HUMAN

FAQ: Human Challenge

The user-friendly, frictionless CAPTCHA

HUMAN

Please Verify You are a Human
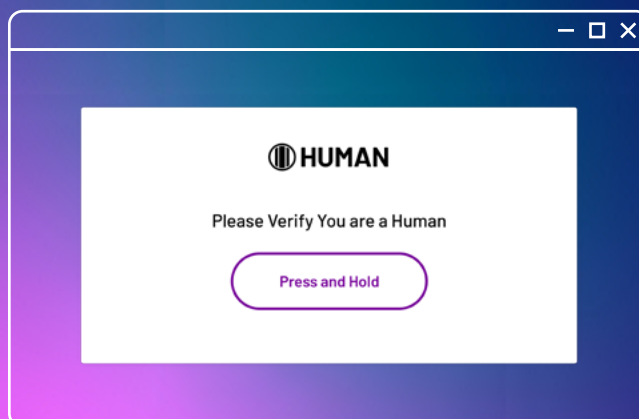
Press and Hold

What is Human Challenge?

Human Challenge is HUMAN's proprietary user verification challenge that differentiates humans from bots on web and mobile apps. On the frontend, it appears as a button that users simply "press and hold." But in the background, Human Challenge executes additional detections to identify the most advanced, next-gen bots.

Behind-the-scenes of the "press and hold," Human Challenge issues the browser a proof-of-work challenge: a computational challenge that a user's device must solve before the user can proceed. The specific proof-of-work challenge adapts to the user's risk profile, collects data related to the solvers' actions, and uses advanced techniques to detect and prevent solves that occur through the use of API calls, CAPTCHA-solving automation, or CAPTCHA farms.

Only humans showing signs of risky or suspicious behavior will ever see the challenge (about 1 in 10000 users), while the rest of users are verified without a challenge at all. For the 0.01% of risky users, solve times for Human Challenge are 4-6x times faster than reCAPTCHA, and abandonment rates are 3-5x times lower.

How does Human Challenge identify CAPTCHA-solving bots?

Human Challenge detects CAPTCHA-solving bots by:

- Using AI to track and classify tracking user interaction with the UI such as mouse, touch and keyboard events
- Deploying a proof-of-work challenge in the background that exhausts resources of bot operators and provides additional tell-tale signals to differentiate humans and bots.
- Creating honeypots and traps for automation, such as fake CAPTCHA tokens, multiple iframes, and fake events
- Detecting automated tools, payload or token replays and signatures collected by the machine learning algorithm that have been classified as malicious
- Fingerprinting CAPTCHA-solving scripts and services to build a robust database of malicious solvers that we can quickly identify and block
- Identifying the injection of unwanted scripts
- Detecting if a script attempts to make use of the native methods provided by the document object model (DOM) that are applied at the CAPTCHA environment

How does Human Challenge identify CAPTCHA-solving services?

Human Challenge detects CAPTCHA-solving services by:

- Leveraging an internal OSINT system based on more than 800 different threat-intelligence databases and platforms, which harvests data on CAPTCHA-solving services according to selected keywords and trends, and uses that data to enforce additional detections

- Receiving notifications on script updates from CAPTCHA-solving services and implementing new detections if necessary; for example, the CAPTCHA-solving service Death by CAPTCHA, publicly releases their updated scripts and HUMAN scans these repositories

- Sending multiple tokens, only one of which is the real token

- Detecting and blocking callbacks that were made by headless browsers — e.g. selenium — from the CAPTCHA's stack, which are being used by services such as 2captcha

How does Human Challenge deter attackers?

Proof-of-work requires a user's device to expend computational effort behind-the-scenes before the user can add an item to a shopping cart, complete a transaction, or take similar actions. This is fairly easy for a single device, but consumes a lot of energy and CPU cycles when attackers use bots to execute many actions simultaneously. Proof-of-work makes it costly for attackers to carry out fraudulent tasks at scale. All of this is invisible to the human user.

With its scenario-optimized approach, Human Challenge dynamically adjusts the work required based on device and risk profile. For example, a simple mobile device may receive a lighter challenge than a powerful desktop device, and a risky profile might get a more difficult challenge than a benign one. This preserves the user experience while building an economic disincentive for future attacks on sites protected by HUMAN.

What is the benefit of using Human Challenge with HUMAN Bot Defender?

Human Challenge is the default verification for Bot Defender, and the solutions share real-time data on the behavior of CAPTCHA-solving bots. Because HUMAN gains visibility to all the activities and events that occur on Human Challenge, the platform is able to create honeypots, enable anti-solving techniques and add other features to differentiate between humans and bots.

Analyzing real-time data allows Human Challenge to become more sophisticated with every login attempt, while providing a better user experience to real humans solving the challenge. The data sharing is unique, as many other CAPTCHA solutions are often considered to be black-box systems. For example, Google reCAPTCHA's iframe does not allow access to any events occurring inside it.

How does the performance of Human Challenge compare with that of Google reCAPTCHA?

Compared with Google reCAPTCHA, Human Challenge has:

- 3-5x lower abandonment rate
- 4-6x faster solve rate
- 2x faster headless browser solve rate

These metrics were based on data from millions of solved challenges across industries during a three-month time span.

How do I install Human Challenge?

Human Challenge is the default verification system for Bot Defender. Configuring and customizing your block page to include Human Challenge is seamless, and your HUMAN account manager will assist you as needed. You can test Human Challenge in your staging environment and then deploy once you are satisfied with the results of your testing.

How do I customize Human Challenge?

You can customize elements such as the background color, text, font, animation to give Human Challenge the same look and feel as your website.

What browsers does Human Challenge support?

Human Challenge supports the following:

Web	Mobile
Chrome ≥67	≥iPhone 5S
Safari ≥9	≥iPad 4
FF ≥60	≥Nexus 5
IE ≥10	≥Pixel 1
Edge ≥15	≥Galaxy S7
Android ≥5	≥Galaxy Note 9
Opera ≥55 (including mini≥16)	≥Xperia XA
Yandex ≥16	
UC ≥9	

What is the user experience if Human Challenge cannot load?

Users will receive one of three messages if Human Challenge cannot load:

- For browsers that are not supported, the user will get the message "There seems to be a problem with your browser. Please upgrade to load the Human Challenge."

- When the user is experiencing a network problem, they will receive the message: "There seems to be a connection issue. Please make sure you're online and then refresh the page."

- When the Human Challenge is solved, but there is no internet connection, the callback window._pxOnOfflineCallback occurs.

How do I localize Human Challenge?

27 language and locale options are available out-of-the-box. In addition, you can add a locale not included in the Human Challenge package. Simply add the localization code to the locale object and enter the translated text to the text line of the translation object.

Is Human Challenge accessible for disabled users?

The Human Challenge is available in a default version with accessible features as well as an "Enhanced Accessibility Mode" version. Both versions are ARIA compatible, and provide the following capabilities:

- Text coded into the images, so all elements can be read by screen readers

- Proper prompting text ("press and hold")

- Challenge button can be pressed using the keyboard

The "Enhanced Accessibility Mode" is designed to provide a better experience to individuals with disabilities. It is WCAG 2.2 certified and conforms with a VPAT 2.4 report. It is aimed to provide an inclusive accessible experience to a wider range of people with disabilities, including accommodations for blindness and low vision, deafness and hearing loss, limited movement, speech disabilities, photosensitivity, and combinations of these, and some accommodation for learning disabilities and cognitive limitations. The latest version includes customizable text-to-speech using ARIA elements.

Contact us for a Voluntary Product Accessibility Template (VPAT) 2.4 report with additional details.

Where can I get more information on Human Challenge?

If you are a current customer, please contact your HUMAN CSE, SA, send us a Slack or email socsupport@humansecurity.com. If you are not yet a HUMAN customer, please fill out this form.

Book a demo to learn more about Human Challenge!

About HUMAN

HUMAN is a cybersecurity company that protects organizations by disrupting digital fraud and abuse. We leverage modern defense to disrupt the economics of cybercrime by increasing the cost to cybercriminals while simultaneously reducing the cost of collective defense. Today we verify the humanity of more than 20 trillion digital interactions per week across advertising, marketing, e-commerce, government, education and enterprise security, putting us in a position to win against cybercriminals. Protect your digital business with HUMAN. **To Know Who's Real, visit www.humansecurity.com.**