openQA Tests - action #51365

[research] Named pipe /dev/sshserial missing lines on first use

2019-05-10 10:39 - pcervinka

Status:	Resolved		**Start date:**	2019-05-10
Priority:	Normal		**Due date:**	
Assignee:	pcervinka		**% Done:**	0%
Category:	Spike/Research		**Estimated time:**	0.00 hour
Target version:	QE Kernel Done			
Difficulty:				

Description

I discovered interesting behavior of script_output on spvm backend. When is script_output used for first, few lines at the beginning can be lost.
Here is the openQA reproduction:

- http://10.100.12.105/tests/1978#step/kdump_and_crash/5 script_output is used to get systemctl status kdump, but first lines are missing.

```
# Result:
  Process: 4248 ExecStart=/lib/kdump/load.sh --update (code=exited, status=0/SUCCESS)
 Main PID: 4248 (code=exited, status=0/SUCCESS)
    Tasks: 0 (limit: 4915)
   CGroup: /system.slice/kdump.service
```

- http://10.100.12.105/tests/1977#step/kdump_and_crash/7 one character was echoed to /dev/sshserial, script_output is used to get systemctl status kdump, all lines are captured

```
# Result:
F0ZS5
● kdump.service - Load kdump kernel and initrd
   Loaded: loaded (/usr/lib/systemd/system/kdump.service; enabled; vendor preset: disabled)
   Active: active (exited) since Mon 2019-05-06 16:37:24 EDT; 13h ago
  Process: 4248 ExecStart=/lib/kdump/load.sh --update (code=exited, status=0/SUCCESS)
 Main PID: 4248 (code=exited, status=0/SUCCESS)
    Tasks: 0 (limit: 4915)
   CGroup: /system.slice/kdump.service
```

I was able to manually reproduce similar behavior with named pipe on my system. Do it is root to have all output from systemctl,

- open first terminal

```
mkfifo mypipe
tail -f mypipe
```

- open second terminal

```
systemctl status sshd | tee  mypipe
```

Result of first status command, initial lines are missing:

```
May 08 22:51:43 headcleaner.lan sshd[9215]: Accepted publickey for petr from x.x.x.x port 59408 xx
x
May 08 22:51:43 headcleaner.lan sshd[9215]: pam_unix(sshd:session): session opened for user user b
y (uid=0)
```

Result of second use of status command:

```
● sshd.service - OpenSSH Daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: disabled)
   Active: active (running) since Mon 2019-05-06 08:23:50 CEST; 4 days ago
 Main PID: 1467 (sshd)
```

```
     Tasks: 1
    Memory: 2.0M
    CGroup: /system.slice/sshd.service
            └─1467 /usr/sbin/sshd -D
```

If is reading from named pipe done by cat like, all lines are displayed.

```
cat mypipe
```

Maybe, we just need to flush buffer(like write something to it) in pipe before reading from it or maybe update os-autoinst part which reading from /dev/sshserial (in similar way like there is difference between cat and tail)?

History

#2 - 2019-05-10 10:44 - pcervinka

- Assignee set to pcervinka

#3 - 2019-05-13 15:52 - pcervinka

- Status changed from New to In Progress

#4 - 2019-05-13 16:01 - pcervinka

Manually Tested: tail -fn +1 file and there is no lost output. Got inspiration on:
https://unix.stackexchange.com/questions/139866/how-do-i-cat-and-follow-a-file.

Changed line in lib/susedistribution.pm:

```
serial  => 'mkfifo /dev/sshserial; tail -f /dev/sshserial',
```

to

```
serial  => 'mkfifo /dev/sshserial; tail -fn +1 /dev/sshserial',
```

And it works fine now, all script_output is captured:
http://10.100.12.105/tests/1990#step/kdump_and_crash/5

#5 - 2019-05-14 07:05 - pcervinka

PR: https://github.com/os-autoinst/os-autoinst-distri-opensuse/pull/7457

#6 - 2019-05-14 07:05 - pcervinka

- Target version set to 445

#7 - 2019-05-14 12:13 - pcervinka

- Status changed from In Progress to Resolved

PR merged. Thanks all for the review.

#8 - 2019-05-22 09:35 - jlausuch

- Target version changed from 445 to 457

#9 - 2020-10-23 13:38 - pcervinka

- Target version changed from 457 to QE Kernel Done