How to Check If an Email Address Exists Using DNS MX Records, SMTP Connections, and Email-Sending Emulation

Nonexistent email addresses, which aren't connected to any existing branded domain name, can spell trouble for organizations when used as part of a site's registration process or in an online contact form.

Such addresses can be the product of human error. For example, a user may inadvertently mistype his or her email by omitting, adding, or switching one or more characters or words in it. However, using nonexistent email addresses can also be deliberate for different reasons that include:

- Abusing freemium services or features offered by a website by creating several fake accounts

- Getting access to premium content, like a gated whitepaper, while not ending up on someone's email list

- Remaining untraceable while conducting fraudulent operations

Any of the above can hurt a company. Such practices can result in higher operational costs as users abuse system resources without paying for them as well as lower conversion rates, tarnished email reputation due to hard bounces, which affects deliverability, and possibly, even data leaks.

It is, therefore, the job of IT specialists to ensure that emails from nonexistent addresses don't make their way into an organization's systems or its employees' inbox.

The first step in that process is to **check if an email address exists**. This can be done by looking at Domain Name System (DNS) mail exchanger (MX) records and Simple Mail Transfer Protocol (SMTP) connections and by emulating email sending. These functionalities are all available in [Email Verification API](#).

How to Check If an Email Address Exists

You can **check if an email address exists** by actually sending a message to that address and wait for a few minutes up to an hour to see if it bounces back. If the email address doesn't exist, you'll receive an email similar to this one:

Address not found

Your message wasn't delivered to ⬚ because the address couldn't be found, or is unable to receive mail.

LEARN MORE

Another manual method of checking if an email address exists is to go to the website of one of its service providers, type in the email address, and press Enter. If the email address exists, you will be prompted to enter the password, but if it doesn't, you will see an error message.

Of course, these are very tedious and possibly questionable methods for validating the existence of an email address, and it certainly won't do if you want to verify addresses automatically. Email Verification API, on the other hand, allows you to **check if an email address exists** in real time, even while a user is still in the process of signing up on your website.

To illustrate, we ran a fake email address (i.e., munigetrip@pwemel[.]top) on Email Verification API:

Result for munigetrip@pwemel.top

Parsed email address: munigetrip@pwemel.top

Check email by syntax: true

SMTP check: false

Domain name system check: false

Free email address check: false

Check email for abuse email provider: false

Catch all emails address: null

While the syntax is correct, the tool detected that the email address does not exist since it wasn't able to establish an SMTP connection when it performed its email-emulation technique. SMTP is the standard communication protocol used to send and receive emails, so checking this is a foolproof way of verifying if an email address is valid or not. Also, the DNS check returned a false value, which means that the domain does not exist.

Testing the Waters: Do Top E-Commerce Sites Check If an Email Address Exists?

Out of curiosity, we used the said email address on two of the top e-commerce sites, eBay and Amazon, to see if we can successfully register an account with it.

As you can see, we were able to create an account on eBay with a fake email address. That means eBay probably doesn't use an email validation tool.

Email and Contact Information

Registered email address	m...p@pwemel.top
Registered name, address and phone number	--

Amazon, however, asked for a one-time password (OTP) that was sent to the fake email address. As the email address does not exist, we couldn't receive the OTP and, therefore, weren't able to create an account.

amazon

Verify email address

To verify your email, we've sent a One Time Password (OTP) to munigetrip@pwemel.top (Change)

Enter OTP

[   ]

[Create your Amazon account]

By creating an account, you agree to Amazon's Conditions of Use and Privacy Notice.

Resend OTP

Forcing users to sign up with their real email address helps Amazon deal with several customer issues such as forgotten passwords. It can also help it deal with abandoned shopping carts since it can email users reminders of forgotten items – not to mention that it can help avoid fake shoppers.

When you integrate [Email Verification API](#) into a website, it helps detect fake email addresses so you can effectively prevent users from using them. Coupled with other marketing strategies and security measures, the tool can help organizations experience the following benefits:

- Better results for email marketing campaigns since users are encouraged to sign up with their real email addresses
- Better email security since bad actors can't use nonexistent email addresses as an initial entry point for an attack
- Better shopping cart abandonment mitigation (in the case of e-commerce sites, as in our example above)

Email addresses are essential to any business, be it in marketing, sales, and even cybersecurity. Filtering out nonexistent email addresses can help prevent issues that can pop up later on, which can be detrimental to website reputation and an organization's overall security posture.