ONAP Data Provider

Michał Jagiełło, Piotr Stanior
Deutsche Telekom

January 13th, 2022
Agenda

- Overview
- How it works
- Use cases
- Plans for the future
- Demo
- Q&A
ONAP Data Provider project aims to automate ONAP resources creation. This includes service instantiation, as well as ONAP objects, like cloud regions, complexes or customers. With this tool we can automate creation process on every ONAP instance, make it easier and more consistent. ODP can be also used to create desired resources on existing ONAP instance on demand, create objects that are necessary for specific use case, must be created only once etc.

https://gerrit.onap.org/r/admin/repos/integration/data-provider
Overview

Quick facts

• cli tool
• written in Python, based on Python ONAP SDK
• uses yaml format to declare resource definitions
Architecture

ONAP
OPEN NETWORK AUTOMATION PLATFORM

config file

yaml

ONAP Data Provider
Calls multiple Python functions

Python ONAP SDK
multiple REST API calls

ONAP services REST APIs

native commands, e.g., SQL, CQL

databases, e.g., MariaDB, Cassandra

YAML

Python

DLF NETWORKING
LFN Developer & Testing Forum
YAML object definitions

```
odpSchemaVersion: 1.0
resources:
  vendors:
    - vendor:
        name: &vendor sample-vendor
  vsps:
    - vsp:
        name: sample-vsp
        vendor: &vendor
        package: ubuntu.zip
  services:
    - service:
        name: sample-service-with-vf
        resources:
          - name: sample-vnf
            type: VF
    - service:
        name: sample-service-with-vf-and-properties
        resources:
          - name: sample-vnf
            type: VF
            properties:
              controller_actor: "CDS"
              skip_post_instantiation_configuration: False
              sdnc_artifact_name: "vnf"
              sdnc_model_version: "1.0.0"
              sdnc_model_name: "ubuntu20"
```
YAML object definitions

• Schema validation based on JSON
• Currently two schema versions (V1.0, V1.1)
• Backwards compatibility
• Supports multiple files
• Can use yaml features like anchors
• ODP handles creation order
Use cases

- automates creation of common data set for every ONAP installation, including objects such as complexes, customers etc.
- creation of resources for testing purposes
ODP runs natively on K8S in order to create common data set
Use cases

Service instantiation use case
Plans for the future

• update operations
• support more ONAP resources

Feel free to contribute! 😊
ONAP Data Provider

Resources

- integration/data-provider · Gerrit Code Review (onap.org)
- ONAP SDK documentation (python-onapsdk.readthedocs.io)
- OOM Meeting Notes - 2021-11-24 - How DT deploys ONAP with the help of Argo CD - Developer Wiki - Confluence (onap.org)
Q&A