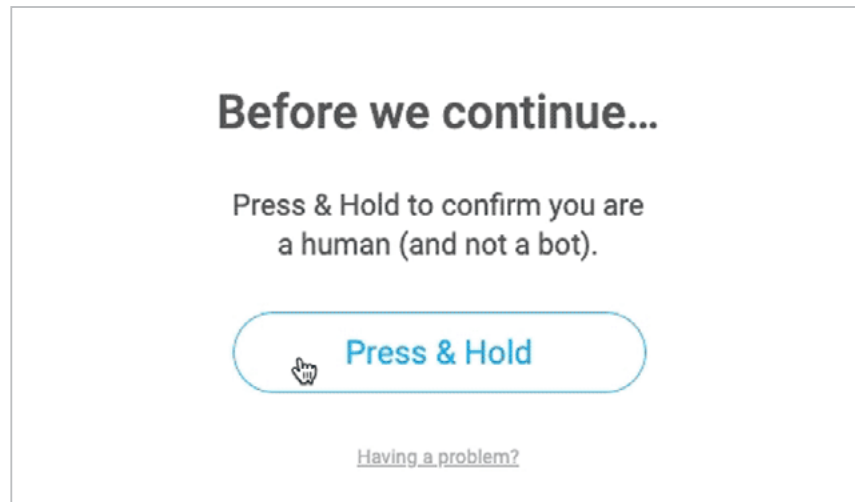


FAQ: PerimeterX Human Challenge

User-friendly Human Verification



What is PerimeterX Human Challenge?

PerimeterX Human Challenge is a user-friendly verification that presents a visual challenge to differentiate humans from bots on web and mobile apps. This tool makes verification less frustrating and more human, which reduces abandonment rates and improves conversions while maintaining high accuracy. In fact, solve times for Human Challenge are 4-6x times faster than reCAPTCHA, and abandonment rates are 3-5x times lower. Users simply “Press and Hold” — and PerimeterX will do the rest.

Human Challenge is an alternative challenge to CAPTCHA solutions, with enhanced capabilities to detect if a user is a bot or a human. Only risky profiles receive the challenge, so most humans won't even see it. For automated users, Human Challenge has strong anti-tampering mechanisms to detect and deter CAPTCHA-solving bots and CAPTCHA farms. It collects data related to the solvers' actions and uses advanced techniques that make it difficult to solve through API calls, automation or CAPTCHA farms.

How does Human Challenge identify CAPTCHA-solving bots?

Human Challenge detects CAPTCHA-solving bots by:

- Detecting automated tools, payload or token replays and signatures collected by the machine learning algorithm that have been classified as malicious
- Using intelligence tools to scan the dark web to identify any CAPTCHA-solving script, tool or service
- Creating various honeypots, such as fake CAPTCHA tokens, multiple iframes and fake events
- Tracking user interaction with the UI such as mouse, touch and keyboard events
- 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 PerimeterX 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?

In addition to the external-facing Press and Hold Challenge, Human Challenge features Scenario-optimized Proof of Work (PoW). PoW 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. Thus, PoW makes it costly for attackers to carry out fraudulent tasks at scale.

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 PerimeterX.

What is the Benefit of Using Human Challenge with PerimeterX 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 PerimeterX 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

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 PerimeterX 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 in the Customizing_ to give Human Challenge the same look and feel as your website.

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. In the *Customizing_*, simply add the localization code to the locale object and enter the translated text to the text line of the translation object.

What browsers does Human Challenge support?

Human Challenge supports the following:

Web

- Chrome ≥67
- Safari ≥9
- FF ≥60
- IE ≥10
- Edge ≥15
- Android ≥5
- Opera ≥55 (including mini≥16)
- Yandex ≥16
- UC ≥9

Mobile

- ≥iPhone 5S
- ≥iPad 4
- ≥Nexus 5
- ≥Pixel 1
- ≥Galaxy S7
- ≥Galaxy Note 9
- ≥Xperia XA

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 PerimeterX 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.

Is Human Challenge accessible for the visually impaired?

Yes. Human Challenge is ARIA compatible by default, and provides the following for the visually impaired user:

- Text coded into the images
- Proper prompting text that reads “press and hold”
- Enabled keyboard access to elements on the page

Human Challenge is also available in an enhanced accessibility mode, which conforms with the Web Content Accessibility Guidelines (WCAG) 2.1 and section 508 of the Rehabilitation Act. [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 PerimeterX CSE, SA, send us a Slack or email support@perimeterx.com. If you are not yet a PerimeterX customer, please fill out [this form](#).

[Book a demo](#) to learn more about Human Challenge!