**Worker number calculation**

* Rule of thumb : (#CPU \* 2) + 1
* Cron workers need CPU
* 1 worker ~= 6 concurrent users

**memory size calculation**

* We consider 20% of the requests are heavy requests, while 80% are simpler ones
* A heavy worker, when all computed field are well designed, SQL requests are well designed, … is estimated to consume around 1GB of RAM
* A lighter worker, in the same scenario, is estimated to consume around 150MB of RAM

Needed RAM = #worker \* ( (light\_worker\_ratio \* light\_worker\_ram\_estimation) + (heavy\_worker\_ratio \* heavy\_worker\_ram\_estimation) )

**LiveChat**

In multi-processing, a dedicated LiveChat worker is automatically started and listens on the [**--gevent-port**](https://www.odoo.com/documentation/17.0/developer/reference/cli.html#cmdoption-odoo-bin-gevent-port). By default, the HTTP requests will keep accessing the normal HTTP workers instead of the LiveChat one. You must deploy a proxy in front of Odoo and redirect incoming requests whose path starts with /websocket/ to the LiveChat worker. You must also start Odoo in [**--proxy-mode**](https://www.odoo.com/documentation/17.0/developer/reference/cli.html#cmdoption-odoo-bin-proxy-mode) so it uses the real client headers (such as hostname, scheme, and IP) instead of the proxy ones.

**Configuration sample**

* Server with 4 CPU, 8 Thread
* 60 concurrent users
* 60 users / 6 = 10 <- theoretical number of worker needed
* (4 \* 2) + 1 = 9 <- theoretical maximal number of worker
* We’ll use 8 workers + 1 for cron. We’ll also use a monitoring system to measure cpu load, and check if it’s between 7 and 7.5 .
* RAM = 9 \* ((0.8\*150) + (0.2\*1024)) ~= 3Go RAM for Odoo
* in [the configuration file](https://www.odoo.com/documentation/17.0/developer/reference/cli.html#reference-cmdline-config-file):
* [options]
* limit\_memory\_hard = 1677721600
* limit\_memory\_soft = 629145600
* limit\_request = 8192
* limit\_time\_cpu = 600
* limit\_time\_real = 1200
* max\_cron\_threads = 1
* workers = 8