

# Benchmarks

Benchmarks mit John the Ripper und Hashcat

Tom Gries | Berlin | Oktober 2023



Dokumenten URL:

<http://docs.tx7.de/TT-BNC>

Autor:

Tom Gries <TT-BNC@tx7.de>  
@tomo@chaos.social

Lizenz:

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Version:

7.0.0 vom 20.10.2023





# John Benchmark - Yoga C940 (docker)

```
(root@kali-docker) ~  
# date  
Fri Jan 13 00:02:13 UTC 2023  
  
(root@kali-docker) ~  
# john --format=descrypt --test  
Will run 8 OpenMP threads  
Benchmarking: descrypt, traditional crypt(3) [DES 512/512 AVX512F]... (8xOMP) DONE  
Many salts:      40798K c/s real, 5577K c/s virtual  
Only one salt:   22370K c/s real, 3035K c/s virtual  
  
(root@kali-docker) ~  
# john --format=LM --test  
Will run 8 OpenMP threads  
Benchmarking: LM [DES 512/512 AVX512F]... (8xOMP) DONE  
Raw:      52490K c/s real, 6975K c/s virtual  
  
(root@kali-docker) ~  
# john --format=NT --test  
Benchmarking: NT [MD4 512/512 AVX512BW 16x3]... DONE  
Raw:      58049K c/s real, 58341K c/s virtual
```



# John Benchmark - Hetzner AX41 (docker)

```
(root@kali-docker) ~  
# date  
Fri Jan 13 00:18:59 UTC 2023  
  
(root@kali-docker) ~  
# john --format=descript --test  
Will run 12 OpenMP threads  
Benchmarking: descript, traditional crypt(3) [DES 256/256 AVX2]... (12xOMP) DONE  
Many salts:      102445K c/s real, 8537K c/s virtual  
Only one salt:   47812K c/s real, 3991K c/s virtual  
  
(root@kali-docker) ~  
# john --format=LM --test  
Will run 12 OpenMP threads  
Benchmarking: LM [DES 256/256 AVX2]... (12xOMP) DONE  
Raw:      85979K c/s real, 7197K c/s virtual  
  
(root@kali-docker) ~  
# john --format=NT --test  
Benchmarking: NT [MD4 256/256 AVX2 8x3]... DONE  
Raw:      73254K c/s real, 73254K c/s virtual
```



# John Benchmark - Hetzner AX101 (docker)

```
(root@Password-Cracking) - [~]
# date
Sat Mar 11 16:47:54 UTC 2023

(root@Password-Cracking) - [~]
# john --format=descrypt --test
Will run 32 OpenMP threads
Benchmarking: descrypt, traditional crypt(3) [DES 256/256 AVX2]... (32xOMP) DONE
Many salts:      253034K c/s real, 7909K c/s virtual
Only one salt:   61046K c/s real, 1908K c/s virtual

(root@Password-Cracking) - [~]
# john --format=LM --test
Will run 32 OpenMP threads
Benchmarking: LM [DES 256/256 AVX2]... (32xOMP) DONE
Raw:      93880K c/s real, 2936K c/s virtual

(root@Password-Cracking) - [~]
# john --format=NT --test
Benchmarking: NT [MD4 256/256 AVX2 8x3]... DONE
Raw:      78209K c/s real, 78209K c/s virtual
```



# Hashcat Benchmark - GeForce GTX 1660 Ti

```
$ hashcat -b -m 1500 -w 3
```

```
Hashtype: descrypt, DES (Unix)
```

```
Speed.Dev.#3.....: 786.8 MH/s
```

```
$ hashcat -b -m 3000 -w 3
```

```
Hashtype: LM
```

```
Speed.Dev.#3.....: 19241.4 MH/s
```

```
$ hashcat -b -m 1000 -w 3
```

```
Hashtype: NTLM
```

```
Speed.Dev.#3.....: 35765.0 MH/s
```

Mit hashcat 6.x  
im September  
2019 getestet



# Hashcat Benchmark - GeForce GTX 1660 Ti

```
$ hashcat -b -m 1600 -w 3
```

```
Hashtype: Apache $apr1$ MD5, md5apr1, MD5 (APR)
```

```
Speed.Dev.#3.....: 9808.9 kH/s
```

```
$ hashcat -b -m 8900 -w 3
```

```
Hashtype: scrypt
```

```
Speed.Dev.#3.....: 857.6 kH/s
```

```
$ hashcat -b -m 3200 -w 3
```

```
Hashtype: bcrypt $2*$, Blowfish (Unix)
```

```
Speed.Dev.#3.....: 10260 H/s
```

Mit hashcat 6.x  
im September  
2019 getestet



# Hashcat Benchmark – über 100 GH/s



hashcat  
@hashcat

hand-tuned hashcat 6.0.0 beta and 2080Ti (stock clocks)  
breaks NTLM cracking speed mark of 100GH/s on a  
single compute device

102,8 Milliarden Hashe/Sek.  
Tweet vom Februar 2019

```
C:\Windows\System32\cmd.exe

d:\tools\hashcat-6.0.0>hashcat64 -b -m 1000 -u 1024 -n 512 --opencl-vector-width 8 --force -O
OpenCL Platform #1: NVIDIA Corporation
=====
* Device #1: GeForce RTX 2080 Ti, 2816/11264 MB allocatable, 68MCU

Benchmark relevant options:
=====
* --force
* --optimized-kernel-enable
* --opencl-vector-width=8
* --kernel-accel=512

Hashmode: 1000 - NTLM

Speed.#1.....: 102.8 GH/s (10.48ms) @ Accel:512 Loops:1024 Thr:32 Vec:8

Started: Wed Feb 13 22:57:19 2019
Stopped: Wed Feb 13 22:57:26 2019

d:\tools\hashcat-6.0.0>
```



# Hashcat Benchmark – Stand heute (2022/23)



Chick3nman 🐔  
@Chick3nman512

...

First @hashcat benchmarks on the new @nvidia RTX 4090! Coming in at an insane >2x uplift over the 3090 for nearly every algorithm. Easily capable of setting records: 300GH/s NTLM and 200kh/s bcrypt w/ OC! Thanks to blazer for the run. Full benchmarks here: [gist.github.com/Chick3nman/32e...](https://gist.github.com/Chick3nman/32e...)

[Tweet übersetzen](#)

288,5 Milliarden Hashe/Sek.  
Tweet vom Oktober 2022

```
hashcat (v6.2.6) starting in benchmark mode

CUDA API (CUDA 11.8)
=====
* Device #1: NVIDIA GeForce RTX 4090, 20155/24563 MB, 128MCU

OpenCL API (OpenCL 3.0 CUDA 11.8.87) - Platform #1 [NVIDIA Corporation]
=====
* Device #2: NVIDIA GeForce RTX 4090, skipped

Benchmark relevant options:
=====
* --benchmark-all
* --optimized-kernel-enable

-----
* Hash-Mode 1000 (NTLM)
-----

ALTd.#1.....: 288.5 GH/s (7.24ms) @ Accel:512 Loops:1024 Thr:32 Vec:8
```

```
-----
* Hash-Mode 1000 (NTLM)
-----

Speed.#1.....: 288.5 GH/s (7.24ms)
```

Mehr Benchmarks:  
<https://t.co/Bftucib7P9>

2:08 vorm. · 14. Okt. 2022



**Anmerkungen oder Fragen?**