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OSM Hackfest – Session 6 Building a VNF with primitives

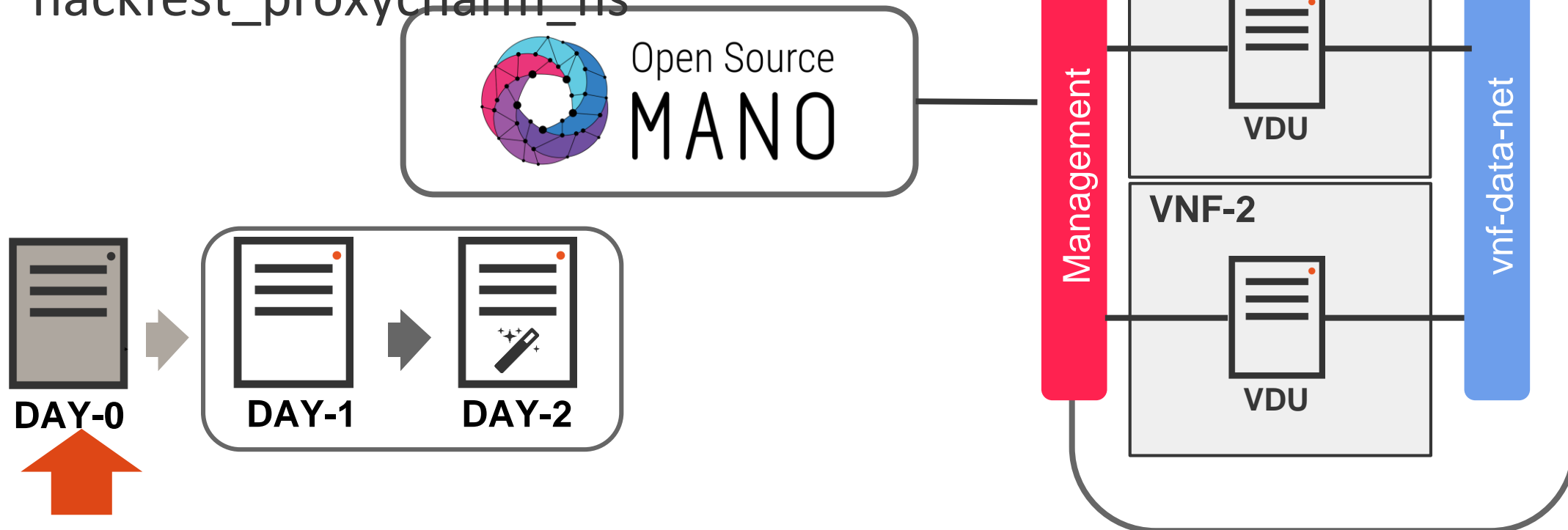
Dominik Fleischmann, David Garcia (Canonical)

Index

1. Context
2. Objective
3. VNF Descriptor
4. NS Descriptor
5. Final Steps

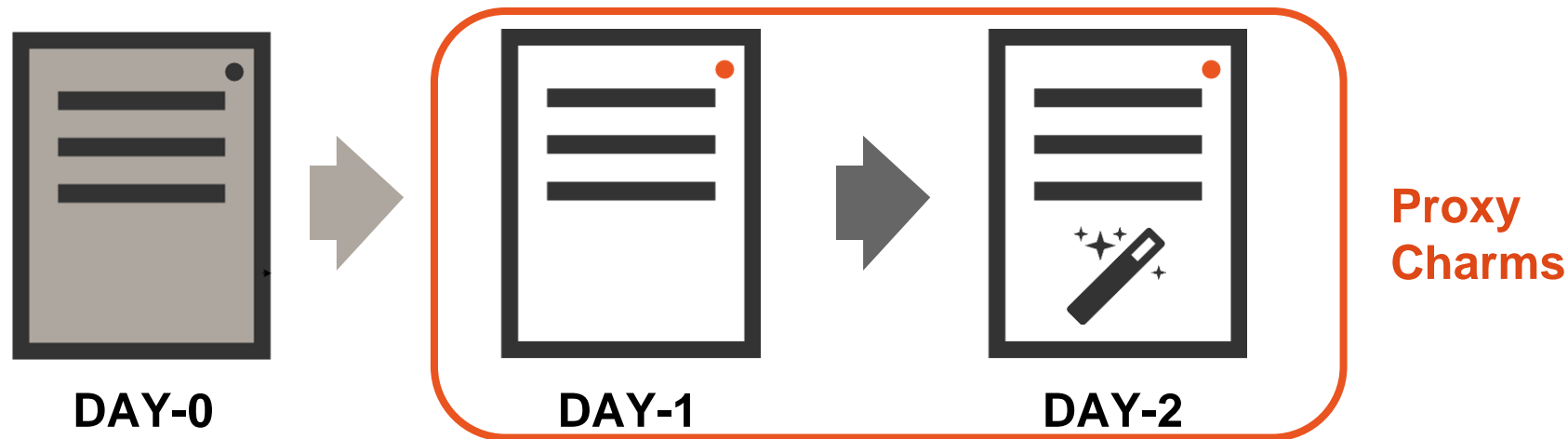
Context

- VNFD:
hackfest_proxyccharm_vnf
- NSD:
hackfest_proxyccharm_ns

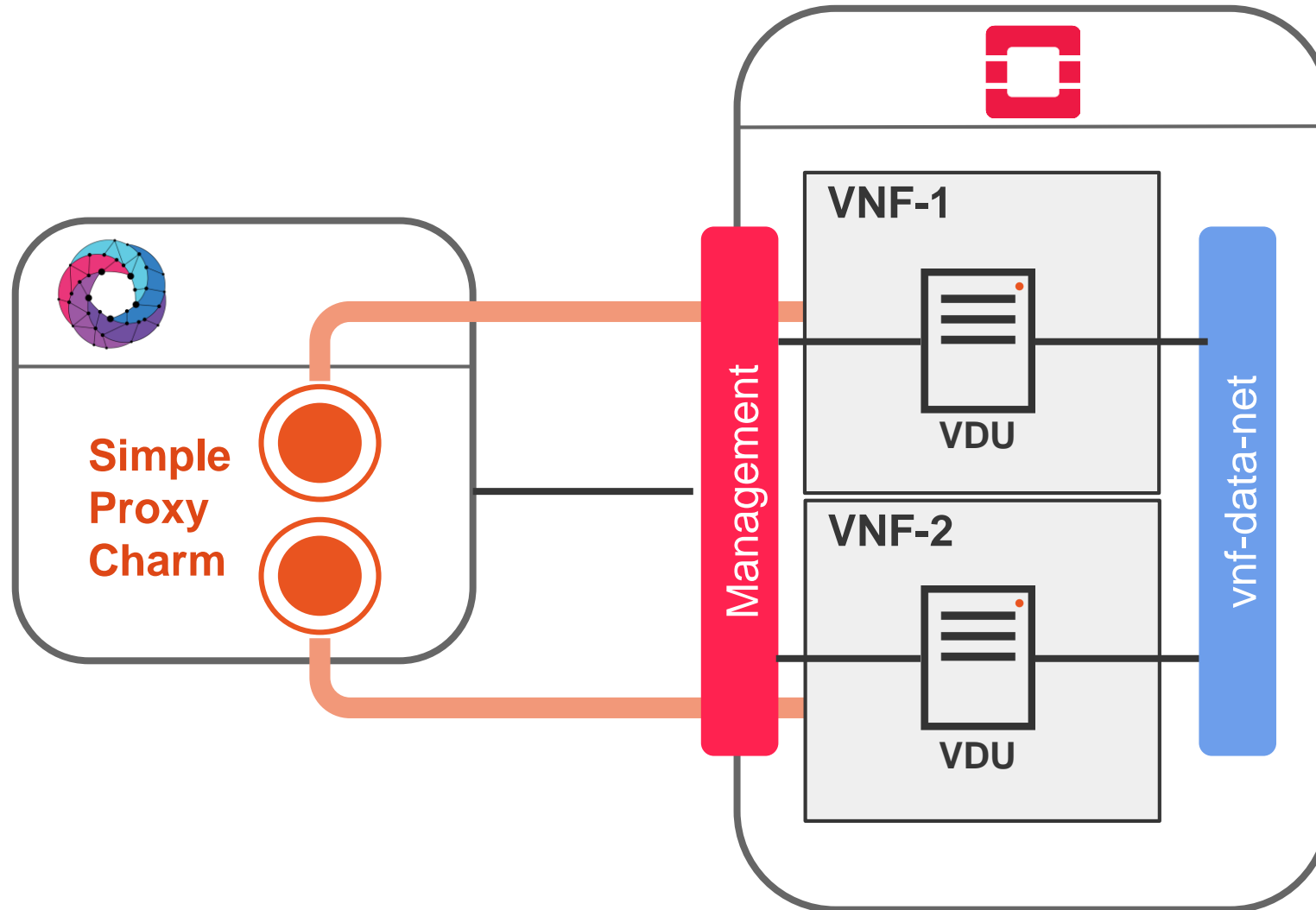


Objective

- Day-0 configuration is already done with Cloud-Init
- Include a simple Proxy charm to our VNF to cover Day-1 and Day-2 configuration



Objective



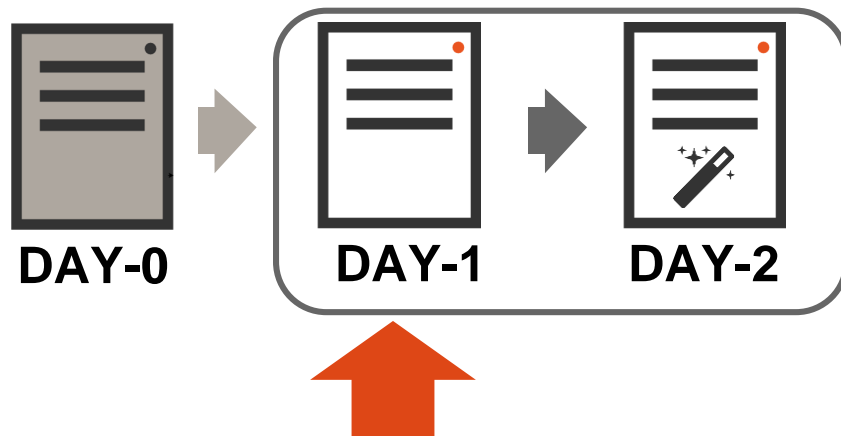


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VNF Descriptor

Day-1 Configuration

- Change the name to *hackfest_proxyccharm-vnf*.
- Put the name of our charm in the *juju:charm:* section.

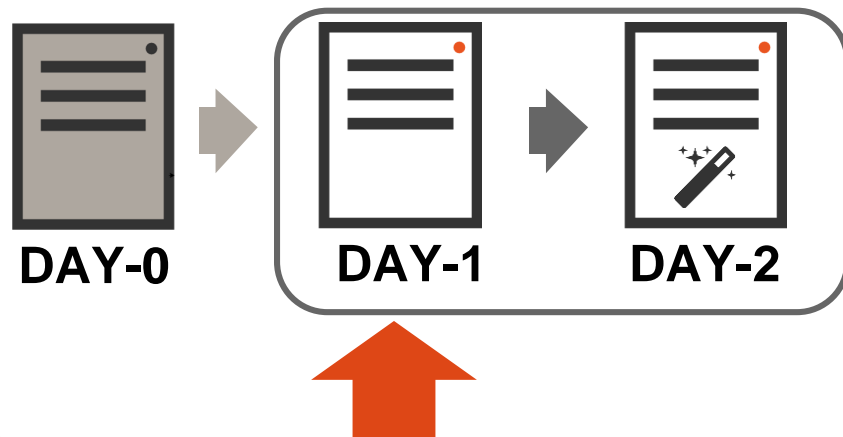


```
name: hackfest_proxyccharm-vnf
...
vnf-configuration:
  juju:
    charm: simple
    initial-config-primitive:
      - seq: '1'
        name: config
        parameter:
          - name: ssh-hostname
            value: <rw_mgmt_ip>
          - name: ssh-username
            value: ubuntu
          - name: ssh-password
            value: osm4u
      - seq: '2'
        name: touch
        parameter:
          - name: filename
            value: '/home/ubuntu/first-touch'c
```

hackfest_simplecharm_vnfd.yaml

Day-1 Configuration

- The *seq* section states the order in which the initial config primitives will be called.
- The Proxy charm has ssh access to the VNFs thanks to the *config* primitive.



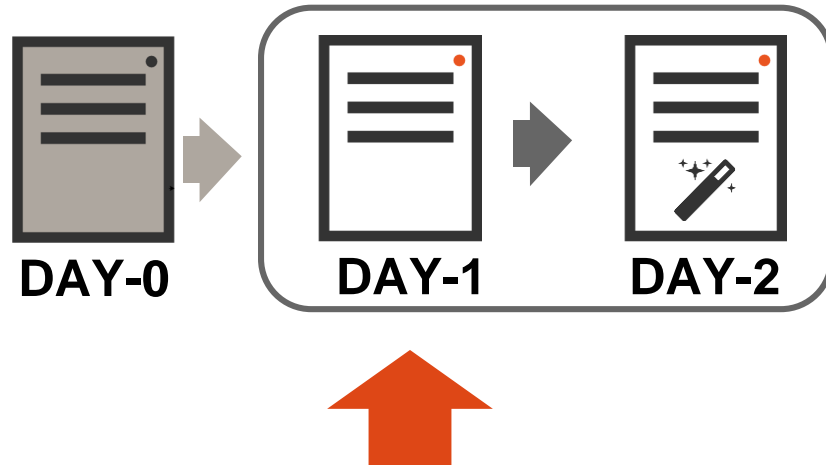
```

name: hackfest_proxycharm-vnf
...
vnf-configuration:
  juju:
    charm: simple
    initial-config-primitive:
      - seq: '1'
        name: config
        parameter:
          - name: ssh-hostname
            value: <rw_mgmt_ip>
          - name: ssh-username
            value: ubuntu
          - name: ssh-password
            value: osm4u
      - seq: '2'
        name: touch
        parameter:
          - name: filename
            value: '/home/ubuntu/first-touch'c
  
```

hackfest_simplecharm_vnfd.yaml

Day-1 Configuration

- The *touch* primitive is our action created in the simple charm.



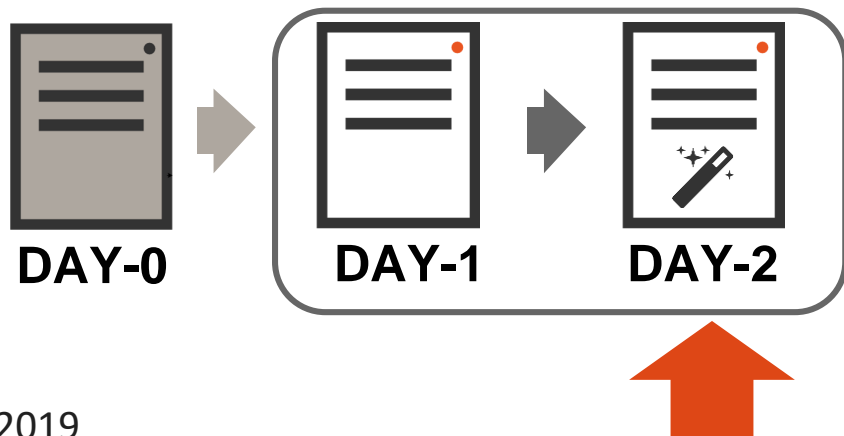
```

name: hackfest_proxymcharm-vnf
...
vnf-configuration:
  juju:
    charm: simple
    initial-config-primitive:
      - seq: '1'
        name: config
        parameter:
          - name: ssh-hostname
            value: <rw_mgmt_ip>
          - name: ssh-username
            value: ubuntu
          - name: ssh-password
            value: osm4u
      - seq: '2'
        name: touch
        parameter:
          - name: filename
            value: '/home/ubuntu/first-touch'c
  
```

hackfest_simplecharm_vnfd.yaml

Day-2 Configuration

- The *config-primitive* section contains the available on-demand actions for Day-2.
- Our same *touch* primitive is included for on-demand calls.



```
initial-config-primitive:
```

```
...
```

```
config-primitive:
```

```
- name: touch
```

```
  parameter:
```

```
    - name: filename
```

```
      data-type: STRING
```

```
      default-value: '/home/ubuntu/touched'
```

```
hackfest_simplecharm_vnfd.yaml
```

Generate descriptor

<devops-tools> is in devops/descriptor-packages/tools

```
$ <devops_tools>/validate_descriptor.py ./hackfest_proxycharm_vnfd.yaml
```

```
$ cp -r $JUJU_REPOSITORY/builds/simple ./charms/
```

```
$ cd ..
```

```
$ <devops_tools>/generate_descriptor_pkg.sh -t vnfd -N hackfest_proxycharm_vnf
```

IMPORT THE GENERATED VNF PACKAGE TO OSM



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NS Descriptor

NS Descriptor

- Download it: http://osm-download.etsi.org/ftp/osm-5.0-five/6th-hackfest/packages/hackfest_proxycharm_ns.tar.gz

IMPORT THE NS PACKAGE TO OSM



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Final Steps

Final Steps: Import VNF and NS

```
$ osm vnfd-list
```

```
+-----+-----+
| nfpkg name          | id                      |
+-----+-----+
| hackfest_proxycharm-vnf | 3f9294be-1e76-4717-be1f-6ad168551788 |
+-----+-----+
```

```
$ osm nsd-list
```

```
+-----+-----+
| nsd name            | id                      |
+-----+-----+
| hackfest_proxycharm-ns | 9481bd6c-41be-4315-a249-afb8eadea544 |
+-----+-----+
```

Final Steps: Deploy NS

New Instance

Name *

hackfest-proxycharm

Description *

Testing a simple proxycharm

Nsd Id *

hackfest_proxycharm-ns

Vim Account Id *

openstack2

SSH Key

Paste your key here...

Config

Yaml config

Final Steps: Execute action

Actions

i **👤** **🗑️** **Actions ▾**

- ✏️** Exec NS Primitive
- ☰** History of operations
- 🔔** New Alarm
- 📊** Export metric
- 🗑️** Force delete

Next

Perform Action ✕

Primitive:

VNF Member index:

Primitive parameters :

Name:

Value:

+

Cancel

Execute

Troubleshooting with Juju

`juju status`

`juju debug-log`

`lxc list` → To check if the proxy charms are getting an ip

`lxc exec <proxy-charm> bash`

`juju debug-hooks`

`juju run-action`

`juju show-action-status <uuid>`

`juju show-action-output <uuid>`

CANONICAL