

FreeNAS - Bug #29044

Rework middlewared pipes so that file descriptors won't leak

03/02/2018 12:37 PM - William Grzybowski

Status: Done	
Priority: Critical	
Assignee: Vladimir Vinogradenko	
Category: Middleware	
Target version: 11.2-BETA1	
Seen in: 11.1-U2	Needs Merging: No
Severity: Med High	Needs Automation: No
Reason for Closing:	Support Suite Ticket: n/a
Reason for Blocked:	Hardware Configuration:
Needs QA: No	ChangeLog Required: No
Needs Doc: No	
Description https://github.com/freenas/freenas/blob/master/src/middlewared/middleware/job.py#L210 File descriptors are allocated here but there is no guarantee that they will be closed eventually. Job is responsible for closing them and it may fail.	
Related issues: Copied from FreeNAS - Bug #28982: Temporary fix to silence "@job(pipe=True) l... Done 03/01/2018	

Associated revisions

Revision 31e994c6 - 03/13/2018 04:47 AM - Vladimir Vinogradenko

fix(middleware): Rework pipes so that file descriptors won't leak:

- Explicitly define what side of pipe job will use (reading or writing). Use two pipes if both is required.
- Make caller responsible for opening and closing pipes. Callee checks if pipes were actually open.
- Add `middleware.run_in_io_thread` for blocking I/O on pipes. Thread pool is unlimited, threads are self-destroyed after being used. This may be not the best solution in terms of system resources but it leads to much simpler code than using e.g. <https://github.com/mosquito/aio-pipe> and doing asynchronous block I/O in python may be even more CPU-consuming.
- Cancel jobs started by `core.download` after 60 seconds of inactivity. It is the only caller that leaves opened pipe after finishing.
- Use `shutil.copyfileobj` whenever possible.
- Fix a few rare-occurring bugs

Ticket: #29044

History

#1 - 03/02/2018 12:37 PM - William Grzybowski

- Copied from Bug #28982: Temporary fix to silence "@job(pipe=True) leaking file descriptors" messages added

#2 - 03/07/2018 06:20 AM - William Grzybowski

- Severity set to Med High

#3 - 03/14/2018 06:32 AM - Vladimir Vinogradenko

- Status changed from Not Started to In Progress

#4 - 03/14/2018 06:32 AM - Vladimir Vinogradenko

- Status changed from In Progress to Done

#5 - 03/14/2018 06:41 AM - Dru Lavigne

- Subject changed from @job(pipe=True) leaking file descriptors to Rework middlewared pipes so that file descriptors won't leak

- Target version changed from 11.2-RC2 to 11.2-BETA1

- Needs Doc changed from Yes to No

- Needs Merging changed from Yes to No

#6 - 05/02/2018 05:41 AM - Dru Lavigne

- Status changed from Done to Ready for Testing

#7 - 06/15/2018 10:09 AM - William Grzybowski

- Needs QA changed from Yes to No

#8 - 06/15/2018 01:29 PM - Dru Lavigne

- Status changed from Ready for Testing to Done

Master PR: <https://github.com/freenas/freenas/pull/965>