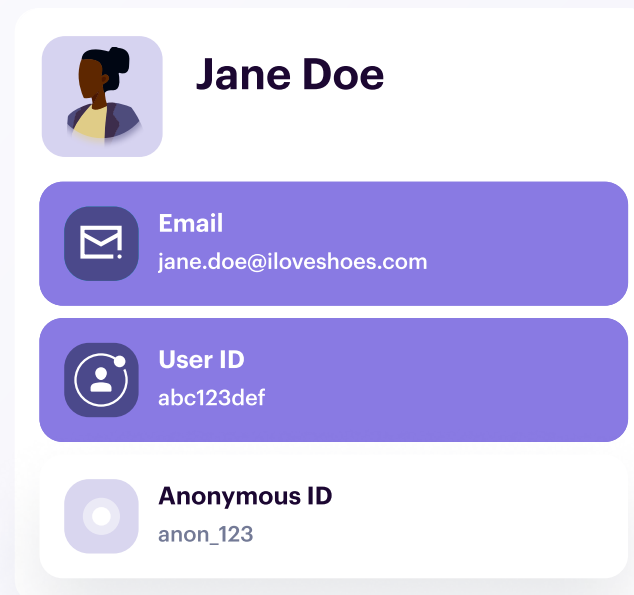
With the right identity resolution solution, companies can reconcile anonymous visitor data with known visitor data to drive insights on the end-to-end customer journey. With this valuable knowledge, growth teams can introduce new features and experiments to grow conversion, optimize site experience, and drive retention.

For example, let's say Jane Doe visits the e-commerce site of a hypothetical shoe brand called SegKicks. Like many internet shoppers, she doesn't register for an account, but clicks on a few different types of shoes—ShoeA, ShoeB and ShoeC—but doesn't add them to her cart.

Because Jane hasn't registered for an account yet, a new user profile is created with an anonymous ID:



Let's say Jane then decides to add ShoeD to her cart in the same session. At checkout, she purchases the shoes and creates a new account with her email. Now that she's created an account, her email address and newly assigned user ID are tied with the previously anonymous user profile.



Thus, instead of having two different user profiles —“logged-out Jane” and “logged-in Jane”— there is only one in the system. From here on out, Jane will have a single user profile that can grow with her as she continues to interact with the business, no matter what device or channel she's using.

As Jane's customer profile grows over time with additional interactions and purchases, SegKicks is able to power journey analytics and lifecycle campaigns.

Optimize your marketing efficiency

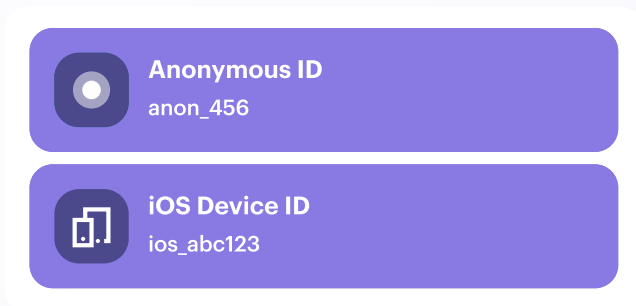
In its [Annual CMO Spend Survey Research 2020](#), Gartner found that the average brand spends 14% of its entire marketing budget just on personalization tactics.

However, without identity resolution to stitch together accurate customer profiles in real time, companies waste time and budget managing stale, disconnected user data. As a result, low-quality, poor-performing marketing campaigns eat up valuable marketing budget.

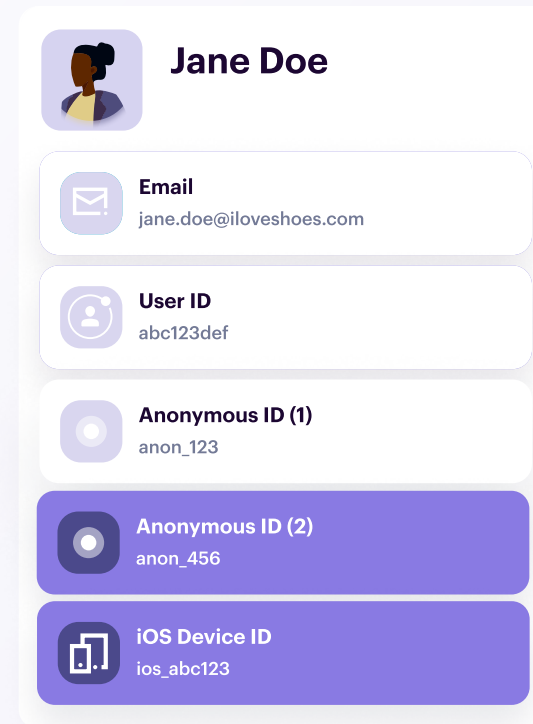
With one centralized repository of customer data from all sources, only then can brands orchestrate effective omnichannel campaigns based on real-time customer profiles. Whether it's email, advertising, or even support centers, identity resolution enables lifecycle marketers to deliver the right message, to the right person, at the right place.

Especially as companies introduce new business models and product launches to drive growth in this digital-first era, the importance of an identity resolution solution grows with the need to deliver flawless omnichannel experiences.

Returning to the Jane Doe example, let's say she downloads SegKicks' companion app, SegRuns, on her phone to track her runs. This time, a new user profile with an anonymous ID and iOS device ID is created when she first opens the app.



In order to start tracking her runs, Jane registers for an account with her email address. Because the email address is associated with a SegKicks account, her existing user profile is updated to include this new anonymous ID and iOS device ID from the SegRuns app.



Having this real-time, cross-channel single view of the customer makes SegKicks marketing campaigns a lot more effective. Now, Jane's e-commerce events from SegKicks and activity from SegRuns are linked into a single customer profile accessible across channels and devices.

From now on, SegKicks can deliver relevant messages to Jane, or even suppress ads based on her activity. Learn more in [our Segment Recipe on increasing advertising efficiency](#).

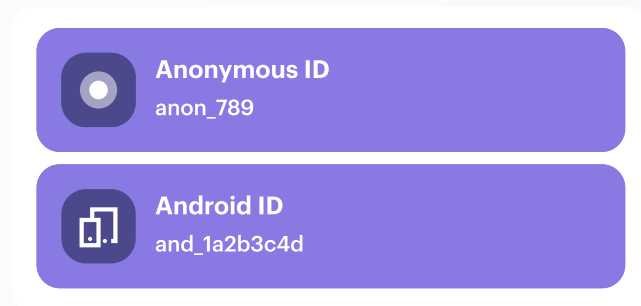
Deliver consistent experiences

According to Google, **90% of users** move between devices to complete a task. Customers are no longer just using one touchpoint to interact with brands. They're engaging via mobile apps, mobile browsers, desktop, and more. As the number of touchpoints rise, so too have customer expectations.

However, brands without a strong identity resolution solution have no way of knowing that Device ID 6954 is already a customer, or that Desktop User X is actually the same person as Mobile User Y. As a result, customers may face conflicting, inconsistent experiences. For example, if Jane has already purchased ShoeD on her phone, she should not receive advertisements for ShoeD while browsing on her computer.

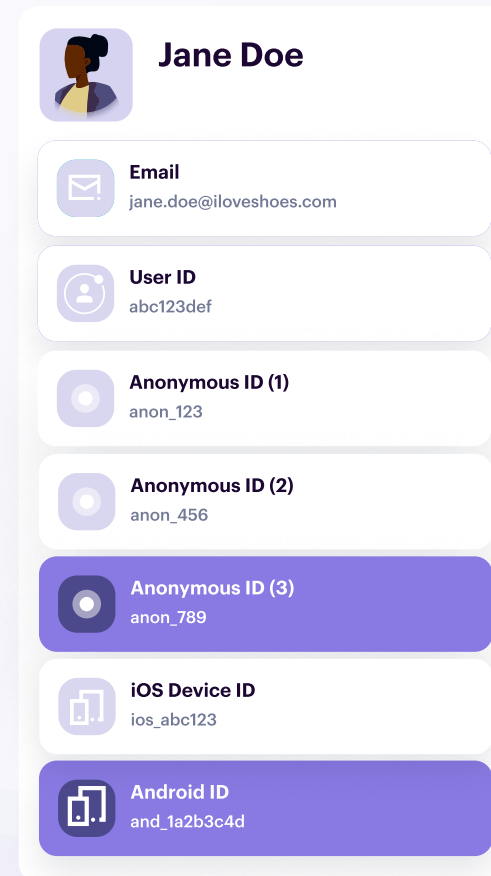
To meet the customer demands of today, companies must be able to stitch users and their activity across different devices. Identity resolution is designed to enable companies to associate the same user across devices and channels into a single view of the customer.

Now, let's say Jane wants to explore her monthly running activity on SegRuns. Instead of using her phone, she decides to download the app on her Galaxy tablet. Like before, when she first opens the app, the system would register a new anonymous user with an associated Android ID.



Once she logs in to the app with her email address, her visit would then be authenticated to her existing User ID and email address. Like in our previous example, identity resolution would merge the identities, including all traits and behavior, together into a single customer profile.


Regardless of device, Jane is the same person. With identity resolution, companies can manage and configure cross-device identity management in real time to deliver a consistent experience, wherever the customer is.





They'll know not to advertise the SegRuns app to Jane on any device or channel — she's already downloaded the app. They'll also know when to send her targeted ads for running shoes; as soon she's logged 50 miles, SegKicks can automatically suggest she repurchase shoes via email, advertising, or even in the SegRuns app itself.


Achieving a single view of the customer


With identity resolution, companies can unify customer touchpoints across channels, devices, and online vs. offline activity to develop comprehensive profiles that grow with customers over time. With this single unified profile, teams can then leverage a CDP to deliver a personalized customer experience.


**Jane Doe**


 **Email**
jane.doe@iloveshoes.com


 **User ID**
abc123def

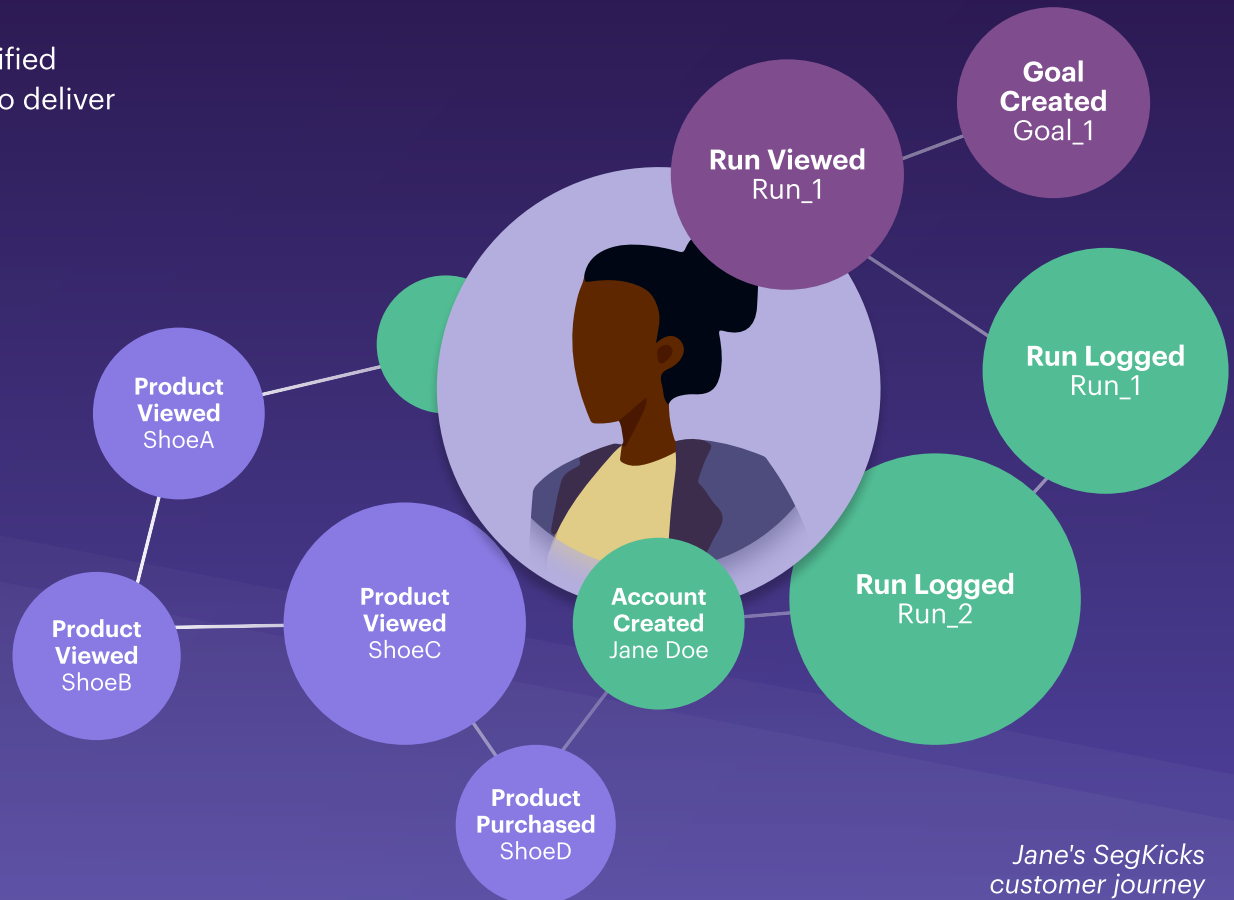
 **Anonymous ID (1)**
anon_123

 **Anonymous ID (2)**
anon_456

 **Anonymous ID (3)**
anon_789

 **iOS Device ID**
ios_abc123

 **Android ID**
and_1a2b3c4d



Take your customer experience to the next level

If we look at how customer data has evolved over the past decade, it was first about collecting the right data. Then, as marketing tech stacks grew exponentially, it was about taking action on that data.

While both of these are—and will continue to be—critical functions of a CDP, none of it matters if you can't identify individuals across all of their systems and channels in an accurate and privacy-forward way.

If companies truly want to get that elusive single view of the customer, they instead must look inwards and get a grip on the fundamentals of first-party identity resolution. From there, brands can activate on their first-party customer data to drive business outcomes.

At Segment, our **customer data platform** has helped thousands of businesses merge the complete history of each customer into a single profile. Check out what our customers have accomplished with our powerful identity resolution engine:



Norrøna built a recommendation engine that increased conversions by 50% ➤



Consulting.com increased Facebook advertising efficiency ➤



Blue Bottle Coffee increases online conversions based on offline interactions ➤

Get in touch with Segment to see how a CDP can improve your data strategy and identity resolution by enabling best-in-class data collection, governance, synthesis, and activation.

Get in touch at segment.com/demo >