

Full Disclosure: Advisory 03/2007: Multiple Browsers Cross Domain Charset Inheritance Vulnerability

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- Published: date not stated
- Original: <<https://seclists.org/fulldisclosure/2007/Feb/548>>
- Preserved from: <https://seclists.org/fulldisclosure/2007/Feb/548> (live) on 2026-09-10
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Content

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Advisory 03/2007: Multiple Browsers Cross Domain Charset Inheritance Vulnerability

From: Stefan Esser <ssesser@hardened-php.net> *Date:* Fri, 23 Feb 2007 21:38:33 +0100

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Hash: SHA1

Hardened-PHP Project
www.hardened-php.net

-- Security Advisory --

Advisory: Multiple Browsers Cross Domain Charset Inheritance Vulnerability

Release Date: [2007/02/23](#)

Last Modified: [2007/02/23](#)

Author: Stefan Esser [sesser () hardened-php net]

Application: Firefox <= [2.0.0.1](#), Internet Explorer [7](#), Opera [9](#)

Not affected: Internet Explorer [6](#), Opera [8](#)

Severity: Web-pages without a defined charset will be rendered
with the charset of the parent page when put into an
(i)frame. [This](#) might allow bypassing XSS filters
with [for](#) example UTF-[7](#) payload

Risk: Low

Vendor Status: Only Mozilla reacted and released Firefox [2.0.0.2](#) which fixes [this](#) issue

References: [http://www.hardened-php.net/advisory_032007.142.html](http://www.hardened-php.net/advisory_032007.142.html)

Overview:

[While](#) testing Firefox it was discovered that pages not specifying
a charset in a HTTP Content-Type header or [from](#) within a HTML META
tag, inherit the charset of the parent page when they are rendered
within an (i)frame, even when both pages are on different domains.

[This](#) opens up Firefox to all the UTF-[7](#) XSS vulnerabilities that were
reported in the past (google.com, mediawiki, ...) and are usually
attributed to only affect Internet Explorer due to its charset
autodetection. All an attacker needs to get it working is put the
XSS attack into an iframe on a site [using](#) UTF-[7](#).

After the initial contact with the Mozilla team Internet Explorer [7](#)
was released which unlike Internet Explorer is also vulnerable to
the charset inheritance issue. Hinted by the Mozilla developers it
was also discovered that Opera [9](#) unlike Opera [8](#) also introduced
[this](#) vulnerability.

Unfortunately neither Microsoft nor Opera were interested in the
vulnerability. Opera did not react at all on our bug report and

Microsoft just sent a nonsense mail to us, claiming that we had disclosed [this](#) already to the [public](#) and that they like getting advance notice. We never heard back [from](#) them after that initial email. Not really surprising because it is a similar behaviour we previously encountered when dealing with them.

Proof of Concept:

The Hardened-PHP Project is not going to release a proof of concept exploit [for this](#) vulnerability.

Disclosure Timeline:

- 11. October 2006 - Notified security () mozilla org
- 23. February 2007 - Firefox 2.0.0.2 released
- 23. February 2007 - [Public](#) Disclosure

Recommendation:

We strongly recommend to upgrade to Firefox [2.0.0.2](#) which also fixes several other security vulnerabilities not reported by us and therefore not covered by [this](#) advisory.

<http://mozilla.org/>

GPG-Key:

<http://www.hardened-php.net/hardened-php-signature-key.asc>

[pub](#) 1024D/0A864AA1 [2004-04-17](#) Hardened-PHP Signature Key
Key fingerprint = 066F A6D0 E57E [9936 9082](#) 7E52 [4439](#) 14CC 0A86 4AA1

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Version: GnuPG v1.4.3 (GNU/Linux)

iD8DBQFF32E6RDkUzAqGSqERApCNAKCZuga9MqD8YXoVvBWvkPjBaskZwgCfV9wy

ir2XC0ZpOGDkW4f3twiBxsc=

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- [Re: Advisory 03/2007: Multiple Browsers Cross Domain Charset Inheritance Vulnerability](#) *pdp (architect) (Feb 24)*
- [Re: Advisory 03/2007: Multiple Browsers Cross Domain Charset Inheritance Vulnerability](#) *Matthew Flaschen (Feb 23)*
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