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Subject: More on memory limits

Posted by [weycresto](#) on Tue, 24 Jan 2006 23:35:35 GMT

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I'm trying to get to grips with memory limits reading the forums, OpenVZ and commercial VZ docs and getting slightly confused.

In an earlier thread (on setting memory limits) a user on here was trying to set 128MB with the following command:

```
vzctl set ID --vmguarpages=32768 --save
```

(this example slightly wrong because there is a barrier and upper limit) but the logic being that each integer equals 4 KB so the value above should equal 128 MB

However in hybodus config example (nicely commented btw) 128MB is represented by:

```
#128 MB RAM
VMGUARPAGES="6144:2147483647"
LOCKEDPAGES="32:32"
```

Also what is LOCKEDPAGES? Commercial VZ gives sample configs for 256, 512, 1024 and 2048MB VPS's as follows:

```
#256MB
VMGUARPAGES="33792:2147483647"
LOCKEDPAGES="256:256"
```

```
#512MB
VMGUARPAGES="67584:2147483647"
LOCKEDPAGES="512:512"
```

```
#1024MB
VMGUARPAGES="135168:2147483647"
LOCKEDPAGES="1024:1024"
```

```
#2048MB
VMGUARPAGES="270336:2147483647"
LOCKEDPAGES="2048:2048"
```

Can someone explain the relationship between LOCKEDPAGES and setting memory limits. I'm probably being dim, but I'm trying to establish the logic between various configs given.

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Subject: Re: More on memory limits

Posted by [dev](#) on Wed, 25 Jan 2006 09:46:03 GMT

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Locked pages are those, protected by `mlock()` or `IPC_LOCK`.

These are rarely used, but if an application locks the page, it becomes unreclaimable and unswappable, so this resource should be controlled for sure.

locked pages are usually used in security software to make sure that page won't be dropped from memory to swap etc. and password won't be foundable in swap file

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