

Cloudflare Bot Management for Inventory Hoarding

Detect and mitigate inventory hoarding bots by leveraging machine learning, behavior analysis, fingerprinting, and intelligence from over 25 million Internet properties. All with quick and easy deployment.



Inventory hoarding bots are designed to disrupt the availability of inventory. These bots constantly add high-demand, or limited-supply items to online shopping carts, without ever completing a purchase. They artificially deplete the retailer's inventory and later resell the items at high prices.

Inventory hoarding bots impact retailer revenues by preventing legitimate buyers from making purchases. This also leads to a poor customer experience and the frustrated customers might never return. Additionally, this can trigger unnecessary restocking of inventory from a supplier or manufacturer.

Common Targets for Inventory Hoarding

While Inventory hoarding can impact any industry, some common targets include:

- **E-commerce industry:** Stores can lose revenue and customers if they are unable to sell a popular product to legitimate customers.
- **Travel and hospitality industry:** These sites can have their sales impacted if the customers are unable to book travel and accommodations for their desired destinations.
- **Entertainment and events industry:** Sites that sell tickets for sports events or concerts will lose customer trust if those customers are unable to buy the tickets directly and are forced to buy them on the gray market at a higher price. Since event tickets lose their retail value after the event, these losses can never be recouped.

Cloudflare Bot Management

Cloudflare Bot Management applies automated, data-driven approaches to managing bots. This eliminates the manual configuration, investigation, remediation, and deployment steps companies often undertake to address bot problems.



By applying machine learning to a curated subset of traffic across 25 million Internet properties, Cloudflare scores every request for its likelihood of coming from a bot. This large and diverse data set improves accuracy, reducing false positives while protecting your site.



The solution also applies behavioral analysis to detect anomalies in site-specific traffic, evaluating every request on how different it is from the baseline.



Because not all bots are bad, the solution automatically maintains and updates a white list of "good" bots, such as those belonging to search engines.



AngelList

"Using machine learning across tens of millions of websites, Cloudflare is able to immediately identify unauthorized bots that are abusing our website. Their mitigation strategies block bots without impacting real users - our false-positive rate is now less than 0.01%."

Tony Bruess, Engineer

REV: 200227

Key Features

ONE-CLICK DEPLOYMENT

With a single click, deploy a fast and accurate bot management solution without complex configuration or maintenance.

Bot Management

Automatically enables custom firewall rules and the `__cf_bm` cookie on your zone to manage incoming traffic that matches criteria associated with bots.



When incoming requests match...

[Use expression builder](#)

```
{ip.src ne 2601:625:c100:200c:988c:105d:3f1c:f557 and http.referer eq "cloudflare.com" and http.request.uri.path eq "/login" and http.user_agent ne "1.1.1.1 iOS App" and not cf.client.bot and score le 30}
```

Then...

Choose an action

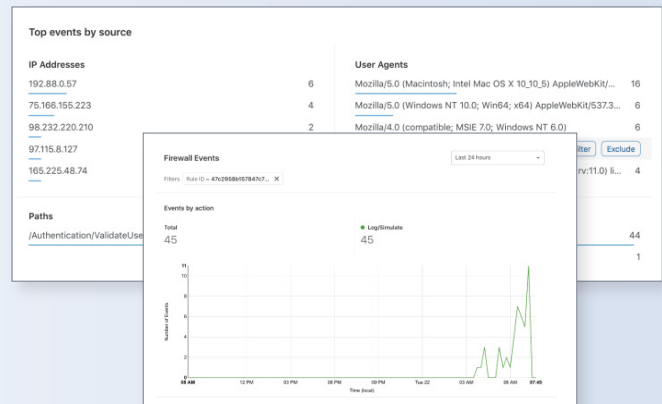
Challenge (Captcha)

CONTROL AND CONFIGURABILITY

Tune your bot management rules to fit your specific and changing needs. Define the rules with different attributes such as: specific path or URI pattern, request method, score sensitivities. Create tailored mitigation methods, including log, Captcha, block, or alternative content.

RICH ANALYTICS AND LOGS

Get insights with dashboard analytics that help you to improve the solution's effectiveness through time-series graphs with drill-down views. Logs include which rules were triggered, what actions were taken, and rich request meta-data for every request so you can analyze your security posture with third-party tools such as SIEMs or business intelligence applications.



The Cloudflare Difference

Without the right tools, managing bots can become a draining, costly exercise. Cloudflare Bot Management has three key differences:



Smart Data

Learns from a curated subset of traffic to 25 million Internet properties to accurately and proactively identify bots through machine learning and behavioral analysis.



Integrated Security Services

Cloudflare Bot Management is best-in-class both as a standalone solution and as integrated with WAF and DDoS protection.



Completeness Without Complexity

Deploys a bot management solution against a full range of bot attacks with a single click. No JavaScript required.