

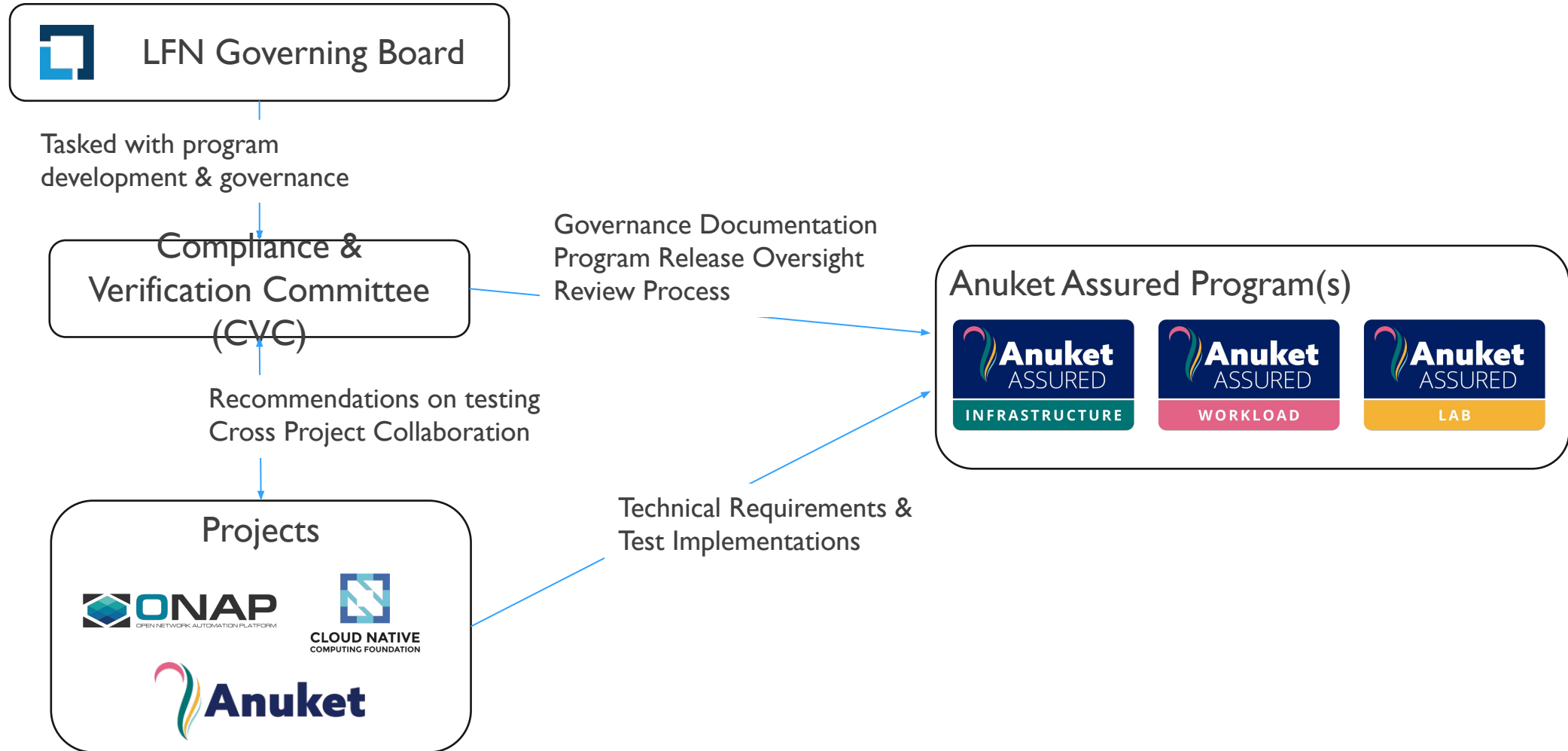
Anuket Assured Release 2021.10 Test Coverage

Lincoln Lavoie

 **LF** NETWORKING

 **THE LINUX** FOUNDATION

Anuket Assured | Program Development & Structure



Anuket Assured | Program Overview & Philosophy

- › Anuket Assured evolved out of OVP to tackle Cloud Native and newer technologies
 - › Which grew out of the OPNFV badging program
- › Open program, well aligned with open source best practices
 - › Support self-testing and 3rd party lab testing
- › Reliance on a community review processes
 - › Requirements, Test Implementation, Results, and Badge Granting
- › Aiming for a uniform approach across projects in LFN
 - › Single release schedule for badges / updates
 - › Consistent definition of test types and badges
 - › Common governance processes and definitions
 - › Recognizable badges and marketing across projects

Anuket Assured | Current Status

- › Anuket Assured 2021.10 was released in Q4 2021
 - › <https://www.lfnetworking.org/verification/>
 - › Program documentation:
<https://gitlab.com/lfnetworking/cvc/anuket-assured-docs/-/tree/Release.2021.10>
 - › Coverage:
 - › Infrastructure: Anuket RC1 (VM based) and RC2 (Cloud Native)
 - › VM Workload: ONAP VNFReq & VNFSDK
 - › CNF Workload: <missing from from 2021.10 badge>
 - › <https://gitlab.com/lfnetworking/cvc/anuket-assured-docs/-/blob/Release.2021.10/releases/2021.10/README.md>

2021.10 Test Coverage | RC1 NFVI Infrastructure

Interfaces & APIs

- Via Functest running Tempest and Rally

Dashboard

- Via tempest-horizon

API Benchmarking

- Functest running Rally test cases with 10 iterations

Dataplane Benchmarking

- Via VMTP, Shaker, and PROX

VNF Onboarding

- Functest runs onboarding Clearwater IMS, VyOS vRouter, and OpenAirInterface vEPC VNFs using Cloudify, Heat, or Juju

2021.10 Test Coverage | RC2 Cloud Native Infrastructure

Kubernetes API

- Coverage from Kubernetes End-to-End Testing, based on selection tags:

Kubernetes API Benchmarking

- Based on Functest's `xrally_kubernetes`, which iterates 10 times over the mainline test scenarios.

Dataplane Benchmarking

- No KPI's currently defined by Anuket

Security Testing

- Tests provided by `kube-hunter` and `kube-bench`, integrated into Functest.
- Tests are not currently mandatory, requirements are referenced as "should" in RA2.

CNF Onboarding

- Tests onboarding and liveness of Clearwater IMS via `kubectl` and `helm`

2021.10 Test Coverage | VNF Workload

VNF Package Tests Cases

- ONAP package validation against VNF/PNF requirements list

VNF Onboard and Instantiate Test Cases

- HEAT or TOSCA based cases, run from ONAP VVP or VNFSDK
- Automated validation of VNF creation, liveness, and destruction

2021.10 Test Coverage | CNF Workload

Not yet defined or released...

Anuket Assured | 2022 Release Planning

Aiming for H1 of 2022 for the next release

- › Need to expand coverage to include CNF Workloads
- › Include more testing for VM workloads (per Anuket requirements)
- › “Pick up” next set of requirements from upcoming Anuket and ONAP releases
- › Continued updates and improvements to the process, workflows, and tools (results storage, reviews, listings, etc)

2021.10 Test Coverage | References

- Program Definition: <https://gitlab.com/lfnetworking/cvc/anuket-assured-docs/-/tree/Release.2021.10/releases/2021.10>
- RC1 NFVI Infrastructure Tests:
https://github.com/cntt-n/CNTT/blob/stable/kali/doc/ref_cert/RC1/chapters/chapter03.md
- RC2 CNF Infrastructure Tests:
https://github.com/cntt-n/CNTT/blob/stable/kali/doc/ref_cert/RC2/chapters/chapter02.md
- ONAP VNF Tests: <https://docs.onap.org/projects/onap-vnfrqts-testcases/en/honolulu/index.html#master-index>