

2020 June Virtual Developer & Testing Forum Daily Summaries

June 22nd, 2020 - Day 1

ONAP Track	Key Points	Challenges	Next Steps /Action Items
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Track: Requirements Subcommittee meeting and presentation of Guilin planned work Presenter /Moderator: Alla Goldner	• Focus on Guilin Non functional requirements (Security, OOM, Legal, Documenting ONAP APIs, Integration) • Service Mesh POC for Guilin • 2020 June Virtual LFN Developer & Testing Forum Topic Proposals#2020JuneVirtualLFNDeveloper&TestingForumTopicProposals-ONAP-RequirementsSubcommitteeetingandpresentationofGuilinplannedwork • List of Guilin Non functional requirements - TSC MUST HAVE <table><tr><th>Key</th><th>Summary</th></tr><tr><td>REQ-323</td><td>Each project will update the vulnerable direct dependencies in their code base</td></tr><tr><td>REQ-349</td><td>Each ONAP project shall define code coverage improvements and achieve at least 55% code coverage</td></tr><tr><td>REQ-373</td><td>ONAP must complete update of the Python language (from 2.7 -> 3.8)</td></tr><tr><td>REQ-362</td><td>All containers must run as non-root user</td></tr><tr><td>REQ-380</td><td>ONAP container repository (nexus) must not contain upstream docker images</td></tr><tr><td>REQ-379</td><td>ONAP projects must use only approved and verified base images for their containers</td></tr><tr><td>REQ-351</td><td>ONAP must complete update of the java language (from v8 -> v11)</td></tr><tr><td>REQ-382</td><td>Support Pylog repository used by VF-C, Modeling, MultiCloud and OOF</td></tr><tr><td>REQ-361</td><td>Continue hardcoded passwords removal</td></tr></table>	Key	Summary	REQ-323	Each project will update the vulnerable direct dependencies in their code base	REQ-349	Each ONAP project shall define code coverage improvements and achieve at least 55% code coverage	REQ-373	ONAP must complete update of the Python language (from 2.7 -> 3.8)	REQ-362	All containers must run as non-root user	REQ-380	ONAP container repository (nexus) must not contain upstream docker images	REQ-379	ONAP projects must use only approved and verified base images for their containers	REQ-351	ONAP must complete update of the java language (from v8 -> v11)	REQ-382	Support Pylog repository used by VF-C, Modeling, MultiCloud and OOF	REQ-361	Continue hardcoded passwords removal	• 9 non functional requirements have been prioritized up to now by the ONAP TSC for Guilin, requesting support from companies who are submitting usecase/function al reqs. How can we implement additional non functional requirements? • Partial solution will also been discussed as a Cross-Community topic at 2.30 pm UTC on Monday June 22nd, 2020- Help Recruit more Developers to LFN Projects! • Architecture Component Views in Readthe docs planned on Wednesday June 24th, 2020 at 3pm UTC to align with swagger work	☐ PTLs /Non functional reqs Owners on PTL call (6 /29) to assess what can we agree with the project teams for Guilin either as additional TSC MUST Have and /or Cl-Gating, etc.
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	Details regarding Non functional requirements REQ-379, REQ-380 - https://wiki.onap.org/display/DW/License+compliance The list of "Base Image statistics" can be enhanced as long as the ONAP Community will maintain it.																						

Track: License compliance & how to deal with it?

Presenter /Moderator: [Krzysztof Opasiak](#) / [Catherine Lefevre](#)

☐ Organize a TS C vote on the list of licenses that can be used with in ON AP container i.e. a provided licenses means which once we agree to comply with , in terms of license terms for distribution in docker containers

☐ PTLs to confirm the comments in Green regarding "Upstream doc kers in ON AP Nexus Server" section

☐ Define a list of approved base images

☐ Do the license compliance process for all approved base images

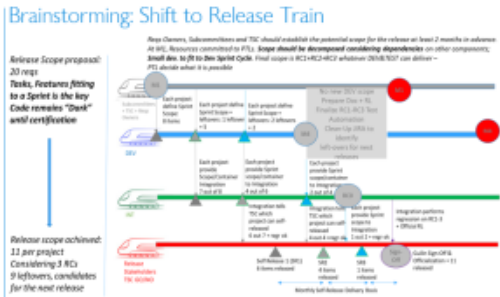
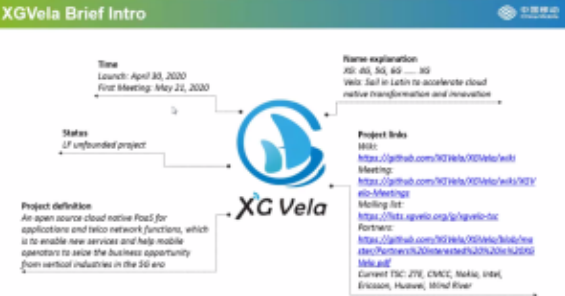
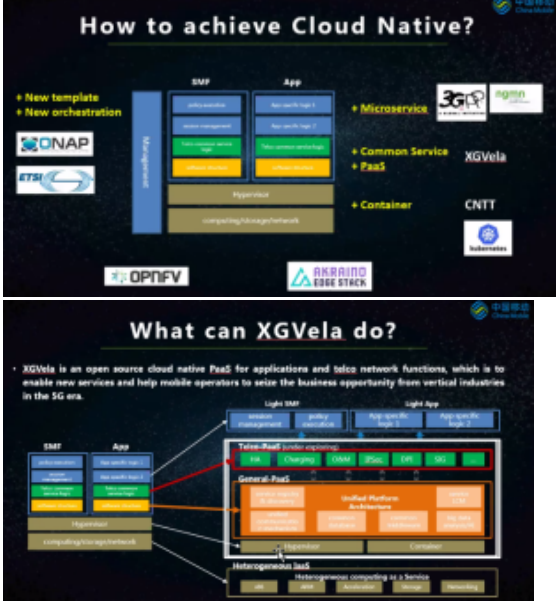
☐ Make sure that all components use only approved base images

Track: Integration Status update: what's planned internally Presenter /Moderator: Morgan Richomme	• Bring back your functional tests in your project repo • Integrate automated CSIT/Pair-Wise tests as part of OOM Gating • Refactor component's healthcheck • Use reference images to build your dockers - also discussed in the previous session 'License compliance & how to deal with it?' • Release more often (prior M4) but do not break the build • Additional sessions are organising by the Integration team this week to discuss their Guilin requirements REQ-367: Deploy on demand ONAP through CI per use case • Today use case projects are using the same lab and sometimes are tripping over one another (one project may need staging versions which break the work for the other projects) • The idea would be to setup an automated chain to allow a per use case on demand deployment in Windriver/Intel Lab • join session on Windriver/Intel Lab today 2PM and session on Integration priorities Today 2:30 Pm (https://zoom.us/j/98135653372) • Potential resources bottleneck REQ-371: Define Robustness and stability metrics, traffic model and run stability CI chain • The stability test executed on any ONAP release sofar is limited (72 hours / 1 looping test / kubernetes metrics) • Additional word is needed to qualify ONAP stability within an operational context • A long duration CI chain is needed • join session on Integration priorities Today 2:30 Pm (https://zoom.us/j/98135653372) REQ-378: Clearly split ONAP code and use case code • Today when you install ONAP, you install also code (BPMN, Policy, Models,...) dealing with use cases you do not really care • The pre-provisioning for use cases must be better controlled. It shall be possible at installation to include or not samples in the different components • An ONAP solution shall be cleaneable and reduced to the end user's needs • First work could be initiated with SDC, SO, Policy, DCAE • join session on Integration priorities Today 2:30 Pm (https://zoom.us/j/98135653372)		☐ PTLs /Integration on PTL call (6/29) to discuss how to release more often prior M4 (conditions, regression and health check, rollback procedure, etc.)
Track: Modeling Subcommittee Meeting https://wiki.onap.org/display/DW/Modeling+2020-06-22+Special+Virtual+Face+to+Face+Meeting	Reviewed current modeling activities and candidate modeling requirements for Guilin. The following topics were also presented: 1 Modeling process 2 Policy model 3 Slicing model 4 CNF Inventory Modeling 5 CNF ETSI modeling overview 6 Modeling of Geolocation information Recording may be found at: LNF_June_vDTF-ONAP-_Modeling_Subcommittee.mp4		invite to join those discussions
Track: Policy Framework Guilin Prioritization Presenter /Moderator: Pamela Dragosh	• The former Policy architecture will be deprecated in order to embrace the new Self-Serve Policy Architecture developed from Dublin to Frankfurt. • Presentation of the major Policy Guilin requirements including E2E Network Slicing, 5G OOF SON and improvements • Policy team is in the process of creating Tutorials for the ONAP community to view to understand how to use the Policy Platform		https://wiki.onap.org/display/DW/2020+Frankfurt+Tutorials
Cross Community Track	Key Points	Challenges	Next Steps /Action Items

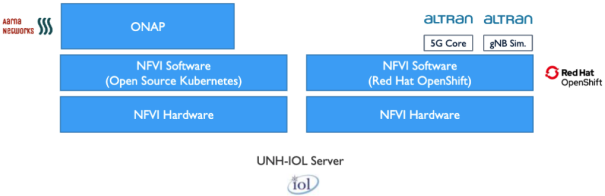
Track: Help Recruit more Developers to LFN Projects! Presenters: Jason Hunt, Abhijit Kumbhare, Al Morton, Catherine Lefevre, Morgan Richomme, Ranny Haiby	- Presentation of Open Source Community Challenges and Attempted Approaches - Overall 3 topics: - Recruiting "casual developer" - Building pipeline via academics, students, interns - Encouraging more corporate contributions - Badging/Certification to recognize Developers/Testers for their contribution   https://training.linuxfoundation.org/badges-2/ - detailed notes Help Recruit more Developers to LFN Projects! 2020-06-22		☐ Any volunteer to flesh out these ideas?
CNTT /OPNFV Track	Key Points	Challenges	Next Steps /Action Items
OPNFV Kick-off, and Round-Robin Project Reviews	 Monday_W..._acm.pdf	So far, so good!	Need to use this Wiki Page for Day two and beyond, for notes etc.
CNTT Kickoff with Baraque Release Rabi Abdel	- Feature set for Baraque release explained and work item focus.  - Success Criteria discussed for Baraque release. - FMO discussion (Scot Steele)		Please attend all CNTT sessions and participate in the discussion.

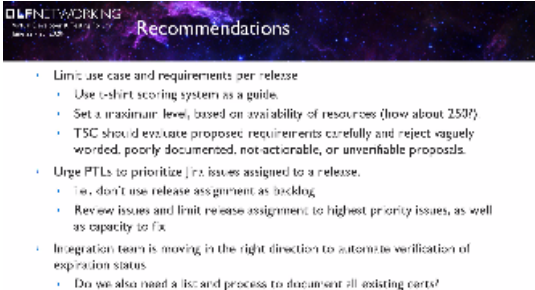
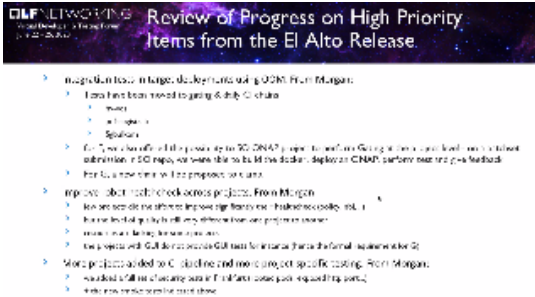
June 23rd, 2020 - Day 2

Cross Community Track	Key Points	Challenges	Next Steps/Action Items
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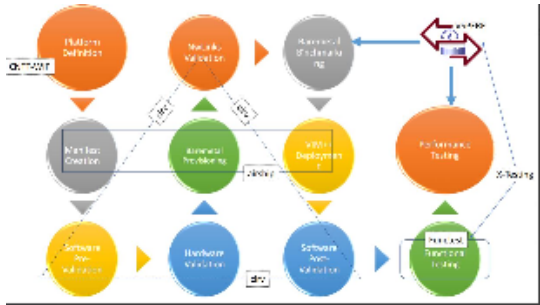
Track: Shift to Release Train Presenters /Moderators: Catherine Lefevre	>The Challenges from LFN Projects >Release Cadence in Other Open Source projects >Shift to Release Train & Brainstorming  Wiki notes: Shift to Release Train 2020-06-23	>How can we release more frequently, <u>smaller</u> scope without impacting the SW quality? >How can we change the waterfall-ish development model? >How can we get enough details about candidates requirements prior the release? >How to manage the release in case of people turn-over? >How to handle the scope and maintain a balance between Usecase/Functional reqs (attractive) and Non functional reqs (less sexy)?	☐ Identify a set of projects that could prototype the Release Train approach ☐ "Release cadence transition proposal" on June 25th, 2020 @ 11am UTC
Track: XGVela Presenters /Moderators: Qihui Zhao			☐ Alignment with CNNT /CNCF TUG and O-RAN /ONAP in order to define their role as part of XGVela and identify what can be leveraged from the existing projects ☐ Introduction of XGVela to the TAC team
Track: Cloud Native in Telecom Cloud Presenters /Moderators: Qihui Zhao, Ying Li	 Plan to align with CNNT RA-2 (Kubernetes)		☐ Alignment with CNNT /CNCF TUG and O-RAN /ONAP in order to define their role as part of XGVela and identify what can be leveraged from the existing projects ☐ Introduction of XGVela to the TAC team
ONAP Track	Key Points	Challenges	Next Steps/Action Items

Best practices for updating software components Presenters: Pawel Pawlak Amy Zwarico	Reviewed mandatory upgrades to Java 11 and Python 3 for all projects Migration of ONAP to standard infrastructure versions: Docker, Kubernetes, OS images, databases, etc (see Database, Java, Python, Docker, Kubernetes, and Image Versions) Updating vulnerable direct dependencies: • SECCOM repo specific recommendations on the Security Vulnerabilities protected wiki space • Must be complete by M2	Resources to do the non-functional work Potential dependencies that conflict with new versions	SECCOM will have representative at the weekly PTL call to answer questions PTLS and others are always welcome to attend the SECCOM weekly on Tuesdays to raise issues PTLs secure resources and plan to identify show stoppers as soon as possible (M1)
EUAG Operator Survey & In-Depth Analysis On Consumption Model Presenters: Atul Purohit	Presented End User Advisory Group's survey on various ONAP consumption models, which led to creation of EUAG white paper Key topics covered - › Introduction – EUAG › What Survey & Why › Survey Questions, Deductions › Recommendations › Paper & Wrap - Up 	None	• EUAG should create an action plan out of survey inference, what it means for various committees and how can the feedback be provided back to CSPs • Survey sample was about 50% of overall members and 75% of active members, to make similar activities more impactful in future perhaps the survey can be done with larger sample size
OOM Status update: what's planned internally Presenters /Moderators: Sylvain Desbureaux, Krzysztof Opasiak	Review of the planned OOM changes : Support of Helm V3 Kubernetes V1.17 (or 1.18) Migrate to Seccom recommended Versions Update defaults (use Ingress, Storage Class, Hardened OS)	Might be breaking gating during changes, impact deployments	check if Helm V3 requires Kubernetes v1.17+
OOM Status update: consequences on other components Presenters /Moderators: Sylvain Desbureaux, Krzysztof Opasiak	Review of the required changes on components helm charts VS requirements presentation of changes, use of templates, adding appender to Logback to support STDOUT as additional output Container that do not contain ONAP code should not be hosted on Nexus No Root access to DB Application config should be fully prepared before starting the container Containers must crash properly when a failure occurs No more Nodeports AAF optional (component should work without AAF even in degraded mode) HTTPS is mandatory but should be configurable (disable in case of Service Mesh as this will be offloaded to Service Mesh) Container RootFS should be mounted as ReadOnly Commit message rules for OOM	AAF removal or optional / POC SMesh	SecCom to follow up and define what disabling AAF means

Requirements Traceability: Initial Request through TSC Approval Presenters /Moderators: Alla Goldner, Chaker Al-Hakim, Pawel Pawlak, Pamela Dragosh, David McBride, Catherine Lefevre	- brainstorming and discussion on aligning the ONAP requirements pipeline - Consensus: - any requirements- regardless of source- should go through the requirements subcommittee. - and euag submits requirements to req. sub where they are vetted - committee consolidates backlog - committee should make prioritization recommendations to the TSC wiki: 2020 June vDTF ONAP Requirements Traceability: Initial Request through TSC Approval	- How can we streamline the requirements coming from different sources inside and outside from the ONAP Community? - As an example, EUAG REq Subcommittee prioritised (Architecture Review) TSC	- Enhance the mission of the Requirements Subcommittee: - Act as the ONAP Product Owners - Recommend Prioritization to the TSC - Create the consolidated ONAP Backlog
vFW CNF use case evolution Presenters /Moderators: Konrad Baka Samuli Silvius Lukasz Rajewski	The presentation covers Frankfurt CNF instantiation improvements on vFW use case example - Changed modelling of the vFW CNF - split into 4 helm packages to benefit from CDS resource assignment - Change from a la Carte VNF-API instantiation flow into Macro GR-API with CDS - Utilization of CDS for automatic assignment of Helm package overrides - CDS uploads optionally profile which allows for further helm enrichment like extra k8s resources Use Case Doc: https://onap-doc.readthedocs.io/projects/onap-integration/en/latest/docs_vFW_CNF_CDS.html#docs-vfw-cnf-cds Notes: 2020 June vDTF ONAP vFW CNF use case evolution	- We lack of the use case automation scripts, however, there is very good documentation + postman collection - We leverage VNF flow in SO and still, we need to use dummy heat templates in the onboarding package - vFW use case requires dedicated k8s cluster with virtlet, ovn4k8s and multus - Data in AAI is still not synchronized with k8s - Status of instantiated resources is not monitored by SO and	- vFW CNF Use case automation with robot scripts and use of modern VID UI - Support of Close Loop https://jira.onap.org/browse/REQ-341 - CNF SO orchestration Enhancements - Potentially new use case: VNF + CNF Heterogeneous service and/or pure CNF (without a need of specific k8s cluster setup)
Orchestration of 5G CNFs using Multicloud K8s plugin Presenter: Sandeep Sharma	- Walkthrough of how ONAP was used to instantiate a 5G Core CNF. - More details & a demo are available in the Webinar that this team did Cloud Native 5G Network +ONAP Software Stack 	- Did use SDC and MultiCloud K8S plugin, but did not use SO. Did have one manual step. - Container image was in a local K8S repository, not bundled in the service package	

Python ONAP SDK Presenter: Michal Jagiello	<u>Version 1.0 of the SDK was released and will be available using pip.</u> Presentation provided an overview of the project capabilities: • Communication and handling with ONAP services using HTTP/S APIs • High level of abstraction • Easy to use, even if you don't know what is possible "underneath" SDK requires Python 3.7 or higher and was tested with ONAP Frankfurt. 		• Add handling for the macro flow • migrate onap_tests repository to pythonsdk_tests • Add close loop examples coming in next versions
Frankfurt Post Mortem Presenter : David McBride	<u>Review Frankfurt Schedule changes & pain points.</u> • number of shifts in schedule (not so much the total delay) raised concerns • scope size (do we take in too much?) • very late avail of final dockers • use case not clear if they are leveraging or need more ONAP dev - cannot know until actually running it • self release is painful, takes time for multi sub projects • Lots of remaining open bugs at M4 • Observations on certificates, exceptions to milestones  	Release more frequently VS time	• Move to a more continuous approach • Release at each milestone ? with working small steps • At RC0 provide %age completed, which ones are not done yet?
5G & PNF Use Case Overview Benjamin Cheung Vimal Begwani	Presentations given on the 5G & PNF Use Cases https://wiki.onap.org/display/DW/Guilin+%28R7%29+-+Use+Cases (Presentation Slides are there also) There are many dedicated 5G/PNF Use Case deep dives in the DDF The U/C Realization call will engage PTLs: https://wiki.onap.org/display/DW/R7+Use+Case+Realization+Meetings+MoM Overview of the Use Case Process Page (Way of Working WoW) https://wiki.onap.org/pages/viewpage.action?pageId=79204390 Andy Mayer gave an overview of the Generic Information Template: https://wiki.onap.org/display/DW/Generic+Information+Element+Template		

Overview of k8splugin v2 Ritu Sood Eric Multanen	- Informational session on the features, architecture and APIs of v2 of the k8splugin aka onap4k8s or emco. Ritu Sood provided an overview of the EMCO architecture, features and APIs Eric Multanen illustrated the new system using the vFW use case to show how the various intent resources are used and to place the vFW in multiple clusters. - Slides: https://wiki.lfnetworking.org/download/attachments/34606297/K8S_V2_API.pptx?version=1&modificationDate=1592932328300&api=v2		The code (as demonstrated) along with test scripts and swagger documents will be added to the multicloud/k8s repository soon. https://github.com/onap/multicloud-k8s
CNTT Track	Key Points	Challenges	Next Steps/Action Items
Performance (Joint with OPNFV)	- Great Discussion around performance and it's relation to CNTT. - Discussion to be continued with Al Morton, Trevor Cooper, and Mark Beierl during CVC using AI proposed 4-tier structure (described below): - Functional tests lead to Performance tests of the functions. A subset of the most important performance tests are elevated to Benchmark status (with more precise specifications of methods, etc.). Acceptance thresholds could be established for "Performance Conformance", if agreed.		- Continue discussion in CVC. - Map 4-tier structure to CNTT.
Traceability Test Cases (Joint with OPNFV)	Great progress demonstrated by Cedric Ollivier to cover RA-1/RC-1 Requirements		
Use cases of SDN solution	Interesting and detailed presentation by Ying Li and Shasha Guo of SDN implementations for several use cases like Traffic Mirroring and Routing Configuration, showing code snippets, network diagrams and parameter mappings		
Field Trial Status (Joint with OPNFV)	Presentation by Cedric Ollivier - update on the CNTT Field Trial. CNTT RC changelog from Baldy presented (9 out of 2000 single tests removed) - good outcome. Orange IAAS: 10 remaining single test failures, targeting mid-July to complete. RC is ready to use by vendors and operators.		
Next CNTT OpenStack Release & Cyborg Acceleration Mgmt	- Presentation on CNTT OpenStack Release selection by Pankaj Goyal et al, and second half by Shasha Guo on Cyborg Acceleration Mgmt. - OSTK Pike was selected in Paris, but the next version was selected by a formal process and against defined criteria, the process started at Baldy vF2F in April 2020. Train met the selection criteria and is recommended as the next CNTT OSTK version. Recommendation: utilize Ussuri OSTK release for Cyborg API v2.0 service (as it is incompatible with Train). Upstream: Cyborg should fix their API in Train release as per OpenStack policy. - Discussion whether CNTT should jump straight to Ussuri to avoid back porting problems for Cyborg. An option for consideration for TSC (the only criterion not met by Ussuri is 6+ month requirement) - Shasha Guo and Ying Li on Cyborg acceleration: presented scenarios why we need to use Cyborg, and Cyborg enhancement requirements for CNTT.		As a result of the discussion, the next step will be to present an option of moving straight to Ussuri. Action on Pankaj Goyal
OPNFV Track	Key Points	Challenges	Next Steps/Action Items
<Many CNTT meetings were Joint with OPNFV Today! >	See above - Scheduling was a non-challenge again today!		

OPNFV TSC Meeting	Agenda 2020-2021 Community Elections proceeding, TSC members are elected, Leadership position elections are the next steps. - New Project Review on RI-2 in OPNFV, Wiki vote will proceed this week. - TSC Roles and Responsibilities reviewed with the Community. - OPNFV Internal Project Periodic Reviews continue (Project life-cycle assessment is also an outcome of TSC oversight) - Key meetings/sessions on OPNFV Release Process and CIRV Software Demo later this week (Wednesday) - Next Week: Review of feedback from the June Governing Board meeting. Let's play Twister! 		Need to clarify OPNFV interactions with CVC/OVP: this entity was not formed yet at the time OPNFV was Chartered.
OpenDaylight Track	Key Points	Challenges	Next Steps/Action Items
ODL Micro Status & Next Steps	- Slide Deck here - https://docs.google.com/presentation/d/1hqN9cFzmzkafCPgcEx7wZFB-rPaWHvKOBItcEINUywk/edit?usp=sharing - Need performance tests that show the improvement by ODL-Micro v/s OSGi/karaf - Need performance data about how much percent improvement ODL-Micro gives when testing with a device		☐ Tejas Nevrekar to share performance reports once available. Further elaboration in TWS once code is uploaded
ODL Platform API Changes and impact to downstream consumers			

June 24th, 2020 - Day 3

ONAP Track	Key Points	Challenges	Next Steps /Action Items

Track: E2E
Network Slicing
Session 1

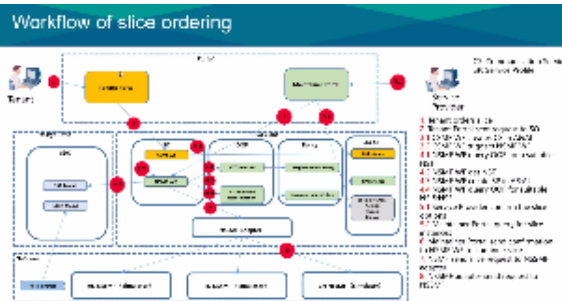
Presenters
/Moderators: LIN
MENG

Zhang Min

Swaminathan
Seetharaman

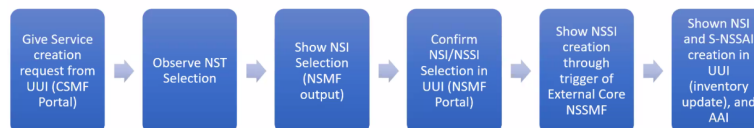
Content: Slides are available [here](#) and [here](#).

- E2E Network Slicing overview
- Work done in Frankfurt, ONAP component impacts
- Demo of Frankfurt scenarios
- Overview of Guilin content



- 5G Network Slicing Demo

5G Network Slicing Demo Steps



Presentation Slides are available [here](#) and [here](#).

Recording is available [here](#).

Comments/Feedback

1. Transport NSSMF interface on Southbound to be shown to avoid confusion. Currently the slides only shows RAN and Core NF Simulators. Transport NSSMF will interact with a Optical Domain Controller (or simulator) on SB.
2. Stretch goals to be indicated - for e.g., Control Loop using CLAMP, etc.
3. For Core, Closed Loop part to be discussed offline due to introduction of CNFs.

Track: E2E
Network Slicing
Session 2

Moderators:

LIN MENG

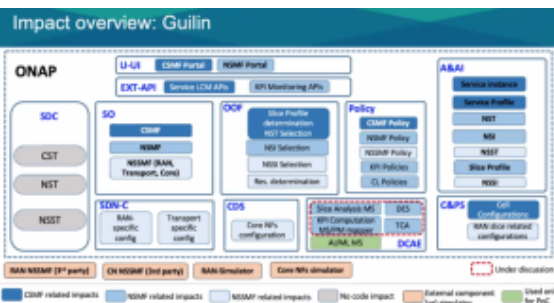
Swaminathan
Seetharaman

Presenters:

Swaminathan
Seetharaman

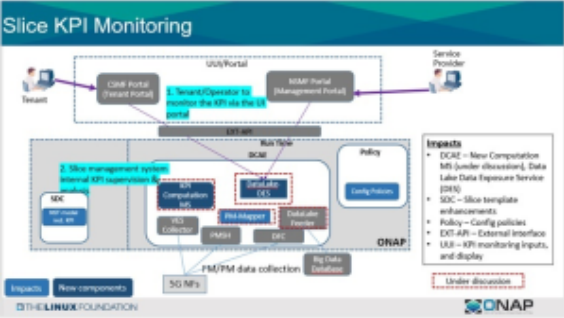
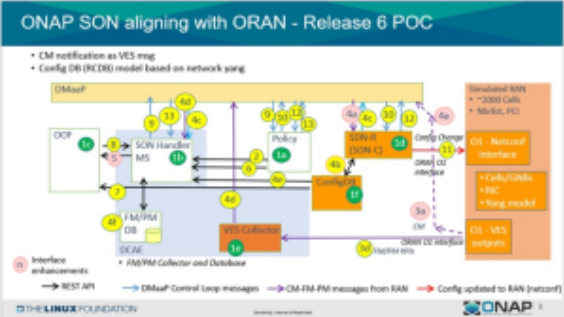
Milind Jalwadi

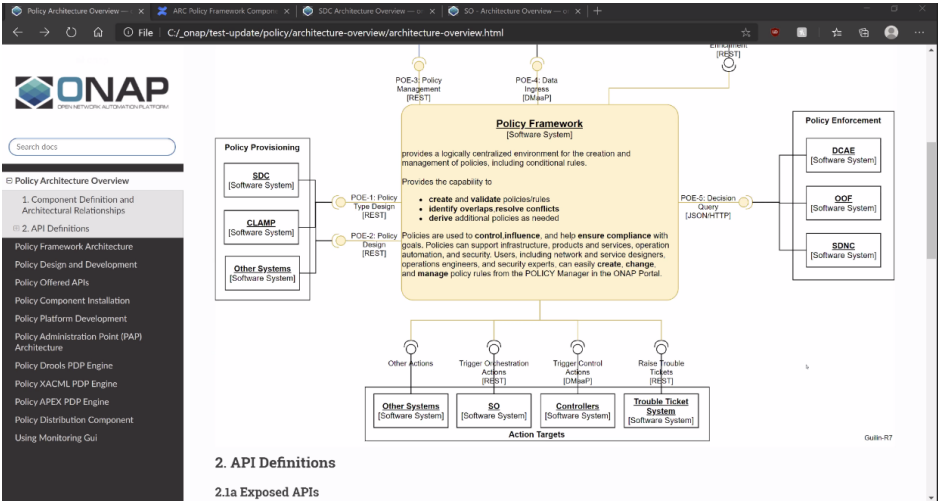
- Session covering Core, RAN and Transport Slicing functionality to be realized in Guilin (due to time constraint, Transport Slicing part moved to Session 3 - see below)



Presentation Slides are available [here](#) (Core), [here](#) (RAN) and [here](#) (Transport).

Recording is available [here](#).

Track: E2E Network Slicing Session 3 Presenters /Moderators: LIN MENG Swaminat han Seetharaman	Session covering KPI Monitoring, Closed Loop and Intelligent Slicing. The session started with Transport Slicing which was carried over from Session 2.  Presentation Slides are available here (KPI Monitoring), here (Closed Loop) and here (Intelligent Slicing). Recording is available here.		
Track: 5G OOF SON use case: Overview & Demo Presenters /Moderators: @N. K. Shankaranarayan nan Swaminathan Seetharaman Demo: @Reshma sree	Session providing a brief overview of 5G OOF SON use case followed by a demo which provided the highlights of the use case, and the work done in Frankfurt release.  Presentation Slides are available here. Recording is available here.		
Track: Docs /Migration Presenters /Moderators: Sofia Wallin, Jessica Wagantall	Discussions about deprecating the submodules in the docs repo		
Track: Documentation guide Preseenters /Moderators: Sofia Wallin/Eric Debeau	image2020-6-25_14-16-14.png		

Track: Document ation improvement plan for the Guilin release Presenters /Moderators: Ama r Kapadia	Testing and Documentation - Goals ● Goals of the project: ○ Reorganize (by creating appropriate links) in the documents based on Personas / Usage ■ ONAP Architecture (Existing document) ■ ONAP Admin Guide (Setting Up ONAP) ■ ONAP User Guide — Design Time ■ ONAP User Guide — Run Time ■ ONAP Developer Guide (Existing document) ○ Add additional Tutorials for easier usage (in case if doesn't exist) ○ We will validate and incorporate the missing steps/items to make the Documentation easy to use and accurate. ● Target release: Guilin		
Track: Architectur e Component Views in Readthedocs Presenters /Moderators: Ciar an Johnston, Tony Finnerty, Jeff Van Dam, Sofia Wallin	Great improvements from moving content from Confluence (onap wiki) to ReadTheDoc 		
Track: Release Note Content Presenters /Moderators: Sofia Wallin	● Agreement that the content of the release note will be limited to the scope of what we are delivering. Content of the previous release note will remain available.		
Track: Reference CNF development journey and outcomes Presenters /Moderators: Victor Morales	● A journey of building an LTE core (GW tester) Network function as a CNF. It serves as a good reference because it uses several, segregated networks. ● Required steps include preparing the Docker image, Using K8S to orchestrate, creating overlay networks using Flannel(many challenges related to multiple interfaces) and packaging using Helm ● Two solutions for CNI plugins - DANM and Multus ● Helm charts are available in the CNCF TUG Testbed		☐ Follow-up with the ONAP CNF Modeling /Inventory task force
OPNFV Track	Key Points	Challenges	Next Steps /Action Items

Cloud Software Validation - Part of OPNFV CIRV project Sridhar Rao	• Work moving fast since June -2 Interns Joined! Ashwin and Parth. • Demo shows how validation works, run on Intel Pod 10.	Form of UI and exposure of results: many possibilities (REST, cache in X-testing, others) PDF is a "big" PDF, includes many aspects beyond OPNFV PDF. Today, checking Airship deployment and debug with logs (find root cause). Other deployments ?? Security Checks: Some tools in Functest, Ansible Security Hardening has possibilities, Cedric will have a look in Openstack.	By early August, should have Airship Manifest complete. Results API will expand storage beyond current local storage, to X-testing, Test-API, etc.
K8s: Multi-Interface Container Network Benchmarking in VSPERF Sridhar Rao	Background information in Slides from April Event (links in the slides), Thanks to K8s Networking Experts! This is Mostly a Hands-on DEMO! • Automated Cluster Setup complete, Using Intel Pod 12, Multus, Centos (dpdk-app-centos), T-rex Traffic Generator. Autoamtion handles the deployment of the cluser and CNI, AND the tooling can be used on existing clusters. • VSPERF tool provides the basic configuration capability, starting with OVS-DPDK, on Worker Node (DUT). • A second instance of VSPERF runs the Traffic Generator-Only, for Benchmarking search control and Results collection. • Results for OVS-DPDK show very low Throughput, we can see the bottleneck is a virtual port. • Next, test with SR-IOV: one virtual function (VF) per vNIC • Finally, test with VPP: Issue with support of vhost-user, had to use memif (interface or bridge modes are OK). Problem with xconnect mode, l2fwd works ok.	Pod must be running DPDK, or other performance enhancing technology. Still exploring CPU configurations (optimization). Currently need to add flows in vSwitch manually. Need Expert Help! Queue configuration on Virtual Ports! Also Hugepage configuration.	Using Ixia HW Traffic generator in very near future. Will be running more comparison tests when satisfied with configurations. Jeff Hartley offered to help!

OVP 2.0 Cloud Native Operator Panel

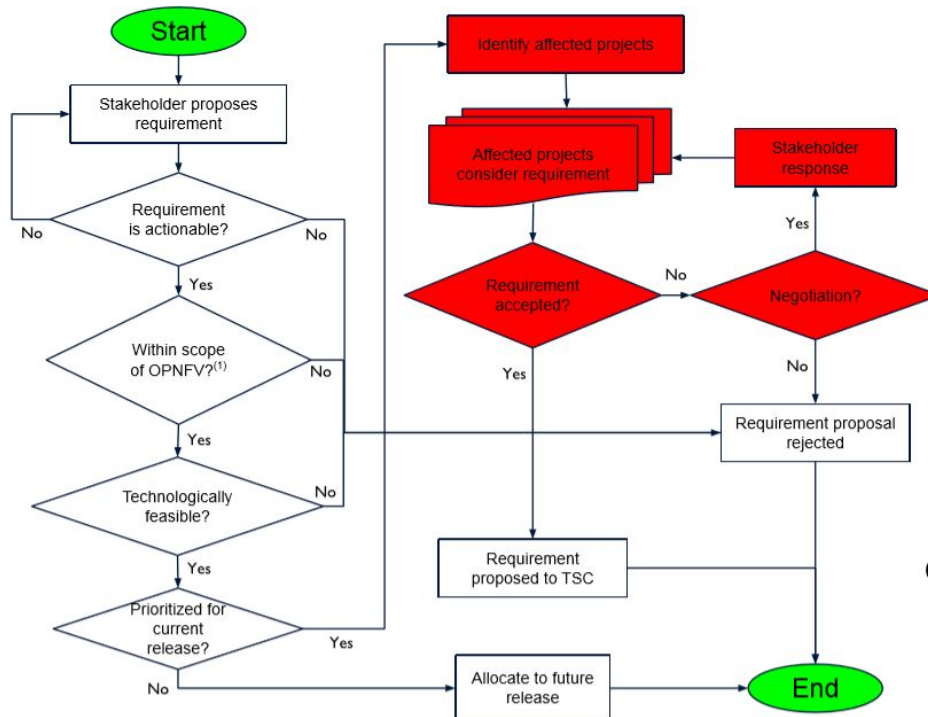
Moderator: [Marc Price](#)

- Very Interactive panel Q&A: The **Recording** is the Canonical Source of Information!
- Need CNTT specifications for infrastructure to line-up with CN workload needs: Integration tools to manage operate and maintain are needed
- Opinion: CNF deployment is highly dependent on success in 2 areas: performance and operations.
- CNF Testbed is a showcase for how different CN elements can work together and offer services.
- Different levels of Services: Examples include Self-Healing, OAM: CNF Conformance requires construction according to Cloud-Native Principles. Quality of Service should be included.
- What value can OVP 2.0 provide to Operators? And what can we learn from previous OVP efforts?
 - Need to certify that Operator's Infrastructure is **good enough** to run CN functions/workloads. Need to understand the demarcation between Infrastructure, Operations, and CNFs. Reduce Integration testing and the time involved.
 - Need more than a "standard", only a piece of paper! Also, CN-principles emphasize automation of operations so that systems don't have to be watched 24x7 (babysitting).
 - Can OVP reduce Integration and Conformance testing by 10%? - then that is sufficient value to use it. Operators have turned into integrators to use multiple vendor products.
- How does OVP 2.0 align with other projects?
 - CNTT for requirements, Also ETSI NFV
 - OPNFV for benchmarking/performance
 - CNCF for workload cloud-native-ness
 - ONAP for alignment on service creation with CNFs
 - TIP using CNTT specifications for deployment
 - It's more and more difficult to find the right forum - too many! Fragmentation will slow-us down.
- Value of OVP is the Meaning of the Badge! UL (Underwriter's Laboratories) is an example - you won't get shocked when you plug an electrical appliance into the wall.
- Most CNCF projects are about Rigorous Testing, also Project Graduation provides assurance. Long legacy of best practices for application development. May use other Communities: [FD.io](#) does it all day, for VPP... Others have a wider view (See previous OPNFV K8s Benchmarking Session).
- Look into more for the badging program
- We get out of it what we put into it, and recognize that each operator will still need to do their own testing! Cover LCF and common functions and let operators do the rest.
- Are there usecases that badging is NOT covering? bring them in!

Joint Topic: OPNFV and CNTT: OPNFV Release Process 2.0 JOINT with CNTT [David McBride](#)

- Integration-Test is a community role, ask community projects to implement verification tests for CI, then it is done.
- Integration-Test is covered by the CI and Jenkins -
- Leverage current gating
- Integration Test is different from normal CI and Jenkins checks, This form of Gating is a dependent on CNTT requirements
- CNTT must put developers into the process now, to implement the requirements, there may be difficulties when dealing with a single requirement at a time.
- Some feel that the Requirements Sub-committee is too much overhead.
- Others feel the Requirements SC provides the necessary Triage to reduce overhead on the Project teams.
- Need more CNTT input, if possible.

Requirements Vetting Process



Finding more time to close on this discussion: Proposal is to re-allocate time from Thursday's Agenda, Joint Topic Right after the 30 minute Break!

Additional Notes /Questions

What Artifacts are we Releasing?

- Tool Documentation (always)
- Integrated test automation for Conformance, Functional and other Requirements

OpenDaylight Track	Key Points	Challenges	Next Steps /Action Items
ODL transportPCE Magnesium Retrospective	This retrospective presented a quick overview of TransportPCE new functionalities introduced in Magnesium. It was followed by a status on the developments done and some feedbacks on the features introduced by OpenROADM and the community (OpenROADM OTN support, SpotBugs / checkstyle enforcement and doppelgangers, netconf notifications)	OTN support hardened for Aluminium Contributors growth	involve more reviewers and committers rationalization of project features for OTN

ODL BGPCEP Reliability & Scale	• Presentation here - https://docs.google.com/presentation/d/1bWTVCiXNBiWVEsOdbYFXEeIQrRwLswG-AgziyP110d4/edit?usp=sharing • Robert suggested having bugs filed for these issues so that the project will take a look. • Olivier also mentioned similar issues observed by his team as the PCEP failures and the only recover being restart controller. • Lumina will upload the missing bugs and patches • Config only replication shards are already supported		☐ Tejas Nevreka When working on the redesign to use a pipeline be mindful of ensuring pipeline stages are mutually exclusive ☐ Tejas Nevreka Upload missing bugs and patches to upstream ☐ Robert Vargas Share details of how config only replication shards may be configured
ODL Usability Review	A quick usability review of the OpenDaylight Usability was covered in this session including what works well, what does not (development & deployment challenges). This was followed up with suggestions for improvements - from a low hanging fruit to bigger architecture improvements like a more loosely coupled platform.		

ODL Project Status	The discussion concentrated around how to get more developers on boarded. There were many suggestions including having a dedicated public face for helping new developers. A key point that was made was: Need more clear messaging to the users (companies) that if you are consuming ODL, to please contribute upstream X hours per day or week to help resolve the technical debt.		
CNTT Track	Key Points	Challenges	Next Steps /Action Items
Edge Deep Dive	Ahmed El Sawaf Beth Cohen Petar Torre presented the session.	we need to be careful not to assign a "location" aspect to CNTT profile. (the plan is not to)	Clarify the term profile in relation to hardware profile or workload profile
Networking Focus Group	Walter Kozlowski Tomas Fredberg presented Reference Model and Networking relation to it.	How to make sure we don't duplicate what ETSI is doing.	Get full alignment with ETSI and make sure we leverage their work in CNTT.
OVP Phase 2.0 Panel	Marc Price moderated OVP session and there has been many discussions around it's relation to CNTT.		

June 25th, 2020 - Day 4

ONAP Track	Key Points	Challenges	NS/I/It
Track: Release Cadence Transition Proposal Presenters /Moderators: Krzysztof Opasiak	https://wiki.onap.org/display/DW/Release+Cadence+Proposal Glossary Feature - a high level design of new functionality that impacts multiple components. Has to be approved by subcommittees, impacted PTLs and TSC. Just technical details, no resource allocation. Spec - a detailed level design design of a change that is planned but focused on a single component. Has to be approved by impacted project Team. Just technical details, no resource allocation. ONAP best practice - "coding standard" (may be code related, security related, configuration related etc.) recognized by the community that should be followed. Approved by TSC, has to be followed by any new code entering the tree. Enforced for a code arriving for a review after approval. Global requirement - best practice chosen by the TSC to be applied to whole ONAP code base during a given release. Enforced since beginning of release X for whole ONAP code base. Stays forever Assumptions - DON'T BREAK ANY THE MASTER! - All approved best practices are checked in Gerrit review and enforce for any new code that is entering the tree - Global requirements are mandatory for all projects. If project fails to deliver global requirements, it is desopped from the release (previous release containers are used). - TSC defines the vision and sets the direction for ONAP project - Based on recommendations from subcommittees, TSC makes the final decision whether the new feature should be approved or not. - TSC makes the final decision whether the best practice should be approved or not. - Architecture team consists of ONAP specialists (both on functional and implementation view) that can clearly assess whether the proposed feature is aligned with long term ONAP vision and is aligned with ONAP design principles - Security Team consists of ONAP security specialists that can clearly assess whether the proposed feature does not compromise ONAP security standards - All other subcommittees consists of ONAP specialists in a given domain who help to asses the proposal if it touches their domain of interest. - Anyone is free to propose a new feature into ONAP at any point of the time but it has to be scoped to the release before the deadline in order to be considered as active - Anyone is free to assess the proposed feature from a technical point of view - Anyone is free to propose new best practice at any point of time. - Before project meets all global requirements for a given release, it cannot make backward incompatible changes that are impacting other components. - Project may release a new docker image at any point of the release (taken into account previous point) - PTL is free to define additional rules and quality metrics that has to be met before the patch can be merged - Anyone is free to submit any patch at any point of the time. - It's PTL & committers responsibility to make sure that patches they merge for a given branch obey to the rules set by TSC (best practices, release phase) - PTL and committers are responsible for the project condition - PTL and committers have a full control over what and when should be merged (i.e. They can prevent functional patches from being merged until global requirements for their project are met) - It's up to the feature/spec owner to organize resources to implement it. - Features can be worked on since approval until they are ready, no matter if it takes a release of 5 years. The release is always on time just like a train, always on time. You missed one, no issues, you can release new docker as a part of the next release as soon as you are ready.		

Track: CNF
Orchestration
through ONAP

Presenters
/Moderators: [Seshu Kumar](#)
[Mudiganti](#), [Lukasz Rajewski](#)

- Candidate for the Guilin Release



Executive Summary - Provide CNF orchestration support through integration of K8s adapter in ONAP SO

- › Support for provisioning CNFs using an external K8s Manager
- › Support the Helm based orchestration
- › leverage the existing functionality of Multi cloud in SO
- › Bring in the advantages of the K8s orchestrator
- › Set stage for the Cloud Native scenarios

REQ-341

Owners: Lukasz Rajewski (Orange), Seshu Kumar M (Huawei), Srinu Addepalli (Intel)

Business Impact - Enables operators and service providers to orchestrate CNFs based services along with the VNFs and PNFs

Business Markets - All operators and service providers that are intended to use the CNFs along with PNFs / VNFs

Funding/Financial Impacts - Reduction in the footprint of the ONAP for CNF support.

Organization Mgmt, Sales Strategies - *There is no additional organizational management or sales strategies for this requirement outside of a service providers "normal" ONAP deployment and its attendant organizational resources from a service provider.*

- Modelling of the CNF data
- So far VNF model will be used with slight modification required to track status of instantiated k8s resources
- 7 components impacted, required coordination effort

Track: Closed
Loop Target
Reference
Architecture and
Rel G steps

- IBN was presented by [Dong Wang](#) - there were many questions that will be asked via Control Loop subcommittee mailing list. Would like to schedule a more in-depth review of this use case on 7/1 or 7/8?
- TOSCA presented by [Michela Bevilacqua](#) and [Liam Fallon](#)
 - Vijay noted that DCAE-MOD for Guilin scope has been changed to include the pushing of a new catalogue. May effect this POC
- Discussion on future work for Control Loop subcommittee

- [Michela Bevilacqua](#): How to update a control loop instance?

o [Scott Blandford](#): We've put together a model for simplistic control loops. How do we deal with CL's that are stringing multiple DC AE together? Or have multiple interactions? How to monitor?

o Pamela Drago : Monitoring tools may not be enough ? Gervais-Martial Nguoko CLAMP monitoring is only capturing Dmaap events. Need much more development to support DevOps

o Vijay Venkatesh Kumar : Discussion to support multi-tenant, how would control loops work in that architecture? How does a distributed deployment play out?

Track: Guilin Release - TSC Prioritization

Presenters /Moderators: Catherine Lefèvre and ONAP TSC

Big thanks to all the Requirement Owners for their submission !

Dear ONAP Community - Continue to support our project teams through your engagement; They have a lot to accomplish prior our next milestone (July 9th, 2020) !!!

Heartily Thank You

Requirements Summary

52 Requirement Candidates:

- ✓ 4 Use Cases
- ✓ 23 Functional Requirements
- ✓ 25 Non-Functional Requirements

Major Use case/Functional requirements impacting >5 components:

- E2E Network Slicing (11)
- CCVPN-Transport Slicing (7)
- CNF Orchestrator Enhancements (7)

Top Impacted Components (excl. Non Functional Requirements):

- SO (9)
- DCAE, SDNC (incl. SDN-R, C&PS) (8)
- AAI, CCSDK (incl. CDS), SDC (6)

Wiki Links:

- [Guilin Requirements](#)
- [Guilin Impact View per Component](#)

TSC Prioritization – Summary

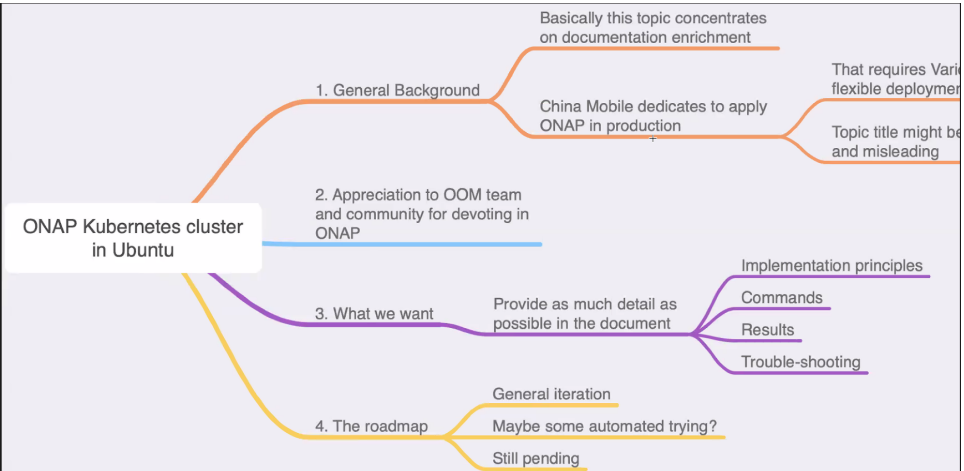
41 Requirements Approved by TSC

- 11x TSC Must Have (Non Functional Requirements)
- 12x Continuity (2x UseCases, 7x Functional Requirements, 3 Non Functional Requirements)
- 9x Special GO (Functional Requirements)
- 9x PTL GO/NO (1x Use Case, 1 Functional Requirements, 7 Non Functional Requirements)

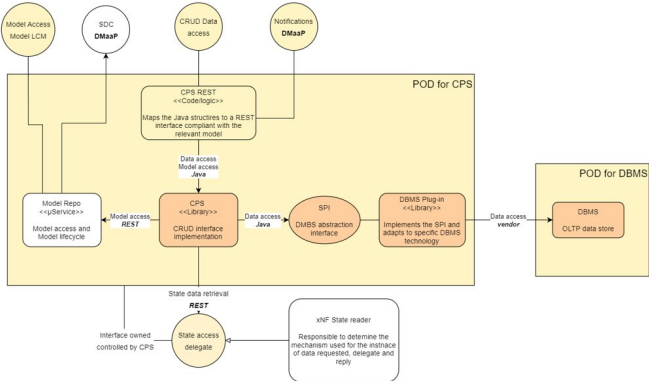
11 Requirements Not Approved by TSC

- 4 NO GO for this release
- 7 Currently NO GO and Require Follow-Up with the TSC

C

Track: Writing tests with Robot Framework Presenters: Marek Szwakiewicz	Introduction, best practices and hints on writing tests with Robot Framework During this presentation I tried to familiarize participants with Robot Framework, show some shortcuts that can be taken and show the Robot wrapper for Python ONAP SDK in action. • Grouping and consistency • Reusable abstraction • Separation of values • Setup and teardown • Simple presentation of Robot Framework wrapper for python onap-sdk project Presentation: LFN_June_vDTF_Robot.pdf Video: GMT20200625-143701_vDTF-ONAP-_2560x1440.mp4	
Track: Set up Kubernetes ENV guide in Ubuntu Presenters /Moderators:	 <pre> graph LR Root[ONAP Kubernetes cluster in Ubuntu] --- B1[1. General Background] Root --- B2[2. Appreciation to OOM team and community for devoting in ONAP] Root --- B3[3. What we want] Root --- B4[4. The roadmap] B1 --- B1_1[Basically this topic concentrates on documentation enrichment] B1 --- B1_2[China Mobile dedicates to apply ONAP in production] B1_2 --- B1_2_1[That requires Various flexible deployment] B1_2 --- B1_2_2[Topic title might be and misleading] B3 --- B3_1[Provide as much detail as possible in the document] B3_1 --- B3_1_1[Implementation principles] B3_1 --- B3_1_2[Commands] B3_1 --- B3_1_3[Results] B3_1 --- B3_1_4[Trouble-shooting] B4 --- B4_1[General iteration] B4 --- B4_2[Maybe some automated trying?] B4 --- B4_3[Still pending] </pre>	

Track: Service Mesh for RBAC and security PoC presenters: Sylvain Desbureaux Krzysztof Opasiak	Service Mesh PoC will require just few changes on the component: • add an option to disable AAF integration on user management part if any • add an option to disable HTTPs • retrieve header and pass them if they are doing subrequest	• Retrieve all component clients (sdc distribution clients, dmaap clients, ...) and make them service mesh aware (pass headers in particular)
Configuration & Persistency Service (C&PS) Project Overview & Model-Driven C&PS PoC	C&PS Project Page at: https://wiki.onap.org/pages/viewpage.action?pageId=81406119 C&PS DDF Presentations at: https://wiki.onap.org/pages/viewpage.action?pageId=81406119 Weekly Meetings at: https://wiki.onap.org/pages/viewpage.action?pageId=84644224 C&PS Project Proposal: https://wiki.onap.org/pages/viewpage.action?pageId=71834216 Overview of C&PS and Model Driven C&PS PoC	Design Framework Service Configuration and Persistence On-premise / public cloud

Model Driven Configuration and Persistency Service PoC Deep Dive Presenter: Tony Finnerty	YANG is Primary input and native language of the CPS Model driven safe access to data POC Target: Read/write persisted Configuration Management data Main interfaces and modules - Sample deployment view - Core functionality and REST interface are separate modules - DBMS access via a Service Provider Interface - Model handling will depend on interfaces and type safety – does not need to be in POD - xNF State reader is for information only, not likely to be part of PoC - DBMS is in own POD  THE LINUX FOUNDATION LFN NETWORKING ONAP 11	
OpenDaylight Track	Key Points	Challenges
Sync OpenDaylight releases and LFN infra migrations	Open discussion on how we can improve the LFN infra migration and ODL release cycles. Those migrations affect the overall efficiency of the community but not only. - migrations not at all synchronized with the release schedules - migrations mis-execution affects every project - python version forced to 3.5 obsoleted after only 2 months during the Sodium SR2 release. When possible, lfn-tools must support several versions of python and not impose it. - migrations are not automated. This also results in unexpected referencing problems for potential new contributors	- more transparency on LFN infra migrations - can be achieved with more non-LFN contributors - TSC should be able to block LFN migrations - control-loop between users / TSC and TAC / LFN
ODL BGPCEP Magnesium Retrospective and Roadmap for Aluminium	This retrospective presented a quick overview of Graph & Algo features introduced in BGPCEP project for compliance to RFC 5440. A short demo highlighted the new functionalities. The presentation also covered the roadmap for Aluminium release and reviewed new features that will be introduced to provide a Path Manager service.	RFC 5440 support Growth the community Next challenge for the project

ODL Service Automation Framework (SAF)	Service Automation Framework is a new project in OpenDaylight that leverages Workflow concepts to simplify Service provisioning. This session presented an overview of SAF project and have a discussion around roadmap items.		
ODL Platform Aluminum updates and Silicon lookahead	This talk provided details on what platform updates will be part of the Aluminum release. Also covered were potential platform updates in the next release, effectively doing some planning for Silicon.		
CNTT Track	Key Points	Challenges	Next Steps / Action Items
RI-2 DeepDive	• Georg Kunz Rihab Bandy presented the scope of RI-2, the plan for Baraque. • Presented OPNFV - Kuberef project proposal. The proposal will be edited (one sentence to address the point in the Challenge column) and OPNFV TSC Wiki-vote for Project Creation started today!	• How to make sure requirements in the newly created project are taken from CNTT.	

RC-2 DeepDive	Bill Mulligan led the session on RC-2 Deep Dive • Cedric Ollivier presented the common RC framework. • Taylor Carpenter presented the traceability matrix.https://wiki.lfnetworking.org/	• Align all efforts to a single outcome and agree on one way of doing it.	
CNTT/OPNFV Release Sync	• CNTT/OPNFV Releases Sync		

CNTT Security	• Karine Sevilla led a discussion on Security	• Status on RA-1 security • Evolution planed for Baraque release • For security testing, tests and tools available	
OPNFV Track	Key Points	Challenges	N S // It

OPNFV INFRA Work Group Update Trevor Bramwell Sawyer Bergeron	• Need quotes for new machines at UNH - IOL and Oregon • INFRA is working with various projects to transition to Lab As A Service, rather than Static assignments. • CI/CD Evolution Options - OPNFV is different from other LFN projects (but needs update?) ◦ Migration plan includes a Proof of Concept phase • Lab As A Service review - booking for various LFN projects. Look around at site: labs.lfnetworking.org ◦ LaaS New Features - PTLs can define complete HW configuration, network configuration, merge configuration ◦ LaaS Quick booking Improvements ◦ Plus CNTT-ready! additional requirements for networking: greater uplinks, and additional storage ◦ Anyone with LFID can use ◦ New features planned: booking transfers between users, analytics dashboard, Jenkins integration	Lab folks are seeking HW quotes, but this has stalled (for many reasons that seem to be related to COVID-19). Need to Figure out a way to get quotes before the funding goes away!	
Second Session of Joint Topic: OPNFV and CNTT: OPNFV Release Process 2.0 JOINT with CNTT David McBride	• Project Release Plans Template - Each project will describe and document their Artifacts/Deliverables ◦ OPNFV's project plans have varied in degree of detail • OPNFV TSC has the responsibility to establish the Release Process • Requirements Vetting is still a sticking point ◦ Release requirements are part of OPNFV Release process. Full Stop • Requirements will come from CNTT, AND Openstack, ETSI NFV, and OPNFV participants. • There are already LOTS of requirements to Vet that intend to be part of OPNFV's next release.	Testers who won't experiment...	Mc "St dis " a OK
Tungsten Fabric Track	Key Points	Challenges	Ne St /Ac lte
TF Integration with ONAP			□
Making TF Cloud Native			
Move Upstream DPDK for TF			