

# XCI

## Project Name:

- Proposed name for the project: XCI
- Proposed name for the repository: xci

## Project Description:

Cross CI (XCI) is an integration project in OPNFV to support integration and deployment of the NFVi Reference Platform for OPNFV end-users in a continuous, repeatable, reproducible, and traceable manner. The mission of XCI project is to ensure that the delivered NFVi Reference Platform fully meets end-user's needs. XCI will take user-driven approach and fully support the installer that implement the common NFVi specification developed by CNTT (Common NFVi Telco Task Force). In addition, XCI will provide means to support use cases and test suites developed by CNTT, OPNFV testing projects, and LFN that is needed for both NFVi platform quality assurance and VNF Certification.

XCI team will collaborate with other OPNFV projects, especially testing projects, as well as sister communities such as OpenStack and CNCF, in its daily work such as development of the XCI framework, integration of components, testing, deployment, release and the documentation.

The framework developed and provided by XCI enables the use of toolchain from upstream communities to provision virtual and baremetal resources and install OpenStack, Kubernetes, SDN Controllers and other components on provisioned resources. The selected toolchain and the XCI framework makes it possible to deploy components from the trunk of upstream communities as well as from the stable branches. The framework enables and ensures the actual feature development and integration of components of the NFVi Reference Platform is directly done within upstream projects.

Currently, XCI framework supports OpenStack Bifrost for Node Provisioning, Kubespray for Kubernetes installation, and OpenStack Ansible for OpenStack installation. XCI team is actively working on supporting OpenStack-Helm.

Other than what has been supported and is being worked on in XCI framework, the selection of, and any changes to, the toolchain components is intended to be market-driven to ensure that deliverables fully meet end-user's needs. This will sustain the deliverables on top of the market in long term. Those selection and/or changes should be agreed by XCI Project Committers first, endorsed through weekly technical community discussion and approved by TSC.

XCI project follows DevOps, Continuous Integration (CI) and Continuous Delivery (CD) principles and best practices by applying gating, promotion, and confidence level mechanisms to ensure what is developed and tested always satisfies the criterias set forth by OPNFV Release Process in collaboration with OPNFV Test Working Group.

Collaboration and close cooperation with upstream communities such as LFN, OpenStack, and CNCF is at the core of XCI and it will continue to be.

## Scope:

- Develop and maintain the XCI framework that enables the use of the provisioning and deployment tools.
- Assist and work with OPNFV projects to ensure integration and enablement of different components and features as specified by developer and end user communities such as CNTT into NFVi Reference Platform through XCI framework.
- Provide guidance to OPNFV community with regards to the toolchain from integration point of view.
- Work with OPNFV test projects to ensure the testing and validation done against SUT satisfies the quality criterias set forth by OPNFV Test Working Group and OPNFV Release Process.
- Collaborate with OPNFV Pharos project and OPNFV Infra Working Group to ensure POD Descriptor File (PDF) and Installer Descriptor File (IDF) are natively supported.
- Work with OPNFV Release Engineering (Releng) Project to create jobs and construct CI/CD pipelines that follows DevOps, CI/CD principles and employs best practices.
- Create the documentation using OPNFV Documentation Project and make it available under official OPNFV Documentation portal.
- Collaborate with and contribute to Release Working Group to help establish an appropriate release process.
- Assist OVP for VNF Certification.
- Explore and evaluate new technologies and tools as needed by market, and seek endorsement by technical community and approval by TSC

## Testability:

XCI will follow and adhere to the gate and quality criterias set by OPNFV Test Working Group and Release Process.

## Documentation:

XCI Documentation will be available on official OPNFV Documentation portal.

## Dependencies:

- OPNFV feature projects for feature integration.
- OPNFV Test Working Group and OPNFV Release Process for quality criterias, OPNFV Functest, OPNFV Yardstick for test frameworks and test cases.
- OPNFV Infra Working Group, OPNFV Releng, OPNFV Pharos for PDF/IDF, infrastructure support, CI/CD jobs & pipelines.
- OPNFV documentation.
- OPNFV Dovetail, OVP, LFN VNF Compliance Testing for requirements.
- End-user communities such as CNTT for specifications, use cases, test cases and requirements.
- OpenStack Bifrost & Ironic, OpenStack Ansible, CNCF Sigs Kubespray, and OpenStack-Helm for node provisioning and stack installations.

## Planned Deliverables:

- Automation Framework that enables the use of upstream toolchains to deploy OPNFV platform which meets the quality criterias set by Test WG and Release Process.
- Support on deploying virtual and baremetal resources.
- CI/CD Pipelines.
- Developer and user sandbox.
- Documentation.

## Committers and Contributors:

### Committers

- FuQiao, China Mobile
- Liwenxiao, China Mobile
- Markos Chandras, SUSE
- Manuel Buil, SUSE
- Daniel Balsiger, Swisscom
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### Contributors

- TBD

## Key Project Facts

**Project Name:** XCI

**Repo name:** xci

**Lifecycle State:** Proposal

**Project Category:** Integration and testing

**Primary Contact:** Fatih Degirmenci

**Project Lead:** Fatih Degirmenci

**Jira Project Name:** XCI

**Jira Project Prefix:** [XCI]

**Mailing list tag** [xci]

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