GDPR compliant website protection

POWER CAPTCHA protects your website or API against bots and unauthorized access!

Why you should use a captcha service

Targeted cyber attacks against companies, administrations or internet users have increased massively in recent years. It is not only the theft of information and damage to infrastructures that pose a threat to companies, but also the misuse of online functions to spread spam (e.g. via contact forms) or to damage reputations. Using a captcha can protect your login areas and forms against these attacks.

Why most captchas are not suitable for your company

Most captchas only protect against bots, but not against hackers, as they do not effectively restrict direct, human interaction, such as combining login names and passwords or the unintentional, multiple use of a form.

Many captchas have non-transparent and uncontrollable mechanisms of action. It is usually not clear which personal data is stored, where it is stored and what it is used for.

In addition, many captchas do not properly implement data protection regulations in accordance with current European and German laws (GDPR / DSGVO). Accordingly, the use of captchas with a data pool outside the EU or the storage of personal data requires users to actively give their consent in advance (similar to cookie banners).

POWER CAPTCHA protects against bots and hackers

In contrast to other captchas, POWER CAPTCHA does not primarily differentiate whether a human or a bot has triggered an interaction, but essentially checks whether the access is authorized or not. Every interaction with POWER CAPTCHA generates an encrypted code, which the central POWER CAPTCHA AI evaluates and remembers for a limited time in order to subsequently increase the level of difficulty of the solution for further

interactions, extend the response time or, if necessary, reject further interactions for a certain period of time.

Figure 1: Security query with POWER CAPTCHA

POWER CAPTCHA is GDPR / DSGVO compliant

We operate POWER CAPTCHA on secure servers in certified data centers in Germany (EU). User or client data is transmitted via encrypted communication channels and processed in unreadable form. We only store this data until the security check and the current processing period have been completed. POWER CAPTCHA is therefore GDPR-compliant and you do not need prior consent from users to use it.

The maximum duration of storage is based on the blocking periods defined in the POWER CAPTCHA plans. Under the Enterprise plan, we can store the data for a maximum of three days (customer setting).

Security level, usability, accessibility

You can decide on the desired balance between usability and accessibility as well as the security level yourself. Examples:

Usability: After how many interactions should a captcha be displayed? Do you only want to use security mechanisms in the background without displaying a captcha (no-captcha solution)?

Security level: What complexity should the displayed captcha have, and when should the complexity be increased?

Lock timer: How much time do you want to give users to solve the captcha? How long should clients remain blocked after a lock?

Release timer: When should the clients' previous events be reset?

Accessibility: As part of the Enterprise plan, POWER CAPTCHA includes 2-factor authentication for barrier-free access.

Custom actions: For example: What should happen in the event of a block? A corresponding message is displayed by default. If you have other requirements, please contact our sales department.

General

Preset profile
Choose the profile for the presets. With the "Custom" profile, you can customize most of the settings.

Custom ⌄

Depending on the licence and selected profile, certain of the following settings are preset and cannot be changed.

Authentication via e-mail
Enable/disable the barrier-free access via e-mail access code (as an alternative to CAPTCHA).

◉ Enable authentication via e-mail
◯ Disable authentication via e-mail

Solution time
Time in seconds in which the displayed CAPTCHA image can be solved.

30

Monitoring of requests by IP address

Time period for monitoring
Time period how long requests from the IP address are monitored.

0 Hours | 15 Minutes

Duration of the blocking
Duration how long requests from the IP address are blocked after too many requests or incorrect CAPTCHA solutions.

0 Hours | 60 Minutes

Number of requests / incorrect solutions (level 1)
Total number of request attempts or incorrect CAPTCHA solutions until a low complexity CAPTCHA (4x4) must be solved.

3

Number of requests / incorrect solutions (level 2)
Total number of request attempts or incorrect CAPTCHA solutions until a medium complexity CAPTCHA (5x5) must be solved.

5

Number of requests / incorrect solutions (level 3)
Total number of request attempts or incorrect CAPTCHA solutions until a high complexity CAPTCHA (6x6) must be solved.

7

Number of requests / incorrect solutions until blocked
Total number of request attempts or incorrect CAPTCHA solutions until the IP address is blocked.

20

Figure 2: Extract from POWER CAPTCHA settings (screenshot)

Monitoring key values

To prevent hackers or bots from using multiple IP addresses to circumvent a block, you can set how often a username or email address may be used. Usernames and email addresses are just examples of values that you can protect.

In principle, you can pass any value to POWER CAPTCHA and protect it from misuse or unwanted use. Examples of possible application scenarios include limiting downloads, online services or accessing websites or app functions, often without the visible display of a captcha (no-captcha setting).

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System description

If users access one of the areas of your website protected with POWER CAPTCHA or submit a protected form (Figure 3, Step 1), the system first checks whether a POWER CAPTCHA pop-up should be displayed according to your default settings in the Customer Center (Figure 3, Step 2). If this request is confirmed by the POWER CAPTCHA server with "yes", a captcha is displayed and a solution value must be entered (Figure 3, Step 3).
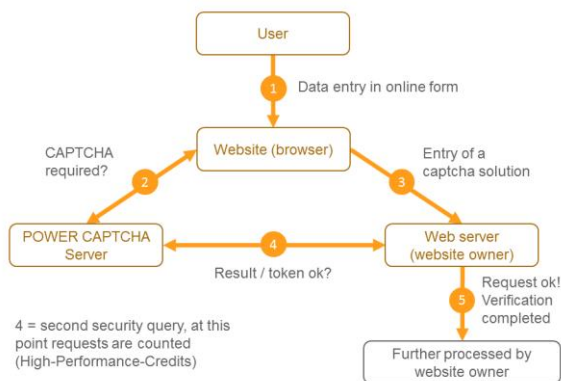

Figure 3: Sketch of POWER CAPTCHA system architecture

Until a captcha solution is sent, communication takes place between the POWER CAPTCHA server and the browser that accessed your website. No additional traffic is generated on your web server when new captchas are requested by the browser. Only when a correct captcha solution value is clicked is it forwarded to your web server (Figure 3, Step 3).

For barrier-free access, users can alternatively request an access code by email, which is sent by the POWER CAPTCHA server.

Your web server receives the solution request and checks whether the captcha has been solved correctly and access is permitted. To do this, your web server sends a verification request to the POWER CAPTCHA server (Figure 3, Step 4). This request contains the token of the Captcha solution, the user name, the e-mail address or another value to be protected, as well as the IP address of the browser request. In addition, your personal secret key simultaneously certifies the authorization of the request (server authentication).

This prevents the solution request from being intercepted and misused by third parties. It also gives you control over the number of high-speed security checks* used per month, as only requests from your web server backend are added to the consumption of high-speed security checks per month.

The POWER CAPTCHA server now checks whether the captcha has been solved correctly. If the token is confirmed as valid by the POWER CAPTCHA server, verification by POWER CAPTCHA is complete. Further processing of the request, such as checking the login data, is then carried out by you as the website operator (Figure 3, Step 5).

If you have set the "No-Captcha" mode, no captcha is displayed to users and your website is secured by other measures you have approved, such as limiting login attempts within a time limit. The No-Captcha setting corresponds to a correct captcha solution, and step 3 in Figure 3 is skipped.

* Supplement to high-speed security checks: The provision of captchas as part of high-speed security checks takes place with the highest priority (usually a few milliseconds). If your volume of high-speed security checks per month is used up, the speed of provisioning is reduced. The number of high-speed security checks included in your POWER CAPTCHA version per month can be found in the table under "Options and plans".

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Easy integration

With your order, you will automatically receive a customer key for the installation. You can then make the desired settings for POWER CAPTCHA in your account settings or start with our default settings. The integration into your website or app is done with JavaScript or available plugins (e.g. WordPress plugin). You can verify the token on your server using PHP or another programming language. On our website you will find templates and application examples that you can use directly or adapt as required.

POWER CAPTCHA Plans

Plan	Starter	Professional	Enterprise
Commercial use	✔	✔	✔
Protection for forms, buttons and login areas	✔	✔	✔
Unlimited POWER CAPTCHA uses	✔	✔	✔
Adjustable limit for solution attempts	✔	✔	✔
Highspeed Security Checks / month	300	1.000	2.000
Increase in difficulty	automatic	adjustable	adjustable
Monitoring period	30 minutes	1-120 minutes	1 minute to 3 days
Blocking time for unsolved captcha	5 / 15 minutes	1-120 minutes	1 minute to 3 days
Service channels	FAQ / e-mail without guaranteed priority	FAQ, e-mail with priority, ticket system from 3 licenses	FAQ, e-mail, ticket system with high priority according to SLA
Delay captcha display	-	✔	✔
Barrier-free (2-factor authentication)	-	-	✔
Individualized sender identification for 2-factor authentication	-	-	✔
Additional protection of login names, e-mail addresses, etc.	-	-	✔
Captcha Editor (on request)	-	-	✔

On-premises version

If you have particularly high requirements in terms of the integration of 3rd party solutions, POWER CAPTCHA is also available as an on-premises version for local installation on your infrastructure. Our sales team will be happy to answer any questions: sales@power-captcha.com.

About POWER CAPTCHA

POWER CAPTCHA is a brand and development of Uniique Information Intelligence AG. Uniique AG is a Hamburg-based software company that has been offering award-winning software for automation and personalization in the communication, marketing and service environment since 2010.