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Linux Find Out CPU Support 36-bit Physical Addressing Or Not

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[1]

Q. Physical Address Extension (PAE) [2] refers to a feature of x86 and x86-64 processors that allows more than 4G bytes of physical memory to be used in 32-bit systems. The x86 architecture presently uses only 36 bits out of 52 bits possible. On x86-64 processors, PAE is obligatory in native long mode; currently 40 bits are used out of 52 bits possible. How do I find out if my Linux kernel supports 36-bit or more physical addressing?

A. You can easily find this information by visiting /proc/cpuinfo file. cat /proc/cpuinfo and look for the physical address size. You can also use grep command extract exact information:

```
cat /proc/cpuinfo
```

OR

```
grep physical /proc/cpuinfo
```

Sample output:

```
physical id : 0
address sizes : 36 bits physical, 48 bits virtual
physical id : 3
address sizes : 36 bits physical, 48 bits virtual
physical id : 0
address sizes : 36 bits physical, 48 bits virtual
physical id : 3
address sizes : 36 bits physical, 48 bits virtual
```


URLs in this post:

[1] Image: **http://www.cyberciti.biz/faq/category/linux/**
[2] Physical Address Extension (PAE): **http://www.cyberciti.biz/tips/redhat-enterprise-linux-4gb-plus-ram-support.html**