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Ziel: Cloud Computing System mit integrierten Selbstheilungskonzepten









- OpenStack
- mögliche Fehlerfälle in einer Cloud Computing Umgebung analysieren
- Entwicklung eines Prozess, der Daten aus dem System sammelt, analysiert und im Fehlerfall reagiert

Produkt: Cloud Plattform (OpenStack), auf dem Nutzer Applikationen Hosten können (Bereitstellung einer Cloud-Lösung für Nutzer)

Empfehlung: kolla-ansible

- auf den 4 Servern soll OpenStack laufen
- Nutzer kann VMs starten
- Nutzer kann virtuelle Netzwerke nutzen
- Nutzer kann VMs von „außen“ erreichen (erstmal vom OpenStack Controller Node)

NOCH 5 WOCHEN

1. Gruppenbildung & Organisation	
2. Vortrag über ein Thema	
3. Gruppenorganisation & Zugriffsbereitstellung	
4. Planung	
5. Ergebnispräsentation	
6. Planung	
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9. Ergebnispräsentation	
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11. Abschlusspräsentation	18.02.

Anfang

OpenStack Setup – Eine kleine Hilfestellung (ISIS-Beitrag)


hier kann man es nachlesen:

<https://docs.openstack.org/project-deploy-guide/kolla-ansible/ussuri/quickstart.html>

Allgemein:

- Ansible-Playbooks und kolla-ansible Befehle lokal auf eigenem Rechner laufen lassen
- im Inventory auf welche Knoten (die wally-Server) die Tasks laufen sollen definieren
 - den User, den Ansible nutzen soll, wenn es sich per ssh mit den Nodes verbindet, in der ansible.cfg oder im Inventory definieren (falls notwendig, den Pfad zum private key ebenfalls)
- Verbindung möglich? -> ping-Befehl benutzen:
https://docs.ansible.com/ansible/2.3/ping_module.html

Pre-bootstrap:

- 2. Interface einrichten & testen, ob unsere Knoten überhaupt erreichbar sind 
- 1) a. netplan-Modul (wenn ansible) nutzen ODER
b. netplan config per jinja-Template ausfüllen
- 2) auf Knoten kopieren
- 3) netplan apply ausführen
- folgende Pakete müssen auf Knoten installiert sein (vor bootstrap von kolla-ansible):
 - python3
 - python3-pip
 - python3-dev
 - libffi-dev
 - gcc
 - libssl-dev
- Sicherstellung (mit pip), dass docker installiert und docker-py **nicht installiert** ist

Lokal:

Empfehlung: venv, da drauf muss ansible und kolla-ansible installiert sein

Konfiguration:

Nötige Dateien (für kolla-ansible):

- globals.yml
- passwords.yml -> **nicht in unsere Repo pushen**
- multinode

Konfiguration von **globals.yml**:

1) Innerhalb der # Kolla options:
 kolla_base_distro: "ubuntu"
 openstack_release: "train" (Empfehlung)
 kolla_internal_vip_address: "130.149.249.[control_ip]"

2) Innerhalb der # Neutron - Networking Options:
 network_interface: "enp2s0"
 cluster_interface: "<Name eures 2. Netzwerkinerfaces>"
 neutron_external_interface: "<Name eures 2. Netzwerkinerfaces>"

3) Innerhalb von # [OpenStack](#) options:
 enable_haproxy: "no"

4) In multinode:
 (Empfehlung (wie Alexander das macht))
 [all:vars]
 ansible_python_interpreter=/usr/bin/python3
 ansible_user=alexander.acker -> **Anpassen**
 ansible_become=True
 ansible_private_key_file={{lookup('env', 'HOME')}}/.ssh/id_rsa

Beispiel:

[control]

wally135.cit.tu-berlin.de -> **unser Control Node**

[network:children]

control

[compute]

wally141.cit.tu-berlin.de -> **unser Compute Node 1**

wally139.cit.tu-berlin.de -> **unser Compute Node 2**

- network soll auf control laufen
- der Rest soll auskommentiert bleiben

Bugfix:

Nach dem Ausführen von bootstrap wird in den /etc/hosts-Dateien der jeweiligen 130er IP zwei Hostnamen zugewiesen.

Das sollte dazu führen, dass die prechecks nicht klappen.

Der Eintrag, der nicht von kolla-ansible vorgenommen wurde, muss rausgenommen werden.

Ein Fix kann z.B. mit dem ansible-Modul *lineinfile* und einem entsprechenden *regex* geschrieben werden.

Ende der Eine kleine Hilfestellung (ISIS-Beitrag)

Nodes:

auf wally135.cit.tu-berlin.de Controller Node (kolla-ansible)
auf wally139.cit.tu-berlin.de (OpenStack-ansible)

für Skript-Ausführung beiseite gelegt:
einzelne Skripte testen:
wally141.cit.tu-berlin.de Compute Node 1
ein Skript anwenden auf:
wally142.cit.tu-berlin.de Compute Node 2

Erledigt:

1. VPN-Konfigurationsdatei erhalten

- mit VPN-Client können wir jetzt mit dem Uni-Subnetz verbinden
und auf die Server zugreifen

z.B. mit openvpn CLI:

'sudo openvpn -config /Pfad/zur/VPNKonfig.ovpn'

2. Unseren Gruppennamen festgelegt: OurSky

- Repository auf GitHub erstellt
- Rollen im Team:

Mitglieder und Rollen

- Jonathan (Scrum master & developer)
- Oliver (developer)
- Nadia (developer)
- Zead (Product owner & developer)

ssh key-Paar erstellt und an Alexander Public Key gesendet

OpenStack-Rollen: Admin & Nutzer

- 3. Vorbereitung Control Node
- 4. Vorbereitung Compute Node
- 5. Etablierung von Docker als Untersystem für OpenStack
- 6. Aktivierung & Konfiguration physischer Netzwerke
- 7. Bootstrapping
- 8. Prechecks



In progress:

- OpenStack Deployment
- kolla_toolbox container is not running



Probleme:

1.) kolla_toolbox

2.) Prechecks funktionieren nicht

```
root@wally135: ~  
root@wally135:~# kolla-ansible -i ./multinode prechecks  
Pre-deployment checking : ansible-playbook -i ./multinode -e @/etc/kolla/globals.yml -e @/etc/kolla/passwords.yml -e CONFIG_DIR=/etc/kolla -e kolla_action=precheck /usr/local/share/kolla-ansible/ansible/site.yml  
[DEPRECATION WARNING]: The TRANSFORM_INVALID_GROUP_CHARS settings is set to allow bad characters in group names by default, this will change, but still be user configurable on deprecation. This feature will be removed in version 2.10. Deprecation warnings can be disabled by setting deprecation warnings=False in ansible.cfg.  
[WARNING]: Invalid characters were found in group names but not replaced, use -vvvv to see details  
  
ERROR! 'listen' is not a valid attribute for a HandlerTaskInclude  
  
The error appears to be in '/usr/local/share/kolla-ansible/ansible/roles/mariadb/handlers/main.yml': line 66, column 3, but may be elsewhere in the file depending on the exact syntax problem.  
  
The offending line appears to be:  
  
- name: Restart MariaDB on existing cluster members  
  ^ here  
  
Command failed ansible-playbook -i ./multinode -e @/etc/kolla/globals.yml -e @/etc/kolla/passwords.yml -e CONFIG_DIR=/etc/kolla -e kolla_action=precheck /usr/local/share/kolla-ansible/ansible/site.yml  
root@wally135:~#
```

Grund:

- Installierung von ansible & kolla-ansible in den Servern
- Ausführung aller Befehle in den Servern

Lösung:

- lokale Installierung
- Ausführung aller Befehle lokal

- Fehler bei Prechecks:

```
#####  
TASK [service-precheck : neutron | Validate inventory groups]  
*****  
*****  
fatal: [zead@wally142.cit.tu-berlin.de]: FAILED! => {"msg":  
"{{ neutron_services }}: {'neutron-server': {'container_name':  
'neutron_server', 'image': '{{ neutron_server_image_full }}',  
'enabled': True, 'group': 'neutron-server', 'host_in_groups': \"{{  
inventory_hostname in groups['neutron-server'] }}\", 'volumes':  
'{{ neutron_server_default_volumes +  
neutron_server_extra_volumes }}', 'dimensions':  
'{{ neutron_server_dimensions }}', 'healthcheck':  
'{{ neutron_server_healthcheck }}', 'haproxy': {'neutron_server':  
{'enabled': '{{ enable_neutron | bool and not  
neutron_enable_tls_backend | bool}}', 'mode': 'http', 'external':  
False, 'port': '{{ neutron_server_port }}', 'listen_port':  
'{{ neutron_server_listen_port }}'}, 'neutron_server_external':  
{'enabled': '{{ enable_neutron | bool and not  
neutron_enable_tls_backend | bool}}', 'mode': 'http', 'external':  
True, 'port': '{{ neutron_server_port }}', 'listen_port':  
'{{ neutron_server_listen_port }}}'}, 'neutron-openvswitch-  
agent': {'container_name': 'neutron_openvswitch_agent', 'image':  
'{{ neutron_openvswitch_agent_image_full }}',
```

```

'enabled': \"{{ neutron_plugin_agent == 'openvswitch' }}\",
'privileged': True, 'environment': {'KOLLA_LEGACY_IPTABLES':
'{{ neutron_legacy_iptables | bool | lower }}'}, 'host_in_groups':
\"{{ ( inventory_hostname in groups['compute'] or
(enable_manila_backend_generic | bool and inventory_hostname in
groups['manila-share']) or inventory_hostname in groups['neutron-
dhcp-agent'] or inventory_hostname in groups['neutron-l3-agent']
or inventory_hostname in groups['neutron-metadata-agent'] and not
enable_nova_fake | bool ) or ( inventory_hostname in
groups['neutron-dhcp-agent'] or inventory_hostname in
groups['neutron-l3-agent'] or inventory_hostname in
groups['neutron-metadata-agent'] and enable_nova_fake |
bool ) }}\", 'volumes':
'{{ neutron_openvswitch_agent_default_volumes +
neutron_openvswitch_agent_extra_volumes }}', 'dimensions':
'{{ neutron_openvswitch_agent_dimensions }}', 'healthcheck':
'{{ neutron_openvswitch_agent_healthcheck }}'}, 'neutron-
linuxbridge-agent': {'container_name':
'neutron_linuxbridge_agent', 'image':
'{{ neutron_linuxbridge_agent_image_full }}', 'privileged': True,
'enabled': \"{{ neutron_plugin_agent == 'linuxbridge' }}\",
'environment': {'KOLLA_LEGACY_IPTABLES':
'{{ neutron_legacy_iptables | bool | lower }}'}, 'host_in_groups':
\"{{ inventory_hostname in groups['compute'] or (enable_manila |
bool and inventory_hostname in groups['manila-share']) or
inventory_hostname in groups['neutron-dhcp-agent'] or
inventory_hostname in groups['neutron-l3-agent'] or
inventory_hostname in groups['neutron-metadata-agent'] }}\",
'volumes': '{{ neutron_linuxbridge_agent_default_volumes +
neutron_linuxbridge_agent_extra_volumes }}', 'dimensions':
'{{ neutron_linuxbridge_agent_dimensions }}', 'healthcheck':
'{{ neutron_linuxbridge_agent_healthcheck }}'}, 'neutron-dhcp-
agent': {'container_name': 'neutron_dhcp_agent', 'image':
'{{ neutron_dhcp_agent_image_full }}', 'privileged': True,
'enabled': \"{{ neutron_plugin_agent not in ['ovn', 'vmware_nsxv',
'vmware_nsxv3'] }}\", 'group': 'neutron-dhcp-agent',
'host_in_groups': \"{{ inventory_hostname in groups['neutron-dhcp-
agent'] }}\", 'volumes': '{{ neutron_dhcp_agent_default_volumes +
neutron_dhcp_agent_extra_volumes }}', 'dimensions':
'{{ neutron_dhcp_agent_dimensions }}', 'healthcheck':
'{{ neutron_dhcp_agent_healthcheck }}'}, 'neutron-l3-agent':
{'container_name': 'neutron_l3_agent', 'image':
'{{ neutron_l3_agent_image_full }}', 'privileged': True,
'enabled': \"{{ neutron_plugin_agent not in ['ovn', 'vmware_nsxv',
'vmware_nsxv3', 'vmware_dvs'] }}\", 'environment':
{'KOLLA_LEGACY_IPTABLES': '{{ neutron_legacy_iptables | bool |
lower }}'}, 'host_in_groups': \"{{ inventory_hostname in
groups['neutron-l3-agent'] or (inventory_hostname in
groups['compute'] and enable_neutron_dvr | bool) }}\", 'volumes':
'{{ neutron_l3_agent_default_volumes +
neutron_l3_agent_extra_volumes }}', 'dimensions':

```

```

'{{ neutron_l3_agent_dimensions }}', 'healthcheck':
'{{ neutron_l3_agent_healthcheck }}'}, 'neutron-sriov-agent':
{'container_name': 'neutron_sriov_agent', 'image':
'{{ neutron_sriov_agent_image_full }}', 'privileged': True,
'enabled': \"{{ enable_neutron_sriov | bool and
neutron_plugin_agent not in ['vmware_nsxv', 'vmware_nsxv3' ] }}\",
'host_in_groups': \"{{ inventory_hostname in
groups['compute'] }}\", 'volumes':
'{{ neutron_sriov_agent_default_volumes +
neutron_sriov_agent_extra_volumes }}', 'dimensions':
'{{ neutron_sriov_agent_dimensions }}', 'healthcheck':
'{{ neutron_sriov_agent_healthcheck }}'}, 'neutron-mlnx-agent':
{'container_name': 'neutron_mlnx_agent', 'image':
'{{ neutron_mlnx_agent_image_full }}',
'enabled': \"{{ enable_neutron_mlnx | bool and
neutron_plugin_agent not in ['vmware_nsxv', 'vmware_nsxv3' ] }}\",
'host_in_groups': \"{{ inventory_hostname in
groups['compute'] }}\", 'volumes':
'{{ neutron_mlnx_agent_default_volumes +
neutron_mlnx_agent_extra_volumes }}', 'dimensions':
'{{ neutron_mlnx_agent_dimensions }}'}, 'neutron-eswitchd':
{'container_name': 'neutron_eswitchd', 'image':
'{{ neutron_eswitchd_image_full }}', 'privileged': True,
'enabled': \"{{ enable_neutron_mlnx | bool and
neutron_plugin_agent not in ['vmware_nsxv', 'vmware_nsxv3' ] }}\",
'host_in_groups': \"{{ inventory_hostname in
groups['compute'] }}\", 'volumes':
'{{ neutron_eswitchd_default_volumes +
neutron_eswitchd_extra_volumes }}', 'dimensions':
'{{ neutron_eswitchd_dimensions }}'}, 'neutron-metadata-agent':
{'container_name': 'neutron_metadata_agent', 'image':
'{{ neutron_metadata_agent_image_full }}', 'privileged': True,
'enabled': \"{{ neutron_plugin_agent not in [ 'ovn',
'vmware_nsxv', 'vmware_nsxv3' ] }}\",
'host_in_groups': \"{{ inventory_hostname in groups['neutron-
metadata-agent'] or (inventory_hostname in groups['compute'] and
neutron_plugin_agent == 'openvswitch' and enable_neutron_dvr |
bool) }}\", 'volumes': '{{ neutron_metadata_agent_default_volumes
+ neutron_metadata_agent_extra_volumes }}', 'dimensions':
'{{ neutron_metadata_agent_dimensions }}', 'healthcheck':
'{{ neutron_metadata_agent_healthcheck }}'}, 'neutron-ovn-
metadata-agent': {'container_name': 'neutron_ovn_metadata_agent',
'image': '{{ neutron_ovn_metadata_agent_image_full }}',
'privileged': True, 'enabled': \"{{ neutron_plugin_agent ==
'ovn' }}\", 'host_in_groups': \"{{ inventory_hostname in
groups['neutron-ovn-metadata-agent'] }}\", 'volumes':
'{{ neutron_ovn_metadata_agent_default_volumes +
neutron_ovn_metadata_agent_extra_volumes }}', 'dimensions':
'{{ neutron_ovn_metadata_agent_dimensions }}', 'healthcheck':
'{{ neutron_ovn_metadata_agent_healthcheck }}'}, 'neutron-bgp-
dragent': {'container_name': 'neutron_bgp_dragment', 'image':

```

```

'{{ neutron_bgp_dragent_image_full }}', 'privileged': True,
'enabled': \"{{ enable_neutron_bgp_dragent | bool and
neutron_plugin_agent not in ['ovn', 'vmware_nsxv', 'vmware_nsxv3',
'vmware_dvs'] }}\", 'group': 'neutron-bgp-dragent',
'host_in_groups': \"{{ inventory_hostname in groups['neutron-bgp-
dragent'] }}\", 'volumes': '{{ neutron_bgp_dragent_default_volumes
+ neutron_bgp_dragent_extra_volumes }}', 'dimensions':
'{{ neutron_bgp_dragent_dimensions }}', 'neutron-infoblox-ipam-
agent': {'container_name': 'neutron_infoblox_ipam_agent', 'image':
'{{ neutron_infoblox_ipam_agent_image_full }}', 'privileged':
True, 'enabled': '{{ enable_neutron_infoblox_ipam_agent |
bool }}', 'group': 'neutron-infoblox-ipam-agent',
'host_in_groups': \"{{ inventory_hostname in groups['neutron-
infoblox-ipam-agent'] }}\", 'volumes':
'{{ neutron_infoblox_ipam_agent_default_volumes +
neutron_infoblox_ipam_agent_extra_volumes }}', 'dimensions':
'{{ neutron_infoblox_ipam_agent_dimensions }}', 'neutron-
metering-agent': {'container_name': 'neutron_metering_agent',
'image': '{{ neutron_metering_agent_image_full }}', 'privileged':
True, 'enabled': '{{ enable_neutron_metering | bool }}', 'group':
'neutron-metering-agent',
'host_in_groups': \"{{ inventory_hostname in groups['neutron-
metering-agent'] }}\", 'volumes':
'{{ neutron_metering_agent_default_volumes +
neutron_metering_agent_extra_volumes }}', 'dimensions':
'{{ neutron_metering_agent_dimensions }}', 'ironic-neutron-
agent': {'container_name': 'ironic_neutron_agent', 'image':
'{{ ironic_neutron_agent_image_full }}', 'privileged': False,
'enabled': '{{ enable_ironic_neutron_agent | bool }}', 'group':
'ironic-neutron-agent', 'host_in_groups': \"{{ inventory_hostname
in groups['ironic-neutron-agent'] }}\", 'volumes':
'{{ ironic_neutron_agent_default_volumes +
ironic_neutron_agent_extra_volumes }}', 'dimensions':
'{{ ironic_neutron_agent_dimensions }}', 'neutron-tls-proxy':
{'container_name': 'neutron_tls_proxy', 'group': 'neutron-server',
'host_in_groups': \"{{ inventory_hostname in groups['neutron-
server'] }}\", 'enabled': '{{ neutron_enable_tls_backend }}',
'image': '{{ neutron_tls_proxy_image_full }}', 'volumes':
'{{ neutron_tls_proxy_default_volumes +
neutron_tls_proxy_extra_volumes }}', 'dimensions':
'{{ neutron_tls_proxy_dimensions }}', 'healthcheck':
'{{ neutron_tls_proxy_healthcheck }}', 'haproxy':
{'neutron_tls_proxy': {'enabled': '{{ enable_neutron | bool and
neutron_enable_tls_backend | bool }}', 'mode': 'http', 'external':
False, 'port': '{{ neutron_server_port }}', 'listen_port':
'{{ neutron_server_listen_port }}', 'tls_backend': 'yes'},
'neutron_tls_proxy_external': {'enabled': '{{ enable_neutron |
bool and neutron_enable_tls_backend | bool }}', 'mode': 'http',
'external': True, 'port': '{{ neutron_server_port }}',
'listen_port': '{{ neutron_server_listen_port }}', 'tls_backend':

```



```
'yes'}}}}: 'dict object' has no attribute 'neutron-ovn-metadata-agent'"}
```

```
#####
```

Grund: (Vermutung) falsche ansible-Version

Lösung:

Datei: kolla-ansible/ansible/roles/neutron/defaults/main.yml

#neutron-ovn-metadata-agent:

```
# container_name: "neutron_ovn_metadata_agent"
# image: "{{ neutron_ovn_metadata_agent_image_full }}"
# privileged: True
# enabled: "{{ neutron_plugin_agent == 'ovn' }}"
# host_in_groups: "{{ inventory_hostname in groups['neutron-ovn-metadata-agent'] }}"
# volumes: "{{ neutron_ovn_metadata_agent_default_volumes + neutron_ovn_metadata_agent_extra_volumes }}"
# dimensions: "{{ neutron_ovn_metadata_agent_dimensions }}"
# healthcheck: "{{ neutron_ovn_metadata_agent_healthcheck }}"
```

3.) Fehler bei Deployment:

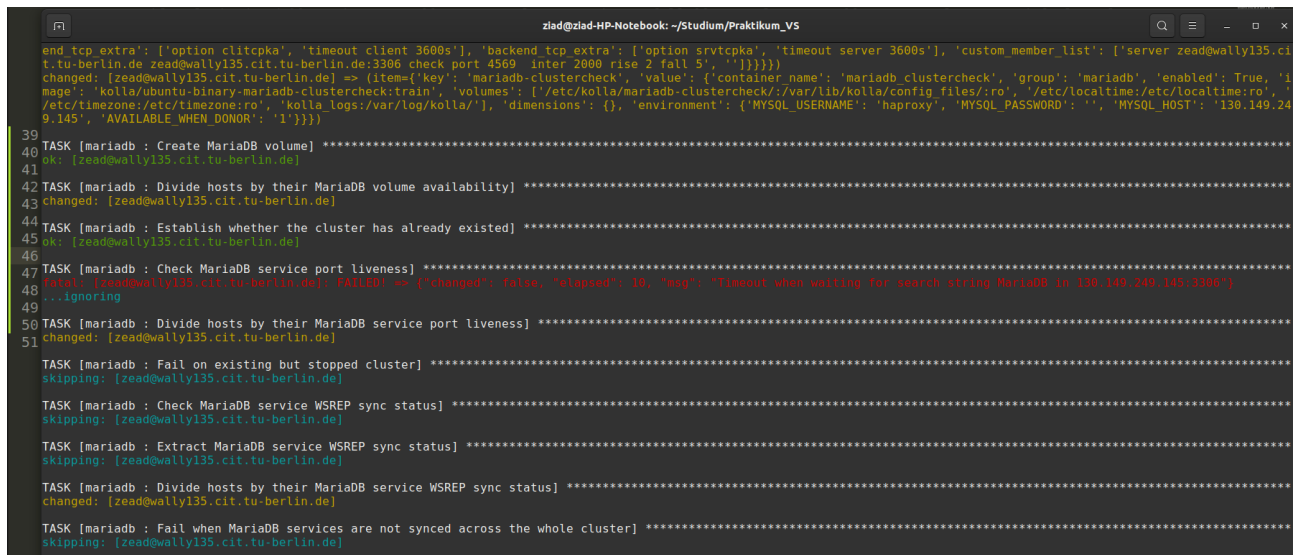
TASK [mariadb : Check MariaDB service port liveness]

Fehlermeldung:

```
#####
```

```
fatal: [zead@wally135.cit.tu-berlin.de]: FAILED! => {"changed": false, "elapsed": 10, "msg": "Timeout when waiting for search string MariaDB in 130.149.249.145:3306"}
```

```
#####
```



```
zlad@zlad-HP-Notebook: ~/Studium/Praktikum_VS
end_tcp_extra: ['option clitcpka', 'timeout client 3600s'], 'backend_tcp_extra': ['option srytcpka', 'timeout server 3600s'], 'custom_member_list': ['server zead@wally135.cit.tu-berlin.de:3306 check port 4569 inter 2000 rise 2 fall 5', '']]]]]
changed: [zead@wally135.cit.tu-berlin.de] => (item={'key': 'mariadb-clustercheck', 'value': {'container_name': 'mariadb-clustercheck', 'group': 'mariadb', 'enabled': True, 'image': 'kolla/ubuntu-binary-mariadb-clustercheck:train', 'volumes': ['/etc/kolla/mariadb-clustercheck:/var/lib/kolla/config_files:ro', '/etc/localtime:/etc/localtime:ro', '/etc/timezone:/etc/timezone:ro', 'kolla_logs:/var/log/kolla:'], 'dimensions': {}, 'environment': {'MYSQL_USERNAME': 'haproxy', 'MYSQL_PASSWORD': '', 'MYSQL_HOST': '130.149.249.145', 'AVAILABLE_WHEN_DONOR': '1'}}))
39 TASK [mariadb : Create MariaDB volume] *****
40 ok: [zead@wally135.cit.tu-berlin.de]
41
42 TASK [mariadb : Divide hosts by their MariaDB volume availability] *****
43 changed: [zead@wally135.cit.tu-berlin.de]
44
45 TASK [mariadb : Establish whether the cluster has already existed] *****
46 ok: [zead@wally135.cit.tu-berlin.de]
47
48 TASK [mariadb : Check MariaDB service port liveness] *****
49 fatal: [zead@wally135.cit.tu-berlin.de]: FAILED! => {"changed": false, "elapsed": 10, "msg": "Timeout when waiting for search string MariaDB in 130.149.249.145:3306"}
50 ...ignoring
51 TASK [mariadb : Divide hosts by their MariaDB service port liveness] *****
52 changed: [zead@wally135.cit.tu-berlin.de]
53
54 TASK [mariadb : Fail on existing but stopped cluster] *****
55 skipping: [zead@wally135.cit.tu-berlin.de]
56
57 TASK [mariadb : Check MariaDB service WSREP sync status] *****
58 skipping: [zead@wally135.cit.tu-berlin.de]
59
60 TASK [mariadb : Extract MariaDB service WSREP sync status] *****
61 skipping: [zead@wally135.cit.tu-berlin.de]
62
63 TASK [mariadb : Divide hosts by their MariaDB service WSREP sync status] *****
64 changed: [zead@wally135.cit.tu-berlin.de]
65
66 TASK [mariadb : Fail when MariaDB services are not synced across the whole cluster] *****
67 skipping: [zead@wally135.cit.tu-berlin.de]
```

Grund: Offen.

Lösung: Offen.

4.) Fehler bei deployment:

RUNNING HANDLER [mariadb : Restart MariaDB container]

Fehlermeldung:

```
#####
```

```

fatal: fatal: [zead@wally135.cit.tu-berlin.de]: FAILED! =>
{"changed": true, "msg": "'Traceback (most recent
                        call last):\\n  File
\\usr/local/lib/python3.6/dist-packages/docker/api/client.py\\",
line 222, in _raise_for_status\\n    response.raise_for_status()\\n
n  File \\usr/lib/python3/dist-packages/requests/models.py\\",
line 935, in raise_for_status\\n    raise
HTTPError(http_error_msg, response=self)\\n
nrequests.exceptions.HTTPError: 404 Client Error: Not Found for
url: http+docker://localunixsocket/v1.41/images/create?
tag=train&fromImage=kolla%2Fubuntu-binary-mariadb-server\\n\\n
nDuring handling of the above exception, another exception
occurred:\\n\\n\\nTraceback (most recent call last):\\n  File
\\tmp/ansible_kolla_docker_payload_pmpbk6iy/ansible_kolla_docker_
payload.zip/ansible/modules/kolla_docker.py\\", line 1131, in
main\\n  File
\\tmp/ansible_kolla_docker_payload_pmpbk6iy/ansible_kolla_docker_
payload.zip/ansible/modules/kolla_docker.py\\", line 785, in
recreate_or_restart_container\\n  File
\\tmp/ansible_kolla_docker_payload_pmpbk6iy/ansible_kolla_docker_
payload.zip/ansible/modules/kolla_docker.py\\", line 803, in
start_container\\n  File
\\tmp/ansible_kolla_docker_payload_pmpbk6iy/ansible_kolla_docker_
payload.zip/ansible/modules/kolla_docker.py\\", line 602, in
pull_image\\n  File
\\usr/local/lib/python3.6/dist-packages/docker/api/image.py\\",
line 393, in pull\\n    self._raise_for_status(response)\\n
File
\\usr/local/lib/python3.6/dist-packages/docker/api/client.py\\",
line 224, in _raise_for_status\\n    raise
create_api_error_from_http_exception(e)\\n  File
\\usr/local/lib/python3.6/dist-packages/docker/errors.py\\", line
31, in create_api_error_from_http_exception\\n    raise cls(e,
response=response, explanation=explanation)\\n
ndocker.errors.NotFound: 404 Client Error: Not Found (\\nmanifest
for kolla/ubuntu-binary-mariadb-server:train not found: manifest
unknown: manifest unknown\\n)\\n'"}
#####

```

```
zlad@zlad-HP-Notebook: ~/Studium/Praktikum_VS
skipping: [zead@wally135.cit.tu-berlin.de]

RUNNING HANDLER [mariadb : Restart MariaDB on existing cluster members] *****
skipping: [zead@wally135.cit.tu-berlin.de] => (item=0)
skipping: [zead@wally135.cit.tu-berlin.de] => (item=1)
skipping: [zead@wally135.cit.tu-berlin.de] => (item=2)
skipping: [zead@wally135.cit.tu-berlin.de] => (item=3)

RUNNING HANDLER [mariadb : Start MariaDB on new nodes] *****
included: /home/zlad/Studium/Praktikum_VS/VM/share/kolla-ansible/ansible/roles/mariadb/tasks/restart_services.yml for zead@wally135.cit.tu-berlin.de

RUNNING HANDLER [mariadb : Restart MariaDB container] *****
fatal: [zead@wally135.cit.tu-berlin.de]: FAILED! => ("changed": true, "msg": "Traceback (most recent call last):\n  File \"/usr/local/lib/python3.6/dist-packages/docker/api/client.py", line 222, in _raise_for_status\n    response.raise_for_status()\n  File \"/usr/lib/python3/dist-packages/requests/models.py", line 935, in raise_for_status\n    raise HTTPError(http_error_msg, response=self)\nrequests.exceptions.HTTPError: 404 Client Error: Not Found for url: http+docker://localhost/v1.41/images/create?from=onpremiseskollaubuntu-binary-mariadb-server\nDuring handling of the above exception, another exception occurred:\n\nFile \"/tmp/ansible/kolla-docker-payload/pmpbk6iy/ansible-kolla-docker-payload.zip/ansible/modules/kolla-docker.py", line 1131, in main\n  File \"/tmp/ansible/kolla-docker-payload/pmpbk6iy/ansible-kolla-docker-payload.zip/ansible/modules/kolla-docker.py", line 785, in recreate_or_restart_container\n  File \"/tmp/ansible/kolla-docker-payload/pmpbk6iy/ansible-kolla-docker-payload.zip/ansible/modules/kolla-docker.py", line 803, in start_container\n  File \"/tmp/ansible/kolla-docker-payload/pmpbk6iy/ansible-kolla-docker-payload.zip/ansible/modules/kolla-docker.py", line 602, in pull_image\n  File \"/usr/local/lib/python3.6/dist-packages/docker/api/image.py", line 393, in pull\n    self.raise_for_status(response)\n  File \"/usr/local/lib/python3.6/dist-packages/docker/api/client.py", line 224, in _raise_for_status\n    raise create_api_error_from_http_exception(e)\n  File \"/usr/local/lib/python3.6/dist-packages/docker/errors.py", line 31, in create_api_error_from_http_exception\n    raise cls(e, response=response, explanation=explanation)\ndocker.errors.NotFound: 404 Client Error: Not Found (\nmanifest for kolla/ubuntu-binary-mariadb-server:train not found: manifest unknown: manifest unknown\n)\n")

RUNNING HANDLER [mariadb : Wait for MariaDB service port liveness] *****
RUNNING HANDLER [mariadb : Wait for MariaDB service to sync WSREP] *****
RUNNING HANDLER [Restart mariadb-clustercheck container] *****
NO MORE HOSTS LEFT *****

PLAY RECAP *****
localhost      : ok=4  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
zead@wally135.cit.tu-berlin.de : ok=24  changed=16  unreachable=0  failed=1  skipped=10  rescued=0  ignored=1
zead@wally141.cit.tu-berlin.de : ok=10  changed=7   unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
zead@wally142.cit.tu-berlin.de : ok=10  changed=7   unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```

Grund: Offen.
Lösung: Offen.

zu 2) Retrospektive

- wollten OpenStack manuell deployen, haben jetzt auf automatik gewechselt (durch starker Empfehlung)
- unser Versuch: mit kolla-ansible & OpenStack-ansible, welches auch immer schneller fertig wird

Konfiguration der Server

Netzwerkinterface

Ansible installiert (,da kolla-ansible das braucht)

docker installiert & eingerichtet

python-Bibliotheken

kolla-ansible installiert & konfiguriert

pip package manager eingerichtet

Fehlt:

kolla-ansible deployment

OpenStack deployment

In allen Nodes:

1. Interfaces in allen Nodes eingerichtet (/etc/netplan/01-netcfg.yaml)
2. Interfaces in /etc/network/interfaces konfiguriert
3. Hosts konfiguriert /etc/hosts → 10.0.42.135: controller, 10.0.42.141: compute1, 10.0.42.142: compute2
4. Kommunikation zwischen den Nodes verifiziert.
5. pip installiert
6. python-pip installiert
7. python-dev
8. libffi-dev

9. gcc
10. libssl-dev
11. chrony installiert und eingerichtet (NTP)
12. /etc/chrony.conf konfiguriert (compute Nodes sehen nur controller und controller erlaubt dies)

In Control Nodes:

1. Ansible installiert
2. kolla-ansible installiert
3. /etc/kolla erstellt
 - sudo chown \$USER:\$USER /etc/kolla
4. /usr/local/share/kolla-ansible/etc_examples/kolla/ in /etc/kolla kopiert
 - sf/usr/local/share/kolla-ansible/ansible/inventory/*
5. Im Haupt-Verzeichnis: multiple und all-in-node kopiert
 - /usr/local/share/kolla-ansible/ansible/inventory/*
6. /etc/ansible/ansible.cfg konfiguriert
7. Inventory: multiple konfiguriert (Problem 1)
8. multiple nodes Erreichbarkeit verifiziert: bei A → Fehler
bei B ok
9. Passwort in kolla-ansible erstellt: kolla-genpwd
10. docker installiert
 - Kolla globals.yml konfiguriert:
 - kolla_base_distro: „Ubunt“
 - kolla_install_type: „binary“
 - networkt_interface: „eno1“
 - neutron_external_interface: „enp2s0“
 - kolla_internal_vip_address: „10.0.42.135“
11. bootstrap-servers in multiple ausgeführt (Problem 2)
12. docker konfiguriert
13. verifiziert, ob Docker funktioniert

multiple konfiguration: alle Nodes local gesetzt

Problem 1) Wie soll die Verbindung sein (multiple)

- A) Ausprobiert wurde SSH, da wird aber ein Passwort aufgefordert
- B) alles nodes „ansible_connection=local\$ gesetzt → falsch (Bootstrapping ausprobieren)

Problem 2)