**Tails - Bug #16029**

**Tor Browser leaks locale in HTTP_ACCEPT Headers**

10/03/2018 06:48 PM - anonym

<table>
<thead>
<tr>
<th>Status:</th>
<th>Resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Elevated</td>
</tr>
<tr>
<td>Assignee:</td>
<td></td>
</tr>
<tr>
<td>Category:</td>
<td></td>
</tr>
<tr>
<td>Target version:</td>
<td>Tails_3.10.1</td>
</tr>
<tr>
<td>Feature Branch:</td>
<td>bugfix/16029-fix-spoof-english+force-all-tests</td>
</tr>
<tr>
<td>Type of work:</td>
<td>Code</td>
</tr>
<tr>
<td>Blueprint:</td>
<td></td>
</tr>
<tr>
<td>Start date:</td>
<td>10/03/2018</td>
</tr>
<tr>
<td>Due date:</td>
<td></td>
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<tr>
<td>% Done:</td>
<td>100%</td>
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<tr>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Spent time:</td>
<td>0.00 hour</td>
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<tr>
<td>Assigned to:</td>
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<td>Percentage:</td>
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<td>Time to completion:</td>
<td>0.00 hour</td>
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<tr>
<td>Status reason:</td>
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<td>Status note:</td>
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<tr>
<td>Affected tool:</td>
<td>Browser</td>
</tr>
<tr>
<td>Related to:</td>
<td></td>
</tr>
<tr>
<td>Associated revisions:</td>
<td></td>
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</tbody>
</table>

**Description**

Using Panopticlick, we get this HTTP_ACCEPT Headers using the default US English locale:

```
text/html, */*; q=0.01 gzip, deflate, br en-US,en;q=0.5
```

but this with French:

```
text/html, */*; q=0.01 gzip, deflate, br fr,fr-FR;q=0.8,en-US;q=0.5,en;q=0.3
```

In the non-English Tor Browsers when used outside of Tails you are asked about whether you want to leak this (for a localized web experience). But I guess we still want to spoof as US English for all?

**Related issues:**

<table>
<thead>
<tr>
<th>Blocks Tails - Feature #15506: Core work 2018Q4: Foundations Team</th>
<th>Resolved</th>
<th>04/08/2018</th>
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</table>

**Associated revisions**

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Author</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>91e47ba4</td>
<td>10/20/2018</td>
<td>segfault</td>
<td>Set the firefox preferences to spoof English (refs: #16029)</td>
</tr>
<tr>
<td>7b0832ee</td>
<td>10/21/2018</td>
<td>intrigeri</td>
<td>Merge branch 'bugfix/16029-fix-spoof-english+force-all-tests' into stable (Fix-committed: #16029)</td>
</tr>
</tbody>
</table>

**History**

<table>
<thead>
<tr>
<th>#1</th>
<th>10/03/2018 06:48 PM - anonym</th>
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<tbody>
<tr>
<td></td>
<td>Related to Feature #15506: Core work 2018Q4: Foundations Team added</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#2</th>
<th>10/03/2018 06:48 PM - anonym</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Priority changed from Normal to Elevated</td>
</tr>
</tbody>
</table>
This should probably be elevated.

#3 - 10/03/2018 07:15 PM - anonym
The issue is also present in Tails 3.9, so not a regression in Tails 3.9.1 with Tor Browser 8.0.2.

#4 - 10/03/2018 07:39 PM - anonym
So the spoofing has been uplifted from Torbutton to Firefox. The pref is privacy.spoof_english, with (from Tor Browser sources, browser/app/profile/firefox.js):

```javascript
// 0 - will prompt
// 1 - don't spoof
// 2 - spoof
```

So we should set it to 2... but it already is according to about:config in both Tails 3.9 and 3.9.1 (picked German in the Greeter).

Those settings do what they are supposed to in Tor Browser outside of Tails, but when set to 1 or 2 they are always "User set" (user_pref(...)), but in Tails we change the default to 2. We've seen buggy prefs before that behave differently for the same value depending if they are set via a default or user set.

#5 - 10/04/2018 02:00 PM - intrigeri
- Related to deleted (Feature #15506: Core work 2018Q4: Foundations Team)

#6 - 10/04/2018 02:00 PM - intrigeri
- Blocks Feature #15506: Core work 2018Q4: Foundations Team added

#7 - 10/04/2018 08:35 PM - intrigeri
- Assignee set to segfault

segfault, do you want this one? I think anonym is right and we should try turning this one into a user_pref().

#8 - 10/08/2018 02:04 PM - segfault
- Description updated

#9 - 10/09/2018 08:43 PM - segfault
- % Done changed from 0 to 10
- Feature Branch set to bugfix/16029-fix-spoof-english

I pushed a commit to set privacy.spoof_english as a user_pref, now building to see if that changes anything

#10 - 10/10/2018 02:52 PM - intrigeri
FYI most automated tests involving Tor Browser are tagged fragile so they won't run on Jenkins unless your branch's name has the +force-all-tests suffix.
intrigiri wrote:

FYI most automated tests involving Tor Browser are tagged fragile so they won't run on Jenkins unless your branch's name has the +force-all-tests suffix.

Thanks, I added the suffix

---

#12 - 10/14/2018 03:01 PM - segfault
- Status changed from Confirmed to In Progress

Applied in changeset commit:f464d91697ec3b4932e697daf43fb80f9be4f4ea.

#13 - 10/14/2018 05:53 PM - segfault
So, simply adding

```javascript
user_pref("privacy.spoof_english", 2);
```

to

`config/chroot_local-includes/etc/tor-browser/profile/prefs.js`

did not work, the HTTP_ACCEPT headers still include the non-EN locale.

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#14 - 10/14/2018 05:56 PM - segfault
- Assignee deleted (segfault)

I don't know what else to try and I have enough on my 3.10 plate for now, so I'm unassigning me for now

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#15 - 10/20/2018 10:44 AM - intrigiri
- Target version changed from Tails_3.10.1 to Tails_3.11
Same here, not doable for 3.10 :/

Let's allocate this work during the next FT meeting.

#16 - 10/20/2018 06:57 PM - segfault
I took a look at the code today. The only place I could find where the spoofing is applied is here, in LanguagePrompt.jsm. There it seems like the spoofing is only applied if the preference is changed, so it doesn't matter what the value is when firefox is started.

This is consistent with the behavior I see: If I manually change the setting to 1 and then back to 2, the spoofing is enabled.

I also noticed that when the spoofing is applied, it actually only sets two other preferences. I guess if we would set these in config/chroot_local-includes/etc/tor-browser/profile/prefs.js, we could enable the spoofing again.

#17 - 10/20/2018 07:18 PM - segfault
- Assignee set to intrigeri
- QA Check set to Ready for QA

segfault wrote:
I also noticed that when the spoofing is applied, it actually only sets two other preferences. I guess if we would set these in config/chroot_local-includes/etc/tor-browser/profile/prefs.js, we could enable the spoofing again.

I also tried to change these settings in config/chroot_local-includes/usr/share/tails/tor-browser-prefs.js, but had no effect. It only works if they are set in config/chroot_local-includes/etc/tor-browser/profile/prefs.js. I pushed a commit which does that.

#18 - 10/20/2018 08:06 PM - intrigeri
- Target version changed from Tails_3.11 to Tails_3.10.1

#19 - 10/20/2018 09:36 PM - segfault
Built and tested, seems to work

#20 - 10/21/2018 08:59 AM - intrigeri
- % Done changed from 10 to 60

… and Jenkins is happy about it. Will quickly build & test manually in combination with #16067 and then I'll merge!

#21 - 10/21/2018 09:45 AM - intrigeri
- Status changed from In Progress to 11
- Assignee deleted (intrigeri)
- % Done changed from 60 to 100
- QA Check changed from Ready for QA to Pass
Congrats for the investigation and for finding a solution!

#22 - 10/22/2018 11:56 AM - segfault
- Status changed from 11 to In Progress

Applied in changeset commit:76efb36745c918ede22eb6ed70d97c5244a881a8.

#23 - 10/24/2018 04:57 PM - intrigeri
- Status changed from In Progress to Resolved