CLAMP R1 Amsterdam Release - M1 Release Planning

Overview

Project Name	Enter the name of the project
Target Release Name	Amsterdam Release
Project Lifecycle State	Incubation.(Refer to ONAP Charter, section 3.3 Project Lifecycle for further information)
Participating Company	AT&T, Amdocs, Reliance Jio, ZTE.

Scope

What is this release trying to address?

CLAMP is a platform for designing and managing control loops. It is used to design a closed loop, configure it with specific parameters for a particular network service, then deploying and undeploying it. Once deployed, the user can also update the loop with new parameters during run time, as well as suspending and restarting it

Use Cases

The use cases that this release is targeted for are the management of the control loops for : vDNS, vFW, vVoLTE, vCPE

Minimum Viable Product

The minimum viable product that we aim to reach within R1 is to have the CLAMP application at least manage one type of control loop: vDNS and/or vFW (use case).

Functionalities

List the functionalities that this release is committing to deliver by providing a link to JIRA Epics and Stories. In the JIRA Priority field, specify the priority (either High, Medium, Low). The priority will be used in case de-scoping is required. Don't assign High priority to all functionalities.

Epics

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
CLAMP-1011	Release Planning		Dec 12, 2020	Dec 17, 2020	Jan 11, 2021	Unassigned	None		CLOSED	Won't Do
CLAMP-973	Release Candidate 2 Integration and Test		Nov 06, 2020	Nov 27, 2020	Nov 19, 2020	Unassigned	None		CLOSED	Done
CLAMP-958	Release Candidate 1 Integration and Test		Oct 22, 2020	Nov 27, 2020	Nov 05, 2020	Unassigned	None		CLOSED	Done
CLAMP-936	Release Candidate 0 Integration and Test		Sep 18, 2020	Oct 19, 2020	Oct 08, 2020	Unassigned	None		CLOSED	Done
CLAMP-916	Code Freeze		Aug 14, 2020	Sep 24, 2020	Sep 10, 2020	Unassigned	None		CLOSED	Done
CLAMP-901	Functionality and API Freeze		Jul 21, 2020	Sep 07, 2020	Aug 06, 2020	Unassigned	None		CLOSED	Done
CLAMP-880	TSC must have for Guilin release		Jun 26, 2020	Nov 04, 2020		Unassigned	None		CLOSED	Done
CLAMP-869	Release Planning		Jun 20, 2020	Jul 27, 2020	Jul 09, 2020	Unassigned	None		CLOSED	Done
CLAMP-859	Self serve control loop work continued...		May 27, 2020	Jun 29, 2020		Unassigned	None		OPEN	Unresolved
CLAMP-837	Release Candidate 2 Integration and Test		Apr 21, 2020	May 27, 2020	May 14, 2020	Unassigned	None		CLOSED	Done
CLAMP-834	Release Candidate 1 Integration and Test		Apr 21, 2020	May 05, 2020	Apr 30, 2020	Unassigned	None		CLOSED	Done
CLAMP-683	Test Epic		Jun 29, 2018	Mar 09, 2020		Unassigned	None		CLOSED	Done
CLAMP-681	Release Foo container		Apr 21, 2019	Jun 30, 2023		Unassigned	None		CLOSED	Done
CLAMP-679	Release planning milestone		Jul 17, 2019	Mar 09, 2020	Jul 19, 2019	Unassigned	None		CLOSED	Done
CLAMP-671	ONAP on AWS		Jun 18, 2017	Mar 09, 2020		Unassigned	None		CLOSED	Done
CLAMP-670	Testing Affected version mandatory		Jan 05, 2018	Feb 23, 2022		Unassigned	Jessica Wagantall		CLOSED	Won't Do
CLAMP-657	Release Candidate 0 Integration and Test		Mar 01, 2020	Apr 03, 2020	Mar 26, 2020	Unassigned	None		CLOSED	Done
CLAMP-631	Code Freeze		Jan 31, 2020	Mar 04, 2020	Mar 05, 2020	Unassigned	None		CLOSED	Done
CLAMP-623	SECCOM or related work		Jan 21, 2020	Apr 27, 2020		Unassigned	None		CLOSED	Done

CLAMP -601	The subsequent stories are generated per group id of outdated dependencies		Jan 21, 2020	Jul 02, 2020		Unassigned	None		CLOSED	Done

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Stories

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
CLAMP -1022	Add external_port in k8s-tcagen2-clampnode.yaml blueprint		Mar 05, 2021	Mar 07, 2021		Unassigned	None		OPEN	Unresolved
CLAMP -945	update default certificate		Sep 23, 2020	Sep 26, 2020		Unassigned	None		CLOSED	Done
CLAMP -912	View Tosca Blueprint "# Instances" shows -1		Jul 27, 2020	Jun 15, 2021		Unassigned	None		CLOSED	Done
CLAMP -896	When creating a new Loop Instance block re-use of existing names		Jul 07, 2020	Oct 14, 2020		Unassigned	None		CLOSED	Done
CLAMP -895	Support disabling of Loop Instance Properties "Save" button		Jul 07, 2020	Oct 14, 2020		Unassigned	None		CLOSED	Done
CLAMP -894	Provide mechanism to block user from selections during certain interactions with back end		Jul 06, 2020	Oct 14, 2020		Unassigned	None		CLOSED	Done
CLAMP -890	Create REST interface towards Design Time Catalogue		Jul 06, 2020	Nov 20, 2020		Unassigned	None		CLOSED	Done
CLAMP -889	Create Design Time Catalogue for control loops		Jul 06, 2020	Oct 29, 2020		Unassigned	None		CLOSED	Done
CLAMP -888	Create a TOSCA definition for a Control Loop (and its components)		Jul 06, 2020	Oct 29, 2020		Unassigned	None		CLOSED	Done
CLAMP -885	CLAMP update documentation		Jun 29, 2020	Jul 01, 2020		Unassigned	None		CLOSED	Done
CLAMP -884	CLAMP continue removal of hardcoded pwd		Jun 26, 2020	Sep 26, 2020		Unassigned	None		CLOSED	Done
CLAMP -883	CLAMP containers must use only approved base image		Jun 26, 2020	Sep 25, 2020		Unassigned	None		CLOSED	Done
CLAMP -882	CLAMP containers in nexus muist not contain upstream docker images		Jun 26, 2020	Sep 25, 2020		Unassigned	None		CLOSED	Done
CLAMP -881	CLAMP containers must crash properly when a failure occurs		Jun 26, 2020	Jul 30, 2020		Unassigned	None		CLOSED	Done
CLAMP -868	CLAMP will support export and import of a control loop's policies		Jun 16, 2020	Oct 13, 2020		Unassigned	None		IN PROGRESS	Unresolved
CLAMP -867	CLAMP will maintain policy versions		Jun 16, 2020	Oct 13, 2020		Unassigned	None		OPEN	Unresolved
CLAMP -863	Display policy configuration validation errors in alert window		Jun 08, 2020	Oct 14, 2020		Unassigned	None		CLOSED	Done

CLAMP-862	When deleting a control loop model, user should be prompted with confirm		Jun 08, 2020	Oct 14, 2020	Unassigned	None		CLOSED	Done
CLAMP-858	CLAMP add support for onap.policies.native Policy Types		May 27, 2020	Oct 12, 2020	Unassigned	None		CLOSED	Done
CLAMP-855	download mariadb-galera image from original source and not from nexus3		May 26, 2020	Sep 09, 2020	Unassigned	None		CLOSED	Done

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Longer term roadmap

Indicate at a high level the longer term roadmap. This is to put things into the big perspective.

The long term goal is to reach a common platform for managing control loops within ONAP :

CLAMP is a platform for designing and managing control loops. It is used to design a closed loop, configure it with specific parameters for a particular network service, then deploying and undeploying it. Once deployed, the user can also update the loop with new parameters during runtime, as well as suspending and restarting it.

It interacts with other systems to deploy and execute the closed loop. For example, it pushes the control loop design to the SDC catalog, associating it with the VF resource. It requests from DCAE the instantiation of microservices to manage the closed loop flow. Further, it creates and updates multiple policies in the Policy Engine that define the closed loop flow.

The ONAP CLAMP platform abstracts the details of these systems under the concept of a control loop model. The design of a control loop and its management is represented by a workflow in which all relevant system interactions take place. This is essential for a self-service model of creating and managing control loops, where no low-level user interaction with other components is required.

At a higher level, CLAMP is about supporting and managing the broad operational life cycle of VNFs/VMs and ultimately ONAP components itself. It will offer the ability to design, test, deploy and update control loop automation - both closed and open. Automating these functions would represent a significant saving on operational costs compared to traditional methods.

Release Deliverables

Indicate the outcome (Executable, Source Code, Library, API description, Tool, Documentation, Release Note...) of this release.

Deliverable Name	Deliverable Description	Deliverable location
CLAMP Docker container	Docker images available on nexus3	Nexus3 docker registry
Source Code	Code of the Designer and run time of CLAMP	CLAMP git repository
Deployment scripts	Scripts that can be used to help with the container instantiation and configuration	CLAMP git repository
Property Files	Properties files that can be used to tune the configuration of CLAMP depending on the environment	CLAMP git repository

Sub-Components

There is no currently no sub-components in CLAMP, the R1 application embeds both the designer and runtime parts.

ONAP Dependencies

The other ONAP projects CLAMP depends on are:

- **SDC** : Rest based interface exposed by the SDC, Distribution of service to DCAE
- **DCAE**: Rest based interface exposed by DCAE, Common Controller Framework, DCAE microservices onboarded (TCA, Stringmatch, Holmes (optional))

- **Policy**: Rest based interface (the Policy team provide a "jar" to handle the communication), both XACML and Drools PDP, APIs to App-C/VF-C /SDN-C
- **DMaaP**: Message bus within DCAE and cross-ONAP
- **VNF use cases** : defines what type(s) of control loop(s) can be implemented and configured by CLAMP

Architecture

High level architecture diagram

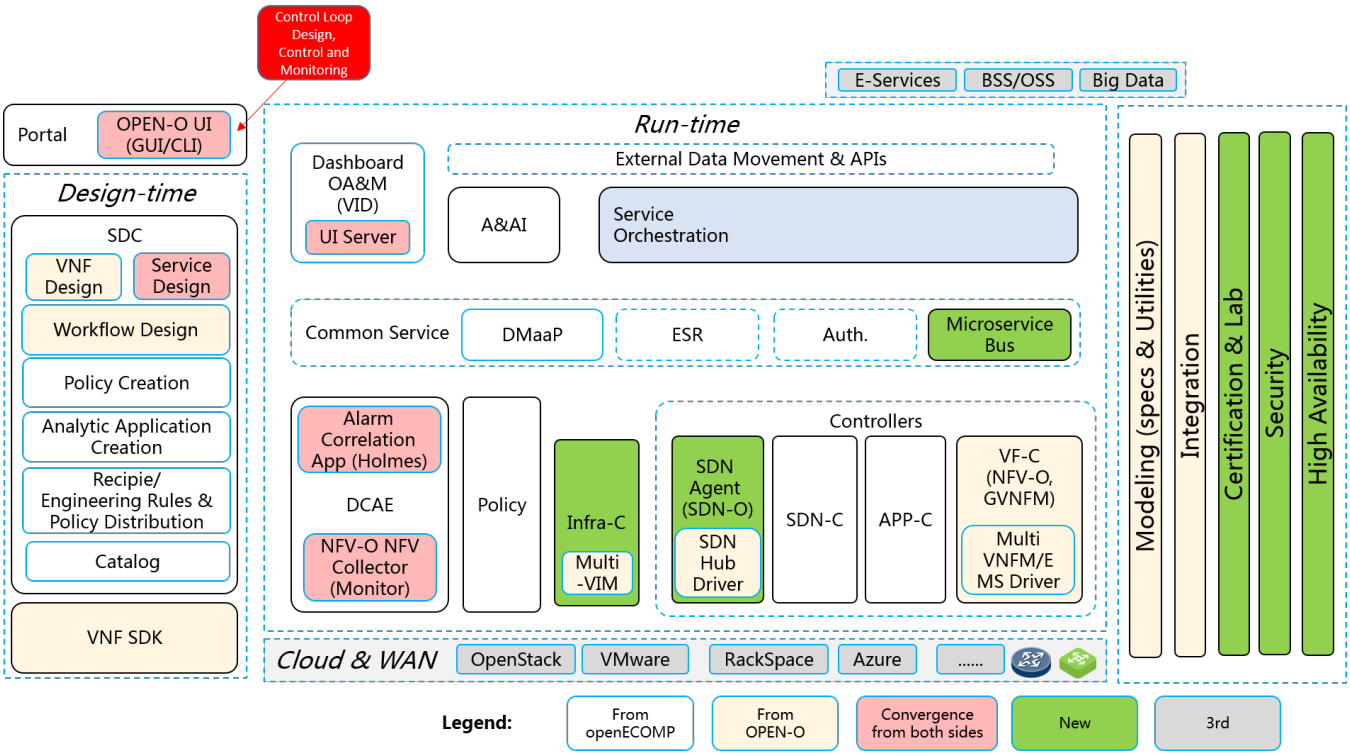
At that stage within the Release, the team is expected to provide more Architecture details describing how the functional modules are interacting.

Block and sequence diagrams showing relation within the project as well as relation with external components are expected.

Anyone reading this section should have a good understanding of all the interacting modules.

Architecture

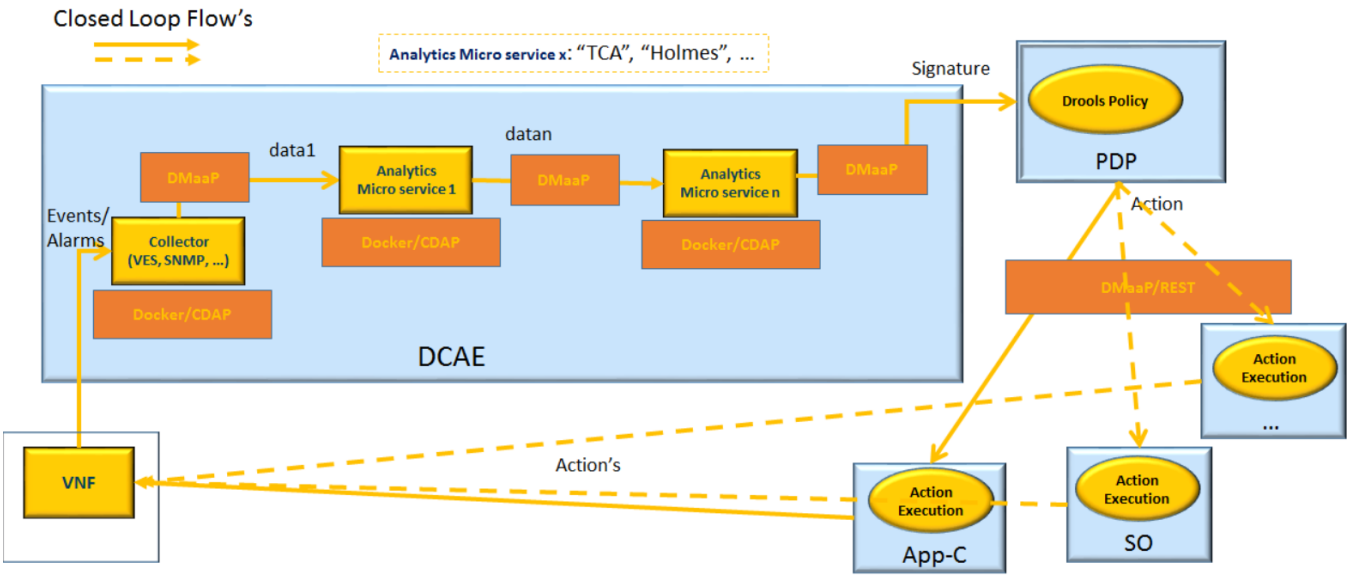
- Below we show how the CLAMP application fits into ONAP. The red figure below shows the CLAMP application components. There is a design portion and an operations component, which are both deployed within ONAP portal.



•**CLAMP** is separated in 2 areas, which are currently (in seed code) both supported by a single application:

1. **Design Time**(Cockpit/UI to define the templates)
    a. Templates are pushed to SDC. The template format is **TOSCA** blueprint, those blueprints will be pushed/provisioned, by SDC, to DCAE orchestration engine.
    b. policies (configuration and operational policies) are pushed/provisioned towards the Policy Component of ONAP. (those policies will be triggered by DCAE during Closed Loop operations).
        i. The DCAE team needs to provide models to Policy team in order for the Configuration policy to be built.
2. **Run time**(DCAE-Policy, grabbing events and triggering policies based actions)
    a. In the first release of CLAMP, the triggering to deploy(and then effectively start the closed loop) a blueprint will be manual (via CLAMP cockpit) an automatic deployment based on an event will come in future release.
    b. The CLAMP cockpit will support the following action at runtime:
        i. start (start the provisioned Closed Loop on DCAE)
        ii. stop (stop a provisioned Closed loop on DCAE)

CLAMP will thus control the typical following control loop flow within ONAP :



API Incoming Dependencies

List the API this release is expecting from other ONAP component(s) releases.
Prior to Release Planning review, Team Leads must agreed on the date by which the API will be fully defined. The API Delivery date must not be later than the release API Freeze date.

Prior to the delivery date, it is a good practice to organize an API review with the API consumers.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e. swagger)
To fill out	API exposed by SDC to get list of Alarms and service information's	Date for which the API is reviewed and agreed	To fill out	Link toward the detailed API description
	API exposed by SDC to publish Closed Loop template going to DCAE			
	API exposed by Policy to create/update policies			
	API exposed by DCAE to start/stop a Closed Loop			
	API exposed by DCAE to trigger the deployment/undeployment of a Control Loop template			
	API exposed by DCAE to get status of a Closed Loop			

API Outgoing Dependencies

API this release of CLAMP is delivering to other ONAP Component(s) releases.

API Name	API Description	API Definition Date	API Delivery date	API Definition link (i.e.swagger)
N/A				

Third Party Products Dependencies

Third Party Products mean products that are mandatory to provide services for your components. Development of new functionality in third party product may or not be expected.
List the Third Party Products (OpenStack, ODL, RabbitMQ, ElasticSearch,Crystal Reports, ...).

Name	Description	Version
AJSC	java container	6
AJSC-Camunda	Camunda integration into AJSC	6

Docker	Container engine	1.12
MariaDB	database container	10.1.11
Spring boot	Spring boot Framework dependencies	1.4.1

In case there are specific dependencies (Centos 7 vs Ubuntu 16. Etc.) list them as well.

Testing and Integration Plans

Provide a description of the testing activities (unit test, functional test, automation,...) that will be performed by the team within the scope of this release.

Describe the plan to integrate and test the release deliverables within the overall ONAP system.
Confirm that resources have been allocated to perform such activities.

Gaps

This section is used to document a limitation on a functionality or platform support. We are currently aware of this limitation and it will be delivered in a future Release.
List identified release gaps (if any), and its impact.

Gaps identified	Impact
Testing/Integration	limited testing of final product

Known Defects and Issues

Provide a link toward the list of all known project bugs.

Key	Summary	T	Created	Updated	Due	Assignee	Reporter	P	Status	Resolution
CLAMP-1030	Python Code Updates: Clamp (CLAMP)		May 15, 2023	Jun 06, 2023		Unassigned	Matthew Watkins		CLOSED	Won't Do
CLAMP-1029	Authentication failed when "Upload Tosca to commissioning"		Jan 26, 2022	Jan 31, 2022		Saul Gill	None		CLOSED	Done
CLAMP-1028	Fix issue in event handling between CI runtime and participants		Aug 26, 2021	Aug 31, 2021		Francesco Fiora	Francesco Fiora		CLOSED	Done
CLAMP-1027	Policy Creation Though UI is failing		Aug 19, 2021	Sep 16, 2021		Unassigned	None		CLOSED	Done
CLAMP-1018	After the service was created successfully, the csar file was distributed, but the deploy failed at the clamp.		Jan 21, 2021	Feb 24, 2021		Unassigned	None		CLOSED	Done
CLAMP-1017	It looks that the Clamp basic /auth is not working in Guilin		Jan 13, 2021	Jan 27, 2021		Unassigned	None		CLOSED	Done
CLAMP-977	Tca microservice yaml must be updated in python sdk tests		Nov 09, 2020	Nov 10, 2020		Unassigned	None		CLOSED	Done
CLAMP-962	CLAMPvideos-DesignpartinSDC reference media files are unable to open		Nov 02, 2020	Nov 11, 2020		Unassigned	None		CLOSED	Done
CLAMP-957	CLAMP CSITs for master are testing images from El-Alto		Oct 21, 2020	Apr 29, 2021		Unassigned	None		CLOSED	Won't Do
CLAMP-956	Not able to connect to clamp with creds defined in AAF		Oct 14, 2020	Oct 23, 2020		Unassigned	None		CLOSED	Done
CLAMP-955	Clamp is not sending the component DONE ok to SDC		Oct 12, 2020	Oct 12, 2020		Unassigned	None		CLOSED	Done

CLAMP-954	Dcae deployment get status fails in 403 Forbidden		Oct 09, 2020	Oct 09, 2020	Unassigned	None		CLOSED	Done
CLAMP-947	Clamp dockers contain GPLv3		Sep 25, 2020	Oct 01, 2020	Unassigned	None		CLOSED	Done
CLAMP-946	Unit test fails due to test cleanup		Sep 25, 2020	Nov 04, 2020	Unassigned	None		CLOSED	Done
CLAMP-944	CLAMP build fails with python timeout in docker		Sep 22, 2020	Sep 22, 2020	Unassigned	None		OPEN	Unresolved
CLAMP-934	Clamp has java 8 pods		Sep 10, 2020	Sep 30, 2020	Unassigned	None		CLOSED	Done
CLAMP-933	clamp has python 2.7 pods		Sep 10, 2020	Sep 25, 2020	Unassigned	None		CLOSED	Done
CLAMP-914	Clamp react ui to use url pathname dynamically instead of hardcoded prefix for calling apis		Jul 30, 2020	Oct 26, 2020	Unassigned	None		CLOSED	Done
CLAMP-910	Clamp backend create loop endpoint can overwirte an existing loop		Jul 27, 2020	Oct 13, 2020	Unassigned	None		OPEN	Unresolved
CLAMP-900	Fix audit, metric and error logs as per logging specification		Jul 21, 2020	Oct 26, 2020	Unassigned	None		CLOSED	Done

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Risks

List the risks identified for this release along with the plan to prevent the risk to occur (mitigation) and the plan of action in the case the risk would materialized (contingency).

Risk identified	Mitigation Plan	Contingency Plan
To fill out	To fill out	To fill out

Resources

Link toward the Resources Committed to the Release centralized page.

Release Milestone

The milestones are defined at the Release Level and all the supporting project agreed to comply with these dates.

Team Internal Milestone

This section may be used to document internal milestones that the team agreed on.

Also, in the case the team has made agreement with other team to deliver some artifacts on a certain date that are not in the release milestone, provide these agreements and dates in this section.

It is not expected to have a detailed project plan.

Date	Project	Deliverable
To fill out	To fill out	To fill out

Documentation, Training

- Highlight the team contributions to the specific document related to he project (Config guide, installation guide...).

- Highlight the team contributions to the overall Release Documentation and training asset
- High level list of documentation, training and tutorials necessary to understand the release capabilities, configuration and operation.
- Documentation includes items such as:
    - Installation instructions
    - Configuration instructions
    - Developer guide
    - End User guide
    - Admin guide
    - ...

> **Note**
>
> The Documentation project will provide the Documentation Tool Chain to edit, configure, store and publish all Documentation asset.

Other Information

Vendor Neutral

If this project is coming from an existing proprietary codebase, ensure that all proprietary trademarks, logos, product names, etc. have been removed. All ONAP deliverables must comply with this rule and be agnostic of any proprietary symbols.

Free and Open Source Software

FOSS activities are critical to the delivery of the whole ONAP initiative. The information may not be fully available at Release Planning, however to avoid late refactoring, it is critical to accomplish this task as early as possible.
List all third party Free and Open Source Software used within the release and provide License type (BSD, MIT, Apache, GNU GPL,...).
In the case non Apache License are found inform immediately the TSC and the Release Manager and document your reasoning on why you believe we can use a non Apache version 2 license.

Each project must edit its table within the [[Free_and_Open_Source_Software#Project_Licenses| Master Project License Table]].

OpenSource_CLAMP_V1.xlsx

Charter Compliance

The project team comply with the ONAP Charter.

Release Key Facts

Fill out and provide a link toward the centralized Release Artifacts.