

Hashcat Docs: <https://hashcat.net/wiki/doku.php?id=hashcat>

Paper: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9851926>

Hashcat Rulesets used

Name	path
best64	/rules/base64.rule
d3ad0ne	/rules/d3ad0ne.rule
dive	/rules/dive.rule
rockyou-30000	/rules/rockyou-30000.rule
unix-ninja-leetspeak	/rules/unix-ninja-leetspeak.rule

Hashcat command example (NTLM)

```
./hashcat -a 0 -m 1000 -O ntlm.hash ./rockyou.txt -r ./rules/d3ad0ne.rule
```

With Status messages every 1s

```
hashcat -a 0 -m 1000 -O ntlm.hash ./rockyou.txt -r ./rules/d3ad0ne.rule --status  
--status-timer=1 --machine-readable
```

Hashcat generator only (no cracking)

```
hashcat -force ./rockyou.txt -r ./rules/d3ad0ne.rule -stdout > words.txt
```

<https://www.techpowerup.com/gpu-specs/radeon-pro-wx-3200.c3412>

Tegrastats running with `sudo tegrastats -interval 10`, measuring during hashcat run

Stats for Orin NX

Name	Speed (MPasswd/s)	Efficiency (MPasswd/J)
best64	310.63	65.144
d3ad0ne	1289.226	179.435
dive	1294.534	177.536
rockyou-30000	1247.397	159.040
unix-ninja-leetspeak	158.396	40.705

Power Logging for Intel CPU on Windows:

Using Intel Power Gadget

<https://www.techspot.com/downloads/7172-intel-power-gadget.html>

```
.\PowerLog3.0.exe -duration 10 -file ./log.txt
```

Or

```
.\PowerLog3.0.exe -cmd hashcat ...
```

Power Logging for NV GPU: see Ed

```
nvidia-smi --query-gpu=index,gpu_bus_id,power.draw --format=csv -lms 10 >
gpu_draw.csv
```

Hashcat use OpenCL only - no CUDA

```
--backend-ignore-cuda
```

Stats for NVIDIA GTX 1070

Name	Speed (MPasswd/s)	Efficiency (MPasswd/J)
best64	699.888	20.021
d3ad0ne	5458.722	72.359
dive	4869.023	69.425
rockyou-3 0000	4986.462	59.404
unix-ninja- leetspeak	884.875	20.486

Stats for Intel i7-7700k

Name	Speed (MPasswd/s)	Efficiency (MPasswd/J)
best64	61.936	2.154
d3ad0ne	270.455	6.518
dive	267.260	6.522
rockyou-3 0000	261.067	6.229
unix-ninja- leetspeak	101.705	2.703

```
"C:\Program Files\Intel\Power Gadget 3.6\PowerLog3.0.exe" -resolution 10
-file -cmd ".\hashcat -a 0 -m 1000 -O ntlm.hash ./rockyou.txt -r
./rules/unix-ninja-leetspeak.rule --status --status-timer=1
--machine-readable > hashcatlog-unix-ninja-leetspeak.txt"
```

Stats for AMD Ryzen 7 7800X3D

Name	Speed (MPasswd/s)	Efficiency (MPasswd/J)
best64	277.4	4.954
d3ad0ne	333.7	6.477
dive	301.8	5.749
rockyou-30000	289.4	5.555
unix-ninja-leetspeak	131.1	2.946

Stats for NVIDIA GeForce RTX 3080

Name	Speed (MPasswd/s)	Efficiency (MPasswd/J)
best64	1451.8	12.624
d3ad0ne	20896.2	71.560
dive	20638.7	72.168
rockyou-30000	20782.3	82.143
unix-ninja-leetspeak	5505.8	30.588