What is MACE?

Kaneesha Davis - 2021-03-16 - Application & Features

MACE is a system developed by Private Internet Access to help protect our customer's privacy and security. Private Internet Access MACE returns IP addresses of unwanted domain names as an address that's not routable on the public internet.

Detailed Explanation:

If you visit a website, your browser loads contents from that website. Let's say you visit www.dogsareawesome.com/dog/beagle in your browser. They have a tie-up with the advertising and tracking company "EvilCorp". The content your browser sees is:

```
<html>

<head>

<script src="https://dogsareawesome.com/main.js"></script>

<script
src="http://track.evilcorp.com/track.php?url=dogsareawesome.com/dog/beagl
e"></script>

</head>

<body>

<h3>Beagles are awesome!</h3>

<img src="/dog/beagle.jpg" />

<div id="ad"></div>

</body>

</html>
```

Here's what your browser does:

1. Asks the DNS server for the IP address of "dogsareawesome.com", which returns

something like "54.113.12.45"

2. Fetches the page

3. Fetches any images, scripts, etc. on the page.

4. Realizes it needs to fetch a script from "track.evilcorp.com"

5. Asks the DNS server for the IP address of "track.evilcorp.com" which might result in "31.11.51.22"

6. Makes a request to "31.11.51.22" telling the tracking site which page you visited, who you are (using a cookie they may have planted on you earlier) and that tracker page can modify the page and add advertisements relevant to your content.

Browser extensions like AdBlock and Ghostery work by checking whether each site is against a list of known tracking pages. Then they intercept and prevent that request from happening. So the request to "track.evilcorp.com" will fail, by preventing step 6.

However, Private Internet Access MACE works differently. If you have Private Internet Access MACE enabled in our desktop app, your browser requests the IP address of "track.evilcorp.com" and the DNS will return "127.0.0.2", which points back to the local computer. As a result of this, your browser won't be able to make any tracking requests.

Advantages of Private Internet Access MACE v/s AdBlock or uBlock

- You don't have to install any extensions or configure your browser if using our desktop/mobile apps.

- You might find MACE faster and more memory efficient because your browser is no longer comparing each URL against potentially thousands of rules.

- We update our list of malicious domains very regularly to ensure you're always protected.

- On mobile devices, browsing with MACE active can reduce the battery drain depending on your type of usage.

Questions about Private Internet Access MACE

- **What publicly available blocklists are you using?** We use http://pgl.yoyo.org/adservers/

- **How often are you checking for updates of these public blocklists?** Whilst we have not formally adopted an update frequency, we're currently updating at once a month.

- **Are you using additional blocking rules that you have added internally?** No

- **Are so-called "acceptable ads" allowed?** As we do not edit any of the lists we use (and block on a DNS level) we do not and cannot check for acceptable, or non-acceptable, adverts.

- **Are you whitelisting certain advertisement providers in exchange for financial support?** No.

- **Are you whitelisting certain advertisement providers without financial support?** No.

- **Are you whitelisting your own advertisements?** No.

- **Are you manually blacklisting advertisements of competitors?** No.

Tags
MACE