## **Expanding our Download Protection** *in Firefox* 125

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Downloading content, in particular executable files to your device, exposes a major privacy and security risk. Unfortunately the risk for end users is not immediately apparent, but downloading a file using an insecure connection, like for example HTTP, allows an attacker to view, steal or even tamper with the transmitted data. Data which is transferred using the regular HTTP protocol is unprotected, allowing an attacker to read the file or even replace the file with malicious content. You don't want to run an executable file on your device that was altered by a man in the middle attacker. Opening such a modified file could lead to a full system compromise.

The good news is, the majority of websites already offer their downloads using a secure connection like HTTPS, and those that don't are increasingly uncommon. As a reminder, <u>HTTP</u> <u>over TLS (HTTPS)</u> fixes the security shortcoming of HTTP by creating a secure and encrypted connection for your download. To keep you safe on websites which do not offer their downloads using a secure connection we improved and expanded our download protection to warn you about the potential risk.



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|             | < Download details                                                                                                                                                                                                                                                                  |                    | _            |   |        |   |
| <b>Fire</b> | File not downloaded: Potential security risk.  You are trying to download this file on a connection that's not secure. If you continue, the file might be changed, used to steal your info or harm your device. You can search for an alternate download source or try again later. |                    |              |   | 4      |   |
|             | Allow download                                                                                                                                                                                                                                                                      | lemove file        |              |   |        |   |
| er address  |                                                                                                                                                                                                                                                                                     |                    |              |   |        |   |

[CAPTION: Firefox 125 prompting about a 'Potential security risk' when downloading a file using a non secure connection and offering 'Download details' giving the end user the option to remove the file or to override the decision of Firefox and to 'Allow download' anyway.]

As illustrated in the Figure above, if Firefox detects that you are trying to download a file over an insecure connection, it will initially block the download and notify you of the potential security risk. The prompt allows you to either stop and remove the download, or alternatively, gives you the option to override the decision and download the file anyway, though it's safer to abandon the download at this point.

Colloquially, insecure downloads are downloads that take place over HTTP, though our improved download protection algorithm relies on a more sophisticated baseline and blocks downloads that are not relying on a <u>potentially trustworthy origin</u>.

Firefox has been protecting against insecure downloads in a secure web page since <u>Firefox 93</u>. Starting with Firefox 125 however, we are expanding our download protection to keep you safe when browsing any website and downloading files to your device. As a Firefox user, you will benefit from the additional protection as soon as your Firefox auto-updates to version 125. If you aren't a Firefox user yet, <u>you can securely download the latest version here</u> to start benefiting from all the effort that Firefox makes to protect you when browsing the internet.

Finally, if you want to browse even more securely and expand this protection outside of just downloads, we also recommend checking out and enabling <u>HTTPS-Only</u>, a Firefox Security Features which favors secure connection for all for your web browsing.