

## openQA Tests - action #20378

### [tools]Too many 502 on openqa

2017-07-11 10:39 - coolo

<b>Status:</b> Resolved	<b>Start date:</b> 2017-07-18
<b>Priority:</b> Urgent	<b>Due date:</b>
<b>Assignee:</b> coolo	<b>% Done:</b> 100%
<b>Category:</b> Infrastructure	<b>Estimated time:</b> 0.00 hour
<b>Target version:</b>	
<b>Difficulty:</b>	
<b>Description</b> Main purpose of this ticket is to track progress	
<b>Subtasks:</b>	
action # 20544: [tools] Research/investigate ways to optimize scheduler grab_job	<b>Resolved</b>
action # 20546: [tools] Research/investigate ways to optimize how workers picks jobs	<b>Resolved</b>
action # 23320: [tools][sprint 201709.2][sprint 201710.1][sprint 201710.2] move locks/m...	<b>Resolved</b>
action # 25930: [tools][sprint 201710.1][sprint 201710.2] Split fullstack tests in diff...	<b>Resolved</b>
action # 25936: [tools][sprint 201710.1][sprint 201710.2] Regression in OpenQA::ServerS...	<b>Resolved</b>
action # 25944: [tools][sprint 201710.1][sprint 201710.2] Make job update take into ac...	<b>Resolved</b>
action # 25952: [tools][sprint 201710.1][sprint 201710.2] Reset Job state in Worker als...	<b>Resolved</b>
action # 25954: [tools][sprint 201710.1][sprint 201710.2] Regression: no live stream	<b>Resolved</b>
<b>Related issues:</b>	
Related to openQA Project - action #21006: Very high latency in interactive m...	<b>Resolved</b> 2017-08-02
Related to openQA Project - action #19924: job was killed during manual inves...	<b>Resolved</b> 2017-06-20
Related to openQA Project - action #19332: Growing number of fails due to 'sk...	<b>Resolved</b> 2017-05-23
Related to openQA Project - action #10940: openqa.suse.de: repeating error in...	<b>Resolved</b> 2016-02-26
Related to openQA Project - action #17662: [tools]webUI does not load thumbna...	<b>Resolved</b> 2017-03-10
Related to openQA Project - action #17116: [tools]Needle editor displays blac...	<b>Resolved</b> 2017-02-16
Related to openQA Project - action #21028: Some jobs immediately fail with a ...	<b>Resolved</b> 2017-08-03
Related to openQA Project - action #21818: Two workers can work on the same j...	<b>Resolved</b> 2017-08-07
Related to openQA Project - action #23378: [tools][sprint 201709.1] Enhanceme...	<b>Resolved</b> 2017-08-14
Has duplicate openQA Project - action #20598: [tools] Upload logs fails becau...	<b>Rejected</b> 2017-07-19

## History

### #1 - 2017-07-11 11:16 - coolo

we have tons of 502 all over the day - and our CPU load is fine, so it needs to be somewhere else.

```
2620:113:80c0:8080:2247:47ff:fee9:7c86 - - [11/Jul/2017:12:29:15 +0200] "GET /tests/1056880/status HTTP/1.1" 502
```

Looking at what the workers worked on, there is an evil pattern.

```
[Tue Jul 11 12:12:26 2017] [22001:debug] GET "/tests/1056880/livelog"  
[Tue Jul 11 12:13:10 2017] [21427:debug] Stopping worker 22001 gracefully  
-> dead until  
[Tue Jul 11 12:26:04 2017] [21427:debug] Worker 22001 stopped
```

```
[Tue Jul 11 12:12:26 2017] [23263:debug] GET "/tests/1056880/streaming"  
[Tue Jul 11 12:13:31 2017] [21427:debug] Stopping worker 23263 gracefully  
-> dead until  
[Tue Jul 11 12:26:04 2017] [21427:debug] Worker 23263 stopped
```

```
[Tue Jul 11 12:21:35 2017] [27304:debug] GET "/tests/1056880/livelog"  
[Tue Jul 11 12:24:07 2017] [21427:debug] Stopping worker 27304 gracefully  
-> dead until  
[Tue Jul 11 12:26:04 2017] [21427:debug] Worker 27304 stopped
```

```
[Tue Jul 11 12:21:35 2017] [27407:debug] GET "/tests/1056880/streaming"
[Tue Jul 11 12:23:46 2017] [21427:debug] Stopping worker 27407 gracefully
-> dead until
[Tue Jul 11 12:26:04 2017] [21427:debug] Worker 27407 stopped
```

So one live view of mnovak 'killed' 4/20 workers.

But another worker was fine and appearing idle:

```
[Tue Jul 11 12:29:13 2017] [28236:debug] dispatching IPC job_grab to scheduler: [
[Tue Jul 11 12:29:16 2017] [28236:debug] IPC finished
[Tue Jul 11 12:29:16 2017] [28236:debug] 200 OK (2.934915s, 0.341/s)
[Tue Jul 11 12:29:25 2017] [28236:debug] POST "/api/v1/workers/627/grab_job"
```

The job\_grab took 3 second - and most likely blocking, but after that it appears to be free.

A similiar pattern here:

```
[Tue Jul 11 12:29:16 2017] [28398:debug] dispatching IPC job_grab to scheduler: [
[Tue Jul 11 12:29:18 2017] [28398:debug] IPC finished
[Tue Jul 11 12:29:18 2017] [28398:debug] 200 OK (2.422017s, 0.413/s)
[Tue Jul 11 12:29:25 2017] [28398:debug] POST "/api/v1/workers/143/grab_job"
```

So one thing is making livelog and streaming in a way that they will free the worker after some time, so it can restart.

## #2 - 2017-07-11 11:18 - coolo

Another thing is finding out why we the jobs eat so much memory that we restart the workers so often - but this might be challenging in general

## #3 - 2017-07-11 11:25 - coolo

There is more DoS going on on this route:

```
IP1 - - [11/Jul/2017:12:45:37 +0200] "GET /tests/1056880/status HTTP/1.1" 200 103 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP2 - - [11/Jul/2017:12:45:38 +0200] "GET /tests/1056880/status HTTP/1.1" 200 103 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Fedora; Linux x86_64; rv:54.0) Gecko/20100101 Firefox/54.0"
IP2 - - [11/Jul/2017:12:45:39 +0200] "GET /tests/1056880/status HTTP/1.1" 200 103 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Fedora; Linux x86_64; rv:54.0) Gecko/20100101 Firefox/54.0"
IP1 - - [11/Jul/2017:12:45:40 +0200] "GET /tests/1056880/status HTTP/1.1" 200 103 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP1 - - [11/Jul/2017:12:45:41 +0200] "GET /tests/1056880/status HTTP/1.1" 200 103 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP1 - - [11/Jul/2017:12:45:42 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP1 - - [11/Jul/2017:12:45:43 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP1 - - [11/Jul/2017:12:45:44 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Linux x86_64; rv:52.0) Gecko/20100101 Firefox/52.0"
IP2 - - [11/Jul/2017:12:45:45 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Fedora; Linux x86_64; rv:54.0) Gecko/20100101 Firefox/54.0"
IP2 - - [11/Jul/2017:12:45:53 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Fedora; Linux x86_64; rv:54.0) Gecko/20100101 Firefox/54.0"
IP2 - - [11/Jul/2017:12:45:54 +0200] "GET /tests/1056880/status HTTP/1.1" 200 16 "https://openqa.suse.de/tests/1056880" "Mozilla/5.0 (X11; Fedora; Linux x86_64; rv:54.0) Gecko/20100101 Firefox/54.0"
```

## #4 - 2017-07-11 11:47 - coolo

If a job post hits a rather idle farm, we see a lot of bored workers hitting badly on our webui.

To demonstrate this I enabled the 'time to serve a request in microseconds' in the apache log (remember this is 1/10<sup>6</sup>)

All these requests hit apache on the same timespot, but the time it takes to deliver ranges from 0.2 to 11 seconds

```
[11/Jul/2017:13:41:41 +0200](179916) "POST /api/v1/workers/398/grab_job
[11/Jul/2017:13:41:41 +0200](291163) "POST /api/v1/workers/350/grab_job
[11/Jul/2017:13:41:41 +0200](377814) "POST /api/v1/workers/473/grab_job
[11/Jul/2017:13:41:41 +0200](407574) "POST /api/v1/workers/259/grab_job
[11/Jul/2017:13:41:41 +0200](729731) "POST /api/v1/workers/386/grab_job
[11/Jul/2017:13:41:41 +0200](811908) "POST /api/v1/workers/622/grab_job
[11/Jul/2017:13:41:41 +0200](1128412) "POST /api/v1/workers/584/grab_job"
```

[11/Jul/2017:13:41:41 +0200](1245856) "POST /api/v1/workers/378/grab\_job  
[11/Jul/2017:13:41:41 +0200](1331220) "POST /api/v1/workers/623/grab\_job  
[11/Jul/2017:13:41:41 +0200](1605371) "POST /api/v1/workers/408/grab\_job  
[11/Jul/2017:13:41:41 +0200](1618153) "POST /api/v1/workers/510/grab\_job  
[11/Jul/2017:13:41:41 +0200](1797409) "POST /api/v1/workers/412/grab\_job  
[11/Jul/2017:13:41:41 +0200](2161480) "POST /api/v1/workers/240/grab\_job  
[11/Jul/2017:13:41:41 +0200](1997457) "POST /api/v1/workers/389/grab\_job  
[11/Jul/2017:13:41:41 +0200](2869968) "POST /api/v1/workers/232/grab\_job  
[11/Jul/2017:13:41:41 +0200](2209118) "POST /api/v1/workers/509/grab\_job  
[11/Jul/2017:13:41:41 +0200](2767799) "POST /api/v1/workers/400/grab\_job  
[11/Jul/2017:13:41:41 +0200](2812039) "POST /api/v1/workers/159/grab\_job  
[11/Jul/2017:13:41:41 +0200](2613062) "POST /api/v1/workers/352/grab\_job  
[11/Jul/2017:13:41:41 +0200](4483598) "POST /api/v1/workers/612/grab\_job  
[11/Jul/2017:13:41:41 +0200](4299063) "POST /api/v1/workers/633/grab\_job  
[11/Jul/2017:13:41:41 +0200](4262191) "POST /api/v1/workers/403/grab\_job  
[11/Jul/2017:13:41:41 +0200](3987807) "POST /api/v1/workers/420/grab\_job  
[11/Jul/2017:13:41:41 +0200](4633743) "POST /api/v1/workers/611/grab\_job  
[11/Jul/2017:13:41:41 +0200](4151166) "POST /api/v1/workers/507/grab\_job  
[11/Jul/2017:13:41:41 +0200](4551526) "POST /api/v1/workers/359/grab\_job  
[11/Jul/2017:13:41:41 +0200](5182797) "POST /api/v1/workers/360/grab\_job  
[11/Jul/2017:13:41:41 +0200](5214027) "POST /api/v1/workers/390/grab\_job  
[11/Jul/2017:13:41:41 +0200](4699995) "POST /api/v1/workers/573/grab\_job  
[11/Jul/2017:13:41:41 +0200](4765505) "POST /api/v1/workers/591/grab\_job  
[11/Jul/2017:13:41:41 +0200](4989254) "POST /api/v1/workers/597/grab\_job  
[11/Jul/2017:13:41:41 +0200](5435068) "POST /api/v1/workers/628/grab\_job  
[11/Jul/2017:13:41:41 +0200](4772055) "POST /api/v1/workers/266/grab\_job  
[11/Jul/2017:13:41:41 +0200](6111164) "POST /api/v1/workers/383/grab\_job  
[11/Jul/2017:13:41:41 +0200](6031920) "POST /api/v1/workers/251/grab\_job  
[11/Jul/2017:13:41:41 +0200](6031181) "POST /api/v1/workers/393/grab\_job  
[11/Jul/2017:13:41:41 +0200](6319021) "POST /api/v1/workers/618/grab\_job  
[11/Jul/2017:13:41:42 +0200](5863523) "POST /api/v1/workers/512/grab\_job  
[11/Jul/2017:13:41:41 +0200](6281511) "POST /api/v1/workers/388/grab\_job  
[11/Jul/2017:13:41:41 +0200](6891344) "POST /api/v1/workers/261/grab\_job  
[11/Jul/2017:13:41:41 +0200](6853709) "POST /api/v1/workers/602/grab\_job  
[11/Jul/2017:13:41:41 +0200](6683810) "POST /api/v1/workers/596/grab\_job  
[11/Jul/2017:13:41:41 +0200](7221353) "POST /api/v1/workers/370/grab\_job  
[11/Jul/2017:13:41:42 +0200](6630409) "POST /api/v1/workers/629/grab\_job  
[11/Jul/2017:13:41:41 +0200](7177194) "POST /api/v1/workers/271/grab\_job  
[11/Jul/2017:13:41:41 +0200](7535749) "POST /api/v1/workers/161/grab\_job  
[11/Jul/2017:13:41:41 +0200](7205531) "POST /api/v1/workers/603/grab\_job  
[11/Jul/2017:13:41:41 +0200](7232579) "POST /api/v1/workers/404/grab\_job  
[11/Jul/2017:13:41:41 +0200](6954727) "POST /api/v1/workers/144/grab\_job  
[11/Jul/2017:13:41:41 +0200](8040160) "POST /api/v1/workers/233/grab\_job  
[11/Jul/2017:13:41:42 +0200](7601566) "POST /api/v1/workers/160/grab\_job  
[11/Jul/2017:13:41:41 +0200](7713551) "POST /api/v1/workers/231/grab\_job  
[11/Jul/2017:13:41:41 +0200](7802152) "POST /api/v1/workers/355/grab\_job  
[11/Jul/2017:13:41:41 +0200](7719025) "POST /api/v1/workers/372/grab\_job  
[11/Jul/2017:13:41:41 +0200](7768048) "POST /api/v1/workers/570/grab\_job  
[11/Jul/2017:13:41:41 +0200](7820518) "POST /api/v1/workers/363/grab\_job  
[11/Jul/2017:13:41:41 +0200](8218893) "POST /api/v1/workers/230/grab\_job  
[11/Jul/2017:13:41:41 +0200](8484057) "POST /api/v1/workers/362/grab\_job  
[11/Jul/2017:13:41:41 +0200](8472072) "POST /api/v1/workers/392/grab\_job  
[11/Jul/2017:13:41:41 +0200](8467901) "POST /api/v1/workers/606/grab\_job  
[11/Jul/2017:13:41:42 +0200](8044246) "POST /api/v1/workers/382/grab\_job  
[11/Jul/2017:13:41:42 +0200](8038982) "POST /api/v1/workers/361/grab\_job  
[11/Jul/2017:13:41:41 +0200](8754835) "POST /api/v1/workers/601/grab\_job  
[11/Jul/2017:13:41:42 +0200](8218667) "POST /api/v1/workers/395/grab\_job  
[11/Jul/2017:13:41:41 +0200](8335812) "POST /api/v1/workers/574/grab\_job  
[11/Jul/2017:13:41:41 +0200](9181004) "POST /api/v1/workers/600/grab\_job  
[11/Jul/2017:13:41:41 +0200](9011104) "POST /api/v1/workers/377/grab\_job  
[11/Jul/2017:13:41:41 +0200](8919971) "POST /api/v1/workers/566/grab\_job  
[11/Jul/2017:13:41:41 +0200](8940600) "POST /api/v1/workers/153/grab\_job  
[11/Jul/2017:13:41:41 +0200](9072331) "POST /api/v1/workers/624/grab\_job  
[11/Jul/2017:13:41:41 +0200](8924753) "POST /api/v1/workers/396/grab\_job  
[11/Jul/2017:13:41:41 +0200](9023842) "POST /api/v1/workers/375/grab\_job  
[11/Jul/2017:13:41:41 +0200](9433790) "POST /api/v1/workers/613/grab\_job  
[11/Jul/2017:13:41:41 +0200](9001160) "POST /api/v1/workers/592/grab\_job  
[11/Jul/2017:13:41:42 +0200](8670110) "POST /api/v1/workers/76/grab\_job  
[11/Jul/2017:13:41:41 +0200](9042698) "POST /api/v1/workers/583/grab\_job  
[11/Jul/2017:13:41:41 +0200](8990323) "POST /api/v1/workers/82/grab\_job  
[11/Jul/2017:13:41:41 +0200](8905705) "POST /api/v1/workers/152/grab\_job  
[11/Jul/2017:13:41:41 +0200](8921303) "POST /api/v1/workers/415/grab\_job  
[11/Jul/2017:13:41:41 +0200](9372029) "POST /api/v1/workers/587/grab\_job  
[11/Jul/2017:13:41:41 +0200](9350322) "POST /api/v1/workers/401/grab\_job  
[11/Jul/2017:13:41:41 +0200](9783477) "POST /api/v1/workers/590/grab\_job

[11/Jul/2017:13:41:42 +0200](9017462) "POST /api/v1/workers/568/grab\_job  
[11/Jul/2017:13:41:42 +0200](9021850) "POST /api/v1/workers/630/grab\_job  
[11/Jul/2017:13:41:41 +0200](9161160) "POST /api/v1/workers/381/grab\_job  
[11/Jul/2017:13:41:41 +0200](9468026) "POST /api/v1/workers/387/grab\_job  
[11/Jul/2017:13:41:42 +0200](9137260) "POST /api/v1/workers/505/grab\_job  
[11/Jul/2017:13:41:41 +0200](9226341) "POST /api/v1/workers/571/grab\_job  
[11/Jul/2017:13:41:42 +0200](9102841) "POST /api/v1/workers/410/grab\_job  
[11/Jul/2017:13:41:41 +0200](10251179) "POST /api/v1/workers/247/grab\_job  
[11/Jul/2017:13:41:41 +0200](10582613) "POST /api/v1/workers/411/grab\_job  
[11/Jul/2017:13:41:41 +0200](10639507) "POST /api/v1/workers/141/grab\_job  
[11/Jul/2017:13:41:41 +0200](10633306) "POST /api/v1/workers/356/grab\_job  
[11/Jul/2017:13:41:41 +0200](10627713) "POST /api/v1/workers/397/grab\_job  
[11/Jul/2017:13:41:42 +0200](10552107) "POST /api/v1/workers/354/grab\_job  
[11/Jul/2017:13:41:41 +0200](10574927) "POST /api/v1/workers/315/grab\_job  
[11/Jul/2017:13:41:41 +0200](10645949) "POST /api/v1/workers/524/grab\_job  
[11/Jul/2017:13:41:42 +0200](10330248) "POST /api/v1/workers/380/grab\_job  
[11/Jul/2017:13:41:41 +0200](10641464) "POST /api/v1/workers/626/grab\_job  
[11/Jul/2017:13:41:42 +0200](10336100) "POST /api/v1/workers/140/grab\_job  
[11/Jul/2017:13:41:41 +0200](10776945) "POST /api/v1/workers/409/grab\_job  
[11/Jul/2017:13:41:41 +0200](10554377) "POST /api/v1/workers/414/grab\_job  
[11/Jul/2017:13:41:41 +0200](10813010) "POST /api/v1/workers/515/grab\_job  
[11/Jul/2017:13:41:41 +0200](10754378) "POST /api/v1/workers/369/grab\_job  
[11/Jul/2017:13:41:41 +0200](10624130) "POST /api/v1/workers/368/grab\_job  
[11/Jul/2017:13:41:41 +0200](10751225) "POST /api/v1/workers/250/grab\_job  
[11/Jul/2017:13:41:41 +0200](10780927) "POST /api/v1/workers/73/grab\_job  
[11/Jul/2017:13:41:41 +0200](10824351) "POST /api/v1/workers/371/grab\_job  
[11/Jul/2017:13:41:41 +0200](10636071) "POST /api/v1/workers/79/grab\_job  
[11/Jul/2017:13:41:41 +0200](11038659) "POST /api/v1/workers/586/grab\_job  
[11/Jul/2017:13:41:41 +0200](10987441) "POST /api/v1/workers/367/grab\_job  
[11/Jul/2017:13:41:41 +0200](10962790) "POST /api/v1/workers/349/grab\_job  
[11/Jul/2017:13:41:41 +0200](11029755) "POST /api/v1/workers/413/grab\_job  
[11/Jul/2017:13:41:41 +0200](11000528) "POST /api/v1/workers/374/grab\_job  
[11/Jul/2017:13:41:41 +0200](10890835) "POST /api/v1/workers/579/grab\_job  
[11/Jul/2017:13:41:41 +0200](11156567) "POST /api/v1/workers/619/grab\_job  
[11/Jul/2017:13:41:41 +0200](11187779) "POST /api/v1/workers/625/grab\_job  
[11/Jul/2017:13:41:41 +0200](11050256) "POST /api/v1/workers/418/grab\_job  
[11/Jul/2017:13:41:41 +0200](10653684) "POST /api/v1/workers/149/grab\_job

If you combine this with dead workers, you run into the timeout of - I guess 60 seconds - quite easily.

#### #5 - 2017-07-11 11:48 - coolo

dead workers above means mojo workers not openqa workers

#### #6 - 2017-07-14 13:37 - szarate

Time to profile grab\_job? or maybe have the scheduler pre allocate the jobs or add them to a table when a job can be actually scheduled (i.e, has no dependencies), refreshed every x amount of time (and support both scenarios, because on smaller deployments this would not happen :P)

#### #7 - 2017-07-20 10:38 - okurz

- Subject changed from Too many 502 on openqa to [tools]Too many 502 on openqa

#### #8 - 2017-07-25 12:16 - coolo

- Has duplicate action #20598: [tools] Upload logs fails because reached maximum attempts limit added

#### #9 - 2017-08-01 15:15 - coolo

- Status changed from New to Resolved

we found most of the magic - and created tickets for it.

#### #10 - 2017-08-02 08:56 - EDiGiacinto

- Related to action #21006: Very high latency in interactive mode under high load added

#### #11 - 2017-08-02 08:56 - EDiGiacinto

- Related to action #19924: job was killed during manual investigation / interactive mode added

#### #12 - 2017-08-02 11:43 - EDiGiacinto

- Related to action #19332: Growing number of fails due to 'skipped' modules added

**#13 - 2017-08-02 12:46 - EDiGiacinto**

- Related to action #10940: *openqa.suse.de: repeating error in log "Query returned more than one row" added*

**#14 - 2017-08-02 14:57 - EDiGiacinto**

- Related to action #17662: *[tools]webUI does not load thumbnails for test details in time or at all added*

**#15 - 2017-08-02 14:58 - EDiGiacinto**

- Related to action #17116: *[tools]Needle editor displays black screen added*

**#16 - 2017-08-11 07:25 - EDiGiacinto**

- Related to action #21028: *Some jobs immediately fail with a 404 (new scheduling logic) added*

**#17 - 2017-08-11 07:27 - EDiGiacinto**

- Related to action #21818: *Two workers can work on the same job at a time added*

**#18 - 2017-08-15 12:31 - okurz**

- Related to action #23378: *[tools][sprint 201709.1] Enhancement and cleanup of "assigned" state added*

**#19 - 2017-10-11 09:04 - EDiGiacinto**

- *Due date set to 2017-10-11*

due to changes in a related task