



Extending CCSDK : Adding a new module

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Agenda

- This class will cover:
 - Overview of CCSDK
 - Steps needed to add a new module
 - How to test new module locally using docker-compose [DEMO]

First – what is CCSDK?

- The Common Controller SDK (CCSDK) is a set of libraries and tools used to create controllers.
 - In this context, we can divide controllers into 3 categories
 1. Controllers whose primary purpose is to manage and configure VNFs (APPC, SDNC)
 2. Controllers whose primary purpose is to monitor VNFs to detect key events (DCAE)
 3. Controllers whose primary purpose is to control the ONAP infrastructure itself (OOM)
 - CCSDK is intended to support all 3 types of controllers
 - Our discussion today is focused on the first category

CCSDK and OpenDaylight

SDNC and APP-C are both based on OpenDaylight, with extensions provided by CCSDK libraries.

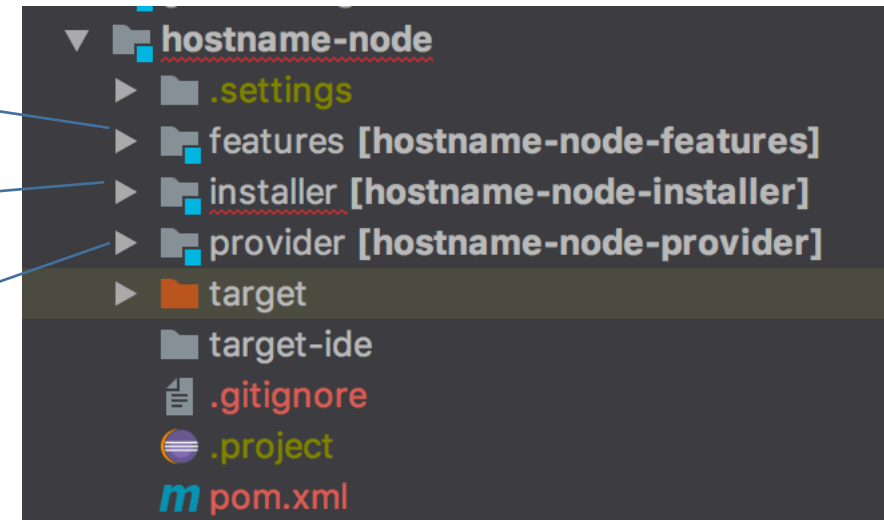
- OpenDaylight controller runs in Apache Karaf container
- CCSDK functionality is exposed as OSGi functions
 - Each CCSDK module is packaged as jar file, wrapped as an OSGi feature
 - Each CCSDK repository has a features aggregator (e.g. ccsdk-sli-plugins-all) that contains all features in that repository
 - The CCSDK docker container for the OpenDaylight controller (odlsli) is configured to install all the CCSDK repo aggregator features at container boot time.

Directory structure of CCSDK module

features: Defines OSGi feature and its dependencies

installer: Creates installation bundle

provider: Contains implementation



Steps needed to define new module

- In new module provider directory:
 - Implement the function(s), including junit tests.
 - Advertise what OSGi services are provided and consumed (via Aries blueprint)
- In new module features directory:
 - Declare functions provided and functional dependencies (features directory)
- In new module installer directory:
 - Create installation bundle (zip file)
- In repo 'features' directory (feature aggregator):
 - Add new feature as dependency of feature aggregator
- In ccSDK/distribution:
 - Add new installer as dependency of odlcli/odlcli-alpine and odlcli/odlcli-ubuntu

DEMO

- Walkthrough code for simple plugin that returns hostname (hostname-node)
- Demonstrate how to test new module in local docker environment