LF NETWORKING
Developer & Testing Forum

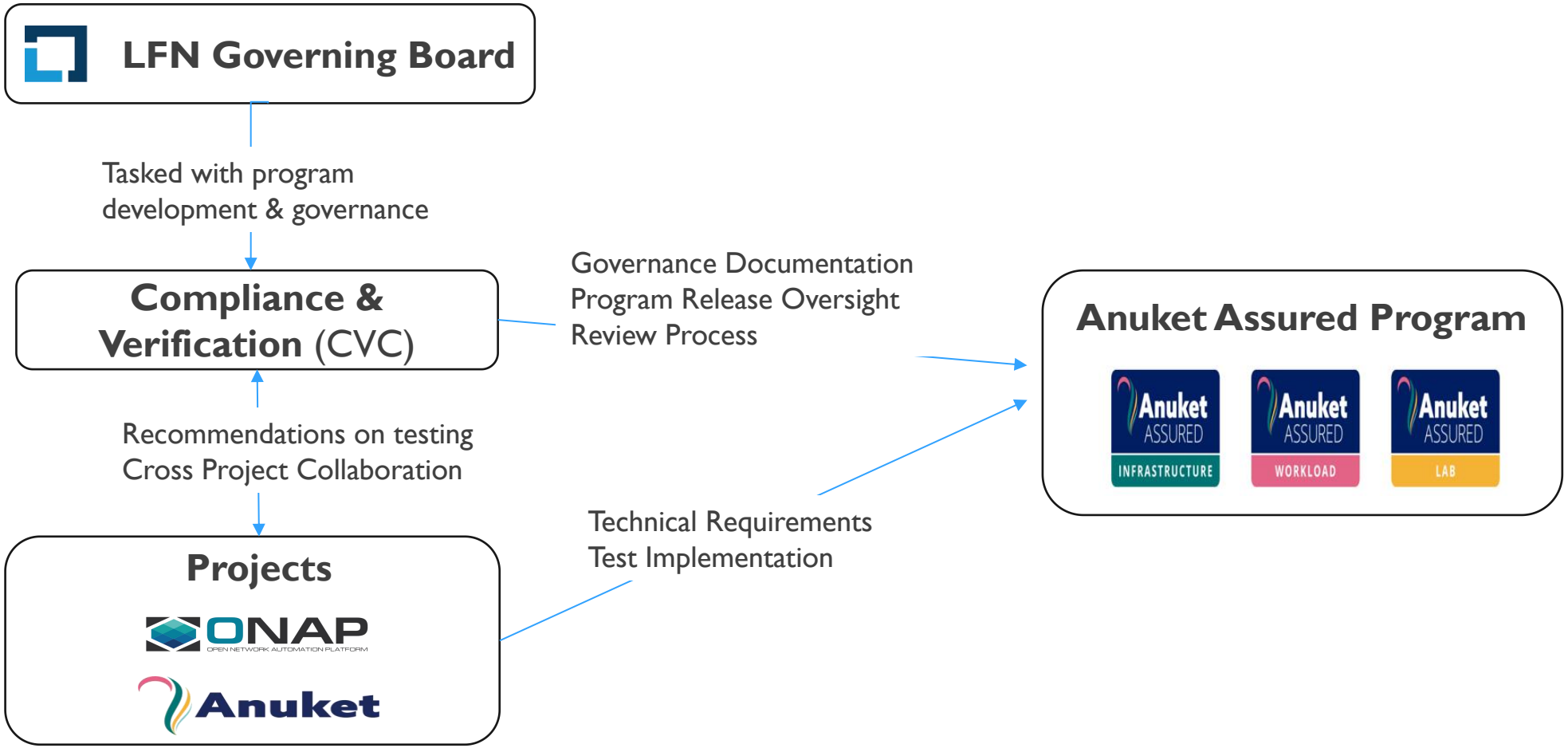
AAP Status and Lab Certification

Yan Yang, Mengyuan Ma
China Mobile

https://lfnetworking.org

Anuket Assured Program

LFN NETWORKING
LFN Developer & Testing Forum



Anuket Assured Compliance Badges

LFN Developer & Testing Forum

SUT for the AAP Infrastructure badge would be expected to meet the requirements of the Anuket Reference Architecture release 1/2 (RA1/2)

SUT for the AAP workload badge would be expected to meet the requirements of the Anuket Reference Conformance release 1/2 or ONAP VNF/CNF Requirements

SUT for the AAP lab badge would be expected to meet the testing and verification requirements of AAP

AAP Badges Scope Evolution

LFN Developer & Testing Forum

AAP 2022 Badges Scope

NFVI Infrastructure Badge
Cloud Native Infrastructure Badge

VNF workload Badge

Anuket

ONAP
OPEN NETWORK AUTOMATION PLATFORM

AAP 2023 Badges Scope

NFVI Infrastructure Badge
Cloud Native Infrastructure Badge

VNF workload Badge
CNF workload Badge

Lab Badge

Anuket

Anuket ONAP
OPEN NETWORK AUTOMATION PLATFORM

CVC

AAP badges introduction: https://lfnetworking.org/verification/
AAP release doc: https://gitlab.com/lfnetworking/cvc/anuket-assured-docs/-/blob/main/releases

LF NETWORKING

LFN Developer & Testing Forum

AAP Lab Certification

Lab Certification

Qualified Labs provide 3rd party testing services to the communities, where community members may choose to test their products or services within the labs instead of performing the testing in-house. These labs are actively engaged with the Linux Foundation Networking project's development and testing and are experienced with the required test tools, procedures, and testing requirements.

The Qualified Labs Program is overseen by the Compliance and Verification Committee. That committee is responsible for setting of requirements and qualifications for the labs, and for the approval of Qualified Labs. The Linux Foundation Anuket Assured Program will maintain the list of Qualified Labs on its website, and the list will clearly indicate the labs are qualified to provide services for the testing programs.

Qualified Lab Participation Requirements(1/2)

LFN NETWORKING
LFN Developer & Testing Forum

Requirements No	Requirements content
Req1	Be an active member, in good standing, with the Linux Foundation Networking.
Req2	Active participation in at least one Linux Foundation Networking project, such as Anuket, ONAP, OpenDaylight, etc.
Req3	Active participation in the Compliance and Verification Committee and are encouraged to participate in at least one Linux Foundation Networking project or sub-project relating to testing.
Req4	Provide testing services to the open community in a nondiscriminatory, professional fashion, protecting the credibility of the Linux Foundation Networking Projects, the Anuket Assured Program, and the Qualified Labs Program

Qualified Lab Participation Requirements(1/2)

LFN Developer & Testing Forum

Requirements No	Requirements content
Req5	Demonstrate testing competence in at least one program through the following actions: a.Demonstrate or document how the lab has the necessary infrastructure required for the testing program, such as a compliant infrastructure (servers and network). b.Demonstrate the lab possesses the know-how to properly perform the testing by submitting a complete set of test results and any required documentation for the results to the review process for the testing program.
Req6	Laboratory shall not host a list of devices approved under Anuket Assured program on its own website or any website operated by the laboratory (e.g. the laboratory shall not operate a program or listing that could be construed as directly competing with the Anuket Assured Program

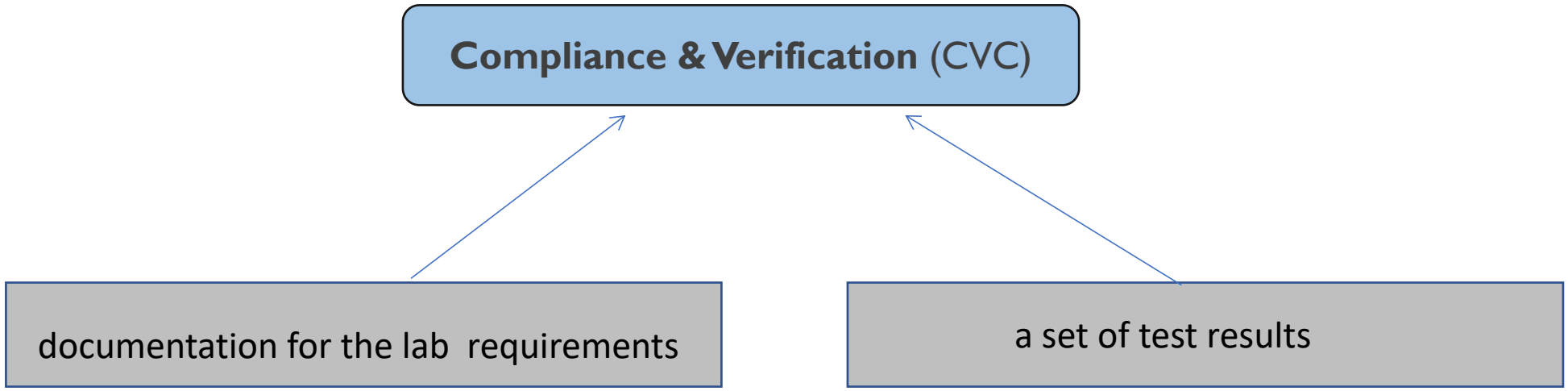
The list of certified laboratories will be updated periodically based on the results of periodic review by CVC

Expectations on Qualified Labs

LFN NETWORKING
LFN Developer & Testing Forum

No	Expectations content
No1	Maintain the equipment infrastructure and technical expertise required for testing programs where the lab offers services on a continuous basis.
No2	Labs will use unmodified versions of the tool(s) provided by the Linux Foundation to perform testing within the Qualified Labs Program.
No3	Laboratory staff actively participate in one or more projects or development efforts within the Linux Foundation Networking projects.
No4	Lab will participate in the results review process for the test program(s) which the lab is approved for, which may include reviewing results submitted by other laboratories, and must be conducted in a fair and unbiased approach.
No5	Laboratory shall encourage its participants to submit passing results for formal review and inclusion in the Linux Foundation Networking programs, badging, and public lists.
No6	Laboratories are expected to cooperate and share knowledge on best practices and troubleshooting, where applicable within the programs.
No7	Laboratories should develop and maintain a working knowledge of the LFN Project's CI/CD tooling and might consider using these systems to maintain their tooling and as part of their demonstration of continued testing / platform maintenance.

Laboratory Application & Approval



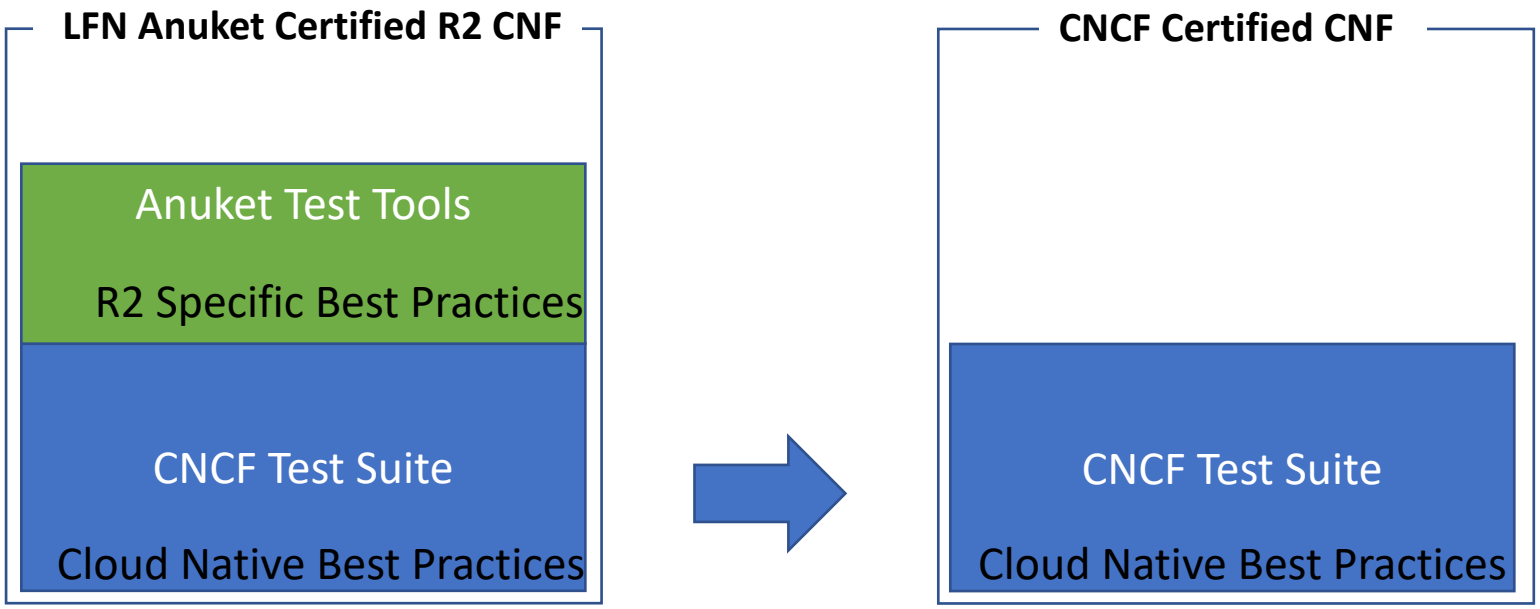
LFN Developer & Testing Forum

CNF Certification

LFN AAP CNF Certification Program

LFN NETWORKING
LFN Developer & Testing Forum

- LFN is committed to offering the Anuket Assured Certified CNF
- In addition to aligning with CNCF test suite, more specific requirements and tests applicable to Anuket are being explored



For the Kubernetes workloads to be conformant with the Anuket RA2 , the following requirements are defined in Anuket RA2
https://github.com/anuket-project/anuket-specifications/blob/master/doc/ref_arch/kubernetes/chapters/chapter04.rst

Test Cases Defind in Anuket RC2

CNF Test Cases and Requirements Traceability

RM/RA Ref	High-level test definition	Test name and project	Priority
ra2.app.006	Consumption of additional, non-default connection points. Any additional non-default connection points must be requested through the use of workload annotations or resource requests and limits within the container spec passed to the Kubernetes API Server.	:ref:`int.api.01 <chapters/chapter02:Kubernetes Architecture Requirements>`	Must
ra2.app.007	Workloads must not use hostPath volumes, as Pods with identical configuration (such as those created from a PodTemplate) may behave differently on different nodes due to different files on the nodes.	:ref:`kcm.gen.02 <chapters/chapter02:Kubernetes Architecture Requirements>`	Must
ra2.app.008	Infrastructure dependency	Workloads **must not** rely on the availability of the master nodes for the successful execution of their functionality (i.e. loss of the master nodes may affect non-functional behaviours such as healing and scaling, but components that are already running will continue to do so without issue).	Must (Not)
ra2.app.009	Device plugins	Workload descriptors must use the resources advertised by the device plugins to indicate their need for an FPGA, SR-IOV or other acceleration device.	Must
ra2.app.010	Node Feature Discovery (NFD)	Workload descriptors must use the labels advertised by Node Feature Discovery to indicate which node software of hardware features they need.	Must
ra2.app.011	Published helm chart: Helm charts of the CNF must be published into a helm registry and must not be used from local copies.	CNCF CNF Testsuite	Should
ra2.app.012	Valid Helm chart: Helm charts of the CNF must be valid and should pass	CNCF CNF Testsuite	Should

More cases can be found:
https://github.com/anuket-project/anuket-specifications/blob/master/doc/ref_cert/RC2/chapters/chapter04.rst#id1

Welcome to join Anuket Assured Program to put forward the CNF certification

When:
Monday, May 22, 2023
6:00am to 7:00am
(UTC-07:00) America/Los Angeles

Where:
https://zoom-lfx.platform.linuxfoundation.org/meeting/99028671010