

ceph-volume - Bug #38221

LC_NUMERIC can make lvm.py fail

02/07/2019 11:44 AM - Patrick Ernzer

Status:	New	Start date:	02/07/2019
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:		Reviewed:	
Source:	Community (user)	Affected Versions:	v12.2.10
Tags:		ceph-qa-suite:	ceph-ansible
Backport:		Pull request ID:	
Regression:	No		
Severity:	3 - minor		

Description

(I initially filed this in the wrong place, <https://github.com/ceph/ceph-ansible/issues/3579>)

Bug Report

What happened:

As a European, I am used to writing e.g. "two and a half" as 2,5 (not 2.5). As such I tend to set `LC_NUMERIC=en_DK.UTF-8` on my Linux workstation¹.

When I ssh to a RHEL7 box, these get then passed as per the default `AcceptEnv LANG LC_CTYPE LC_NUMERIC`... etc in `/etc/ssh/sshd_config` of RHEL7 (also affects Fedora 28).

So, with this setting, the OSDs will get the var as per the default sshd_config on the OSDs and (as expected) have the comma separator in `vgs` output.

```
[root@odroid-hc2-00 ~]# env|grep LC
LC_MEASUREMENT=en_DK.UTF-8
LC_MONETARY=de_DE.UTF-8
LC_COLLATE=en_US.UTF-8
LC_NUMERIC=en_DK.UTF-8
LC_TIME=de_DE.UTF-8
[root@odroid-hc2-00 ~]# vgs --noheadings --readonly --units=g --separator=";"
ceph-64ff50de-28b8-4bb6-bf76-601df9dc1e8e;1;1;0;wz--n;931,48g;0g
[root@odroid-hc2-00 ~]# unset LC_NUMERIC
[root@odroid-hc2-00 ~]# vgs --noheadings --readonly --units=g --separator=";"
ceph-64ff50de-28b8-4bb6-bf76-601df9dc1e8e;1;1;0;wz--n;931.48g;0g
```

It seems that `/usr/lib/python2.7/site-packages/ceph_volume/api/lvm.py` on the OSDs chokes on the comma, expecting a dot. (my OSDs are Fedora 28 ARM based, do tell if you need me to reproduce with RHEL7 x86_64 based OSDs)

If I unset the LC_NUMERIC on the host running ceph-ansible, `ansible-playbook site.yml` (copy of site.yml.sample) works just fine. If `LC_NUMERIC=en_DK.UTF-8`, then I get

```
2019-02-06 15:49:45,682 p=27999 u=ansible | TASK [ceph-osd : use ceph-volume lvm batch to create
bluestore osds] *****
2019-02-06 15:49:45,683 p=27999 u=ansible | Wednesday 06 February 2019 15:49:45 +0100 (0:00:00.5
08) 0:06:06.035 ****
2019-02-06 15:49:49,216 p=27999 u=ansible | fatal: [odroid-hc2-03]: FAILED! => {"changed": true,
"cmd": ["ceph-volume", "--cluster", "ceph", "lvm", "batch", "--bluestore", "--yes", "--dmccrypt",
"/dev/sda"], "delta": "0:00:02.467296", "end": "2019-02-06 15:49:49.161515", "msg": "non-zero retur
n code", "rc": 1, "start": "2019-02-06 15:49:46.694219", "stderr": "Traceback (most recent call la
st):\n File \"/usr/sbin/ceph-volume\", line 11, in <module>\n load_entry_point('ceph-volume==1
.0.0', 'console_scripts', 'ceph-volume')()\n File \"/usr/lib/python2.7/site-packages/ceph_volume/
```

```

main.py", line 38, in __init__\n    self.main(self.argv)\n File \"/usr/lib/python2.7/site-packag
es/ceph_volume/decorators.py", line 59, in newfunc\n    return f(*a, **kw)\n File \"/usr/lib/pyt
hon2.7/site-packages/ceph_volume/main.py", line 148, in main\n    terminal.dispatch(self.mapper,
subcommand_args)\n File \"/usr/lib/python2.7/site-packages/ceph_volume/terminal.py", line 182, i
n dispatch\n    instance.main()\n File \"/usr/lib/python2.7/site-packages/ceph_volume/devices/lvm
/main.py", line 40, in main\n    terminal.dispatch(self.mapper, self.argv)\n File \"/usr/lib/pyt
hon2.7/site-packages/ceph_volume/terminal.py", line 182, in dispatch\n    instance.main()\n File
 \"/usr/lib/python2.7/site-packages/ceph_volume/decorators.py", line 16, in is_root\n    return f
unc(*a, **kw)\n File \"/usr/lib/python2.7/site-packages/ceph_volume/devices/lvm/batch.py", line
284, in main\n    self.execute(args)\n File \"/usr/lib/python2.7/site-packages/ceph_volume/device
s/lvm/batch.py", line 175, in execute\n    strategy.execute()\n File \"/usr/lib/python2.7/site-p
ackages/ceph_volume/devices/lvm/strategies/bluestore.py", line 126, in execute\n    lvs = lvm.cre
ate_lvs(create['vg'], parts=create['parts'], name_prefix='osd-data')\n File \"/usr/lib/python2.7/
site-packages/ceph_volume/api/lvm.py", line 643, in create_lvs\n    sizing = volume_group.sizing(
parts=parts, size=size)\n File \"/usr/lib/python2.7/site-packages/ceph_volume/api/lvm.py", line
1067, in sizing\n    size = int(self.free / parts)\n File \"/usr/lib/python2.7/site-packages/ceph
_volume/api/lvm.py", line 1008, in free\n    return self._parse_size(self.vg_free)\n File \"/usr
/lib/python2.7/site-packages/ceph_volume/api/lvm.py", line 994, in _parse_size\n    return util.s
tr_to_int(integer)\n File \"/usr/lib/python2.7/site-packages/ceph_volume/util/__init__.py", line
40, in str_to_int\n    raise RuntimeError(error_msg)\nRuntimeError: Unable to convert to integer:
'1862,98', "stderr_lines": ["Traceback (most recent call last):", " File \"/usr/sbin/ceph-volum
e", line 11, in <module>", "    load_entry_point('ceph-volume==1.0.0', 'console_scripts', 'ceph-v
olume')()", " File \"/usr/lib/python2.7/site-packages/ceph_volume/main.py", line 38, in __init__
", "    self.main(self.argv)", " File \"/usr/lib/python2.7/site-packages/ceph_volume/decorators.p
y", line 59, in newfunc", "    return f(*a, **kw)", " File \"/usr/lib/python2.7/site-packages/ce
ph_volume/main.py", line 148, in main", "    terminal.dispatch(self.mapper, subcommand_args)", "
File \"/usr/lib/python2.7/site-packages/ceph_volume/terminal.py", line 182, in dispatch", "    i
nstance.main()", " File \"/usr/lib/python2.7/site-packages/ceph_volume/devices/lvm/main.py", lin
e 40, in main", "    terminal.dispatch(self.mapper, self.argv)", " File \"/usr/lib/python2.7/site
-packages/ceph_volume/terminal.py", line 182, in dispatch", "    instance.main()", " File \"/usr
/lib/python2.7/site-packages/ceph_volume/decorators.py", line 16, in is_root", "    return func(*
a, **kw)", " File \"/usr/lib/python2.7/site-packages/ceph_volume/devices/lvm/batch.py", line 284
, in main", "    self.execute(args)", " File \"/usr/lib/python2.7/site-packages/ceph_volume/devic
es/lvm/batch.py", line 175, in execute", "    strategy.execute()", " File \"/usr/lib/python2.7/s
ite-packages/ceph_volume/devices/lvm/strategies/bluestore.py", line 126, in execute", "    lvs =
lvm.create_lvs(create['vg'], parts=create['parts'], name_prefix='osd-data')", " File \"/usr/lib/p
ython2.7/site-packages/ceph_volume/api/lvm.py", line 643, in create_lvs", "    sizing = volume_gr
oup.sizing(parts=parts, size=size)", " File \"/usr/lib/python2.7/site-packages/ceph_volume/api/lv
m.py", line 1067, in sizing", "    size = int(self.free / parts)", " File \"/usr/lib/python2.7/s
ite-packages/ceph_volume/api/lvm.py", line 1008, in free", "    return self._parse_size(self.vg_f
ree)", " File \"/usr/lib/python2.7/site-packages/ceph_volume/api/lvm.py", line 994, in _parse_si
ze", "    return util.str_to_int(integer)", " File \"/usr/lib/python2.7/site-packages/ceph_volum
e/util/__init__.py", line 40, in str_to_int", "    raise RuntimeError(error_msg)", "RuntimeError:
Unable to convert to integer: '1862,98']", "stdout": "Running command: vgcreate --force --yes ceph
-8e748fdb-e322-4be0-b3c1-6bc0f1120351 /dev/sda\n stdout: Physical volume \"/dev/sda\" successfully
created.\n stdout: Volume group \"ceph-8e748fdb-e322-4be0-b3c1-6bc0f1120351\" successfully create
d", "stdout_lines": ["Running command: vgcreate --force --yes ceph-8e748fdb-e322-4be0-b3c1-6bc0f11
20351 /dev/sda", " stdout: Physical volume \"/dev/sda\" successfully created.", " stdout: Volume g
roup \"ceph-8e748fdb-e322-4be0-b3c1-6bc0f1120351\" successfully created"]}

```

When this happens, the OSD node have a VG defined but no LV in that VG after the playbook errored out. I'll attach a full log of the ansible-playbook run.

What you expected to happen:

If ceph-ansible has requirements for LANG and/or LC_NUMERIC, it should enforce their values.

How to reproduce it (minimal and precise):

`LC_NUMERIC=en_DK.UTF-8 ansible-playbook site.yml` with the following;

```

[ansible@ceph-ansible ceph-ansible]$ grep "^[^#;]" group_vars/osds.yml
---
dummy:
copy_admin_key: true

```

```

devices:
  - /dev/sda
dmccrypt: True
osd_scenario: lvm
[ansible@ceph-ansible ceph-ansible]$ grep "^[^#;]" group_vars/all.yml
---
dummy:
fetch_directory: ~/ceph-ansible-keys
cluster: ceph
configure_firewall: False
ntp_service_enabled: true
ntp_daemon_type: chronyd
ceph_origin: distro
ceph_repository: rhcs
ceph_rhcs_version: 3
ceph_repository_type: cdn
fsid: "{{ cluster_uuid.stdout }}"
generate_fsid: True
rbd_cache_writethrough_until_flush: "false"
rbd_client_directories: false # as per CEPH125-RHCS3.0-en-1-20180517 pages 45 and 60
monitor_interface: eth0
journal_size: 5120 # OSD journal size in MB
public_network: 192.168.50.0/24 # HouseNet
cluster_network: "{{ public_network | regex_replace(' ', '') }}"
ceph_conf_overrides:
  global:
    mon_allow_pool_delete: true
  client:
    rbd_default_features: 1
ceph_docker_image: "rhceph-3-rhel7"
ceph_docker_image_tag: "latest"
ceph_docker_registry: "registry.access.redhat.com/rhceph/"
[ansible@ceph-ansible ceph-ansible]$ cat /etc/ansible/hosts
[ceph-arm-nodes]
odroid-hc2-[00:04]

[ceph-x86-nodes]
ceph-ansible

[ceph-housenet:children]
ceph-arm-nodes
ceph-x86-nodes

[ceph-housenet:vars]
ansible_user=ansible

[mons]
odroid-hc2-[00:02]

[mgrs]
odroid-hc2-[00:02]

[osds]
odroid-hc2-[00:04]

[clients]
odroid-hc2-00

[ansible@ceph-ansible ceph-ansible]$

```

Environment:

- OS (e.g. from /etc/os-release): Red Hat Enterprise Linux Server release 7.6 (Maipo)
- Kernel (e.g. `uname -a`): Linux ceph-ansible.internal.pcf.e.net 3.10.0-862.el7.x86_64 #1 SMP Wed Mar 21 18:14:51 EDT 2018 x86_64 x86_64 x86_64 GNU/Linux
- Docker version if applicable (e.g. `docker version`):

- Ansible version (e.g. `ansible-playbook --version`): ansible-playbook 2.6.12
- ceph-ansible version (e.g. `git head or tag or stable branch`): ceph-ansible-3.2.4-1.el7cp.noarch
- Ceph version (e.g. `ceph -v`): ceph version 12.2.10 (177915764b752804194937482a39e95e0ca3de94) luminous (stable)

note: all except ceph -v collected on the RHEL7 x86_64 machine running ceph-ansible. ceph -v was collected on an affected OSD running Fedora 28 ARM

[1] JFYI; the complete list of language related variables I normally set is;

```
LANG=en_US.UTF-8
GDM_LANG=en_GB.UTF-8
LANGUAGE=en_GB:en_US
LC_MONETARY=de_DE.UTF-8
LC_NUMERIC=en_DK.UTF-8
LC_COLLATE=en_US.UTF-8
LC_MEASUREMENT=en_DK.UTF-8
LC_TIME=de_DE.UTF-8
```

History

#1 - 02/07/2019 11:50 AM - Patrick Ernzer

- File logfile.txt added

do tell if you need more logs, this is still a test cluster so I can wipe easily if more logs needed. But hopefully the reproducer is sufficient.

Files

logfile.txt	348 KB	02/07/2019	Patrick Ernzer
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