Common NFVI Telco Taskforce
Antwerp Face-To-Face Sessions

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Reference Implementation (RI)

September 2019

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Discussion Outline*

Mission & Vision
- Objectives

Progress & Timeline
- RI Alignment

Project Proposal (CNTT RI)
- Goals | Scope | Documentation
- Committers | Contributors

OVP Framework & LFN Expectation of CNTT-RI

Working Items for CNTT-RI
- Installer Options
- Pipeline
- Workgroup

Keys For Success

**Challenges*: *Narrow Committer List, Req Gathering Templates, Release Alignment, OVP Framework Process, …?*

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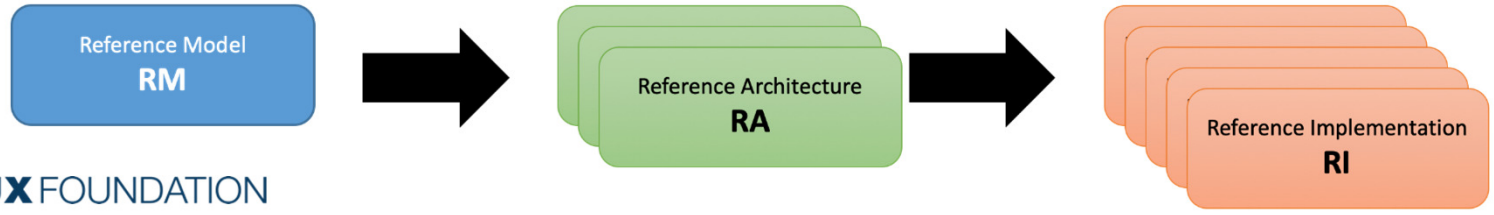
Vision

Mission

RI will represent a physical manifestation of a defined Reference Architecture which is used for lab build-out in support of NFVI+VNF verification and validation.

Objectives

- **Create NFVI reference implementations (RI)** based on the Common NFVI reference model (RM) and reference architectures (RA) defined in CNTT (Common NFVI for Telco Taskforce).
- Work with upstream communities and related projects in OPNFV to **identify / create required test cases and test frameworks.**
- Work with relevant projects in OPNFV to integrate, **deploy and test RIs as part of OPNFV release life-cycle.**
- This project intends to **follow and adhere to the gates and quality criteria** used by OPNFV.



Progress & Timeline

Goal:

*Initiate project **proposal** to formalize **communication**, define **deliverables**, and review **lab** and test project **opportunities***

Define & Align:

- ***Draft Validation Strategy***
- ***Submitted Project Proposal***
- *Defined deliverables*
- *Created communications model between CNTT and OPNFV & CVC*
- *Straw Man **Infrastructure Labs Requirements** (High Level)*

Goal:

*Community alignment on foundational aspects and straw man; begin **deeper dive into Implementation Roadmap***

Align:

- *Project Deliverables*
- ***Straw Man Lab Requirements***
- ***OVP Validation Framework***
- *PDF/SDF Modifications needed*

Define:

- ***Delivery dates and resources needed for Lab Setup and TC Refinement***

Goal:

*Task Force **alignment on detail for Reference Implementation**, including Labs and Validation Scenarios*

Define & Align

- ***Receipt Initial Reference Architecture(s) (Detail)** with supporting Open Source solutions*
- ***Deliver Lab and Test Case Requirements***
- *Begin to incorporate / align with Reference Implementation delivery:*
  - *Deployment (Lab Setup)*
  - ***Validations (OVP / CVC)***

Submit Project Proposal – 8/23

Approved Project Proposal – 9/17

Launch RA – 9/27

Setup Lab – 1/31

Complete RI Validations – 3/31

July 9 – August 25

August 26 – September 27

October 1 – March 31

Project Proposal

Reference Implementation for Common NFVI Telco Taskforce (CNTT)

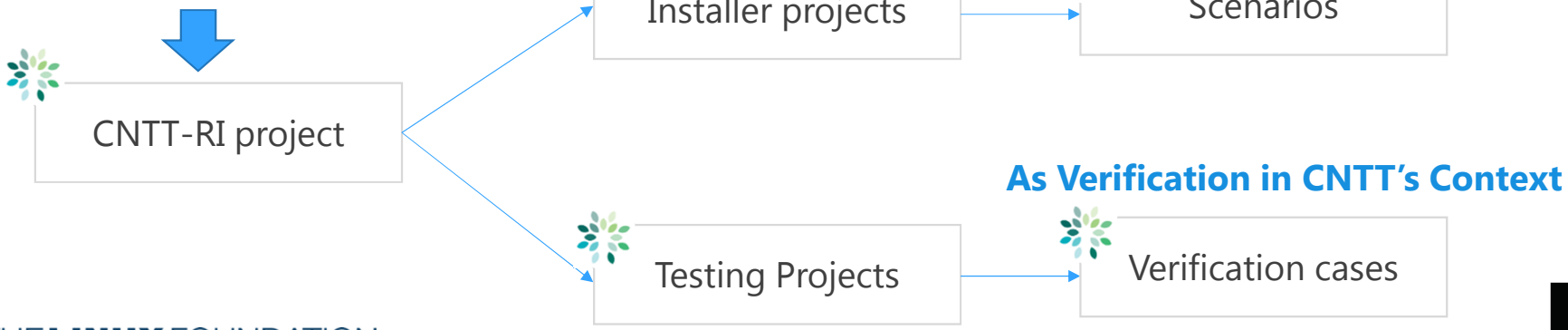
Project Name: CNTT-RI

Proposed Release Schedule: First Release in 1Q2020

Project Lead: Mike Fix (AT&T) - active CNTT member

Goal: *Landing place for CNTT's work in OPNFV; Triggering the following progress within OPNFV*

Flow



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Project Proposal

OPNFV Scope

- The project will act as the landing space for CNTT RA within OPNFV, and will be a **starting point for creating RIs**.
- **Translate RAs into deployable scenario descriptions**, which can be considered as Reference Implementations for CNTT
- Work with OPNFV and upstream projects to **close any gaps in identified RA/RI components**
- Work with installer & test projects to **generate scenarios for installation, testing, and RI test cases**
- Work with LFN Compliance and Verification Committee (CVC) to **integrate RI, test cases/frameworks with OVP Framework.**

Project Proposal

OPNFV Documentation

- **(Long term) Available on official OPNFV Documentation portal and will include:**
  - Reference implementation description for Common NFVI
  - Pointers to CNTT Reference Architectures with related install/config information
  - Test requirements for Common NFVI
  - Gaps discovered from while integrating, deploying and testing RIs
- **(Present)** All documentation generated by CNTT-RI project will reside in CNTT main repository.

Project Proposal

Dependencies

- Project relies on the progress of CNTT.
- Parallel work can be done while CNTT finalizes the first RA

Planned Deliverables

- Reference implementation for Common NFVI
- Test Requirements for Common NFVI

Committers & Contributors

- Mike Fix (Michael.Fix@att.com)
- Fu Qiao (fuqiao@chinamobile.com)

Project Proposal – Community Feedback

Logistics & Execution

- Documentation Repo (short-/long- term)
- Weekly Meeting
- Resolving Issues / Different Proposals (meetings, online issue mgmt.)
- Creation of Epics (Lab, Requirements, Test Plan)
- Release Alignment

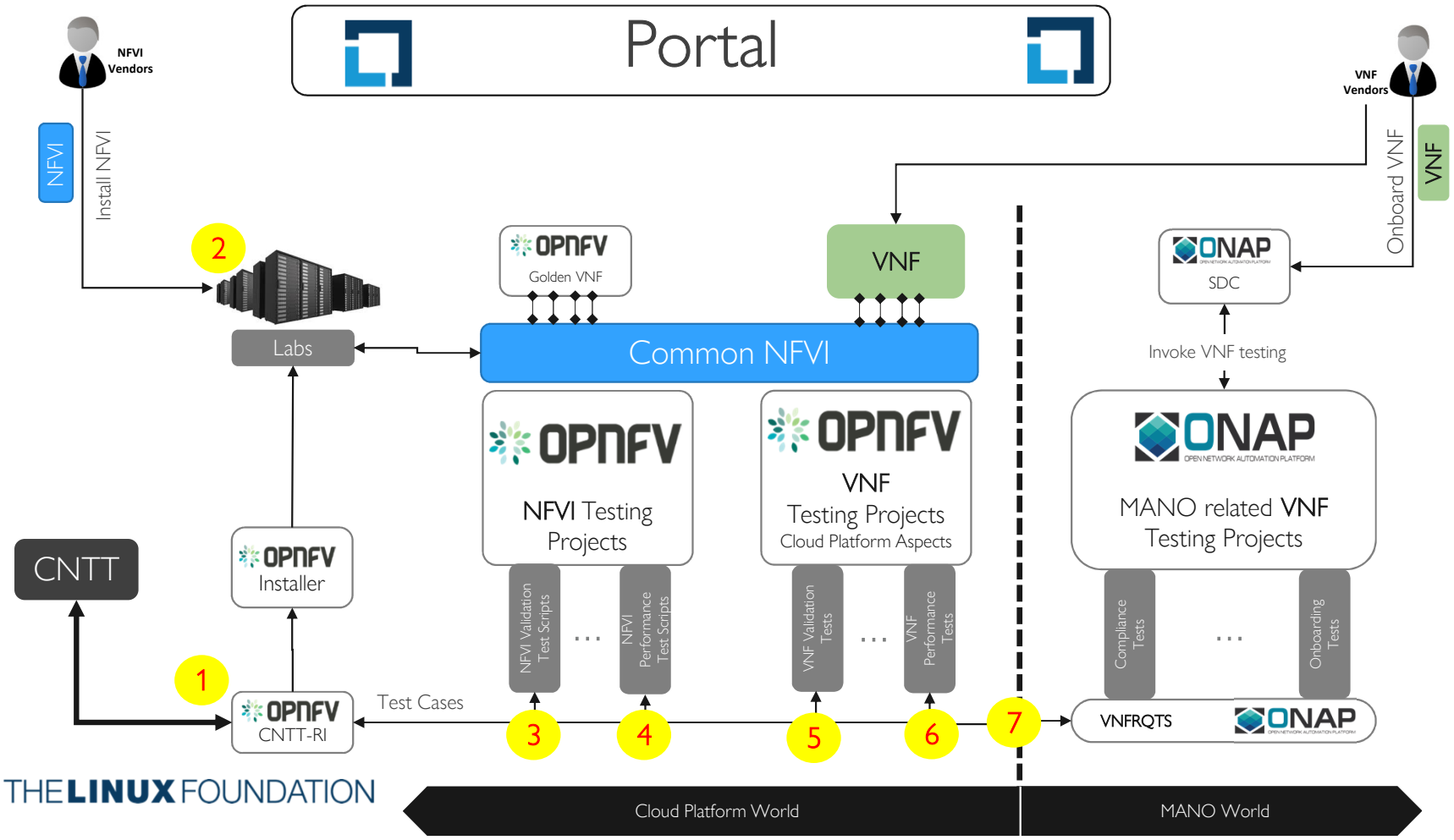
Collaboration with Test Projects

- Tools Development (reuse)
- Test Cases (reuse + augment)

Mechanics

- Project Type (Feature v. Requirements)

OVP ETE Framework



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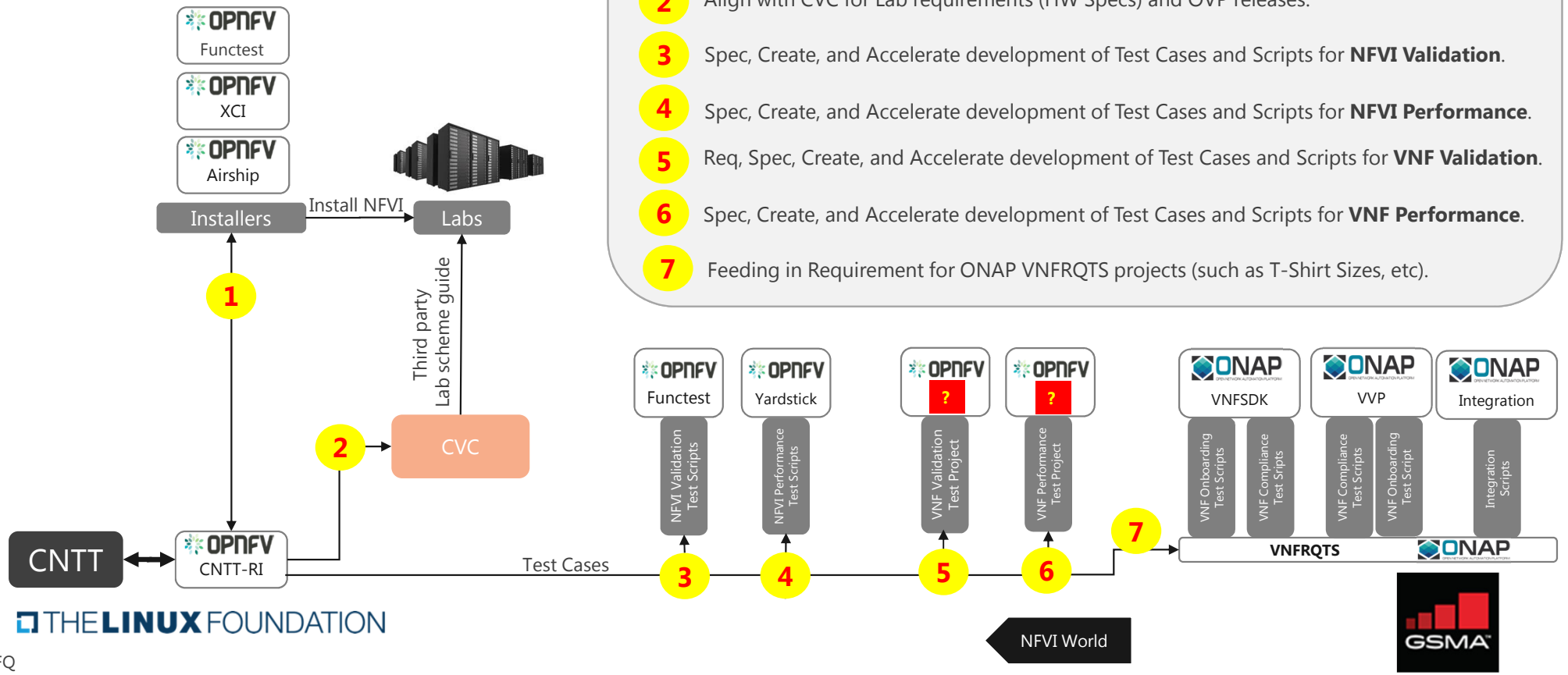
LFN Expectation from CNTT-RI

1. Generate Installer Specs for NFVI required state based on Ref A, Ref M.
2. Align with CVC for Lab requirements (HW Specs) and OVP releases.
3. Spec, Create, and Accelerate development of Test Cases and Scripts for **NFVI Validation**.
4. Spec, Create, and Accelerate development of Test Cases and Scripts for **NFVI Performance**.
5. Req, Spec, Create, and Accelerate development of Test Cases and Scripts for **VNF Validation**.
6. Spec, Create, and Accelerate development of Test Cases and Scripts for **VNF Performance**.
7. Feeding in Requirement for ONAP VNFRQTS projects (such as T-Shirt Sizes, etc).



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Working Items for CNTT-RI project

1. PDF/SDF modification requirement

2. Test case gap analysis and new case development

3. Upstream gap analysis and development(identify if the current open-source OpenStack can fit into the RA defined in CNTT. If there are gaps, such work need to be developed within this project, and should probably go back to OpenStack Community)

4. Start talking with installer project, work out what should be done by CNTT-RI project and what should be done by installer project to accomplish RI

OPNFV Installer Options

- Airship for R1
- Do we need multi-installer support for CNTT-RI? What other choice do we have? Do CNTT have specific requirement for installer?
- Do we consider installer as part of the RI, or as just a tool to bring the RI up. This will decide whether our verification will include installer part, or we allow other commercial/open-source installer to pull up the verified RI? If so, what changes need to be done in OVP/dovetail?

OPNFV CI Pipeline

- OPNFV CI is important to generate RI in a continuous way. It is also important that Operators can reuse this CI to run the integration and verification within their own environment
- Is current OPNFV CI good enough for CNTT RI?
- Bring OPNFV XCI project into scope. Is this also something we/OPNFV should adopt for rapid CI?

WG/Committee for long-term LCM

Role of WG/Committee

- Connection with CNTT as upstream
- Common platform for community member of OPNFV to learn progress of CNTT
- Common platform for CNTT related project(CNTT-RI, Airship, testing projects, dovetail, and etc.) to communicate and collaborate
- Platform to generate suggestions and feedbacks to OPNFV TSC for change in order to fit into the new tasks of CNTT

How to run the WG/Committee

- Use Monday tech-discussion call to drive CNTT related activities could be considered as a BOF for the WG
- Propose this WG/Committee to OPNFV TSC for official decision
- Set up consolidate meeting schedule and working items, invite active community members, related PTLs, to be solid members for the WG

Keys to Success

Success Factors

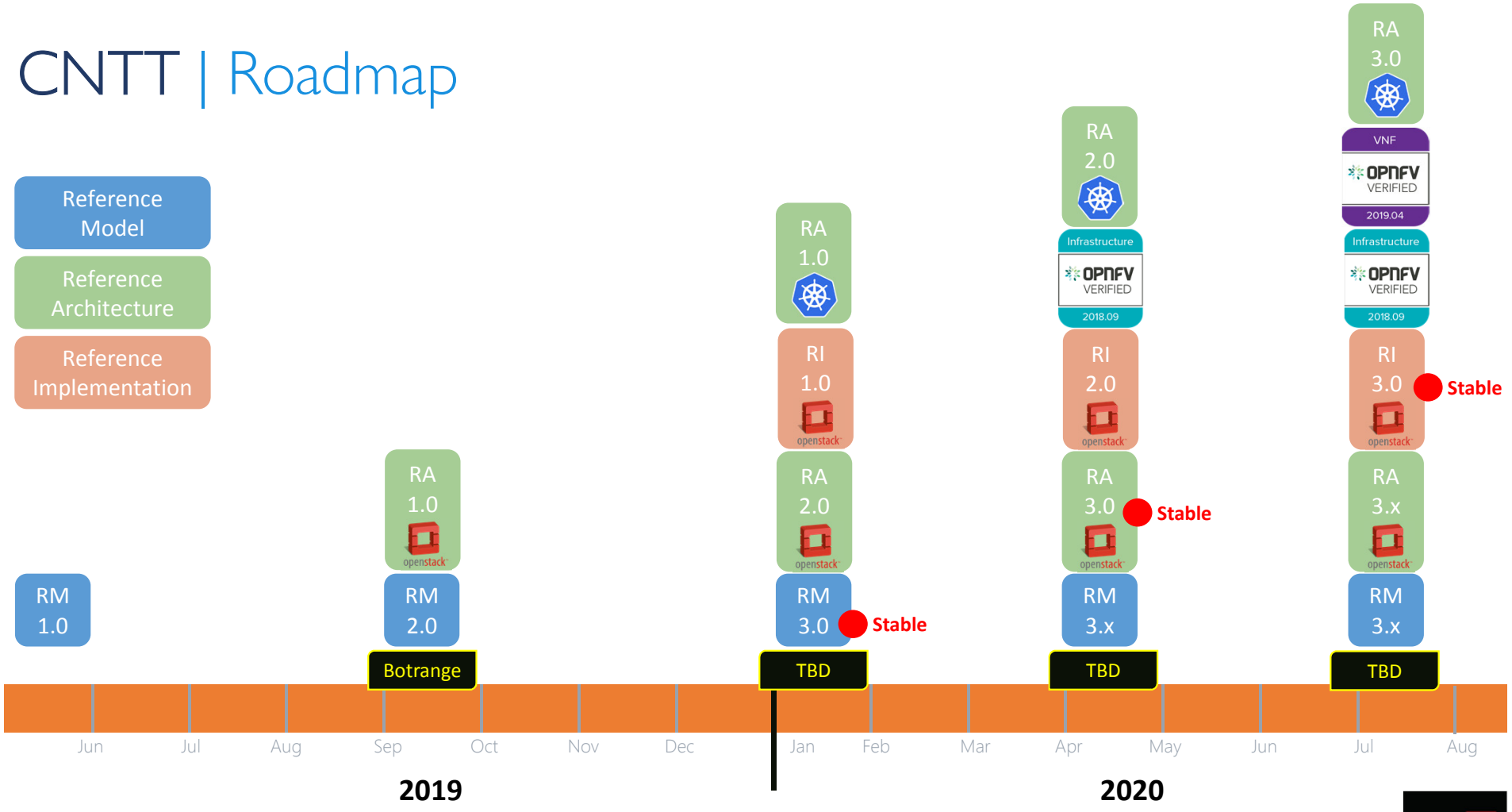
- **Normalized** & agreed upon **NFVI requirements template** for repeatable installer consumption
- **Automated test processes** for CVC verification framework
- OPNFV responsible for inventory & schedule of labs for verification
- **Establish Working Group** (WG) for LCM

How can our partners help?

- Support for critical path items
- Engaged in discussions & document reviews
- Contribute & adoption of artifacts
- Raise critical/major issues/gaps with content; take ownership to address
- Provide test cases

Backup Slides

CNTT | Roadmap



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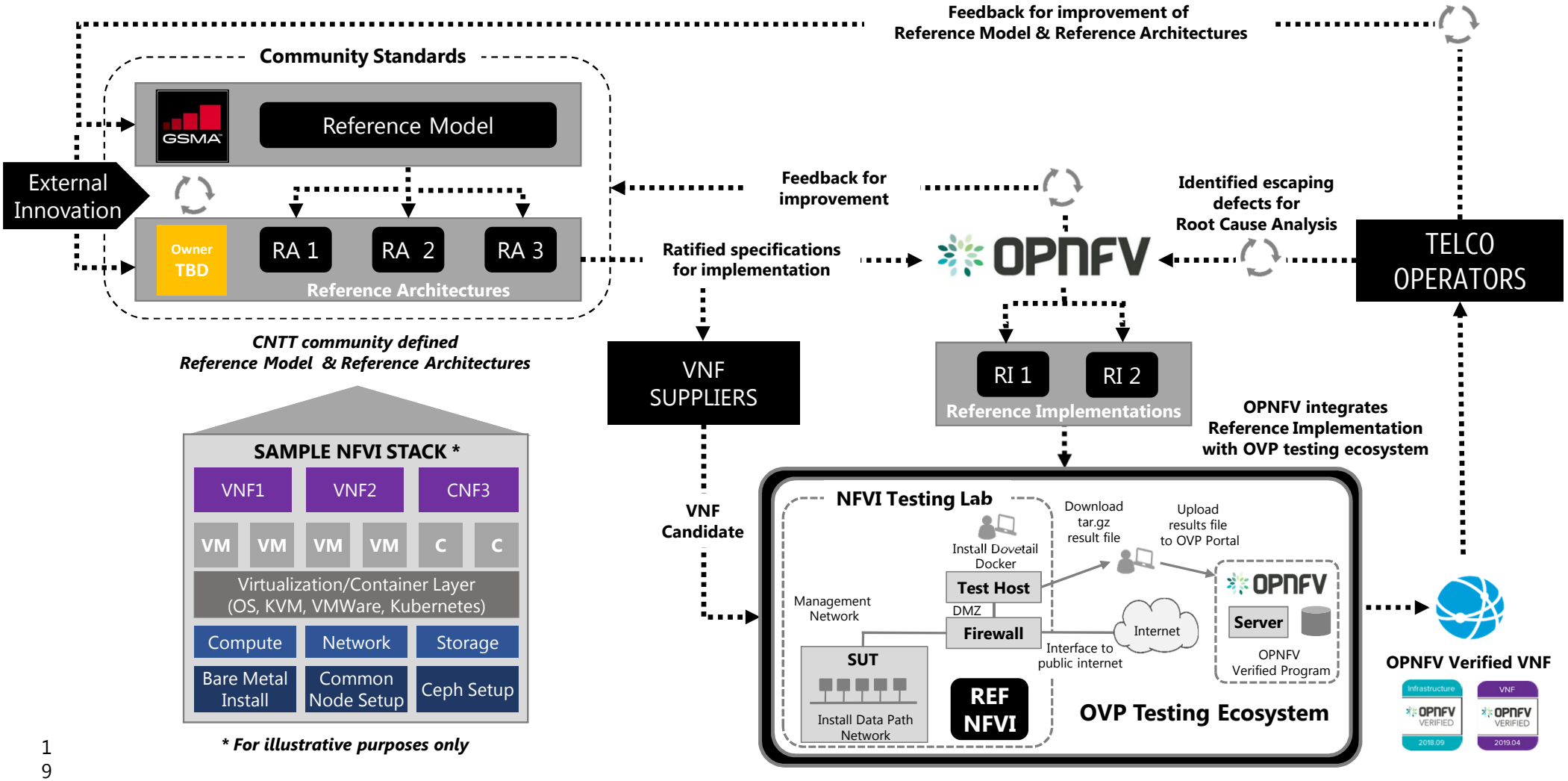
COMMON NFVI LIFECYCLE FRAMEWORK



CNTT NFVI Reference Levels