

Closed Bug 1929623 (CVE-2025-0240) Opened 1 year ago Closed 1 year ago

MOZ_CRASH(***) Compartment mismatch 7f95a68d0b30 vs. 7f95a68d0030 at argument 1) at s/src/vm/JSContext-inl.h:56

Categories

Product: Core ▾

Component: JavaScript Engine ▾

Type: defect

Priority: P1 Severity: S3

Tracking

Status: RESOLVED FIXED

Milestone: 135 Branch

Tracking Flags:

	Tracking	Status
firefox-esr115	---	unaffected
firefox-esr128	134+	fixed
firefox132	---	wontfix
firefox133	---	wontfix
firefox134	+	fixed
firefox135	+	fixed

► **People** (Reporter: sm-bugs, Assigned: jonco)

► **References** (Blocks 2 open bugs, Regression)

► **Details** (4 keywords, Whiteboard: [adv-main134+][adv-ESR128.6+])

Attachments

Bug 1929623 - The result of evaluating a JSON module should be [undefined] r?jandem

1 year ago **Jon Coppeard (jonco)**

48 bytes, text/x-phabricator-request

pascalc : **approval-mozilla-beta+**
pascalc : **approval-mozilla-esr128+**

[Details](#) | [Review](#)

advisory.txt

1 year ago **Frederik Braun (:freddy)**

217 bytes, text/plain

[Details](#)

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Tags ▾

Timeline ▾

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Version: ff95c781c335e83ba8f5be401e479201fe28a3f5

Args: js --fuzzing-safe <test-case>

Input:

```
Reject All Non-Essential Cookies  
a = "".startsWith("")  
function b() { return newGlobal(b) }  
b.newCompartment = a  
with (b()) this.moduleEvaluate(parseModule("45172", "", "json"))
```

Actual results:

```
MOZ_CRASH(*** Compartment mismatch 7f95a68d0b30 vs. 7f95a68d0030 at argument 1) at s  
#0 0x56530ecb0ade in MOZ_Crash(char const*, int, char const*) reproducebuild/dist/in  
#1 0x56530ecb0ade in js::ContextChecks::fail(JS::Compartment*, JS::Compartment*, int  
#2 0x56530ecb0ade in js::ContextChecks::check(JS::Compartment*, int) js/src/vm/JSCon  
#3 0x56530ecb0ade in js::ContextChecks::check(JSObject*, int) js/src/vm/JSContext-in  
#4 0x56530ee2a144 in void JSContext::checkImpl<JS::Handle<JSObject*>, JS::Handle<JS:  
#5 0x56530f16b63f in void JSContext::check<JS::Handle<JSObject*>, JS::Handle<JS::Val  
#6 0x56530f16b63f in js::ResolvePromiseInternal(JSContext*, JS::Handle<JSObject*>, J  
#7 0x56530f0feabe in SyntheticModuleEvaluate(JSContext*, JS::Handle<js::ModuleObject  
#8 0x56530f0feabe in JS::ModuleEvaluate(JSContext*, JS::Handle<JSObject*>, JS::Mutab  
#9 0x56530ebea7d6 in ModuleEvaluate(JSContext*, unsigned int, JS::Value*) js/src/she  
#10 0x56530ecb811e in CallJSNative(JSContext*, bool (*)(JSContext*, unsigned int, JS  
#11 0x56530ecb737f in js::InternalCallOrConstruct(JSContext*, JS::CallArgs const&, j  
#12 0x56530eccf574 in js::CallFromStack(JSContext*, JS::CallArgs const&, js::CallRea  
#13 0x56530eccf574 in js::Interpret(JSContext*, js::RunState&) js/src/vm/Interpreter  
#14 0x56530ecb61b0 in js::RunScript(JSContext*, js::RunState&) js/src/vm/Interpreter  
#15 0x56530ecbb561 in js::ExecuteKernel(JSContext*, JS::Handle<JSScript*>, JS::Handl  
#16 0x56530ecbbd6c in js::Execute(JSContext*, JS::Handle<JSScript*>, JS::Handle<JSOb  
#17 0x56530ef0ac69 in ExecuteScript(JSContext*, JS::Handle<JSObject*>, JS::Handle<JS  
#18 0x56530ef0aee7 in JS_ExecuteScript(JSContext*, JS::Handle<JSScript*>) js/src/vm/  
#19 0x56530ec12cee in RunFile(JSContext*, char const*, _IO_FILE*, CompileUtf8, bool,  
#20 0x56530ec11d95 in Process(JSContext*, char const*, bool, FileKind) js/src/shell/  
#21 0x56530ebcb0a9 in ProcessArgs(JSContext*, js::cli::OptionParser*) js/src/shell/j  
#22 0x56530ebcb0a9 in Shell(JSContext*, js::cli::OptionParser*) js/src/shell/js.cpp:  
#23 0x56530ebc1f0d in main js/src/shell/js.cpp:12690:12  
#24 0x7f882f3c23b7 in libc_start_call_main csu/../sysdeps/nptl/libc_start_call_mai
```

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Nils Bars

Reporter

Updated • 1 year ago

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Component: Untriaged → JavaScript Engine

Product: Firefox → Core

Version: Firefox 132 → Trunk

**Andrew McCreight [:mccr8]**

Updated • 1 year ago

Group: core-security → javascript-core-security

**Daniel Veditz [:dveditz]**

Updated • 1 year ago

Keywords: [reporter-external](#)**Jan de Mooij [:jandem]**

Comment 1 • 1 year ago

Reduced:

```
var m = parseModule("{}","","json");
newGlobal({newCompartment: true}).moduleEvaluate(m);
```

The JS shell `ModuleEvaluate` function calls `JS::ModuleEvaluate` which calls `SyntheticModuleEvaluate`. [This function does this](#):

```
if (!AsyncFunctionReturned(cx, resultPromise, result)) {
    return false;
}
```

I think the problem is that `result` is the original `args.rval()` from the shell function and hasn't been set yet?

Flags: needinfo?(jcoppeard)

**Jan de Mooij [:jandem]**

Updated • 1 year ago

Keywords: [regression](#)Regressed by: [1877791](#)**BugBot [:suhaib / :marco / :calixte]**

Comment 2 • 1 year ago

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[status-firefox132: --- → affected](#)[status-firefox133: --- → affected](#)[status-firefox134: --- → affected](#)[status-firefox-esr128: --- → affected](#)

**Ryan VanderMeulen [:RyanVM]**

Updated • 1 year ago

[status-firefox132: affected](#) → [wontfix](#)
[status-firefox-esr115: ---](#) → [unaffected](#)

**Jon Coppeard (:jonco)**

Assignee

Comment 3 • 1 year ago

parseModule and moduleEvaluate are shell-only functions and not available in the browser. However the underlying functions do get called and I'm not sure what consumes the evaluation result in the browser so there's a possibility that something could go awry.

**Jon Coppeard (:jonco)**

Assignee

Updated • 1 year ago

Assignee: nobody → jcoppeard
Flags: needinfo?(jcoppeard)

**Jon Coppeard (:jonco)**

Assignee

Comment 4 • 1 year ago

The result of evaluation a JSON module should be |undefined| as per <https://tc39.es/proposal-json-modules/#sec-smr-Evaluate> step 10 and the |steps| set by <https://tc39.es/proposal-json-modules/#sec-smr-Evaluate> .

**Jon Coppeard (:jonco)**

Assignee

Comment 5 • 1 year ago

Attached file [Bug 1929623 - The result of evaluating a JSON module should be |undefined| r?jandem](#) — Details

**Jon Coppeard (:jonco)**

Assignee

Comment 6 • 1 year ago

Comment on [attachment 9436848 \[details\]](#)

[Bug 1929623](#) - The result of evaluating a JSON module should be |undefined| r?jandem

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Security Approval Request

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- **How easily could an exploit be constructed based on the patch?:** Not possible as it uses shell-only functions.
 - **Do comments in the patch, the check-in comment, or tests included in the patch paint a bulls-eye on the security problem?:** No
 - **Which branches (beta, release, and/or ESR) are affected by this flaw, and do the release status flags reflect this affected/unaffected state correctly?:** Everything back to 125
 - **If not all supported branches, which bug introduced the flaw?:** [Bug 1877791](#)

- **Do you have backports for the affected branches?:** No
- **If not, how different, hard to create, and risky will they be?:** Should be trivial.
- **How likely is this patch to cause regressions; how much testing does it need?:** Very unlikely. It just sets a return value to undefined in one place.
- **Is the patch ready to land after security approval is given?:** Yes
- **Is Android affected?:** Yes



Steven DeTar [:sdetar]

Updated • 1 year ago

Blocks: [sm-security](#)

Severity: -- → S3

Priority: -- → P1



Andrew McCreight [:mccr8]

Comment 7 • 1 year ago

So, is this is a security problem or not? [Comment 3](#) says you aren't sure, but [comment 6](#) says there's no way to construct an exploit. What should the security rating for this be if any? Can it be unhidden? Thanks.

Flags: needinfo?(jcoppeard)



Daniel Veditz [:dveditz]

Comment 8 • 1 year ago

User script can certainly import an empty JSON module, but that will be loaded into the existing compartment won't it? How could user script trigger the creation of a new compartment with it?



Jon Coppeard (:jonco)

Assignee

Comment 9 • 1 year ago

(In reply to Andrew McCreight [:mccr8] from [comment #7](#))

Oh I guess I was thinking based on the test code rather than based on the patch which is what the question asks. The answer is it would be very difficult to create an exploit based on the patch as it's not clear what the problem is.

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I'd like to keep this a sec issue out of caution but I think it can be sec-moderate.

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Nils Bars

Reporter

Updated • 1 year ago

Flags: sec-bounty?



Andrew McCreight [:mccr8]

Updated • 1 year ago

Keywords: [csectype-uaf](#), [sec-moderate](#)



Ryan VanderMeulen [:RyanVM]

Updated • 1 year ago

[status-firefox133: affected](#) → [wontfix](#)



BugBot [:suhaib / :marco / :calixte]

Comment 10 • 1 year ago

Set release status flags based on info from the regressing [bug 1877791](#)

[status-firefox135: ---](#) → [affected](#)



Pulsebot

Comment 11 • 1 year ago

Pushed by [jcoppeard@mozilla.com](#):

<https://hg.mozilla.org/integration/autoland/rev/72c0f9e48dfb>

The result of evaluating a JSON module should be |undefined| r=jandem



Pulsebot

Comment 12 • 1 year ago

Backout by [amarc@mozilla.com](#):

<https://hg.mozilla.org/integration/autoland/rev/c90592d2c066>

Backed out changeset 72c0f9e48dfb for causing linting failures @ testcase.js CLOSED TREE



Sebastian Hengst [:aryx] (needinfo me if it's about an intermittent or backout)

Comment 13 • 1 year ago

Backed out for causing linting failures @ testcase.js

Help us improve your Bugzilla@Mozilla experience

- [Backout link](#)

- [Push with failures](#)

- [Failure Log](#)

- [Failure line](#)

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```
TEST-UNEXPECTED-ERROR | /builds/worker/checkouts/gecko/js/src/testcase.js:1:1 | 'a'
```

Flags: needinfo?(jcoppeard)



Pulsebot

Comment 14 • 1 year ago

Pushed by jcoppeard@mozilla.com:

<https://hg.mozilla.org/integration/autoland/rev/964fb7c2ab4e>

The result of evaluating a JSON module should be |undefined| r=jandem



Jon Coppeard (:jonco)

Assignee

Updated • 1 year ago

Flags: needinfo?(jcoppeard)



Sebastian Hengst (:aryx) (needinfo me if it's about an intermittent or backout)

Comment 15 • 1 year ago

<https://hg.mozilla.org/mozilla-central/rev/964fb7c2ab4e>

Group: javascript-core-security → core-security-release

Status: NEW → RESOLVED

Closed: 1 year ago

[status-firefox135: affected](#) → [fixed](#)

Resolution: --- → FIXED

Target Milestone: --- → 135 Branch



BugBot (:suhaib / :marco / :calixte)

Comment 16 • 1 year ago

The patch landed in nightly and beta is affected.

:jonco, is this bug important enough to require an uplift?

- If yes, please nominate the patch for beta approval.
- If no, please set `status-firefox134` to `wontfix`.

For more information, please visit [BugBot documentation](#).

Flags: needinfo?(jcoppeard)



Ryan VanderMeulen (:RyanVM)

Updated • 1 year ago

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[tracking-firefox134: --- → +](#)
[tracking-firefox135: --- → +](#)
[tracking-firefox-esr128: --- → 134+](#)



Daniel Veditz (:dveditz)

Updated • 1 year ago

Flags: sec-bounty? → sec-bounty+

**Daniel Veditz [:dveditz]**Comment 17 • 1 year ago • [Edited](#)

We think it's unlikely to be exploitable by web content ([comment-9](#)) but we're still glad to have it fixed so we don't have to worry about it.

**Jon Coppeard (:jonco)**Assignee

Comment 18 • 1 year ago

Comment on [attachment 9436848 \[details\]](#)

[Bug 1929623](#) - The result of evaluating a JSON module should be |undefined| r?jandem

Beta/Release Uplift Approval Request

- **User impact if declined/Reason for urgency:** Possible security vulnerability.
- **Is this code covered by automated tests?:** Yes
- **Has the fix been verified in Nightly?:** Yes
- **Needs manual test from QE?:** No
- **If yes, steps to reproduce:**
- **List of other uplifts needed:** None
- **Risk to taking this patch:** Low
- **Why is the change risky/not risky? (and alternatives if risky):** This is a simple change that has been on central without for 6 days with no problems.
- **String changes made/needed:**
- **Is Android affected?:** Yes

Flags: needinfo?(jcoppeard)

[Attachment #9436848](#) - Flags: approval-mozilla-beta?

**Jon Coppeard (:jonco)**Assignee

Comment 19 • 1 year ago

Comment on [attachment 9436848 \[details\]](#)

[Bug 1929623](#) - The result of evaluating a JSON module should be |undefined| r?jandem

ESR Uplift Approval Request

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- **If this is not a sec:{high,crit} bug, please state case for ESR consideration:** I don't think this is exploitable but I'd like to err on the side of caution. The fix is simple.
 - **User impact if declined:** Possible security vulnerability.
 - **Fix Landed on Version:** 135
 - **Risk to taking this patch:** Low

- **Why is the change risky/not risky? (and alternatives if risky):** This is a simple change that has been on central without for 6 days with no problems.

Attachment #9436848 - Flags: approval-mozilla-esr128?



Pascal Chevrel:pascalc

Updated • 1 year ago



Attachment #9436848 - Flags: approval-mozilla-beta? → approval-mozilla-beta+



Pulsebot

Comment 20 • 1 year ago



uplift

<https://hg.mozilla.org/releases/mozilla-beta/rev/f8ed3214e774>



Pascal Chevrel:pascalc

Updated • 1 year ago



Attachment #9436848 - Flags: approval-mozilla-esr128? → approval-mozilla-esr128+



Pulsebot

Comment 21 • 1 year ago



uplift

<https://hg.mozilla.org/releases/mozilla-esr128/rev/2697c92966e3>



Pascal Chevrel:pascalc

Updated • 1 year ago



status-firefox134: affected → fixed
status-firefox-esr128: affected → fixed



Pascal Chevrel:pascalc

Comment 22 • 1 year ago



Jon, the uplift in esr128 is causing failures, could you have a look? <https://treeherder.mozilla.org/jobs?repo=mozilla-esr128&selectedTaskRun=Ue-a8NncTJKqOVQAFJrrg.0>

Flags: needinfo?(jcoppeard)

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Serban Stanca [:Serbans]

Updated • 1 year ago



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Regressions: [4936853](#)



Andrei Vaida [:avaida]

Updated • 1 year ago



QA Whiteboard: [post-critsmash-triage]

Flags: qe-verify-



Frederik Braun [:freddy]

Updated • 1 year ago



Whiteboard: [adv-main134+][adv-ESR128.6+]

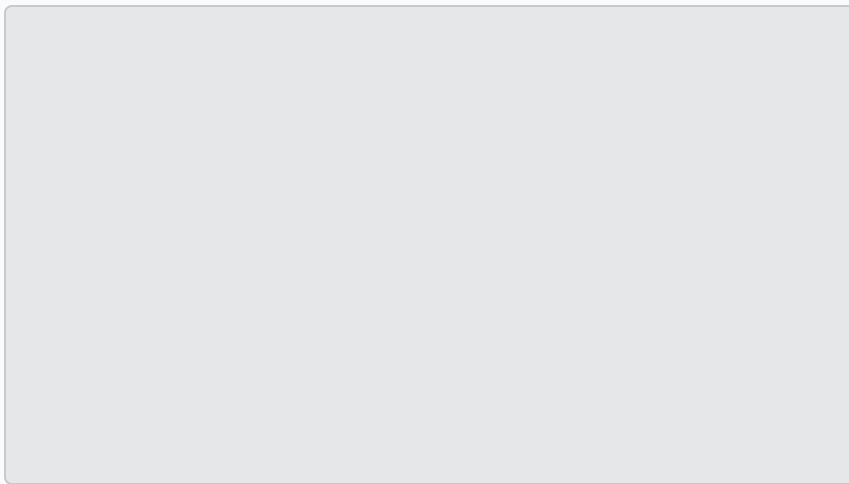


Frederik Braun [:freddy]

Comment 23 • 1 year ago



Attached file [advisory.txt](#) — [Details](#)



Jon Coppeard (:jonco)

Updated • 1 year ago

Assignee



Flags: needinfo?(joncoppeard)



Frederik Braun [:freddy]

Updated • 1 year ago



Alias: CVE-2025-0240



Daniel Veditz [:dveditz]

Updated • 10 months ago



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