upstream

Mobile Identity

Seamless user identification
in a post cookie world
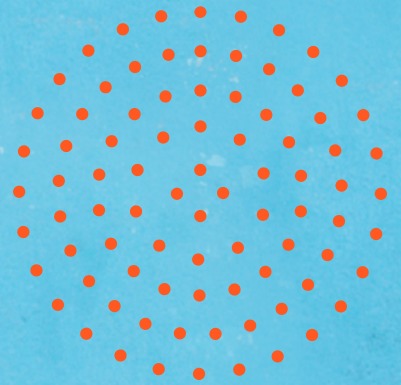
What's inside
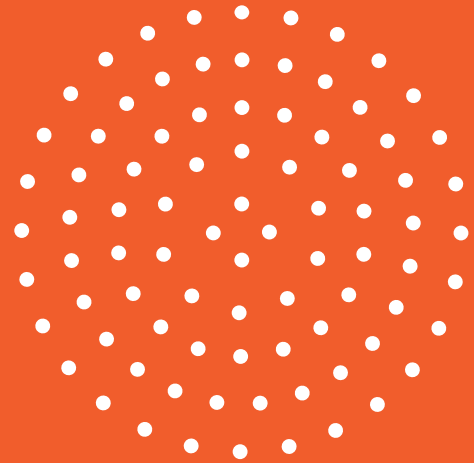
Overview

With the impending demise of third-party cookies, the digital advertising industry is frantically looking for new ways to enable targeted ads that comply with privacy laws. In this context, advertising based on first-party data is becoming more prevalent.

Upstream's Mobile Identity hits two birds with one stone; it **provides** an alternative **online identification method to cookies** while **making the collection of first-party data** – primarily mobile phone numbers – **easier than ever.**

This patented Upstream technology relies on partnerships with Mobile Network Operators (MNOs), creating significant new revenue streams for them and changing their role from being the so-called "dumb pipes" to becoming a vital part of the digital advertising ecosystem.

With 3rd party cookies going away, Mobile Identity comes at play.

Highlights

Numbers from the market:

Knowing your customer

>88% of web traffic won't be tracked by third-party cookies by H2 2024

1.5x increase in cost savings for brands leveraging first-party data

82% of MNO website visitors do not log in

90% of customers find business messaging annoying if not personally relevant

The opportunity

75% of total global internet advertising is on the mobile

>60% of the global internet traffic comes from mobile phones

$341bn market out of $455 billion in total in 2021

Upstream's Mobile Identity - All you need to know:

- ✓ It **identifies users on the open web to engage** them **through mobile messaging**

- ✓ It **makes the collection of first-party data easier** for brands and mobile operators

- ✓ It **uses mobile phone numbers as unique identifiers** and is an alternative to third-party cookies (which are being phased out)

- ✓ It **allows seamless user identification** and works across all browsers, websites and apps

- ✅ It is **software-based**, straightforward to implement, and scalable

- ✅ It is **secure** and c**omplies with stringent privacy laws**, such as GDPR, CCPA, LGPD, and POPIA

- ✅ It allows building **data-driven, personalized campaigns**

- ✅ It **opens up mobile marketing, user authentication**, and other industries **to mobile operators**

- ✅ It is easy for the user and does **not require downloading apps or logging into web pages**

The benefits of leveraging Mobile Identity:

Up to

85%

of guest web visitors identified

20-40%
increase in digital sales

10x
increase in opt in conversions

>10%
revenue recovered by retargeting abandoned carts

01 A new playing field
in digital advertising
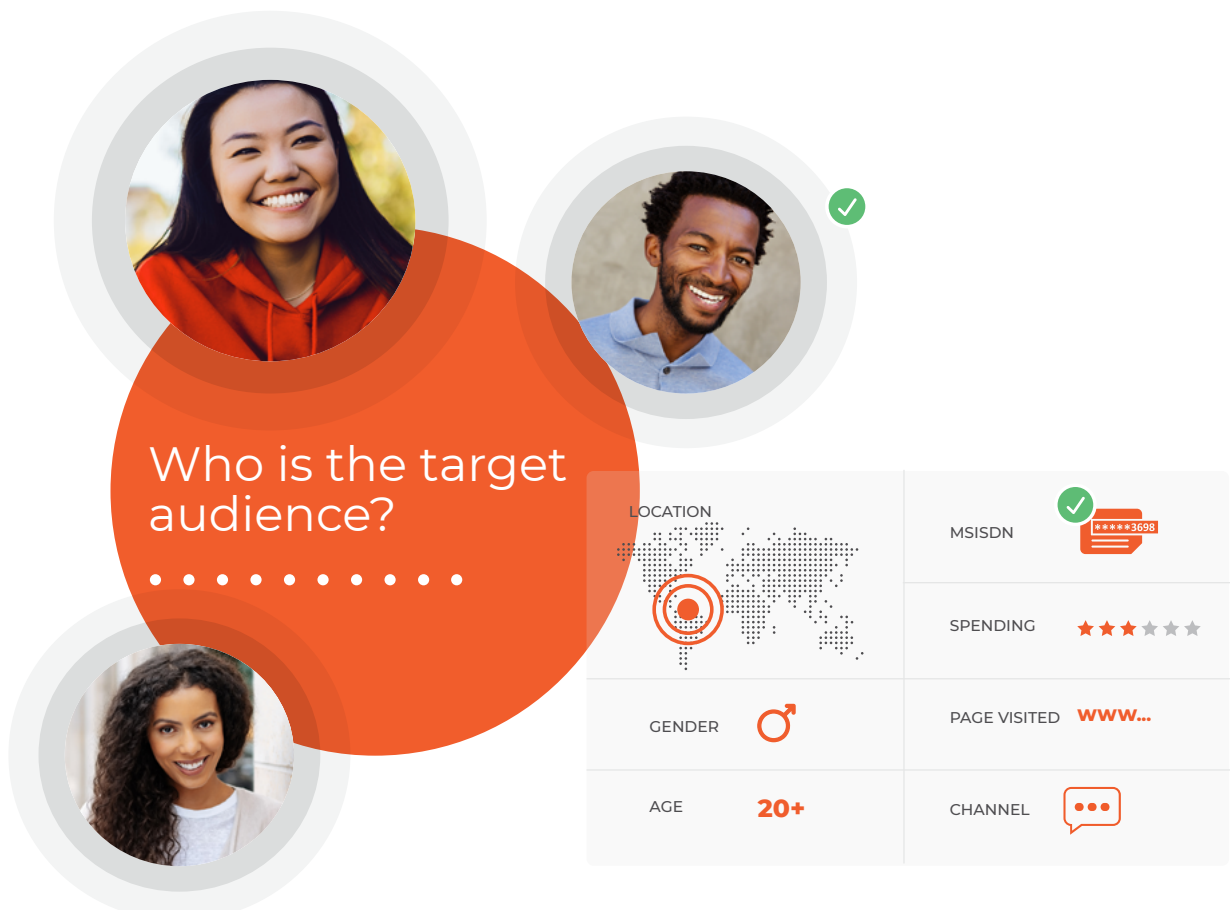
Know your customer

One of the main questions every business must answer is: who is their target audience, and how does their service or product meet their audience's needs and desires?

Marketers have always centered their efforts around the answers to these questions, working on ways to make the brand and its offerings relevant to the needs of customers. And more recently, with the development of digital marketing, the importance of truly understanding the customer has reached a whole new level.

New degrees of audience segmentation are now possible, which enable brands to reach the specific people who are most likely to engage with their offerings. **Advertising** has become much more interactive as a result, and **can turn consumers directly into customers.** Everything is now measurable, too. This means **marketers can test what works best with each audience.**

All this is driven by user identification, which provides the ability to create the personalized marketing that customers have come to expect, along with high-quality interactivity and seamless user experiences. It also enhances online security, contributing to fraud prevention and making sure every interaction is genuine.

In other words, user identification is the holy grail for marketers. But there's change ahead.

Who is the target audience?

LOCATION		MSISDN	★★★★3698
		SPENDING	★★★☆☆
GENDER	♂	PAGE VISITED	www…
AGE	20+	CHANNEL	•••

Cookies: The end of an era is near

Until now, user identification has been synonymous with third-party cookies. However, growing privacy concerns about how these cookies track users across the web are leading to their impending demise, reshaping the digital marketing ecosystem.

Cookie

/ˈkʊki/
(noun)

_____

See definitions in computing:

(All) (Food) (**Computing**)

Cookie(s) is a small piece of data that is stored in a user's browser each time they visit a website.

While first-party cookies are placed by the publisher of a website and can be used to improve UX by remembering user preferences and settings, third-party cookies are placed by someone other than the owner of a website (i.e., a third party) and allow user data to be shared with other parties. Third-party cookies are mostly used to track users across different websites and display relevant ads to them.

Apple's Safari[1] **and Mozilla's Firefox**[2], which share 23%[3] of the total internet browser market, **have already eliminated third-party cookies.** Google had also announced plans to phase out cookies from its Chrome browser, which represents 65% of the market, in 2023[4]. However, **Google has since pushed its plans back to the second half of 2024**[5], allowing the tech giant more time to test its new Privacy Sandbox and giving the market a bit more time to get accustomed to the change.

Despite delays, though, there's no question that **third-party cookies being eliminated by 88% of the browser market** represents the end of an era.

Unsurprisingly, the industry is looking for alternatives. The most prevalent solutions are those dependent on a different unique identifier, which most often is the user's email address. There are other more probabilistic methods, too, such as contextual targeting. But these can be problematic for brands, as the results they generate are questionable.

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[1] Apple updates Safari's anti-tracking tech with full third-party cookie blocking, The Verge, March 2020
[2] Today's Firefox Blocks Third-Party Tracking Cookies and Cryptomining by Default, Mozilla, September 2019
[3] Browser Market Share Worldwide, Statcounter, July 2022
[4] Google's next big Chrome Update will rewrite the rules of the web, Wired. February 2021
[5] Expanding testing for the Privacy Sandbox for the Web", Google Blog, July 2022

The opportunity

The eventual removal of third-party cookies creates space within the digital advertising ecosystem which is now up for grabs – and many companies are competing to get their foot in the door. This is by no means the end of targeting and personalized marketing. Rather, it elevates the role of first-party data. This isn't new: brands have been asking for customers' personal details one way or another for a long time, to send offers, news, and other commercial information via personalized communications.

Mobile messaging is more engaging.

Among first-party data, the MSISDN (Mobile Station International Subscriber Directory Number) – more often known as a user's unique mobile phone number – **is the most crucial.** While up to date the email has been the most prevalent piece of information companies have been asking from potential clients, the mobile number is gaining traction, as mobile messaging has been proven to be the most effective method of engaging with users.

According to Gartner[6], SMS has a 98% open rate compared to just 20% for email, and a 45% response rate versus 6% for email. **The rise of channels** such as **RCS** and OTT messaging platforms such as **WhatsApp** and **Viber**, which bring the functionalities of the internet into the mobile messaging world, also **contribute to how the unique mobile number of each user has become an important asset for brands.**

SMS

98%
Open rate

45%
Response rate

VS

Email

20%
Open rate

6%
Response rate
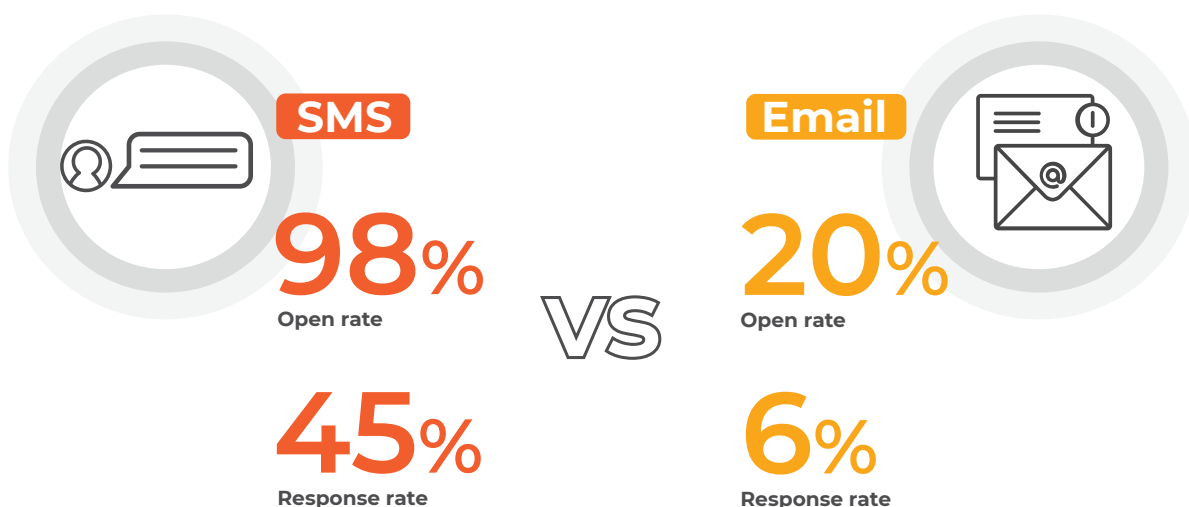
First-party data is key for marketers as it allows them to:

#1

Build trust

91% of consumers are concerned about the amount of data companies collect about them[7].

#2

Reach the right audience every time

94% of businesses say the quality of contact data has become more important recently[8].

#3

Comply with privacy regulations

Securing customer consent before collecting any user data and being fully compliant with regulations such as GDPR.

#4

Reduce costs

Gathering data directly rather than purchasing it from other companies cuts costs. Brands leveraging first-party data increase their cost savings by 1.5x[9].

#5

Personalize content

90% of customers find messages from companies annoying if they are not relevant[10], while 70% say a company's understanding of their personal needs affects their loyalty[11].

#6

Have seamless UX

With first-party data such as a mobile phone number or email address serving as a Universal Unique Identifier (UUID), brands can simplify customer journeys, create a better user experience, and achieve more conversions.

#7

Increase revenues

At the end of the day, every brand's goal is to increase revenues. Companies using first-party data in advanced marketing activations can achieve up to 3x higher revenue uplift[12].

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[7] The Cookieless World: A Guide for the New Era of Digital Marketing, Dentsu, July 2021

[8] Data experience: The data-driven strategy behind business growth, Experian, May 2021

[9] 5 keys to creating value with first-party data, Think With Google, April 2021

[10] Attitude to personalization among internet users in the United States as of January 2019, Statista Research Department, February 2021

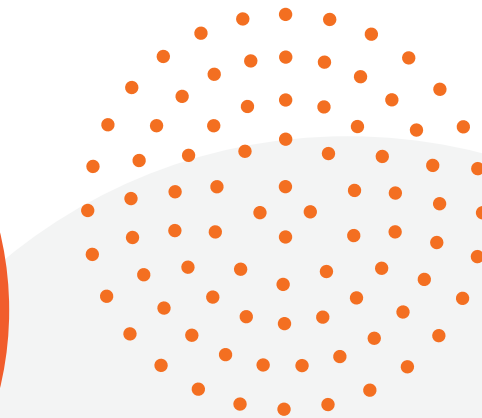[11] How Your Customers' Expectations Have Changed in the Age of the Customer, Salesforce, July 2017

[12] Responsible Marketing With First-Party Data In Asia Pacific – A $200 Billion Value Unlock Opportunity, The Boston Consultin Group, May 2020

So, why isn't first-party data-based marketing already the top priority for marketers?

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The answer is simple:

First-party data has traditionally been **harder to acquire** than third-party data.

In fact, 62% of brands cite an **inability to integrate** the **necessary technologies** as the **primary barrier** to leveraging first-party data[13].

[13] Privacy + personalization: How APAC brands can responsibly unlock the full value of first-party data, Think With Google, May 2020

02 Upstream's Mobile Identity Technology

How it works

Upstream's Mobile Identity technology makes the collection of first-party data easy for marketers. It enables brands to transform anonymous mobile users on the open web into identified marketing prospects. It is estimated that the proportion of guest web visitors identified this way can be as high as 85%. Mobile Indentity enables this by leveraging a unique asset mobile network operators have at their disposal (the MSISDN) which functions as a global unique marker of each user's identity.

With Upstream's Mobile Identity, mobile phone numbers become unique user identifiers.

Identification takes place over the mobile network (mobile data traffic),

which accounts for between **50** and **95%** of the total internet traffic (depending on the country).

Mobile identification is a solution that raises the role of mobile network operators as valuable partners in the emerging post-cookie digital ecosystem.

The technology works as a black box requiring limited input from operators themselves. The Mobile Identity solution is strictly software-based and is implemented by Upstream. It requires minimal integration – just a few days of a network engineer's time – and no upfront investment.
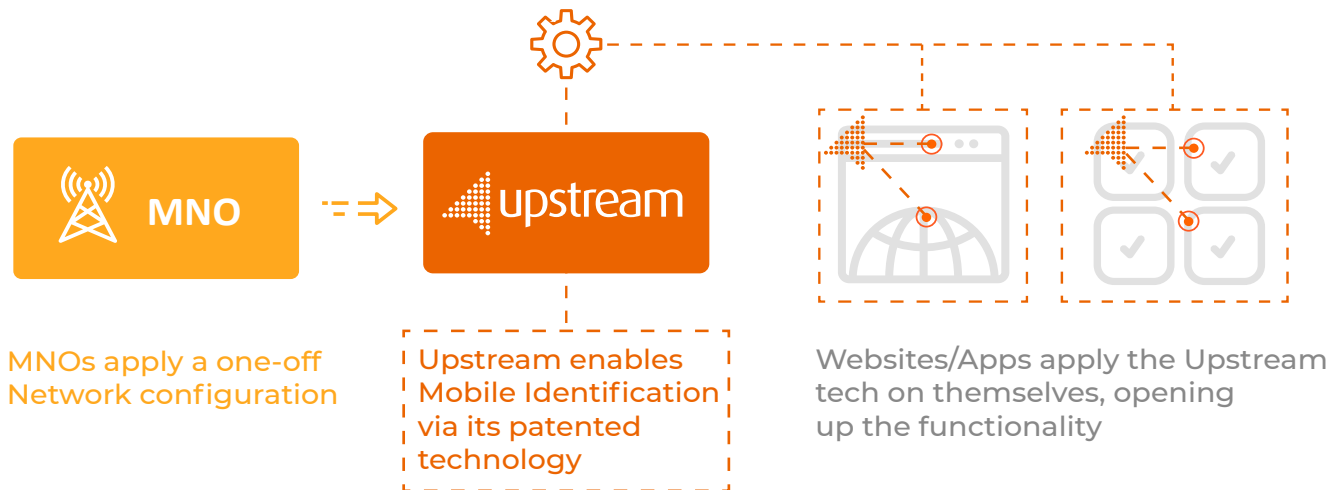
All that is needed is a single configuration on the back end.

The solution is designed to work on any website and app. All that's required is a single, straightforward configuration on the back end. Once this is done, the website will be able to identify users seamlessly and continuously.

The end-user doesn't need to do anything except opt in, because their profile is linked to their MSISDN.

The technology will work with new mobile implementations, 5G rollouts, and new web features, making it future proof.

MNOs apply a one-off Network configuration

Upstream enables Mobile Identification via its patented technology

Websites/Apps apply the Upstream tech on themselves, opening up the functionality

Upstream's Mobile Identity technology is innovative in terms of the way it collects the user's mobile phone number. Until now, if a brand wanted to acquire this data, it would have to ask the user to fill in their details via a form. However, Upstream's user identification technology can instantly recognize the MSISDN of a user visiting a website and auto-fill their details, making the collection of first-party data easier and more user-friendly than ever. The only thing required is for the user to give their consent via a simple tick box.

Our Mobile Identity feature is also integrated into Grow, Upstream's marketing automation platform. Brands who use it can directly act on the data they collect, running automated campaigns across a wide range of mobile channels.
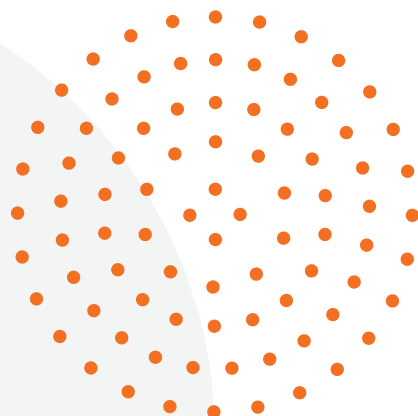
Why Mobile Identity is cool

Upstream's Mobile Identity brings a plethora of benefits to brands that adopt the solution:

Cross functionality

The solution is designed to work on any website, portal, and application. As Upstream's Mobile Identity operates at the network level, this means it can work across all browsers. In contrast, cookies work on the browser level, which means that they only work on browsers that still enable third-party cookie tracking and each time the user is on a different browser, they must go through a new opt in process.

As an advanced user identification solution, our Mobile Identity is designed to work on any browser, website and app.
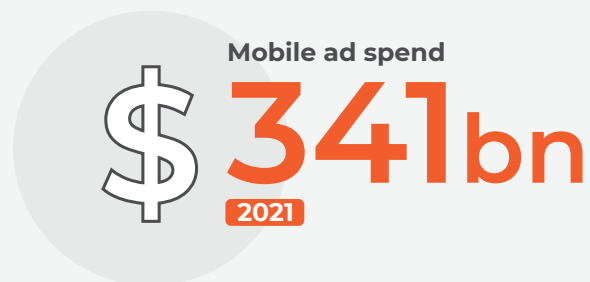
Mobile-centric

This is a mobile-centric solution at a time when:

- The **majority** of **internet traffic** (60.6%) comes from **mobile phones**[14].

- Mobile marketing has emerged as the largest piece of the digital marketing pie. In 2021, mobile ad spend stood at $341 billion – **75% of the total digital advertising market**[15].

Mobile ad spend
$341bn
2021

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[14] Desktop vs Mobile vs Tablet Market Share Worldwide, Statcounter, July 2022
[15] Worldwide Digital Ad Spending 2021, Insider Intelligence & eMarketer, April 2021

Deterministic identification

Established using first-party data, Mobile Identity is a deterministic method, based on **real data the customer shares** during their actual interaction with a specific brand.

This means there are no doubts regarding its accuracy, in contrast to probabilistic methods such as contextual marketing where there is a significant margin for error.

First-party data collection made easy

The technology's ability to **automatically fill-in user details can increase opt in rates ten-fold**[16].

With the user's consent, the brand can also **access detailed customer profile information linked to their unique MSISDN**. This creates new possibilities for targeting users and serving personalized content, improving customer engagement and conversions.

Up to

10x

increase in opt in conversions with Mobile Identity
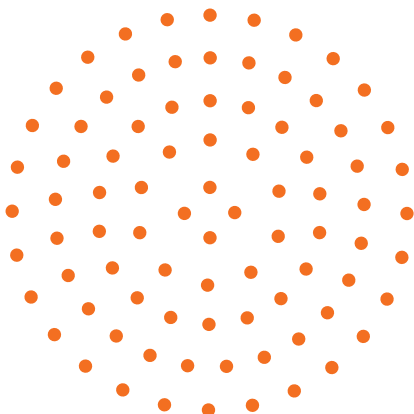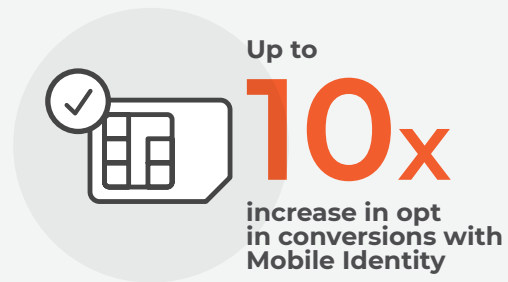
[16] Upstream proprietary data

Making data work immediately

The inability to integrate technologies is not an issue with **Mobile Identity** as it **is part of Grow, Upstream's mobile marketing automation platform.** The technology can directly leverage first-party data to **manage different audiences**, reach them through a **wide variety of mobile messaging** and digital channels, and **automate communications** according to the users' interactions.

Data integration is no issue for Mobile Identity technology, as it is part of Upstream's mobile marketing automation platform.

Seamless user experience

Upstream's Mobile Identity offers all the convenience of an app without the hassle of having to download anything or log in, simplifying user journeys. Customers just have to opt in once and then they can continuously enjoy the benefits of personalized, targeted content that is aligned to their preferences.
Major MNOs from highly populated countries **have more than 10 million website visitors every month. 82% of these visitors don't log in**[17], meaning sites can't currently identify them effectively.

How to remember users even when they don't log in on your website.
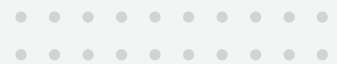
[17] Upstream proprietary data

Personalization

Companies can build sophisticated user profiles from MSISDN-linked data, using geography, habits, and history. This can be used to provide personalized messages to customers and avoid spamming them with irrelevant information.

## Privacy and security at the heart of our Mobile Identity technology

Upstream's Mobile Identity complies with stringent privacy regulations around the world, such as GDPR, CCPA, LGPD, POPIA etc. Users must opt in to be identified. The first-party data gathered is only used by the brand collecting it and not shared with any third parties. Users always have a choice to opt out and stop receiving communications if they are no longer interested in a brand's offers.

The patent is also inherently secure by design, with all information encrypted end-to-end. If hackers conducted a successful man-in-the-middle attack, any data they accessed would be useless, protecting users' information. No personal identifiable information (PII) can be communicated to third parties and the identification takes place under HTTPS protocol.

All personal information is encrypted end-to-end.
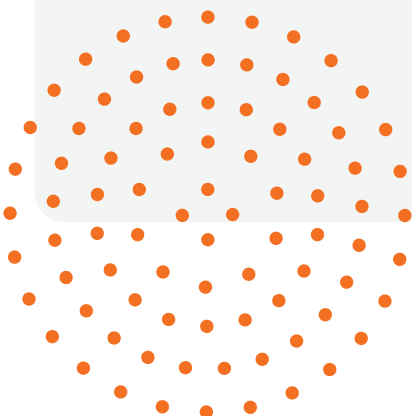
03 Mobile Identity in action

Convert and sell with Mobile Identity

Upstream's Mobile Identity solution can be applied to the needs of businesses across various industries and markets, from mobile operators to retail companies, app publishers, insurance companies, financial institutions, and more.

With Mobile Identity, marketers can make highly customized offers using available data about the end user, allowing them to deliver a true omnichannel experience. The potential uplift in digital sales is estimated between 20% and 40%[18].

Use cases

1. Security | Silent mobile verification

Many mobile applications request that users fill in their mobile phone number and send them a message afterwards, usually via SMS, containing a one-time password (OTP) that the user must submit to verify their identity.

Upstream's Mobile Identity simplifies this process and the whole user experience. Users only have to give their consent to be identified, then the verification process takes place automatically and immediately.

20-30%

of users drop-off the verification process when an OTP password is required due to the effort involved.
Or simply because the message had never been delivered.

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Seamless verification in a taxi service app

A user downloads an app, which needs to validate their information. Then, they are asked to fill their MSISDN via a pop-up. Upstream performs a silent mobile verification in the background to check the validity of the phone number. The authentication is completed, and the user is instantly able to use the app.
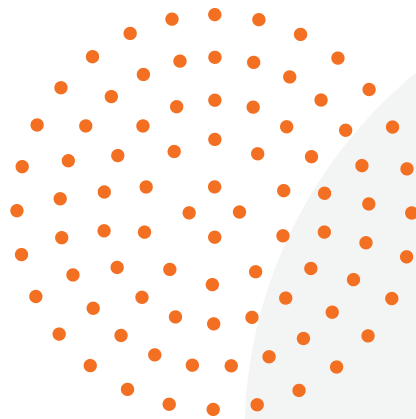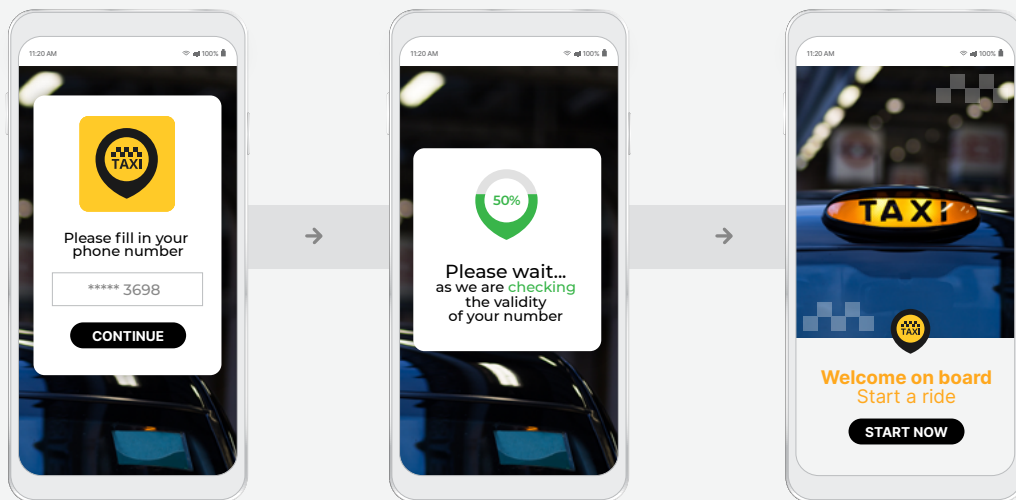
## 2. User experience | Fast, seamless and personalized customer journeys

The identification technology simplifies user journeys by removing lengthy log in and authentication processes to improve user engagement and conversions. **Users don't need to log in at all because the website recognizes them if they have already given their consent once.**

This means that companies can instantly customize the content of their website based on the users visiting it. The content of the page will therefore be more relevant to the visitor, leading to better engagement and more conversions. Audience reporting is offered, too, providing marketers with insights based on aggregated data from users.

Moreover, users don't have to go through any sign up and sign in process before they make their purchases. This is particularly important when you consider 24% of users abandon their carts before checking out when they are asked to create an account[19].

Personalized retail content

When a retail customer visits a website, they can be served relevant ads based on their profile. For example, a student might receive ads for stationery and computer supplies, while a parent will see ads for children's clothing.

Personalize what they see, based on their profile

Fashionistas   **Students**   **Parents**

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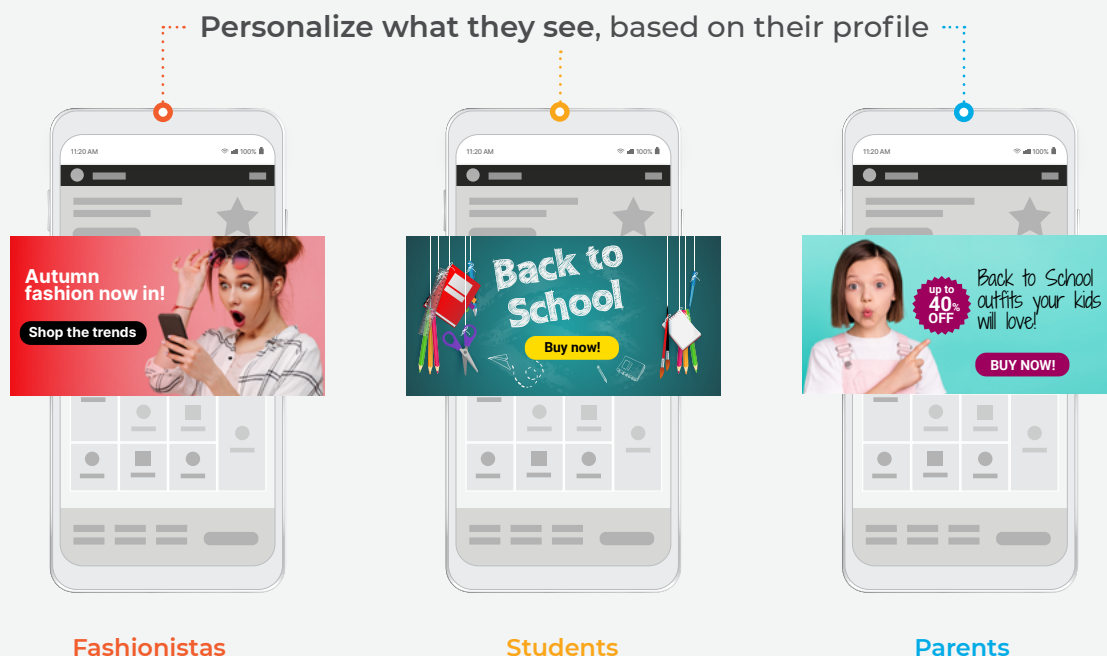
[19] 48 Cart Abandonment Rate Statistics, Baymard Insitiute, 2022

Mobile Number Portability (MNP) acquisitions

A customer of one MNO visits another MNO's website. The website, using Upstream's solution, flags the user is coming from another mobile network and shows them a pop-up, inviting them to join the new network by offering a deal. When the user clicks the pop-up, their network migration process begins.
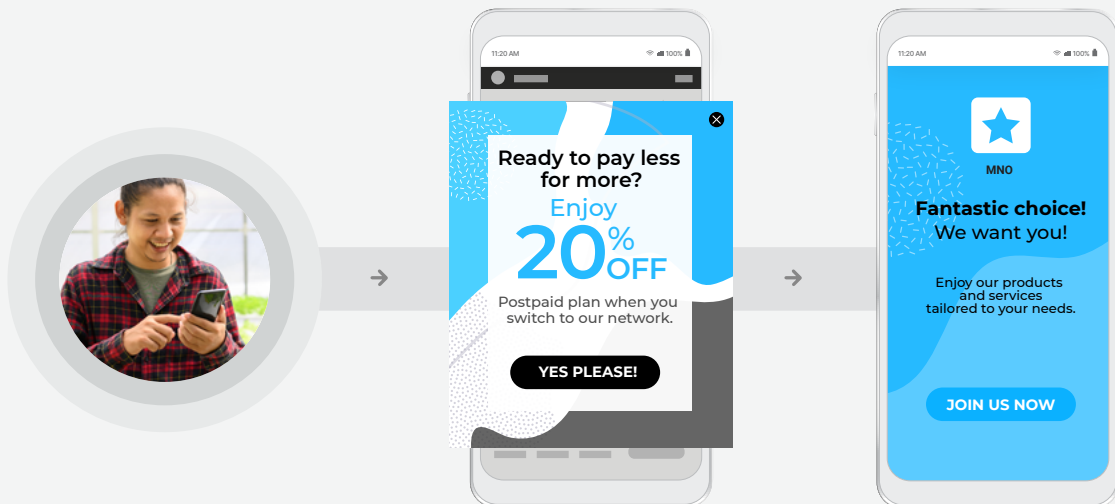
Chris is a user from another MNO network browsing your web page

He gets a pop-up notification to switch network

He clicks on the pop up and the migration process begins

Personalized upselling

An existing high-value customer of an MNO browses to the operator's website. The website recognizes them immediately and upsells a new package, increasing the customer's lifetime value.
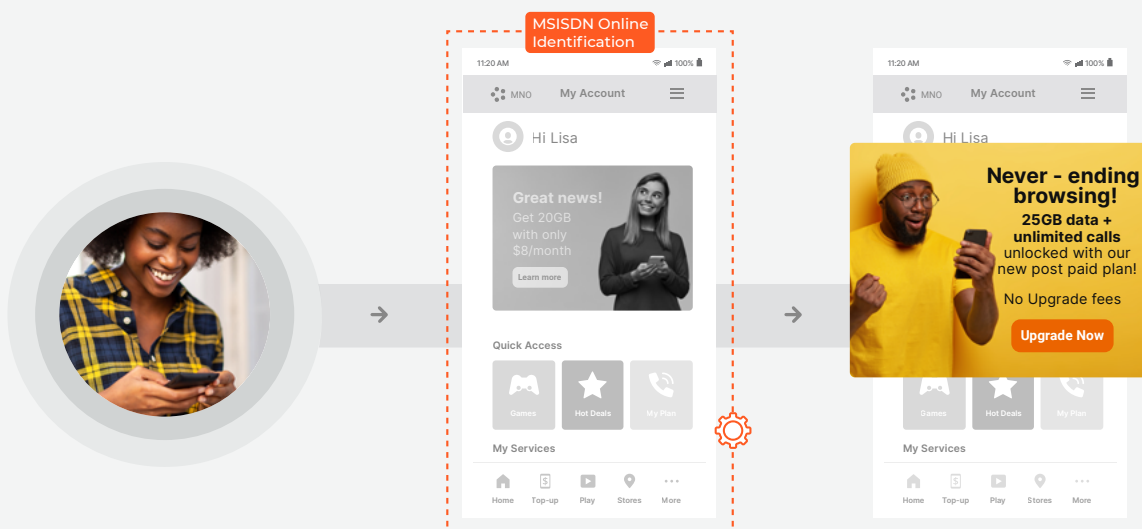
A pre-paid user is browsing the MNO's web page

With Mobile Online Identification we identify the user

We target them with a personalized ad to upgrade their plan

Buy now, pay later offers

A user searches for a new mobile phone in a mobile operator's website. The operator can instantly recognize that this is a high value customer and offer them micro-credit for a premium smartphone purchase in installments. The offer is showcased at the top of the page, rather than as a payment method at the end of the purchase process. This way the user is prompted to make a higher value purchase.
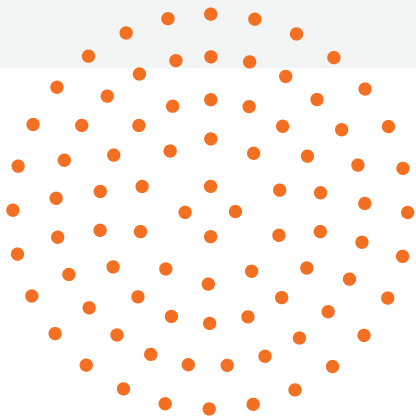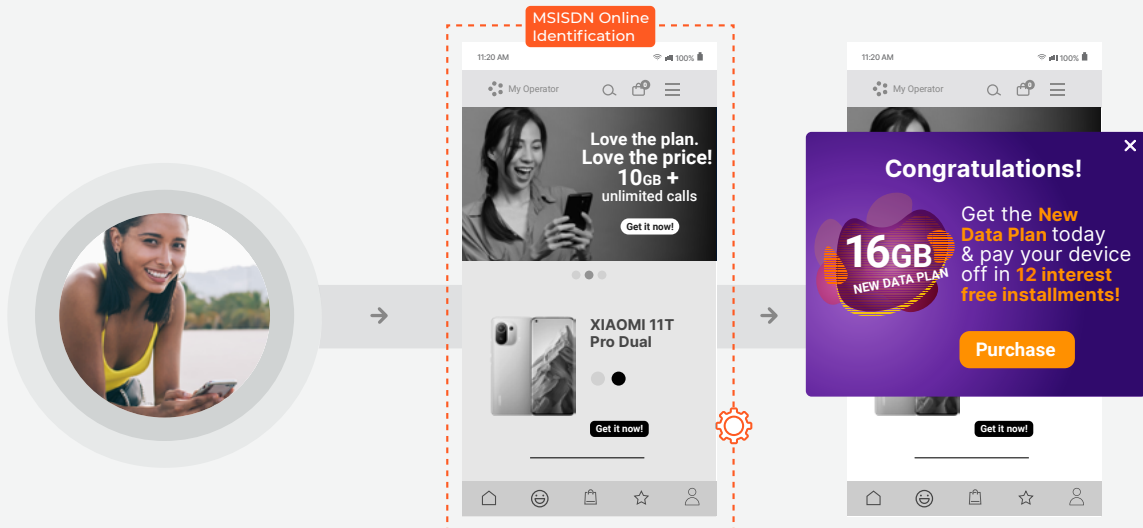
3. Marketing | Advanced omnichannel retargeting

With this patent, mobile operators – and other businesses – can use the MSISDN as a mobile advertising ID.

With the Mobile Identity being a part of Upstream's mobile multi-channel marketing automation platform, Grow, they can recognize users across online and offline channels, and across different browsers and apps, allowing push retargeting.

This enables marketers to re-engage mobile users who have fallen out of the funnel via another channel, avoiding messaging fatigue.

Increasing lead generation with multi-channel retargeting

A potential new customer visits a car insurance website but leaves before filling in the form to get a quote. The insurance company sends them an automated personalized RCS message prompting them to return and complete the form.
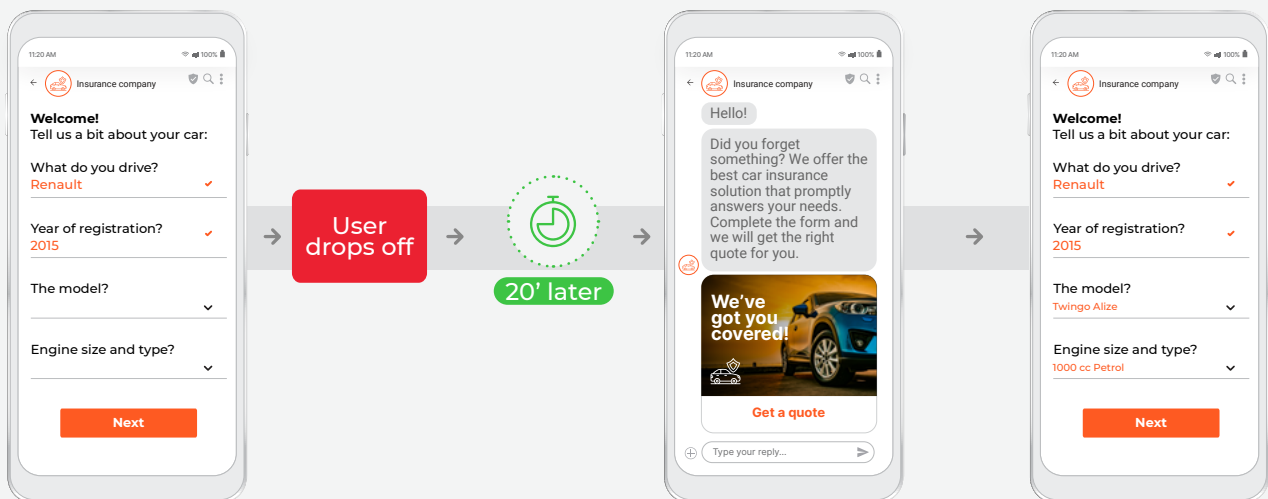
User fills in a car insurance mobile form to get a quote

User drops off

20' later

Gets a retargeting message to return to the form

User returns and fills in the form

Automated same-day retargeting through Upstream's Grow platform

90% increase in campaign efficiency with automated same-day retargeting

47% reduction in messaging spam[20]

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[20] Upstream proprietary data

Decreasing cart abandonment with multichannel retargeting

A customer visits an e-shop, and adds a TV to their online shopping cart, but does not checkout. They receive an automated SMS with a clickable link back to their shopping cart so they can return and complete the purchase.
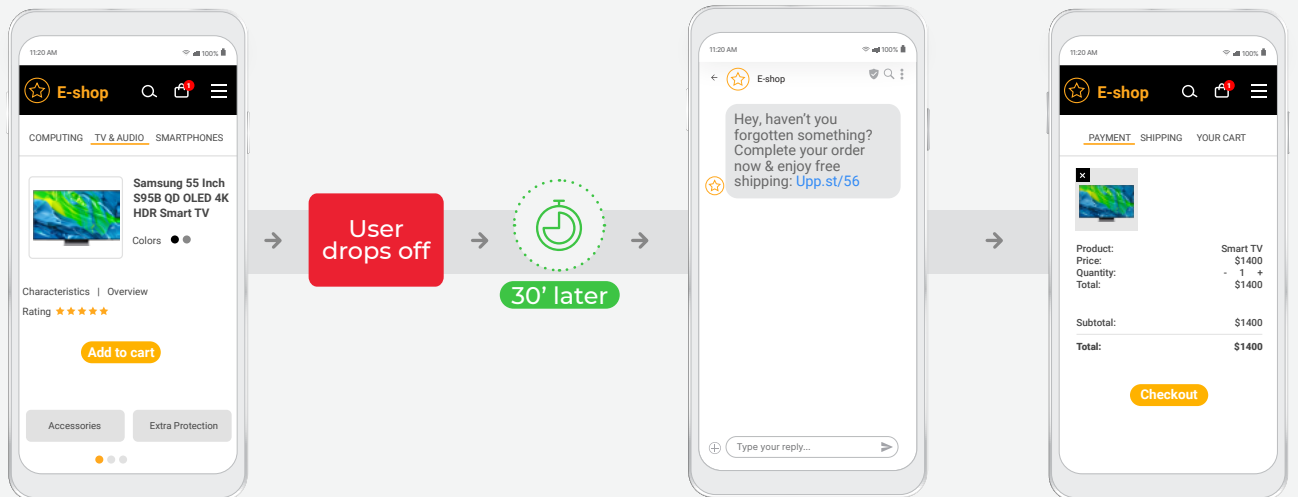
User browses the eshop & adds a TV in the cart

Gets retargeted via an SMS

User re-enters the flow

Cart abandonment retargeting can recover more than 10% of revenues that would otherwise be lost[21].

Retargeting based on the stage of the funnel

An MNO subscriber interacts with an ad, which suggests a mobile plan upgrade. The user identification technology detects the level of interaction and the stage of the funnel the user reached, retargeting them accordingly. For example, a user who has just bounced off the website will receive an SMS message suggesting an exclusive mobile data offer to make them reconsider the plan upgrade.

Step 1	Step 2	Step 3	Step 4
Entered the online flow & did nothing	Entered the 2nd step but never progressed	User added their email and then bounced	User successfully completed the subscription
BOUNCED	INTERACTED	EMAIL	LAST STEP

Retargeted via **SMS**	Retargeted via **RCS**	Retargeted via **Email**	
Same day	Same day	Same day	

04 Mobile operators have the most to gain

An opportunity MNOs can't afford to miss

Mobile operators can use Upstream's Mobile Identity to serve their own purposes. This includes creating a better user experience for their subscribers, making personalized offers according to the individual user visiting their website, and retargeting customers leaving the funnel.

What's even more interesting though, is that operators can monetize the technology by offering it to third parties and becoming lead players in new industries. They can offer this value-added service to content partners, e-commerce brands, and other players to help them increase tailored advertising capabilities, create better experiences for their users, and provide new password-less solutions for authentication.

The cherry on top is that no additional investment is needed to make this happen, as the solution provided by Upstream is software based and needs only minimal integration.

Mobile operators can monetize Upsteam's Mobile Identity by offering it to third parties.

The technology represents a significant opportunity for operators to not only grow new revenues, but to avoid being sidelined in the evolving world of digital marketing. The digital marketing sector is a market worth $455 billion[22] in 2021, with mobile marketing representing 75% of this. The opportunity is there for the taking in a field where MNOs have not previously been able to compete as effectively.

Digital marketing sector is a market worth
$**455bn**
2021

Mobile marketing represents
75%
2021

MNOs make significant investments in infrastructure to connect billions of users through their networks and deliver the best possible experience. However, messaging apps such as WhatsApp, Viber and Facebook Messenger reap billions in revenue each year by operating over the top. The change in the digital marketing landscape is a chance for operators to tip the scales back in their favor, once and for all.

[22] Worldwide Digital Ad Spending 2021, Insider Intelligence & eMarketer, April 2021

05 Knowing your customer is easier than ever

User identification has never been easier or more efficient

Upstream's Mobile Identity is a new, transparent and user-friendly identification technology, replacing and improving upon older technologies, like one-time passwords and third party cookies. It can be implemented by MNOs both for their own campaigns and as an offering to other businesses.

With their permission, users can be served personalized, targeted content that's relevant to their interests and circumstances, boosting sales, conversions, and revenues.

Upstream's solution takes users from the open web and communicates with them through mobile messaging, as part of Upstream's mobile marketing automation platform, Grow. It also brings dramatic upgrades to user experience and security.

For too long, MNOs have struggled to capitalize on the business opportunities afforded by mobile marketing. Taking advantage of web user identification via MSISDN technology represents a huge opportunity, and one that MNOs cannot afford to miss. Upstream's patent is the easiest way to turn online users into identified marketing prospects and paying customers.

If you'd like to learn more about how Upstream's user identification technology over the mobile network can help mobile operators become essential digital advertising partners in the post-cookie era, **get in touch.**

Upstream's solution identifies users on the open web and engages them through mobile messaging.
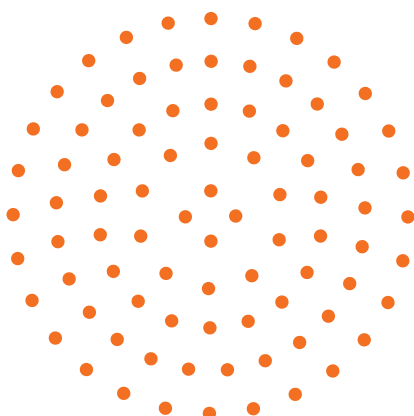
About Upstream

Upstream is a leading MarTech company in some of the most promising and rapidly growing markets in the world. It is the go-to partner for companies across industries seeking to achieve digital growth.

Upstream's proprietary mobile marketing automation platform, Grow, combines innovations in the field of marketing automation, multi-channel digital communications, data collection and analysis, user identification, and security from online advertising fraud. These capabilities create personalized experiences for end consumers leading to higher customer engagement and satisfaction, and better monetization.

Through the platform, all the different communication channels are controlled via a single UI. Any company deploying Grow is guaranteed a high ROI, paying for actual results based on the goals set. Grow is available both as a managed service and as SaaS.

Upstream currently works with **more than 100 MNOs** and e-Commerce, Insurance, Banking, Education, Retail and FMCG companies **across Latin America, Africa, the Middle East and Southeast Asia.**

For more information on how you can leverage Upstream's Mobile Identity, visit: **www.upstreamsystems.com** or send an email to **global-sales@upstreamsystems.com**