What is HTTP3?

It will be very quick, site owners will have the option to use the new HTTP / 3 to improve website speed and when the browser adopts the new protocol, you will see faster data download speed.

When it comes to the Internet, the goal is always speed. It will be very quick, site owners will have the option to use the new HTTP / 3 to improve website speed and when the browser adopts the new protocol, you will see faster data download speed.

What is HTTP3?

HTTP or HyperText Transfer Protocol is the network protocol used by the World Wide Web that allows you to open web links. Its main purpose is to communicate with a web server.

This protocol was developed in the late 1980s and early 1990s, was released to the public in 1996. The first version of this protocol was the only version for nearly 20 years until the th second, HTTP / 2, was released in 2015. The second generation of HTTP uses pipeline technology and data compression to help make the connection faster.

Now, just after 4 years, HTTP / 3 is starting to integrate into browsers and websites, promising to make the Internet even faster.

HTTP / 3 has been adopted by IETF (Internet Engineering Task Force), as a more modern alternative to HTTP / 2. It is a blend of many technologies. They work together to improve both speed and security when accessing information on the Internet.

This new technology sends data faster, makes it less prone to errors, and reduces latency so that websites start loading quickly when you click on links. HTTP / 3 also has built-in encryption, so no separate HTTPS is required. HTTP / 3 runs with TLS (Transport Layer Security) 1.3 encryption. It is the same protocol, representing the 'S' in HTTPS.

HTTP / 3 is based on QUIC and was formerly known as HTTP-over-QUIC. QUIC, or Quick UDP Internet Connections, is a protocol developed by Google.

1. How do HTTP / 3 and QUIC speed up the browser?

How HTTP / 3 works

An important difference between HTTP / 2 and HTTP / 3 is the way they send data packets over the Internet. New HTTP / 3 uses UDP instead of TCP. Both TCP and UDP are protocols used to send data bits over the Internet. However, with older TCP, sending packets will be through a sorted, error-checking and reliable method. It sounds great, but even if only one packet is lost during transmission, the whole process can be broken, like an accident causing traffic jams.

HTTP / 3 uses the UDP protocol, sends information without sorting or error checking. HTTP / 3 is less reliable but faster than TCP. If packets are lost, the application you are using may request missing packets to be sent back using TCP to do so. But, unlike in HTTP / 2, that lost packet only affects data in that packet. It does not affect the transmission of other packets.

This latest HTTP protocol creates a unique connection capable of sending multiple data streams like HTML, JavaScript, CSS and images at the same time.

Faster handshake processes can also speed up the process. During a handshake process, the two websites communicate to exchange messages for mutual verification, encryption settings and session keys.

After the connection is established, data begins to be transmitted using the UDP protocol. Data packets move in any order, making the transfer faster. It works because each packet contains an identifier that helps organize the packages after they are received.

Where does HTTP / 3 currently appear?

Please wait patiently! HTTP / 3 will appear. You will soon find that the Internet has sped up for you at no cost. Your browser will eventually switch to HTTP / 3.

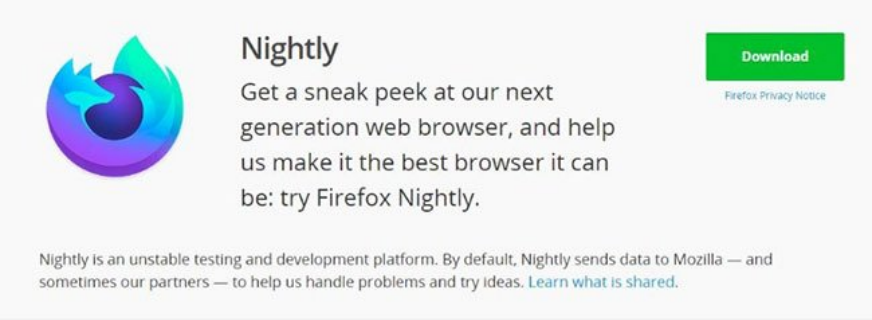
If you can't be patient, Chrome and Firefox browsers have trial versions that you can access.

On Chrome, you can enable **Flag** to use HTTP / 3 testing:

1. Type **chrome: // flags** in the address bar in Google Chrome.

2. Locate the **'Experimental QUIC protocol' setting** and activate it.

On Mozilla Firefox, you can download the beta version of Firefox Nightly.



Chromium-based browsers like Opera and Microsoft Edge will inherit HTTP / 3 technology from Google.

Cloudflare currently offers the option of using HTTP 3 for customers on the waiting list. Cloudflare users will be able to use these updates on its website and make them faster. Facebook and Google have actually been using this technology for a while now.

Like many other readers, you may not care what makes the Internet faster as long as the speed is improved. HTTP / 3 will not necessarily create an instant, lightning-fast access experience, but as more browsers and websites start using HTTP3, your experience with the Internet will improve.