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Challenge#5:

Remove the duplicated information
from VDUR in VNFR for Vertical-scaling
operation

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The Challenge (Bug 2109)

After vertical scaling

vdur	[1 element]	Array
[0]	{ 22 fields }	Object
_id	f179d7f1-a501-4cad-b59e-50af85313033	String
additionalParams	{ 1 field }	Object
affinity-or-anti-affinity-group-id	[0 elements]	Array
alt-image-ids	[3 elements]	Array
count-index	0	Int32
id	f179d7f1-a501-4cad-b59e-50af85313033	String
interfaces	[1 element]	Array
internal-connection-point	[1 element]	Array
ip-address	192.168.251.16	String
ns-flavor-id	0	String
ns-image-id	0	String
vdu-id-ref	hackfest_basic-VM	String
vdu-name	hackfest_basic-VM	String
vim_info	{ 1 field }	Object
vim:1489c936-30fd-4e27-bb79-29991adb21f4	{ 7 fields }	Object
interfaces	[1 element]	Array
interfaces_backup	[1 element]	Array
vim_details	{'OS-DCF:diskConfig': MANUAL, 'OS-EXT-AZ:availability_zone': nova, 'OS-EXT-SR...	String
vim_id	88b15204-bcda-417f-8e15-eaf09dabd5f9	String
vim_message	null	Null
vim_status	ACTIVE	String
vim_name	test7-vnf-hackfest_basic-VM-0	String
virtual-storages	[1 element]	Array
status	ACTIVE	String
vim-id	88b15204-bcda-417f-8e15-eaf09dabd5f9	String
name	test7-vnf-hackfest_basic-VM-0	String
vim_details	{'OS-DCF:diskConfig': MANUAL, 'OS-EXT-AZ:availability_zone': nova, 'OS-EXT-SR...	String
vim_id	88b15204-bcda-417f-8e15-eaf09dabd5f9	String
vim_message	null	Null
vim_status	DONE	String
connection-point	[1 element]	Array
ip-address	192.168.251.16	String
revision	1	Int32
_admin	{ 5 fields }	Object

Problems Found

- Bug 2254: Vertical scaling operation should fail if it is not completed.

```
2023-06-13T10:21:29.108Z [ro] 2023-06-13T10:21:29 ERROR ro.worker0
ns_thread.py:1439 Error creating flavor at VIM Forbidden: Policy doesn't allow
os_compute_api:os-flavor-manage:create to be performed. (HTTP 403) (Request-ID:
req-e840aa98-1936-4cf3-a29e-322aac8e1a03).
```

Problems Found

- Bug 2257: KeyError exception is raised during vertical scaling

Traceback (most recent call last):

```
File "/usr/lib/python3/dist-packages/osm_ng_ro/ns_thread.py", line 2419, in
_process_pending_tasks
) = self.item2class[task["item"]].exec(
File "/usr/lib/python3/dist-packages/osm_ng_ro/ns_thread.py", line 1535, in exec
resized_status = target_vim.resize_instance(
File "/usr/lib/python3/dist-packages/osm_rovim_openstack/vimconn_openstack.py", line 3835,
in resize_instance
instance_status, old_flavor_id, compute_host| az = self.get_vdu_state(vm_id)
File "/usr/lib/python3/dist-packages/osm_rovim_openstack/vimconn_openstack.py", line 3679,
in get_vdu_state
server_dict["OS-EXT-SRV-ATTR:host"],
KeyError: 'OS-EXT-SRV-ATTR:host'
```

Problems Found

- Bug 2255: VNFr and NSr do not reflect reality after vertical scaling

Values related to storage, memory and vcpu are not updated.

Problems Found

- Bug 2258: Incorrect value is set to VIM status when vertical scaling is successful

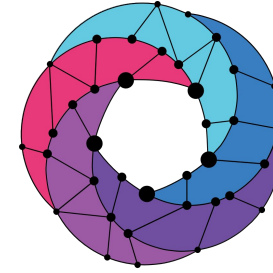
```
ro_vim_item_update = {  
  "vim_id": vim_vm_id,  
  "vim_status": "DONE",  
  "created": created,  
  "created_items": created_items,  
  "vim_details": None,  
  "vim_message": None,  
}
```

→ "ACTIVE"

Next Steps

<https://osm.etsi.org/gerrit/c/osm/RO/+13532>

- Increase test coverage for vertical scaling.
- Finish bug 2109 fix.
- Address the new bugs.



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Thank You!

The Fix

```
target_record = "vnfrs: {}:vdur.{}".format(vnf["_id"], vdu_index)
```



```
target_record = "vnfrs: {}:vdur.{}.vim_info.{}".format(vnf["_id"], vdu_index, target_vim)
```