

## 32 bits and 64 bits

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32 bits can address  $2^{32}$  bits i.e. 4 GB ram

64 bits can address  $2^{64}$  bits i.e. billion GBs of RAM.

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- 1) 64 bits contains more instruction sets.
- 2) More the number of CPU registers.
- 3) Process 8 bytes of data per cycle. Compared to 4 byte of data in 32 bits.\*\*

\*\* -> Very few operations required 8 bytes of data processing. So it is wasteful as it just increases the traffic. So this means that you can operate on very very large numbers without loss of precisions.

## SO WHAT DOES IT ALL MEANS ?

- 1) If you are using more RAM than 4 Gb's OR
- 2) Works with large applications that require very large numbers to be calculated such as video editing etc. OR
- 3) You are running SERVER :-)

Then use 64 bits...

Otherwise 32 will serve you more efficiently.