

# VF-C: Virtual Function Controller (5/16/17)

## Project Name:

- Proposed name for the project: VF-C
- Proposed name for the repository: vfc

## Project description:

As part of the integration between OpenECOMP and OPEN-O, this proposed project VF-C leverages ETSI NFV MANO architecture and information model as a reference, and implements full life cycle management and FCAPS of VNF and NS.

- support NS and VNF lifecycle management based on the ONAP tosca and yang data model and workflow
- support integration with multi VNFM via drivers, which include vendors VNFM and generic VNFM
- support integration with multi VNFS via generic VNFM, which does not provide VNFM function
- support integration with multi VIMS via Multi-VIM, which include the opensource and commercial VIMS
- support microservice architecture and model driven resource orchestration and management

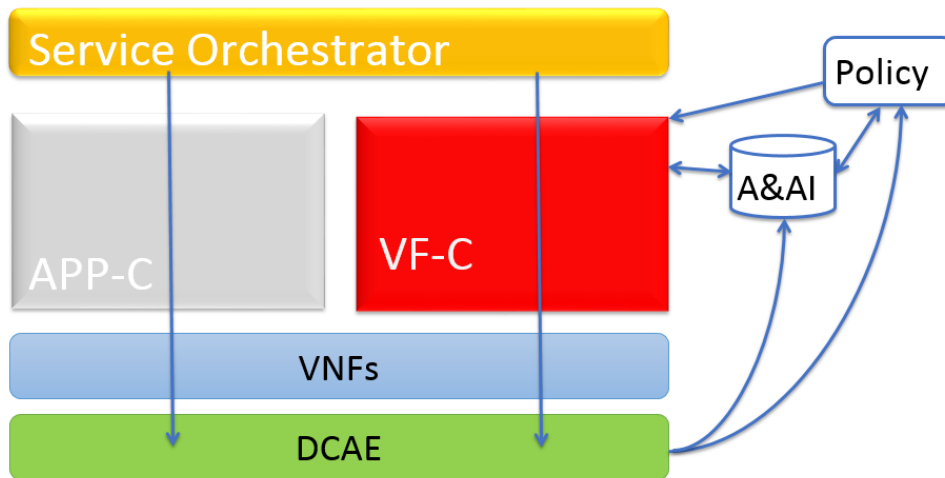
## Scope:

The project scope provides the full intended scope of the VF-C; not just what is intended for the first release.

- Describe the functionality proposed.
  - NFV-O Component,
    - compliant with ETSI NFV MANO architecture and information model,
    - providing resource orchestration and full life cycle management and FCAPS for NS,
    - providing standard south bound interface to VNFMs,
    - providing north bound interface to SO, to take part in fulfilling the orchestration and operation of end2end service,
    - providing interface and work with DCAE and Policy for Close Loop Automation.
  - VNFM Component,
    - compliant with ETSI NFV MANO architecture and information model
    - providing full life cycle management and FCAPS for VNFs which do not require a vendor VNFM,
    - providing interface and work with NFV-O component, to take part in fulfilling the LCM and FCAPS management of NS,
    - providing interface and work with DCAE and Policy for Close Loop Automation.
- Specify any interface/API specification proposed,
  - Provide interfaces to Policy
  - Provide interfaces to SO
  - Provide interfaces to Portal/VID
  - Provide interfaces to Vendor VNFM
  - Use vendor VNFM interfaces
  - Use Multi-VIM interfaces
  - Use A&AI interfaces
  - Use SDC interfaces
- Identify a list of features and functionality will be developed.
  - features
    - compliant with ETSI NFV MANO architecture and information model
    - providing standard south bound interface to VNFMs
    - take part in end2end service orchestration by working with SO
    - take part in close loop automation by working with DCAE and Policy
  - functionalities
    - resource orchestration and full life cycle management and FCAPS for NS
    - full life cycle management and FCAPS for VNFs
- Identify what is in or out of scope. During the development phase, it helps reduce discussion.
  - end2end service orchestration is out of scope for VF-C
- Identify the usecase in the Release 1
  - ~~(obsolete)~~Use Case: VoLTE (vIMS + vEPC)
    - VNF onboarding
    - Network service deployment automation
    - Network service termination automation
    - Framework for integration with vendor provided VNFM

## Architecture Alignment:

- How does this project fit into the rest of the ONAP Architecture?
  - Please Include architecture diagram if possible



- What other ONAP projects does this project depend on?
  - Projects depend on: SDC, A&AI, DCAE, Common Service, Modeling and Multi-Vim
  - Interfaces provided to: Policy, SO, VID, portal
  - Note:
  - VF-C will align to the ONAP modeling project defined data model(TOSCA/Yang) and information model.
  - Now the VF-C seed code doesn't depend on the common controller framework project. We will collaborate with common controller framework to identify the potential dependency in the future.
- How does this align with external standards/specifications?
  - VF-C takes the following specifications as a reference.
  - APIs/Interfaces: ETSI NFV IFA 007, ETSI NFV IFA 008, ETSI NFV SOL 005 – additional API may be required
  - Information/data models: ETSI NFV IFA 015, ETSI NFV SOL 001, ETSI NFV SOL 004 – additional API may be required
- Are there dependencies with other open source projects?
  - WSO2: BPMN workflow engine.
  - ARIA: TOSCA Parser.

## Resources:

- Primary Contact Person  
Lingli Deng ([denglingli@chinamobile.com](mailto:denglingli@chinamobile.com))
- Names, gerrit IDs, and company affiliations of the committers

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- Project Roles (include RACI chart, if applicable)

## Other Information:

- link to seed code (if applicable)
  - git clone <https://gerrit.open-o.org/r/nfvo>
  - git clone <https://gerrit.open-o.org/r/gvnfm-vnflcm>
  - git clone <https://gerrit.open-o.org/r/gvnfm-vnfmgr>
  - git clone <https://gerrit.open-o.org/r/gvnfm-vnfres>
- link to documents of seed code
  - <https://wiki.open-o.org/display/NFVO>
  - <https://wiki.open-o.org/display/GVNFM>
- Vendor Neutral
  - if the proposal is coming from an existing proprietary codebase, have you ensured that all proprietary trademarks, logos, product names, etc., have been removed?
- Meets Board policy (including IPR)

Use the above information to create a key project facts section on your project page

## Key Project Facts

### Project Name:

- JIRA project name: Virtual Function Controller
- JIRA project prefix: vfc-

### Repo name:

- vfc/nfvo
- vfc/gvnfm

**Lifecycle State:** incubation

**Primary Contact:** Lingli Deng(CMCC)

**Project Lead:** Lingli Deng(CMCC)

**mailing list tag** [vfc]

### Committers:

Please refer to the table above.

\*Link to TSC approval:

**Link to approval of additional submitters:**

## Collaboration:

- Meeting: weekly friday 10:00-11:00 Beijing Time, zoomid: [621738721](#)
- IRC - [link](#) TBA