

☆ Starred by 1 user

**Owner:** [mek@chromium.org](mailto:mek@chromium.org)

**CC:** [asully@chromium.org](mailto:asully@chromium.org)  
[mek@chromium.org](mailto:mek@chromium.org)  
[brettw@chromium.org](mailto:brettw@chromium.org)

**Status:** Fixed (Closed)

**Components:** [Blink>Storage>FileSystem](#)  
[UI>Browser>Downloads](#)

**Modified:** Apr 6, 2021

**Backlog-Rank:** ----

**Editors:** ----

**EstimatedDays:** ----

**NextAction:** ----

**OS:** [Windows](#)

**Pri:** 1

**Type:** [Bug-Security](#)

[Hotlist-Merge-Review](#)  
[Reward-1000](#)  
[Security\\_Impact-Stable](#)  
[Security\\_Severity-Medium](#)  
[allpublic](#)  
[reward-inprocess](#)  
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[M-89](#)  
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[Release-0-M89](#)  
[external\\_security\\_report](#)  
[CVE-2021-21172](#)

## Issue 1150810: Security: File System Access API - getFileHandle() allowing to save .lnk files

Reported by [macie...@gmail.com](mailto:macie...@gmail.com) on Thu, Nov 19, 2020, 7:31 AM EST

🔗 Code

### VULNERABILITY DETAILS

File System Access API - getFileHandle() allowing to save .lnk and .local files on windows.

Based on default/main chrome download function:  
File System Access API - getFileHandle bypassing the function "IsShellIntegratedExtension":  
[https://source.chromium.org/chromium/chromium/src/+master:net/base/filename\\_util\\_internal.cc;dr=1c58af32060fa0ef3cfd4037fdc7913092d16ba2j=155?q=%20EnsureSafeExtension&ss=chromium](https://source.chromium.org/chromium/chromium/src/+master:net/base/filename_util_internal.cc;dr=1c58af32060fa0ef3cfd4037fdc7913092d16ba2j=155?q=%20EnsureSafeExtension&ss=chromium)

if extension ".lnk" or ".local" then Chrome should CHANGE extension to ".download", but not doing this:  
[https://source.chromium.org/chromium/chromium/src/+master:net/base/filename\\_util\\_internal.cc;dr=1c58af32060fa0ef3cfd4037fdc7913092d16ba2j=195?q=%20EnsureSafeExtension&ss=chromium](https://source.chromium.org/chromium/chromium/src/+master:net/base/filename_util_internal.cc;dr=1c58af32060fa0ef3cfd4037fdc7913092d16ba2j=195?q=%20EnsureSafeExtension&ss=chromium)

.lnk files are very dangerous and used in two ways:  
1. Spoof extension on windows - totally hide the real extension of the file.  
2. .lnk files may be used to execute arbitrary code (see <https://nvd.nist.gov/vuln/detail/CVE-2010-2568>).  
<https://www.thezdi.com/blog/2020/3/25/cve-2020-0729-remote-code-execution-through-lnk-files>  
Possible RCE by saving a .lnk file.

and

.local files may determine which DLLs to load for an application in Windows.

URL EXAMPLE: <https://pulik.io/openandsave.html>

### VERSION

Chrome Version: [87.0.4280.66] + [stable]  
Operating System: [Windows 10 OS 10.0.18363 Build 18363]

### REPRODUCTION CASE

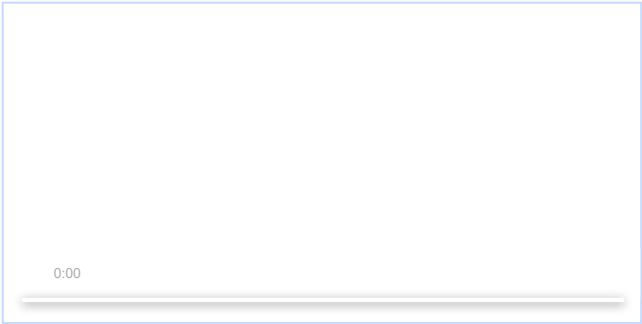
1. Run openandsave.html or <https://pulik.io/openandsave.html>
2. Click "Select a folder where to create a new folder and image.jpg"
3. Choose a folder where files should be saved

### SOLUTION

Replace ".lnk" and ".local" with ".download" or block downloading such a file.

Reporter credit: Maciej Pulikowski

**InkExample.mp4**  
18.7 MB [Download](#)



**openandsave.html**  
1.8 KB [View](#) [Download](#)

**picture20.png**  
38.5 KB [View](#) [Download](#)



**picture21.png**  
24.0 KB [View](#) [Download](#)



[Comment 1](#) by [sheriffbot](#) on Thu, Nov 19, 2020, 7:37 AM EST Project Member  
**Labels:** reward-potential

[Comment 2](#) by [mbarb...@chromium.org](#) on Thu, Nov 19, 2020, 2:22 PM EST Project Member  
**Owner:** brettw@chromium.org  
**Labels:** Security\_Severity-Medium Security\_Impact-Stable OS-Windows  
**Components:** UI>Browser>Downloads  
brettw: Would you mind taking a look at this or helping to find another owner?

[Comment 3](#) by [macie...@gmail.com](#) on Thu, Nov 19, 2020, 2:27 PM EST  
[mek@chromium.org](#) is the owner of similar issue I have found.

<https://bugs.chromium.org/p/chromium/issues/detail?id=1140417>

[Comment 4](#) by [sheriffbot](#) on Sat, Nov 21, 2020, 1:03 PM EST Project Member  
**Labels:** M-87 Target-87

Setting milestone and target because of Security\_Impact=Stable and medium severity.

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

[Comment 5](#) by [sheriffbot](#) on Sat, Nov 21, 2020, 1:40 PM EST Project Member  
**Labels:** -Pri-3 Pri-1

Setting Pri-1 to match security severity Medium. If this is incorrect, please reset the priority. Sheriffbot won't make this change again.

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

[Comment 6](#) by [sheriffbot](#) on Sat, Nov 21, 2020, 2:35 PM EST Project Member  
**Status:** Assigned (was: Unconfirmed)

[Comment 7](#) by [cthomp@chromium.org](#) on Mon, Nov 30, 2020, 4:35 PM EST Project Member  
**Cc:** mek@chromium.org asully@chromium.org  
**Components:** Blink>Storage>FileSystem

[Comment 8](#) by [mek@chromium.org](#) on Mon, Nov 30, 2020, 4:48 PM EST Project Member  
Changing the extension to something like .download wouldn't really make sense for the File System Access API.

Also I'm not sure what is gained by blocking .local files. If a website can write to a .local file in a directory, it can also modify any executable in that same directory (both subject to safe browsing checks). So it doesn't seem like letting a website read/write .local files is any more dangerous than letting them read/write arbitrary other files in the same directory (not sure how .local files are used, there doesn't seem to be much information on the subject available that I can find).

Blocking access to .lnk files might be something worth considering, as that does seem at least somewhat more dangerous.

[Comment 9](#) by [macie...@gmail.com](#) on Wed, Dec 2, 2020, 10:45 AM EST  
@mek  
Yes, you are right.  
If we can edit/create files inside a folder then there are better ways to inject malware files.  
For instance editing executables or DLL injection. So there is no need to block .local.  
  
.lnk files can easily trick the user to run a PowerShell script, we can see it on the video.  
In my opinion .lnk should be blocked :)

[Comment 10](#) by [mek@chromium.org](#) on Wed, Dec 2, 2020, 2:15 PM EST Project Member  
**Status:** Started (was: Assigned)  
**Owner:** mek@chromium.org  
**Cc:** brettw@chromium.org

[Comment 11](#) by [bugdroid](#) on Wed, Dec 2, 2020, 6:55 PM EST Project Member  
The following revision refers to this bug:  
<https://chromium.googlesource.com/chromium/src.git/+004377929feb7cf7392932b01df7f4a0a362679>

commit 004377929febd7cf7392932b01df7f4a0a362679

Author: Marijn Kruisselbrink <mek@chromium.org>

Date: Wed Dec 02 23:50:54 2020

[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.

This isn't directly using net::IsSafePortablePathComponent since what is safe for the File System Access API is not the same as what is safe for Downloads. As such currently this duplicates a lot of the implementation of this method, but in a followup we should attempt to unify these two implementations as much as possible.

~~Bug-1150849~~, 1154757

Change-Id: Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>

Commit-Queue: Marijn Kruisselbrink <mek@chromium.org>

Reviewed-by: Victor Costan <pwnall@chromium.org>

Cr-Commit-Position: refs/heads/master@{#833042}

[modify] [https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.cc](https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file_system_access/native_file_system_directory_handle_impl.cc)

[modify] [https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.h](https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file_system_access/native_file_system_directory_handle_impl.h)

[add] [https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl\\_unittest.cc](https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/browser/file_system_access/native_file_system_directory_handle_impl_unittest.cc)

[modify] <https://crrev.com/004377929febd7cf7392932b01df7f4a0a362679/content/test/BUILD.gn>

Comment 12 by mek@chromium.org on Thu, Dec 3, 2020, 3:54 PM EST Project Member

**Summary:** Security: File System Access API - getFileHandle() allowing to save .lnk files (was: Security: File System Access API - getFileHandle() allowing to save .lnk and local files)

**Status:** Fixed (was: Started)

With that CL it should no longer be possible to write to .lnk files using getFileHandle().

Should this be backported to M88? There is some risk of breakage of legit use cases since we're blocking a whole bunch of things that weren't previously blocked. On the other hand it seems like there would be enough M88 beta time left to catch issues before it reaches stable (and I don't expect issues).

Comment 13 by sheriffbot on Fri, Dec 4, 2020, 12:43 PM EST Project Member

**Labels:** reward-topanel

Comment 14 by sheriffbot on Fri, Dec 4, 2020, 1:58 PM EST Project Member

**Labels:** -Restrict-View-SecurityTeam Restrict-View-SecurityNotify

Comment 15 by bugdroid on Fri, Dec 4, 2020, 3:10 PM EST Project Member

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src.git/+455d1c44e8a3dc71984f19b0e7d85a2157b2862c>

commit 455d1c44e8a3dc71984f19b0e7d85a2157b2862c

Author: Ben Pastene <bpastene@chromium.org>

Date: Fri Dec 04 20:04:37 2020

Revert "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle."

This reverts commit 004377929febd7cf7392932b01df7f4a0a362679.

Reason for revert: suspect to be causing apps.LaunchGallery failures on CrOS

<https://bugs.chromium.org/p/chromium/issues/detail?id=1155028#c21>

Original change's description:

> [FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.

>

> This isn't directly using net::IsSafePortablePathComponent since what

> is safe for the File System Access API is not the same as what is safe

> for Downloads. As such currently this duplicates a lot of the

> implementation of this method, but in a followup we should attempt to

> unify these two implementations as much as possible.

>

> ~~Bug-1150849~~, 1154757

> Change-Id: Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b

> Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>

> Commit-Queue: Marijn Kruisselbrink <mek@chromium.org>

> Reviewed-by: Victor Costan <pwnall@chromium.org>

> Cr-Commit-Position: refs/heads/master@{#833042}

TBR=mek@chromium.org,pwnall@chromium.org,chromium-scoped@luci-project-accounts.iam.gserviceaccount.com

# Not skipping CQ checks because original CL landed > 1 day ago.

~~Bug-1150849~~

Bug: 1154757

~~Bug-1156028~~

Change-Id: I6c0fb2af7096d4f7f47d3e17a40c5a69105808cd

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2574931>

Reviewed-by: Ben Pastene <bpastene@chromium.org>

Reviewed-by: Marijn Kruisselbrink <mek@chromium.org>

Commit-Queue: Ben Pastene <bpastene@chromium.org>

Commit-Queue: Marijn Kruisselbrink <mek@chromium.org>

Cr-Commit-Position: refs/heads/master@{#833820}

[modify] [https://crrev.com/455d1c44e8a3dc71984f19b0e7d85a2157b2862c/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.cc](https://crrev.com/455d1c44e8a3dc71984f19b0e7d85a2157b2862c/content/browser/file_system_access/native_file_system_directory_handle_impl.cc)

[modify] [https://crrev.com/455d1c44e8a3dc71984f19b0e7d85a2157b2862c/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.h](https://crrev.com/455d1c44e8a3dc71984f19b0e7d85a2157b2862c/content/browser/file_system_access/native_file_system_directory_handle_impl.h)

[delete] [https://crrev.com/3f2085ea3a5c46fa2a5eb0481a61b21a4b1a044c/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl\\_unittest.cc](https://crrev.com/3f2085ea3a5c46fa2a5eb0481a61b21a4b1a044c/content/browser/file_system_access/native_file_system_directory_handle_impl_unittest.cc)

[modify] <https://crrev.com/455d1c44e8a3dc71984f19b0e7d85a2157b2862c/content/test/BUILD.gn>

Comment 16 by mek@chromium.org on Fri, Dec 4, 2020, 5:33 PM EST Project Member

**Status:** Started (was: Fixed)

Comment 17 by bugdroid on Sun, Dec 6, 2020, 11:23 PM EST Project Member

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src.git/+2d41c3952d2851948a09ddcf3e97bae6c419b024>

commit 2d41c3952d2851948a09ddcf3e97bae6c419b024

Author: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
Date: Mon Dec 07 04:22:13 2020

Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle."

This is a reland of [004377929febd7cf7392932b01df7f4a0a362679](#)

The main difference is to make sure iterating over a directory doesn't return files we don't want to expose either (and not CHECK failing if such files are found when iterating).

Original change's description:

> [FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.  
>  
> This isn't directly using net::IsSafePortablePathComponent since what  
> is safe for the File System Access API is not the same as what is safe  
> for Downloads. As such currently this duplicates a lot of the  
> implementation of this method, but in a followup we should attempt to  
> unify these two implementations as much as possible.  
>  
> [Bug-1150840](#), 1154757  
> Change-Id: Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b  
> Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>  
> Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
> Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> Cr-Commit-Position: refs/heads/master@{#833042}

[Bug-1150840](#)

Bug: 1154757

Change-Id: I3341b9824a1ac4cbd6f100355960ad55b01f0753  
Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2575370>  
Commit-Queue: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
Cr-Commit-Position: refs/heads/master@{#834118}

[modify] [https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.cc](https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file_system_access/native_file_system_directory_handle_impl.cc)  
[modify] [https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.h](https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file_system_access/native_file_system_directory_handle_impl.h)  
[add] [https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl\\_unittest.cc](https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file_system_access/native_file_system_directory_handle_impl_unittest.cc)  
[modify] [https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file\\_system\\_access/native\\_file\\_system\\_file\\_handle\\_impl\\_unittest.cc](https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/browser/file_system_access/native_file_system_file_handle_impl_unittest.cc)  
[modify] <https://crrev.com/2d41c3952d2851948a09ddcf3e97bae6c419b024/content/test/BUILD.gn>

Comment 18 by [bugdroid](#) on Mon, Dec 7, 2020, 1:09 AM EST Project Member

The following revision refers to this bug:  
<https://chromium.googlesource.com/chromium/src.git/+f28329389fc82380b18c4e89ce276d1ef0b47f48>

commit [f28329389fc82380b18c4e89ce276d1ef0b47f48](#)

Author: Alexey Baskakov <[loyso@chromium.org](mailto:loyso@chromium.org)>  
Date: Mon Dec 07 06:06:53 2020

Revert "Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.""

This reverts commit [2d41c3952d2851948a09ddcf3e97bae6c419b024](#).

Reason for revert: Failed tests on Wim7 builder  
[https://ci.chromium.org/ui/p/chromium/builders/ci/Win7%20Tests%20\(1\)/111291/overview](https://ci.chromium.org/ui/p/chromium/builders/ci/Win7%20Tests%20(1)/111291/overview)

Original change's description:

> Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle."  
>  
> This is a reland of [004377929febd7cf7392932b01df7f4a0a362679](#)  
>  
> The main difference is to make sure iterating over a directory doesn't  
> return files we don't want to expose either (and not CHECK failing if  
> such files are found when iterating).  
>  
> Original change's description:  
> > [FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.  
> >  
> > This isn't directly using net::IsSafePortablePathComponent since what  
> > is safe for the File System Access API is not the same as what is safe  
> > for Downloads. As such currently this duplicates a lot of the  
> > implementation of this method, but in a followup we should attempt to  
> > unify these two implementations as much as possible.  
> >  
> > [Bug-1150840](#), 1154757  
> > Change-Id: Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b  
> > Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>  
> > Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
> > Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> > Cr-Commit-Position: refs/heads/master@{#833042}  
> >  
> > [Bug-1150840](#)  
> > Bug: 1154757  
> > Change-Id: I3341b9824a1ac4cbd6f100355960ad55b01f0753  
> > Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2575370>  
> > Commit-Queue: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> > Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> > Cr-Commit-Position: refs/heads/master@{#834118}

TBR=[mek@chromium.org](mailto:mek@chromium.org),[pwnall@chromium.org](mailto:pwnall@chromium.org),[chromium-scoped@luci-project-accounts.iam.gserviceaccount.com](mailto:chromium-scoped@luci-project-accounts.iam.gserviceaccount.com)

Change-Id: I4cf610510109c47f62c59921f8e95a78b098a1a5

No-Presubmit: true  
No-Tree-Checks: true  
No-Try: true

[Bug-1150840](#)

Bug: 1154757

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2576223>  
Reviewed-by: Alexey Baskakov <[loyso@chromium.org](mailto:loyso@chromium.org)>  
Commit-Queue: Alexey Baskakov <[loyso@chromium.org](mailto:loyso@chromium.org)>  
Cr-Commit-Position: refs/heads/master@{#834133}

[modify] [https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.cc](https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file_system_access/native_file_system_directory_handle_impl.cc)

[modify] [https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.h](https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file_system_access/native_file_system_directory_handle_impl.h)  
[delete] [https://crrev.com/61484e7ce2dba646b93445c30ea2b1da68887c4/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl\\_unittest.cc](https://crrev.com/61484e7ce2dba646b93445c30ea2b1da68887c4/content/browser/file_system_access/native_file_system_directory_handle_impl_unittest.cc)  
[modify] [https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file\\_system\\_access/native\\_file\\_system\\_file\\_handle\\_impl\\_unittest.cc](https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/browser/file_system_access/native_file_system_file_handle_impl_unittest.cc)  
[modify] <https://crrev.com/f28329389fc82380b18c4e89ce276d1ef0b47f48/content/test/BUILD.gn>

Comment 19 by [bugdroid](#) on Tue, Dec 8, 2020, 2:21 AM EST Project Member

The following revision refers to this bug:  
<https://chromium.googlesource.com/chromium/src/+a66dbdcf64938c63674aec4dea09ffc918e456b>

commit [a66dbdcf64938c63674aec4dea09ffc918e456b](#)

Author: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>

Date: Tue Dec 08 07:20:47 2020

Reland "Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.""

This is a reland of [2d41c3952d2851948a09ddcf3e97bae6c419b024](#)

The added test was modified to no longer assert that all unsafe files were written to disk successfully. This should make the test pass (albeit with less stringent checks) on file systems/platforms that don't allow all unsafe file names.

Original change's description:

> Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle."

>

> This is a reland of [004377929febd7cf7392932b01df74a0a362679](#)

>

> The main difference is to make sure iterating over a directory doesn't

> return files we don't want to expose either (and not CHECK failing if

> such files are found when iterating).

>

> Original change's description:

> > [FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.

> >

> > This isn't directly using net::IsSafePortablePathComponent since what

> > is safe for the File System Access API is not the same as what is safe

> > for Downloads. As such currently this duplicates a lot of the

> > implementation of this method, but in a followup we should attempt to

> > unify these two implementations as much as possible.

> >

> > [Bug: 1150840](#), 1154757

> > Change-Id: [Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b](#)

> > Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>

> > Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>

> > Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>

> > Cr-Commit-Position: refs/heads/master@{#833042}

>

> [Bug: 1150840](#)

> Bug: 1154757

> Change-Id: [I3341b9824a1ac4cbd6f100355960ad55b01f0753](#)

> Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2575370>

> Commit-Queue: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>

> Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>

> Cr-Commit-Position: refs/heads/master@{#834118}

[Bug: 1150840](#)

Bug: 1154757

Change-Id: [Ie5cad9a7b2383c89b96e8a7be6cfe75ad2555fa6](#)

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2577614>

Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>

Auto-Submit: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>

Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>

Cr-Commit-Position: refs/heads/master@{#834598}

[modify] <https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/test/BUILD.gn>  
[modify] [https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file\\_system\\_access/native\\_file\\_system\\_file\\_handle\\_impl\\_unittest.cc](https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file_system_access/native_file_system_file_handle_impl_unittest.cc)  
[modify] [https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl.cc](https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file_system_access/native_file_system_directory_handle_impl.cc)  
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[add] [https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file\\_system\\_access/native\\_file\\_system\\_directory\\_handle\\_impl\\_unittest.cc](https://crrev.com/a66dbdcf64938c63674aec4dea09ffc918e456b/content/browser/file_system_access/native_file_system_directory_handle_impl_unittest.cc)

Comment 20 by [mek@chromium.org](mailto:mek@chromium.org) on Wed, Dec 9, 2020, 6:28 PM EST Project Member

Status: Fixed (was: Started)

Comment 21 by [sheriffbot](#) on Sat, Dec 12, 2020, 2:22 PM EST Project Member

Labels: Merge-Request-88

Requesting merge to beta M88 because latest trunk commit (833042) appears to be after beta branch point (827102).

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

Comment 22 by [sheriffbot](#) on Sat, Dec 12, 2020, 2:25 PM EST Project Member

Labels: -Merge-Request-88 Merge-Review-88 Hotlist-Merge-Review

This bug requires manual review: Reverts referenced in bugdroid comments after merge request.

Before a merge request will be considered, the following information is required to be added to this bug:

1. Does your merge fit within the Merge Decision Guidelines?

- Chrome: [https://chromium.googlesource.com/chromium/src.git/+master/docs/process/merge\\_request.md#when-to-request-a-merge](https://chromium.googlesource.com/chromium/src.git/+master/docs/process/merge_request.md#when-to-request-a-merge)

- Chrome OS: <https://goto.google.com/cros-release-branch-merge-guidelines>

2. Links to the CLs you are requesting to merge.

3. Has the change landed and been verified on ToT?

4. Does this change need to be merged into other active release branches (M-1, M+1)?

5. Why are these changes required in this milestone after branch?

6. Is this a new feature?

7. If it is a new feature, is it behind a flag using finch?

Chrome OS Only:

8. Was the change reviewed and approved by the Eng Prod Representative? See Eng Prod ownership by component: <http://go/cros-engprodcomponents>

Please contact the milestone owner if you have questions.

Owners: [govind@](mailto:govind@)(Android), [bindusuvarna@](mailto:bindusuvarna@)(iOS), [dgagnon@](mailto:dgagnon@)(ChromeOS), [@](mailto:srinivassista)(Desktop)

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 23** by [srinivassista@google.com](mailto:srinivassista@google.com) on Sat, Dec 12, 2020, 6:46 PM EST Project Member  
pls answer **comment #22** for merge review

**Comment 24** by [srinivassista@google.com](mailto:srinivassista@google.com) on Tue, Dec 15, 2020, 1:19 PM EST Project Member  
friendly ping ^

**Comment 25** by [adetaylor@google.com](mailto:adetaylor@google.com) on Tue, Dec 15, 2020, 2:01 PM EST Project Member  
**Labels:** -Merge-Review-88 Merge-Rejected-88 Merge-Rejected-87  
I think **#c12** probably covers most of the information we need regarding stability risk.

Given the concerns expressed in that comment, plus the reverts/relands, and the fact that this is medium severity, I'm not going to merge this either to M88 or M87 but instead wait for it to organically be released in M89.

**Comment 26** by [adetaylor@google.com](mailto:adetaylor@google.com) on Wed, Dec 16, 2020, 7:08 PM EST Project Member  
**Labels:** -reward-topanel reward-unpaid reward-1000  
\*\*\* Boilerplate reminders! \*\*\*  
Please do NOT publicly disclose details until a fix has been released to all our users. Early public disclosure may cancel the provisional reward. Also, please be considerate about disclosure when the bug affects a core library that may be used by other products. Please do NOT share this information with third parties who are not directly involved in fixing the bug. Doing so may cancel the provisional reward. Please be honest if you have already disclosed anything publicly or to third parties. Lastly, we understand that some of you are not interested in money. We offer the option to donate your reward to an eligible charity. If you prefer this option, let us know and we will also match your donation - subject to our discretion. Any rewards that are unclaimed after 12 months will be donated to a charity of our choosing.

Please contact [security-vrp@chromium.org](mailto:security-vrp@chromium.org) with any questions.  
\*\*\*\*\*

**Comment 27** by [adetaylor@google.com](mailto:adetaylor@google.com) on Wed, Dec 16, 2020, 7:22 PM EST Project Member  
Congratulations, the VRP panel has decided to award \$1000 for this bug.

**Comment 28** by [adetaylor@google.com](mailto:adetaylor@google.com) on Thu, Dec 17, 2020, 1:36 PM EST Project Member  
**Labels:** -reward-unpaid reward-inprocess

**Comment 29** by [adetaylor@google.com](mailto:adetaylor@google.com) on Wed, Jan 20, 2021, 6:57 PM EST Project Member  
**Labels:** -reward-potential external\_security\_report

**Comment 30** by [adetaylor@google.com](mailto:adetaylor@google.com) on Fri, Feb 26, 2021, 1:08 PM EST Project Member  
**Labels:** Release-0-M89

**Comment 31** by [adetaylor@google.com](mailto:adetaylor@google.com) on Mon, Mar 1, 2021, 7:27 PM EST Project Member  
**Labels:** CVE-2021-21172 CVE\_description-missing

**Comment 32** by [vsavu@google.com](mailto:vsavu@google.com) on Wed, Mar 3, 2021, 5:52 AM EST Project Member  
**Labels:** a11y-audit-2020 LTS-Merge-Request-86

**Comment 33** by [vsavu@google.com](mailto:vsavu@google.com) on Wed, Mar 3, 2021, 5:52 AM EST Project Member  
**Labels:** -a11y-audit-2020

**Comment 34** by [vsavu@google.com](mailto:vsavu@google.com) on Wed, Mar 3, 2021, 6:01 AM EST Project Member  
**Labels:** LTS-Security-86

**Comment 35** by [gianluca@google.com](mailto:gianluca@google.com) on Wed, Mar 3, 2021, 10:37 AM EST Project Member  
**Labels:** LTS-Merge-Approved-86

**Comment 36** by [sheriffbot](#) on Wed, Mar 3, 2021, 12:22 PM EST Project Member  
**Labels:** -M-87 Target-89 M-89

**Comment 37** by [amyressler@google.com](mailto:amyressler@google.com) on Tue, Mar 9, 2021, 12:58 PM EST Project Member  
**Labels:** -CVE\_description-missing CVE\_description-submitted

**Comment 38** by [sheriffbot](#) on Thu, Mar 18, 2021, 1:50 PM EDT Project Member  
**Labels:** -Restrict-View-SecurityNotify allpublic

This bug has been closed for more than 14 weeks. Removing security view restrictions.

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 39** by [Git Watcher](#) on Thu, Apr 1, 2021, 4:28 AM EDT Project Member  
**Labels:** merge-merged-4240 merge-merged-86

The following revision refers to this bug:  
<https://chromium.googlesource.com/chromium/src/+5fea89416a4df55bc84983c5bf3a9b9105d377d1>

commit [5fea89416a4df55bc84983c5bf3a9b9105d377d1](#)  
Author: Victor-Gabriel Savu <[vsavu@google.com](mailto:vsavu@google.com)>  
Date: Thu Apr 01 08:27:33 2021

Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.""

This is a reland of [2d41c3952d2851948a09ddcf3e97bae6c419b024](#)

The added test was modified to no longer assert that all unsafe files were written to disk successfully. This should make the test pass (albeit with less stringent checks) on file systems/platforms that don't allow all unsafe file names.

[M86-Merge]: Changes applied to moved files.  
Chanved to include bind\_test\_util.h.  
Updated unit tests to use the old API.

Original change's description:  
> Reland "[FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle."

>  
> This is a reland of [004377929febd7cf7392932b01df74a0a362679](#)  
>  
> The main difference is to make sure iterating over a directory doesn't  
> return files we don't want to expose either (and not CHECK failing if  
> such files are found when iterating).  
>  
> Original change's description:  
> > [FSA] Add IsSafePathComponent checks to GetFile/GetDirectoryHandle.  
> >  
> > This isn't directly using net::IsSafePortablePathComponent since what  
> > is safe for the File System Access API is not the same as what is safe  
> > for Downloads. As such currently this duplicates a lot of the  
> > implementation of this method, but in a followup we should attempt to  
> > unify these two implementations as much as possible.  
> >  
> > ~~Bug-1150840~~, 1154757  
> > Change-Id: Iba4c92ef5f1cd924aa22b9dd201762d48b4bbc3b  
> > Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2568383>  
> > Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
> > Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> > Cr-Commit-Position: refs/heads/master@{#833042}  
>  
> ~~Bug-1150840~~  
> Bug: 1154757  
> Change-Id: I3341b9824a1ac4cbd6f100355960ad55b01f0753  
> Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2575370>  
> Commit-Queue: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
> Cr-Commit-Position: refs/heads/master@{#834118}

(cherry picked from commit [a66dbdcf64938c63674aec4dea09ffc918e456b](#))

~~Bug-1150840~~  
Bug: 1154757  
Change-Id: Ie5cad9a7b2383c89b96e8a7be6cfe75ad2555fa6  
Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2577614>  
Commit-Queue: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
Auto-Submit: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
Reviewed-by: Victor Costan <[pwnall@chromium.org](mailto:pwnall@chromium.org)>  
Cr-Original-Commit-Position: refs/heads/master@{#834598}  
Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+2731652>  
Reviewed-by: Artem Sumaneev <[asumaneev@google.com](mailto:asumaneev@google.com)>  
Reviewed-by: Marijn Kruisselbrink <[mek@chromium.org](mailto:mek@chromium.org)>  
Commit-Queue: Victor-Gabriel Savu <[vsavu@google.com](mailto:vsavu@google.com)>  
Cr-Commit-Position: refs/branch-heads/4240@{#1589}  
Cr-Branched-From: I297677702651916bbf65e59c0d4bbd4ce57d1ee-refs/heads/master@{#800218}

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[modify] [https://crrev.com/5fea89416a4df55bc84983c5bf3a9b9105d377d1/content/browser/native\\_file\\_system/native\\_file\\_system\\_directory\\_handle\\_impl.h](https://crrev.com/5fea89416a4df55bc84983c5bf3a9b9105d377d1/content/browser/native_file_system/native_file_system_directory_handle_impl.h)  
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[modify] <https://crrev.com/5fea89416a4df55bc84983c5bf3a9b9105d377d1/content/test/BUILD.gn>

Comment 40 by [vsavu@google.com](mailto:vsavu@google.com) on Tue, Apr 6, 2021, 10:32 AM EDT Project Member

Labels: -LTS-Merge-Approved-86 -LTS-Merge-Request-86 LTR-Merged-86