

Mozilla Security Blog

Mixed Content Blocking in Firefox Aurora

Tanvi   May 16 2013

Firefox 23 moved from Nightly to Aurora this week, bundled with a new browser security feature. The Mixed Content Blocker is enabled by default in Firefox 23 and protects our users from man-in-the-middle attacks and eavesdroppers on HTTPS pages.

When an HTTPS page contains HTTP resources, the HTTP resources are called Mixed Content. With the latest Aurora, Firefox will block certain types of Mixed Content by default, providing a per-page option for users to “Disable Protection” and override the blocking.

What types of Mixed Content are blocked by default and what types are not? The browser security community has divided mixed content into two categories: Mixed Active Content (like scripts) and Mixed Passive Content (like images). Mixed Active Content is considered more dangerous than Mixed Passive Content because the former can alter the behavior of an HTTPS page and potentially steal sensitive data from users. Firefox 23+ will block Mixed Active Content by default, but allows Mixed Passive Content on HTTPS pages. For more information on the differences between Mixed Active and Mixed Passive Content, [see here](#).

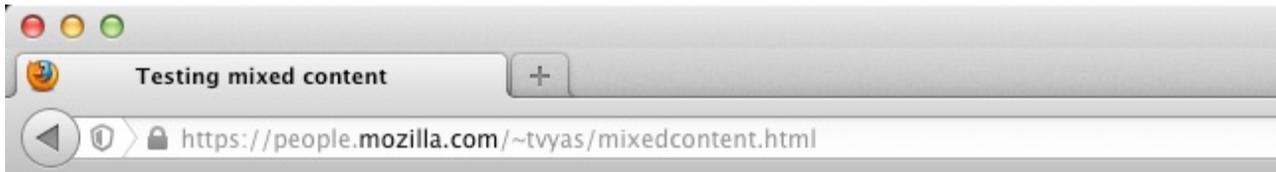
Mixed Content Blocker UI

Designing UI for security is always tricky. How do you inform the user about a potential security threat without annoying them and interrupting their task?

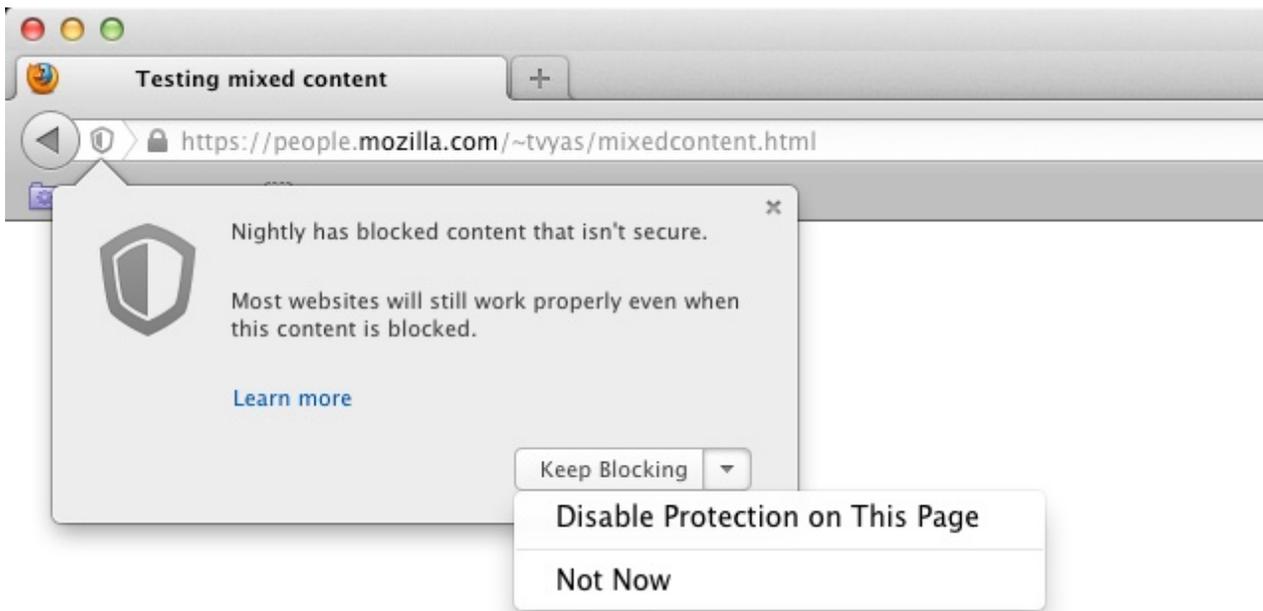
Larissa Co (@lyco1) from Mozilla’s User Experience team aimed to solve

this problem. She created a Security UX Framework with a set of core principles that drove the **UX design** for the Mixed Content Blocker.

When a user visits an HTTPS page with blocked Mixed Active Content, they will see a shield icon in the location bar:



Clicking on the shield, the user will see options to “Learn More”, “Keep Blocking”, or “Disable Protection on This Page”:



If a user decides to “Keep Blocking”, the notification in the location bar will disappear:



On the other hand, if a user decides to “Disable Protection on This Page”, all mixed content will load and the lock icon will be replaced with a yellow

warning sign:



When a user visits an HTTPS page with Mixed Passive Content, Firefox will not block the passive content by default. But since the page is not fully encrypted, the user will not see the lock icon in the location bar:



Compatibility

We have a [master tracking bug](#) for websites that break when Mixed Active Content is blocked in Firefox 23+. In addition to websites that our users have been reporting to us, we are running automated tests on the Top Alexa websites looking for pages with Mixed Active Content. If you run into a compatibility issue with a website involving mixed content, please let us know in the [master bug](#), or take a step further and contact the website to let them know. Chances are, their website is also broken on Chrome and/or Internet Explorer. Chrome and Internet Explorer also have Mixed Content Blockers, but their definitions of Mixed Active and Mixed Passive Content differ from slightly from Firefox's definition.

Want to learn more?

Still curious and want to learn more details about the Mixed Content Blocker in Firefox? Check out [this more detailed blog post](#) or feel free to ask us questions on [mozilla.dev.security](#).

CATEGORIES: [Security](#)

5 responses

Danny Moules wrote on [May 17, 2013 at 4:43 am](#):

\o/ Massive security win incoming in 3... 2...

[maxw3st](#) wrote on [May 17, 2013 at 6:56 pm](#):

Does this have something to do with why Firefox won't load the logo image for one of my sites? The logo loads fine in Chrome, IE10, or Safari, but not Firefox. <http://sabaki.aisites.com/dbs323/project/masterAi.php> Instead FF loads the alt text string. It also won't load the icon image even if I have the page access it through CSS as a background-image: url(foo.png);.

Daniel Veditz wrote on [May 18, 2013 at 1:51 am](#):

I don't notice any differences at that link between Firefox and Chrome. But since your site is "http:" rather than "https:" this change shouldn't affect it at all.

Chris wrote on [May 19, 2013 at 7:08 pm](#):

It's riddiculous that FF hasn't blocked this so far, and shows once again (just like the rogue root CAs included, or the still accepted insecure TLS renego) that FF is absolutely inscure and Mozilla gives a shit on their user's security....

And now you praise yourself cause you treat at least "active" content?... "Passive" content can be just equally as important as active...

Ridiculous...

[statflyer logo](#) wrote on [May 24, 2013 at 12:41 am](#)::

Every once in the while, the main associates of Mozilla from all all over the planet get together in one place. This is known as the Summit

Mozilla

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