openQA Project - action #64917

coordination # 39719 (Resolved): [saga][epic] Detection of "known failures" for stable tests, easy test results review and easy tracking of known issues

coordination # 62420 (Resolved): [epic] Distinguish all types of incompletes

auto_review:"(?s)qemu-img.*runcmd.*failed with exit code 1" sometimes but no apparent error message

2020-03-27 09:07 - okurz

Status:	Resolved		**Start date:**	2020-03-26
Priority:	Low		**Due date:**	
Assignee:	okurz		**% Done:**	0%
Category:	Feature requests		**Estimated time:**	0.00 hour
Target version:				
Difficulty:				

Description

Observation

https://openqa.opensuse.org/tests/1214063 is incomplete with

```
[2020-03-26T04:54:21.454 CET] [debug] running /usr/bin/qemu-img create -f qcow2 /var/lib/openqa/po
ol/17/raid/hd0 20G
[2020-03-26T04:54:21.478 CET] [debug] Formatting '/var/lib/openqa/pool/17/raid/hd0', fmt=qcow2 siz
e=21474836480 cluster_size=65536 lazy_refcounts=off refcount_bits=16
[2020-03-26T04:54:21.478 CET] [debug] Backend process died, backend errors are reported below in t
he following lines:
runcmd failed with exit code 1 at /usr/lib/os-autoinst/osutils.pm line 121.
```

as reported by https://gitlab.suse.de/openqa/auto-review/-/jobs/186291

The system journal on the assigned worker machine openqaworker4 did not provide any more information. Seems like the command qemu-img create … was providing the output "Formatting …" but then failed silently with exit code 1 but no apparent error message. When executing a similar command manually this works fine and if one triggers an error, e.g. with incorrect parameters, incorrect permissions, etc., I see useful error messages

Acceptance criteria

* **AC1:** In case a failure from the qemu-img command can not be prevented we have a helpful message

Suggestions

* Maybe we can just retry the qemu-img command some times

Related issues:

Related to openQA Project - action #81828: Jobs run into timeout_exceeded aft...	**Resolved**	**2021-01-06**

History

#1 - 2020-03-27 09:07 - okurz

- Copied from action #64854: qemu-img error message is incorrectly tried to be parsed as JSON auto_review:"malformed JSON string" added

#2 - 2020-03-27 09:07 - okurz

- Status changed from New to Workable

#3 - 2020-03-27 09:08 - okurz

- Copied from deleted (action #64854: qemu-img error message is incorrectly tried to be parsed as JSON auto_review:"malformed JSON string")

#4 - 2020-03-27 09:08 - okurz

- Parent task set to #62420

#5 - 2020-03-30 13:23 - okurz

- Priority changed from Normal to High

I have the feeling this is a problem only showing up recently, e.g. again in https://openqa.opensuse.org/tests/1218912

```
[2020-03-30T13:59:52.476 CEST] [debug] running /usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/7/ope
nSUSE-13.1-gnome64.qcow2 /var/lib/openqa/pool/7/raid/hd0-overlay0 42949672960
[2020-03-30T13:59:52.497 CEST] [debug] Formatting '/var/lib/openqa/pool/7/raid/hd0-overlay0', fmt=qcow2 size=4
2949672960 backing_file=/var/lib/openqa/pool/7/openSUSE-13.1-gnome64.qcow2 cluster_size=65536 lazy_refcounts=o
ff refcount_bits=16
[2020-03-30T13:59:52.497 CEST] [debug] running /usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/7/ope
nSUSE-Tumbleweed-NET-x86_64-Snapshot20200329-Media.iso /var/lib/openqa/pool/7/raid/cd0-overlay0 143654912
[2020-03-30T13:59:52.520 CEST] [debug] Formatting '/var/lib/openqa/pool/7/raid/cd0-overlay0', fmt=qcow2 size=1
43654912 backing_file=/var/lib/openqa/pool/7/openSUSE-Tumbleweed-NET-x86_64-Snapshot20200329-Media.iso cluster
_size=65536 lazy_refcounts=off refcount_bits=16
[2020-03-30T13:59:52.521 CEST] [debug] Backend process died, backend errors are reported below in the followin
g lines:
runcmd failed with exit code 1 at /usr/lib/os-autoinst/osutils.pm line 121.
```

#6 - 2020-04-30 19:22 - okurz

*- Subject changed from qemu-img create sometimes fails with exit code 1 but no apparent error message to auto_review:"(?s)qemu-img.*runcmd.*failed with exit code 1" sometimes but no apparent error message*

- Status changed from Workable to Feedback

- Assignee set to okurz

I have one (related) idea for improvement. The error message could contain the command that failed. It's a best practice for log messages to be complete by themselves so we should not rely on any log messages that came in before.

https://github.com/os-autoinst/os-autoinst/pull/1391

I crosschecked if an error message from osutils would actually be shown. At least when running isotovideo -d locally in a shell on a simulated error condition I could see an error message clearly, e.g. I did

```
sudo chown root.root raid/
sudo chmod o-w raid/
isotovideo -d
```

which showed:

```
[2020-04-30T21:10:23.781 CEST] [debug] running /usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/share/fact
ory/hdd/opensuse-Tumbleweed-x86_64-textmode@64bit.qcow2 …/raid/hd0-overlay0 0
[2020-04-30T21:10:23.796 CEST] [debug] qemu-img: …/raid/hd0-overlay0: Could not create file: Permission denied
Formatting '…/raid/hd0-overlay0', fmt=qcow2 size=0 backing_file=/var/lib/openqa/share/factory/hdd/opensuse-Tum
bleweed-x86_64-textmode@64bit.qcow2 cluster_size=65536 lazy_refcounts=off refcount_bits=16
[2020-04-30T21:10:23.796 CEST] [debug] Backend process died, backend errors are reported below in the followin
g lines:
runcmd '/usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/share/factory/hdd/opensuse-Tumbleweed-x86_64-text
mode@64bit.qcow2 …/raid/hd0-overlay0 0' failed with exit code 1 at ../../osutils.pm line 122.
```

so the error message is shown. In the case of this ticket I could imagine either the stderr output is lost within openQA context or qemu-img actually fails silently with no output at all.

#7 - 2020-05-03 21:27 - okurz

- File journal_poo64917.log added

- Status changed from Feedback to In Progress

PR was merged and is deployed on o3. https://openqa.opensuse.org/tests/1251581 is one candidate that shows the same error with new output:

```
[2020-05-02T08:13:47.143 CEST] [debug] running /usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/13/op
ensuse-15.2-aarch64-159.1-textmode@aarch64.qcow2 /var/lib/openqa/pool/13/raid/hd0-overlay0 32212254720
[2020-05-02T08:14:03.797 CEST] [debug] Formatting '/var/lib/openqa/pool/13/raid/hd0-overlay0', fmt=qcow2 size=
32212254720 backing_file=/var/lib/openqa/pool/13/opensuse-15.2-aarch64-159.1-textmode@aarch64.qcow2 cluster_si
ze=65536 lazy_refcounts=off refcount_bits=16
[2020-05-02T08:14:04.774 CEST] [debug] Backend process died, backend errors are reported below in the followin
g lines:
runcmd '/usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/13/opensuse-15.2-aarch64-159.1-textmode@aarc
h64.qcow2 /var/lib/openqa/pool/13/raid/hd0-overlay0 32212254720' failed with exit code 1 at /usr/lib/os-autoin
st/osutils.pm line 121.
```

I have the journal from the worker machine from this time period attached mentioning the asset "opensuse-15.2-aarch64-159.1-textmode@aarch64.qcow2" multiple times.

Before the test starts I see:

```
May 02 08:11:32 openqa-aarch64 worker[2815]: [info] Download of opensuse-15.2-aarch64-159.1-textmode@aarch64.q
cow2 processed:
May 02 08:11:32 openqa-aarch64 worker[2815]: [info] [#2713] Cache size of "/var/lib/openqa/cache" is 87GiB, wi
th limit 200GiB
May 02 08:11:32 openqa-aarch64 worker[2815]: [info] [#2713] Downloading "opensuse-15.2-aarch64-159.1-textmode@
aarch64.qcow2" from "http://openqa1-opensuse/tests/1251578/asset/hdd/opensuse-15.2-aarch64-159.1-textmode@aarc
h64.qcow2"
May 02 08:11:32 openqa-aarch64 worker[2815]: [info] [#2713] Content of "/var/lib/openqa/cache/openqa1-opensuse
/opensuse-15.2-aarch64-159.1-textmode@aarch64.qcow2" has not changed, updating last use
```

so the file had been downloaded in before, it is just updated within the cache db. Also the cache has more than 100GiB free so no risk of exceeding the needed space.

After that there is

```
May 02 08:11:48 openqa-aarch64 worker[2823]: [info] 4028: WORKING 1251581
May 02 08:11:48 openqa-aarch64 worker[2817]: [info] 4027: WORKING 1251586
May 02 08:11:48 openqa-aarch64 worker[2819]: [info] 4031: WORKING 1251579
May 02 08:11:48 openqa-aarch64 worker[2815]: [info] Using cgroup /sys/fs/cgroup/systemd/openqa.slice/openqa-wo
rker.slice/openqa-worker@6.service/1251578
May 02 08:11:48 openqa-aarch64 worker[2815]: [info] Starting isotovideo container
May 02 08:11:49 openqa-aarch64 worker[2815]: [info] isotovideo has been started (PID: 4037)
May 02 08:11:50 openqa-aarch64 worker[2815]: [info] 4037: WORKING 1251578
May 02 08:11:53 openqa-aarch64 worker[2818]: [info] 4023: WORKING 1251588
May 02 08:12:41 openqa-aarch64 nscd[1408]: 1408 monitored file `/etc/resolv.conf` changed (mtime)
May 02 08:12:41 openqa-aarch64 nscd[1408]: 1408 monitoring file `/etc/resolv.conf` (7)
May 02 08:12:41 openqa-aarch64 nscd[1408]: 1408 monitoring directory `/etc` (2)
May 02 08:14:55 openqa-aarch64 worker[2823]: [info] Isotovideo exit status: 1
May 02 08:14:57 openqa-aarch64 worker[2823]: [info] +++ worker notes +++
May 02 08:14:57 openqa-aarch64 worker[2823]: [info] End time: 2020-05-02 06:14:57
```

that is the current job 1251581 starting to work, other jobs and irrelevant entries and then the current job for the same worker (pid 2823) reporting the completion with failure. So no other output at all, no action within the cache at all, etc.

Other ideas I have: Run the qemu-img command with multiple retries or enable debugging and potentially parse the output file in case qemu-img fails. But I still have the suspicion that we are loosing output somewhere … Trying to add something with local tests.

#8 - 2020-05-03 21:51 - okurz

- Status changed from In Progress to Feedback

https://github.com/os-autoinst/os-autoinst/pull/1392

#9 - 2020-05-11 18:07 - okurz

was merged and deployed.

Using SQL select id,test from jobs where result='incomplete' and reason ~ 'died' and t_finished > '2020-05-03 17:00' order by id asc; I found one relevant job https://openqa.opensuse.org/tests/1259511 with

```
[2020-05-08T10:24:20.043 CEST] [debug] running /usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/8/GNO
ME_Next.x86_64-3.36.2-Build13.208.iso /var/lib/openqa/pool/8/raid/usbstick-overlay0 1148911616
[2020-05-08T10:24:20.065 CEST] [debug] Formatting '/var/lib/openqa/pool/8/raid/usbstick-overlay0', fmt=qcow2 s
ize=1148911616 backing_file=/var/lib/openqa/pool/8/GNOME_Next.x86_64-3.36.2-Build13.208.iso cluster_size=65536
 lazy_refcounts=off refcount_bits=16
[2020-05-08T10:24:20.065 CEST] [debug] Backend process died, backend errors are reported below in the followin
g lines:
runcmd '/usr/bin/qemu-img create -f qcow2 -b /var/lib/openqa/pool/8/GNOME_Next.x86_64-3.36.2-Build13.208.iso /
var/lib/openqa/pool/8/raid/usbstick-overlay0 1148911616' failed with exit code 1: 'Formatting '/var/lib/openqa
/pool/8/raid/usbstick-overlay0', fmt=qcow2 size=1148911616 backing_file=/var/lib/openqa/pool/8/GNOME_Next.x86_
64-3.36.2-Build13.208.iso cluster_size=65536 lazy_refcounts=off refcount_bits=16' at /usr/lib/os-autoinst/osut
ils.pm line 121.
```

the contained message is actually not an error message but the progress output, hm. Checked logs on the worker as in before and could find that the asset should have still been present at this time. There was an explicit prune message some time later. So I do not have a better idea than just retrying multiple times here: https://github.com/os-autoinst/os-autoinst/pull/1399

#10 - 2020-05-18 09:32 - okurz

- Due date set to 2020-05-25

Haven't found any jobs failing in the same step. So maybe we have the incompletes averted but struggle to find now where the retry is applied.

Looking for references in test results on o3:

```
/var/lib/openqa/testresults> ionice -c 3 find 0127* -type f -name autoinst-log.txt -exec grep 'init_blockdev_i
mages.* failed' '{}' \;
```

EDIT: Found none. I will just check at a later time if there are any incompletes. If we do not find any I will assume that retries prevent the problem

#11 - 2020-05-26 13:37 - okurz

- Due date changed from 2020-05-25 to 2020-06-09

- Priority changed from High to Low

With [#64857](#) in place we can now more simply query the DB directly, e.g.

```
select jobs.id, t_started, workers.host as worker_host, workers.instance as worker_instance, reason from jobs
join workers on assigned_worker_id=workers.id where result = 'incomplete' and reason ~ 'died.*qemu-img';
```

this currently yields a single job
https://openqa.opensuse.org/tests/1277401
which does not look like it applies the retries. For some reason it seems like we do not have that problem that often anymore. Let's give it some more days before checking again.

#12 - 2020-06-16 08:23 - okurz

- Status changed from Feedback to Resolved

Checked o3 database again and have not found this problem again since 2020-05-25

#13 - 2020-07-03 19:21 - okurz

- Due date deleted (2020-06-09)

#14 - 2021-07-30 12:39 - okurz

*- Related to action #81828: Jobs run into timeout_exceeded after the 'chattr' call, no output until timeout, auto_review:"(?s)Refusing to save an empty state file to avoid overwriting a useful one.*Result: timeout":retry added*

Files

journal_poo64917.log		122 KB	2020-05-03	okurz