

# Request-OTR Header

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# Threat Model

1. **Attacker:** local “UI-bound adversary”
  - a. Authenticated access to a victim’s device via standard user interfaces [0]
  - b. Examples: browsing history, URL autocomplete, cookies
  - c. **Non-examples:** network snooping, malware, websites
2. **The attack:** identify if the victim has been to a “sensitive” site
3. **Victim:** hide evidence that they’ve visited a “sensitive” site while in a stressful environment
4. **Sensitive:** self-reported by website

# Motivating Use-Cases

1. Intimate partner violence
  - a. Browsers are a major attack vector [1]
  - b. Victim is trying to find online help
2. “Hand over your phone” checks
  - a. Might not have advance warning

# Request-OTR HTTP Response Header Field

1. **Request-OTR: ?1** header sent by the website
2. “Client SHOULD treat the site as sensitive and not keep traces of the user having visited the site”



## This site may contain sensitive content.

Would you like to visit this site in Off-The-Record mode?

<https://www.tallpoppy.com>

Brave wants to protect you when visiting sensitive sites. Sites you visit in Off-The-Record mode won't show up in your browsing history, and cookies will not be saved.

Don't ask me again

You can change this later in Brave Settings in the Privacy and Security section

Proceed Normally

Proceed Off-The-Record

# Make digital safety the company culture.

Stop online harassment from escalating to hacking.

[How it Works](#)



# Comparison with existing approaches

1. Overhiding
  - a. Private browsing
2. Easy to forget to start/close
  - a. Private browsing
3. Underhiding
  - a. Quick exit button
  - b. Browsing history edit controls
  - c. Clear-Site-Data
4. Dependent on website for correct implementation
  - a. Clear-Site-Data
  - b. Quick exit button
5. Complicated
  - a. Browsing history edit controls
6. Retroactive
  - a. Clear-Site-Data

# Limitations

1. Search engine
2. Hiding traces of malicious websites
3. Consent?



# Status

1. Shipping in Brave browser [2]
2. Working with researchers to evaluate effectiveness
3. Next steps: standardization!
  - a. HTTP WG? Draft: [draft-sahib-httpbis-off-the-record](#)
  - b. WebAppSec?