

A Guide To Verifying Users in E-Commerce

Learn How E-Commerce Platforms Can Verify Users and Reduce Fraud at Global Scale with Phone Verification

E-commerce platforms have conquered the consumer market. The convenience of online and on-demand shopping is fueling their growth with total global e-commerce sales expected to reach **\$4 trillion in 2020**.

However, as e-commerce activity has increased around the world, so too has fraud. In 2018 there were **14.4 million** victims of fraud in the US alone and while overall rates fell **15%**, a new breed of fraud is on the rise and e-commerce platforms are among the biggest targets. Malicious actors have turned their attention **away from credit card fraud** to higher-impact fraud such as new account fraud, account takeovers, and digital payment fraud.

The risks multiply for peer-to-peer e-commerce platforms which can be fraught with various forms of seller fraud—from fake accounts selling fictitious goods to account takeovers, and illegal activity such as money laundering.

 **New account fraud losses increased from \$3 billion in 2017 to \$3.4 billion in 2018.**

 **Online payment fraud is predicted to reach \$22 billion in 2019 and \$48 billion by 2023**

 **The frequency of e-commerce account takeover attacks increased by 170% from 2015 to 2017**

 **E-commerce transactions are now more than 10 times riskier than those in financial services**

While creating a seamless buying and selling experiences for users is key, e-commerce platforms must take steps to verify users are who they say they are. Otherwise, it becomes more than just an inconvenience. Reputation damage, loss of consumer trust, and enormous financial costs are at stake that could cripple your brand before you've finished building it.

 **Every dollar of fraud costs e-commerce businesses nearly 2 ½ times more than the loss itself—including chargebacks, replacement of goods, insurance, and operational costs.**

But as a fast-growing e-commerce platform facilitating transactions between hundreds of thousands of customers around the world, how can you securely verify users at global scale without sacrificing a smooth experience?

In this guide, you will learn how to prevent fraud before it happens and protect buyers and sellers with the most frictionless solution for global user verification: **phone verification with two-factor authentication.**



User Verification: A Balancing Act for E-Commerce Platforms

In the race to grow your e-commerce platform, onboarding is a make or break moment in the customer experience. Ask your customers to jump through too many hoops and you risk frustrating them. But building a long term trusted relationship with your buyers and sellers begins with verification. Without it, you could be exposing your users—and your business—to fraud.

Verifying new and existing users with two-factor authentication (2FA) has become the standard for e-commerce platforms to combat the threat of identity abuse and fraud.

What is 2FA?

2FA works by combining something a user knows (a password) and something that a user has (a phone or hardware token), to verify their identity. While it has become relatively easy for fraudsters to steal passwords it is much more difficult to steal a password and hack a second factor.

2FA can range from the extremely secure and expensive, to the relatively frictionless and cost-effective. When selecting and implementing 2FA for a growing global user base, you need to ask yourself several questions to strike the right balance between security and a seamless experience:

1. One solution

Is it a single standard that works across different global infrastructures?

2. Meets Global User Experience Standards

Will it be considered an acceptable experience by users in different regions? And does it support multiple languages?

3. Failover

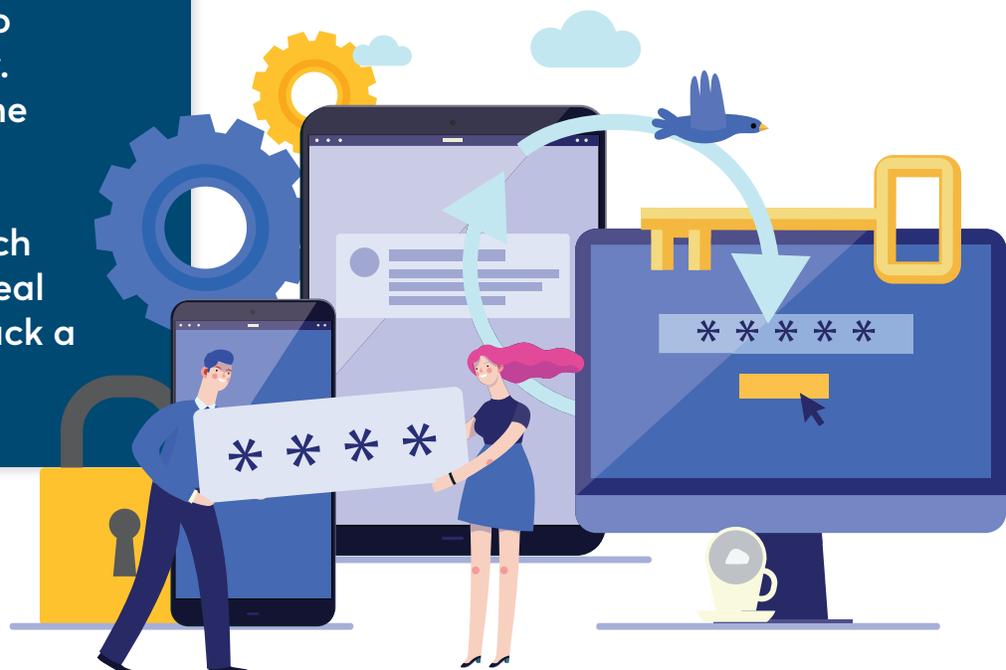
Does it automatically failover to another channel if the first attempt doesn't get through?

4. Letting Good Users In

Does it unintentionally block out good users?

5. Frictionless Experience

Will users be prepared to adopt hardware or software, or can you leverage existing devices and familiar communication channels?



Phone Verification: The Most Effective Defense for Global E-Commerce Platforms

A frictionless experience for global growth using SMS and voice two-factor authentication

When balancing a great experience with effectively validating the identity of an individual, the ideal way to accomplish this on a global scale is through phone number verification.

Phone numbers have emerged as the ultimate user identifier not only because phones have become ubiquitous but also because people retain their numbers for very long periods of time—ten years and more.

The Ultimate User Identifier



5.1 billion people across the globe can be reached via phone



90% of people read a text message within the first 3 minutes

While there are more secure and cumbersome options, it's about striking the right balance between convenience and security, and phone verification provides that balance. It's the global standard today for a smooth onboarding.

Why Phone Verification?

- Works in virtually every country
- SMS has **higher read rates** than email
- Simple experience independent of infrastructure and culture
- There is extra data behind a phone number to identify fraud
- Customizable user experience

Phone verification helps you quickly, easily, and cost-effectively verify user identity and reduce the risk of fraud. Verifying users at sign up is the first key step to stopping fraud before it happens, but when else should you use phone verification in the customer journey?

How Phone Verification Works

A user is sent a PIN—also known as a one-time-password (OTP)—in a message sent over **SMS**, **Voice**, **WhatsApp**, or **Viber**. Only the owner of that phone number gets access to the PIN. They enter it into the application to verify their identity and can then successfully register, log in, or confirm a payment. You can choose to have each PIN expire within a few minutes for added security, preventing fraudsters from using old codes to create fraudulent accounts.

1. Sign Up



Enter phone number during account creation

2. Verify



Receive PIN by SMS or voice

Confirm PIN within application

3. Customer Onboarded



"Thanks for signing up!"
Account securely created

When Should You Use Phone Verification?

Verify users at sign up, log in, key account changes, and transactions



New Account Creation

Seamlessly Sign Up a New User and Stop Fraud Before It Happens

Onboarding new users needs to be quick and easy but also secure, to protect your customers and your platform against fake account creation. When a new user registers for your e-commerce platform, successful phone verification at sign up links the user and their device, ensuring they are who they claim to be.

Suspicious or High-Risk Actions

Validate Suspicious Behavior at Any Point in the Transaction

If a user triggers suspicion at any point—from registration to general account activity—e-commerce platforms can place a hold on that user's account until their phone number is verified. Phone verification can also be used to authenticate high-risk actions such as withdrawals from customer e-commerce accounts.



Account Changes

Protect Your Users and Your Platform Throughout the Journey

It's good practice to not only verify users at sign up, but also when a change to an account is being made such

as a password reset or profile update as well as unusual activity.

When a user logs in to a web or mobile app from an unknown device (i.e. with a different IP address from the one registered in their profile) and requests a password reset, sending a PIN to verify the user can help reduce fraud and identity theft.

Confirm Communication Preferences

Ensure Ongoing Reliable Communication with Your Users

Another reason to verify phone numbers is to establish your users' preferred communication channels from day one. By tracking how a user converts at verification, you can deliver account notifications, updates, or direct any user-to-user communication to those same channels.

For example, if a user converts on the first SMS, you can confidently use SMS for ongoing communications. Whereas if a user converts on a voice call instead of SMS, you can assume voice calls are more reliable.



Alternative to the Password

A Stronger and User-Friendly Alternative to Traditional Passwords

By establishing a passwordless authentication process you can improve the user experience by enabling users to log in to applications without having to recall cumbersome passwords. Users can simply click or tap on the web or mobile application, receive a one-time pin via **message** or **voice**, enter that code, and get immediate access upon confirmation.

Strong Customer Authentication

Reduce Payment Fraud and Address PSD2 Requirements

Any business—including e-commerce platforms—that processes transactions in Europe now faces an additional layer of friction by requiring strong customer authentication. Set out in the PSD2 regulations, it is now mandatory to verify transactions over 30 Euros using 2FA, even if only one party is in EU. Phone verification can help you address your strong customer authentication requirements with the least amount of friction on a global scale.

NOTE we updated this as by time of publishing it will likely be in September when the PSD2 regulations will already be in place

Getting Global Phone Verification Right

8 key considerations when validating phone numbers for e-commerce platforms

In theory, validating a phone number sounds easy. But in reality, as an e-commerce business expanding into global markets, there are several challenges you need to be aware of to improve conversion rates and grow your user base.

1. Delivering SMS Pin Codes Quickly and Reliably at Global Scale

The longer it takes for a user to receive a PIN, the less likely they are to sign up to your platform, access their account, and make a purchase. To avoid your verification messages hopping from carrier to carrier, you may need to work with several SMS vendors to manage routing logic in different regions.

2. Pin Code Management and Auto-Failover to Increase Conversion

To optimize conversions, you will need to implement an automated resend of the PIN if the user hasn't entered it within a certain time. Failing over to a voice call to present the PIN audibly is another option if the initial SMS doesn't convert.

3. Keeping Track of Global Compliance Requirements

When verifying international numbers via SMS or voice, you need to be aware of the complex myriad of regulations which vary around the world. If your messages do not comply with local regulations, they will be filtered and fail to reach your users.

4. Distinguishing Mobile Numbers, Fixed Lines, and Virtual Numbers

Some countries clearly distinguish landlines and mobile phones, while in others there is an overlap. You need to identify the difference to deliver messages to the right channel. Identifying and blocking virtual numbers is also critical for spam and fraud prevention.

5. Providing a Localized User Experience

When you are verifying phones across the globe, you cannot rely on using the same message templates or languages everywhere. Messages need to be targeted to optimize conversion rates including country-specific language, message format, and tone.

6. Ensuring Security

When generating a verification PIN, you need to follow industry standards for time-based one-time PINs. Balancing security with experience is critical at this step. You don't want a PIN to expire before your user can enter it, but you also need it to automatically expire if the user has not entered it within a reasonable time period.

7. Controlling Operational and Management Costs

The more verified users you onboard, the more fixed costs you will incur. Successful global verification needs dedicated teams to manage message routing, analytics, and navigate the many different global standards and compliance requirements.

8. Improving Insight to Optimize Conversion

Less than optimal conversion rates may be the result of something unrelated to the SMS infrastructure itself. Success requires the proper insight and analytics to understand where problems may lie and what, if anything, you can do to mitigate those problems.

Want to learn more about the challenges of phone verification and how to overcome them? Read our [Top Phone Verification Challenges](#) guide.

How Global E-Commerce Platforms Verify Users with Nexmo

With over 20 billion phone verifications to date in over 230 countries, Nexmo helps global e-commerce companies overcome the challenges of phone verification to seamlessly verify users around the world.

Vinted Safely Scales Its Secondhand Clothing Marketplace with Nexmo Verify API

Secondhand Clothing

Vinted is an online e-commerce marketplace where users can buy, sell, and swap preloved clothing and accessories. The company has 20 million members with 52 million listings across the US and Europe.

As Vinted expanded internationally, the platform experienced an increase in fraudulent transactions. Extra protection was needed.

At the same time, Vinted wanted transactions to be quick and simple. But for a growing marketplace, that level of simplicity can heighten the risk of fraud.

"The bigger you are, the more attractive you are to fraudulent people and groups who try to utilize stolen credentials or stolen credit cards to make transactions," said Danielius Isiunas, Product Manager at Vinted. "When we began to notice that was happening on our site, we recognized that we needed to do something beyond what was already in place."

Vinted has its own user behavior scoring system in place to predict fraud. However, when a user was flagged as being potentially fraudulent, the only action they could take was to ban the user. Vinted needed a more frictionless solution.

Vinted's First Choice Against Fraud

Vinted decided that phone verification using Nexmo's Verify API was the best solution.

Phone verification struck the perfect balance between speed, ease of use, and security, establishing an out-of-band trust anchor to proactively deter fraudsters.

If a user triggers suspicion—from registration to any other point in the transaction—they cannot continue until their phone is verified. And because Vinted didn't want to automatically ban a flagged user, phone verification gives genuine users the chance to validate their account.

Nexmo's Verify API is now an important part of Vinted's fraud detection engine. With this critical tool in place, Vinted can focus on safely scaling its e-commerce platform.

"One of the reasons we chose Nexmo rather than other vendors was because the pricing model for Nexmo's Verify API is unique and very, very attractive for us. Nexmo's charges are based on successful verifications only. If we are checking just the suspicious members that are flagged, it means that we're not spending money on those fraudulent users because their numbers will not be able to be verified. That saves Vinted a lot of money."

- Danielius Isiunas | Product Manager | Vinted



How Global E-Commerce Platforms Verify Users with Nexmo

G2A.COM Protects Its Gaming E-commerce Platform With Phone Verification

Gaming

Established in 2010, **G2A** has evolved from a small Internet retailer into a global transaction ecosystem that houses the world's fastest growing digital gaming e-commerce marketplace for game key codes and other digital products. Today, G2A is an international enterprise that boasts more than 700 employees, 380 million site visitors per year, more than 75,000 products and over 300,000 sellers.

According to G2A's CEO, Bartosz Skwarczek, "We want to create the most secure and the most user-friendly marketplace ecosystem to sell and buy digital products. For this reason, G2A regularly implements new secure solutions. This is why we verify over 100 factors and why we work with the best providers in the world when it comes to security."

Because of its high security and user experience standards, G2A gave careful consideration when choosing a provider for its user verification, and other communications and security needs.

Partnering with Nexmo was the clear choice for G2A as Nexmo's APIs not only helped the team add two-factor authentication using phone verification, but also allowed them to quickly detect and signal errors, miscommunications or alerts indicating suspicious behavior on the site.

Today, G2A relies on several of Nexmo's communications APIs. Starting with **Nexmo's Verify**, G2A has implemented two-factor authentication for user logins and actions such as withdrawals from accounts.

An additional way Nexmo Verify helps G2A secure its marketplace is through the **Number Insight** feature. With Number Insight, G2A can identify whether phone numbers are valid and reachable as well as distinguish virtual numbers and landlines which can help flag suspicious behavior and block potentially fraudulent users.

"We reviewed seven different companies and solutions and eventually chose Nexmo for various reasons. First of all, Nexmo offers a variety of services. During our preliminary conversations with Nexmo, it became evident that we would be able to use Nexmo APIs for several different use cases that could easily be built into our system. Nexmo was able to provide us with options that no other vendor could."

- Oleg Leonov | Anti-Money Laundering Manager | G2A



About Nexmo Verify API

Add seamless phone verification to your e-commerce journey

To maintain the growth of your e-commerce platform, you need to protect your users and your business. Phone verification helps you filter out fraudsters while providing genuine customers a frictionless experience, on a global scale.

With the **Nexmo Verify API** you can verify any user, anywhere. Quickly and seamlessly authenticate new or existing users with our global network to deliver verification codes that increase conversions across multiple channels.

Let us do the heavy lifting, or customize the experience for your users. The Nexmo Verify API is an all-in-one solution that lets you:

- Generate your own PIN or allow the Verify API to manage it for your application
- Choose which channels to use when verifying users, and in which order
- Only pay for what you use with pay-per-attempt or per-conversion pricing

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Beyond Verification

First impressions count. Using the Nexmo Verify API to verify users' identities adds a layer of protection and builds trust from day one. But securely onboarding users is just the beginning of your relationship. Now is the ideal time to ask yourself how else you can engage your genuine customers throughout their journey.

Make every customer interaction count by adding voice, video, and messaging to your app or service with Nexmo APIs:



Voice API - Delight and inspire by adding custom voice interactions into your app



Video API - Engage your customers with interactive live video experiences



Messaging API - Drive deeper customer engagement with messaging

Global companies such as Alibaba, Expedia, and Github rely on Nexmo to power millions of interactions per month with our easy-to-use APIs.

Speak to an Expert About How You Can Get Started with Verify.

GET STARTED