# 性能

### rsa

[root@ng35 ca]# openssl speed rsa

Doing 512 bits private rsa's for 10s: 157458 512 bits private RSA's in 9.92s

Doing 512 bits public rsa's for 10s: 2244635 512 bits public RSA's in 9.95s

Doing 1024 bits private rsa's for 10s: 50447 1024 bits private RSA's in 9.94s

Doing 1024 bits public rsa's for 10s: 834375 1024 bits public RSA's in 9.94s

Doing 2048 bits private rsa's for 10s: 7478 2048 bits private RSA's in 9.94s

Doing 2048 bits public rsa's for 10s: 256271 2048 bits public RSA's in 9.94s

Doing 3072 bits private rsa's for 10s: 2463 3072 bits private RSA's in 9.92s

Doing 3072 bits public rsa's for 10s: 119538 3072 bits public RSA's in 9.93s

Doing 4096 bits private rsa's for 10s: 1064 4096 bits private RSA's in 9.95s

Doing 4096 bits public rsa's for 10s: 68002 4096 bits public RSA's in 9.93s

Doing 7680 bits private rsa's for 10s: 117 7680 bits private RSA's in 9.98s

Doing 7680 bits public rsa's for 10s: 19921 7680 bits public RSA's in 9.95s

Doing 15360 bits private rsa's for 10s: 23 15360 bits private RSA's in 10.30s

Doing 15360 bits public rsa's for 10s: 5166 15360 bits public RSA's in 9.94s

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sign verify sign/s verify/s

rsa 512 bits 0.000063s 0.000004s 15872.8 225591.5

rsa 1024 bits 0.000197s 0.000012s 5075.2 83941.1

rsa 2048 bits 0.001329s 0.000039s 752.3 25781.8

rsa 3072 bits 0.004028s 0.000083s 248.3 12038.1

rsa 4096 bits 0.009352s 0.000146s 106.9 6848.1

rsa 7680 bits 0.085299s 0.000499s 11.7 2002.1

rsa 15360 bits 0.447826s 0.001924s 2.2 519.7

### dsa

[root@ng35 ca]# openssl speed dsa

Doing 512 bits sign dsa's for 10s: 97374 512 bits DSA signs in 9.78s

Doing 512 bits verify dsa's for 10s: 147857 512 bits DSA verify in 9.94s

Doing 1024 bits sign dsa's for 10s: 49782 1024 bits DSA signs in 9.85s

Doing 1024 bits verify dsa's for 10s: 59637 1024 bits DSA verify in 9.93s

Doing 2048 bits sign dsa's for 10s: 17837 2048 bits DSA signs in 9.88s

Doing 2048 bits verify dsa's for 10s: 19552 2048 bits DSA verify in 9.93s

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sign verify sign/s verify/s

dsa 512 bits 0.000100s 0.000067s 9956.4 14874.9

dsa 1024 bits 0.000198s 0.000167s 5054.0 6005.7

dsa 2048 bits 0.000554s 0.000508s 1805.4 1969.0

### ecdsa

[root@ng35 ca]# openssl speed ecdsa

Doing 224 bits sign ecdsa's for 10s: 114812 224 bits ECDSA signs in 9.84s

Doing 224 bits verify ecdsa's for 10s: 49292 224 bits ECDSA verify in 9.86s

Doing 256 bits sign ecdsa's for 10s: 209636 256 bits ECDSA signs in 9.74s

Doing 256 bits verify ecdsa's for 10s: 69414 256 bits ECDSA verify in 9.91s

Doing 384 bits sign ecdsa's for 10s: 6873 384 bits ECDSA signs in 9.91s

Doing 384 bits verify ecdsa's for 10s: 8480 384 bits ECDSA verify in 9.91s

Doing 521 bits sign ecdsa's for 10s: 19731 521 bits ECDSA signs in 9.90s

Doing 521 bits verify ecdsa's for 10s: 9895 521 bits ECDSA verify in 9.93s

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sign verify sign/s verify/s

224 bits ecdsa (nistp224) 0.0001s 0.0002s 11667.9 4999.2

256 bits ecdsa (nistp256) 0.0000s 0.0001s 21523.2 7004.4

384 bits ecdsa (nistp384) 0.0014s 0.0012s 693.5 855.7

521 bits ecdsa (nistp521) 0.0005s 0.0010s 1993.0 996.5