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: Re quirement Subcom mittee meeting and

on of Guilin planned work Presenter /Moderat

or: Alla Goldner

presentati

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-Requirements Subcommittee meeting and presentation of Guilin planned work
- List of Guilin Non functional requirements TSC MUST HAVE

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 functiona requirem ents have been prioritize d up to now by the ONAP TSC for Guilin, requestin g support from compani es who are submittin g usecase /function al regs. How can we impleme nt additiona I non functiona requirem ents?

Partial solution will also been discusse d as a Cross-Commun ity topic at 2.30 pm UTC Monday June 22nd, 2020- He

Recruit more Develop ers to

LFN Projects! Architect ure Compon ent Views in Readthe docs planned Wednes day June 24th, 2020 at 3pm UTC to align with swagger work

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.

PTL /No func tion al regs Ow ners on PTL call (6 /29) to ass ess wha can we agr with the proj ect tea ms for Guil in eith er as addi tion al TS С MU ST Hav е and /or CI-

Gati

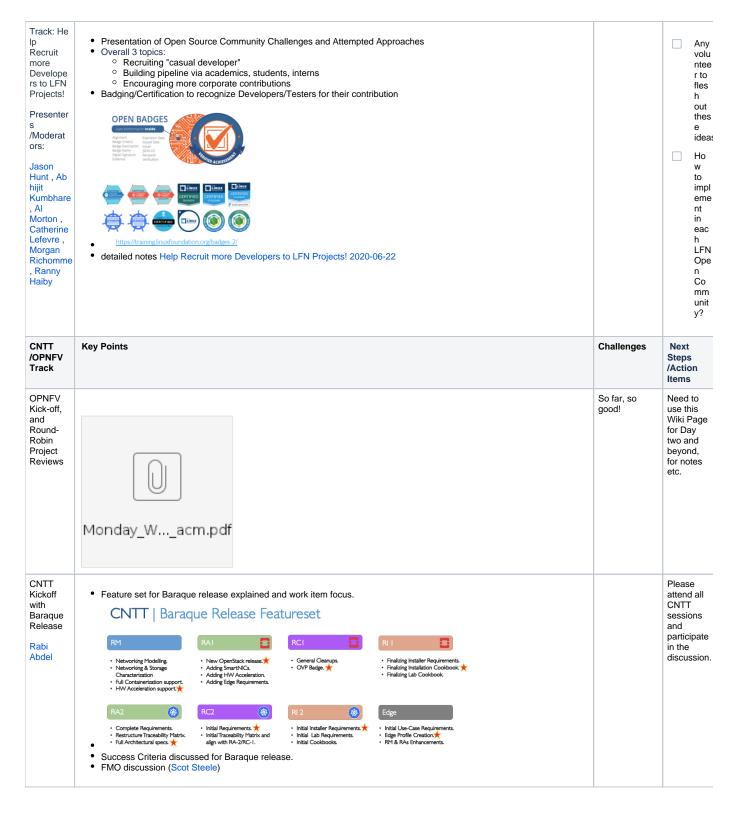
ng,

Track: Lic ense complian ce & how to deal with it? Presenter /Moderat or: Krzysz tof Opasiak / Catherin e Lefevre

Org aniz e a TS C vote on the list of lice nse s that can be use d with in ON AP cont rs i. e. a ppr ove d lice nse s mea ns whi ch onc e we agr ee to com ply with , in ter ms of lice nse ter ms for distr ibuti on in doc ker cont aine rs

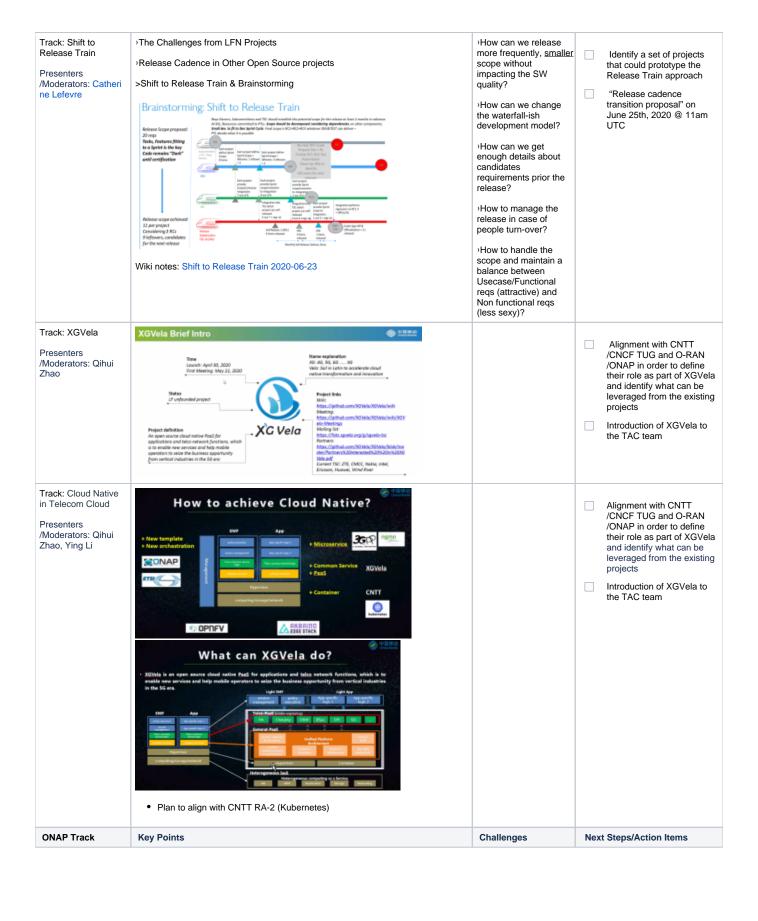
		PTL s to confirm the commen ts in Gre en reg ardi "Up stre am doc kers in ON AP Nex us Ser ver" sect ion
		Defi ne a list of app rove d bas e ima ges
		Do the lice nse com plia nce proc ess for all app rove d bas e ima ges
		Mak e sure that all com pon ents use only app rove d bas e ima ges

Track: Int egration Status update: what's planned internally Presenter /Moderat or: Morga n 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 Guillin 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 juin session on Windriver/Intel Lab today 2PM and session on Integration priorities Today 2:30 Pm (https://com.us/ID813565317.) 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 / kubemetes 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://com.us/ID8135653372) 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://com.us/ID8135653372)		PTL s /Inte grati on on PTL call (6 /29) to disc uss how to rele ase mor e ofte n prio r M4 (con ditio ns, regr essi on and heal che ck ok, rocledu edu re, etc.)
Track: Modeling Subcom mittee Meeting	Reviewed current modeling activities and candidate modeling requirements for Guilin. The following topics were also presented: 1 Modeling process		invite to join those discussions
https://wik i.onap.org /display /DW /Modeling +2020- 06- 22+Speci al+Virtual +Face+to +Face+M eeting	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-ONAPModeling_Subcommittee.mp4		
Track: Policy Framewo rk Guilin Prioritizati on Presenter /Moderat or: Pamel a 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+Fra nkfurt+Tut orials
Cross Commun ity Track	Key Points	Challenges	Next Steps /Action Items



June 23rd, 2020 - Day 2

Cross Community Track	Key Points	Challenges	Next Steps/Action Items
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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, Otimages, 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		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
	EUAG White Papeesentation.pptx		
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	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	Update defaults (use Ingress, Storage Class, Hardened OS) Review of the required changes on components helm charts VS requirements presentation of changes, use of templates, adding appender to Logback to sup 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 Meas this will be offloaded to Service Mesh) Container RootFS should be mounted as ReadOnly Commit message rules for OOM		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:	How can we streamline the requirements coming from different sources inside and outside from the ONAP Community? As an example, EUAG REq Subcommittee prioritirised (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 L ukasz 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 AND Software Stack NEVI Software (Open Source Kubernetes) NEVI Software (Red Hat OpenShift) NEVI Hardware UNH-IOL Server [O] UNH-IOL Server [O] UNH-IOL Server [O] ONAP NEVI Hardware UNH-IOL Server [O] ONAP NEVI Hardware UNH-IOL Server [O] ONAP NEVI Hardware	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 Version 1.0 of the SDK was released and will be available using pip. Add handling for the macro Presenter: Michal Presentation provided an overview of the project capabilities: migrate onap_tests Jagiello Communication and handling with ONAP services using HTTP/S APIs repository to High level of abstraction pythonsdk_tests Easy to use, even if you don't know what is possible "underneath" Add close loop examples coming in next versions SDK requires Python 3.7 or higher and was tested with ONAP Frankfurt. lfn_onapsdk.pdf Frankfurt Post Review Frankfurt Schedule changes & pain points Release more frequently VS time Move to a more continous Mortem number of shifts in schedule (not so much the total delay) raised concerns approach Presenter : David Release at each milestone scope size (do we take in too much?) McBride very late avail of final dockers ? with working small steps use case not clear if they are leveraging or need more ONAP dev - cannot At RC0 provide %age know until actually running it completed, which ones are self release is painful, takes time for multi sub projects not done yet? Lots of remaining open bugs at M4 Observations on certificates, exceptions to milestones Recommendations Limit use case and requirements per release Use t-shirt scoring system as a guide. Set a maximum level, based on availability of resources (how about 250/) TSC should evaluate proposed requirements carefully and reject vaguely worded, poorly documented, not actionable, or unverifiable proposals. Urge PTLs to prioritize Jinz issues assigned to a nelease. ilel, don't use release assignment as backlog Review issues and limit release assignment to highest priority issues, as well as capacity to fix Integration team is moving in the right direction to automate verification of Do we also need a list and process to document all existing certs? Review of Progress on High Priority Items from the El Alto Release. ntegration tests in target decloyments using OOM. From Morgan: 2. Spotson 6 for 5 we found will be proving to 50 CMAP project to medium Grang within a gran level main stallast administration in 50 rego, via these tible to build not dealer, deployed CNAP, perform seat and perfected in End Suppose to the will be proposed on Quant. mprove lobet health check across projects. From Morgan less are see side the affected improve sign fittings are inhalted see (solid), abl., it has the less field guilty is still very different from one projection assume: More projects added to C. signifine and more project specific testing. From Morgan: - whicked follow obstants are in finishms code pois requesting ports; - which are professional conditions. 5G & PNF Use Case Presentations given on the 5G & PNF Use Cases Overview https://wiki.onap.org/display/DW/Guilin+%28R7%29+-+Use+Cases Benjamin Cheung (Presentation Slides are there also) Vimal Begwani 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 Al 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 Ollivierto 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 snipets, 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<br="">meetings were Joint with OPNFV Today! ></many>	See above - Scheduling was a non-challenge again today!		

OPNFV TSC Meeting	Pagenda 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 Nevrekarto 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
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Track: E2E Network Slicing Session 1

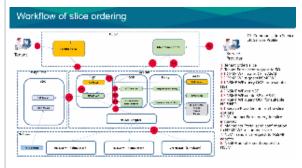
Presenters /Moderators: LIN **MENG**

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

• 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)

Moderators:

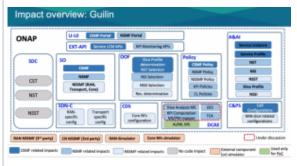
LIN MENG

Swaminathan Seetharaman

Presenters:

Swaminathan Seetharaman

Milind Jalwadi



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

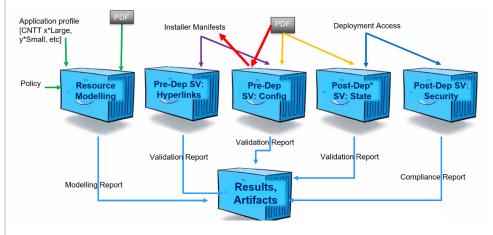
Recording is available here.

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

Track: Document ation improvement plan for the Guilin release	Testing and Documentation - Goals		
Presenters /Moderators: Ama r Kapadia	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	Great improvements from moving content from Confluence (onap wiki) to ReadTheDoc © Ruley Architecture Overview — X X Affic Ruley framework Composit X © 500 Architecture Overview — C X 0 500 Architecture Overview — C X + + + + + + + + + + + + + + + + + +		
Presenters /Moderators: Ciar an Johnston, Tony Finnerty, Jeff Van Dam, Sofia Wallin	Search docs Policy Provisioning Policy Enforcement Policy Enforcement Policy Enforcement Policy Enforcement Policy Enforcement Policy Provisioning Policy Enforcement Policy Enforcement Policy Provisioning Policy Provision and Architecture Overview 1. Component Policy Provision Polic		
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 		Foll ow- up with the ON AP CN F Mode elin g //nv entoc ry 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 ??

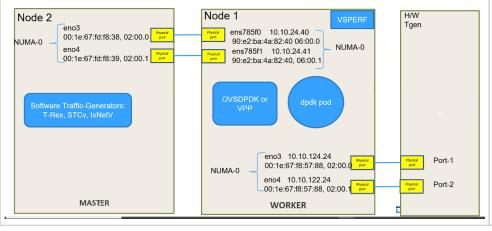
Security
Checks:
Some tools in
Functest,
Ansible
Security
Hardening
has
possibilities,
Cedric will
have a look in

By early August, should have Airship Manifest complete.

Results API will expand storage beyond current local storage, to Xtesting, 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, I2fwd works ok.



Pod must be running DPDK, or other performance enhancing technology.

Openstack.

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 compariso n tests when satisfied with configurati ons.

Jeff Hartley offered to help! OVP 2.0 Cloud Native Operator Panel

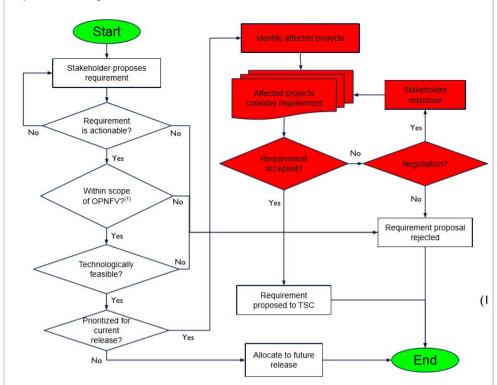
Moderator: Marc Price

- 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
 - o 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 a an example you won't get
- Value of OVP is the Meaning of the Badge! OL (Underwriter's Laboratories) is a 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
- Most CNCF projects are about Rigorous Testing, also Project Graduation provides assurance. Long legacy of best
 practices for application development. May use other Communites: 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 reallocate time from Thursday's Agenda, Joint Topic Right after the 30 minute Break!

Additional Notes /Questions

What Artifacts are we Releasing?

- Tool Docu ment ation (alwa ys)
- Integ rated test auto matio n for Conf orma nce, Funct ional and other Reau ireme nts

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 commiters rationalizat ion of project features for OTN

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 align ment with ETSI and make sure we laver age their work in CNT T.
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	N S // It
Track: Release	https://wiki.onap.org/display/DW/Release+Cadence+Proposal		
Cadence	Glossary		
Transition	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.		
Proposal	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		
Presenters /Moderators:	Assumptions		
Krzysztof Opasiak	1. DOINT REMAN ANY THE MANTERSI 2. All approved bets practice are deviced in gent review and enforce for any new code that is entering the tree 3. Combin recommend are manifold for a project. If it practs this to onlive injoint recommend are manifold for a project. If it practs this to onlive injoint recommend are manifold for a project. If it practs this to onlive injoint recommend are supported in the project of the project injoint recommend and the project injoint recommend are supported in the project injoint recommendations from business the final decision whether the left practice should be approved or not. 6. Six for inside the final decision whether the left practice should be approved or not. 7. Architecture are concreased for Alley accepts precipitate that are carried as a project in the project		

Track: CNF Orchestration through ONAP

Presenters /Moderators: Ses hu Kumar Mudiganti, Lukasz Rajewski · Candidate for the Guilin Release

TILFNETWORKING CNFO - Summary for the requirement Yurtual Developer & Testing Forum subcommittee

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

Owners: Lukasz Rajewski (Orange), Seshu Kumar M (Huawei), Srini 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.

 Modellin g og the CNF data

 So far VNF model will be used with slight modificat ion required to track status of instantiat ed k8s resources

REQ-341

 7 compone nts impacted

required cooridnat ion 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

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Sco tt Bla ndf ord : We've put tog eth ve put tog eth er a mod del for sim plis tic control loo ps. of the we do we do we do we do we do we've put tog ps. of the we've put tog eth er? Or have multiple interaction of the we've put tog eth er? Or have multiple interaction of the we've put tog eth er? Or have multiple interaction of the we've put tog eth er? Or have multiple interaction of the we've put tog eth er? Or have multiple interaction of the we've put tog eth er.

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° Vija y Ve nka tes Ku mar Dis cus sio n to sup port mul titen ant, ho w wo uld con trol ps wor that arc hite ctur e? Ho w doe s a dist ribu ted dep loy me nt pla out?

Track: Guilin Release - TSC Prioritization

Presenters /Moderators: Cath erine 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):

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

- 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

Track: Writing tests with Robot Framework

Presenter: 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.

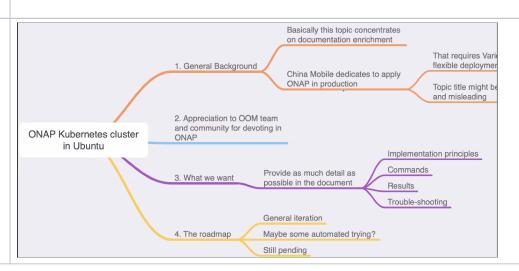
- Grouping and consistency
- Reusable abstraction
- Separation of values
- Setup and teardown
- Simple presentation of Robot Framework wrapper for python onap-sdk project

Presentation: LFN_June_vDTF_Robot.pdf

Video: GMT20200625-143701_vDTF-ONAP-_2560x1440.mp4

Track: Set up Kubernetes ENV guide in Ubuntu

Presenters /Moderators:



Track: Service Mesh PoC will require just few changes on the component: Service Mesh for Retrieve RBAC and add an option to disable AAF integration on user management part if any security PoC add an option to disable HTTPs compone retrieve header and pass them if they are doing subrequest presenters: Sylvai clients n Desbureaux Krz (sdc ysztof Opasiak distributi clients, dmaap clients, ...) and make them service mesh aware (pass headers particular) De Configuration & C&PS Project Page at: https://wiki.onap.org/pages/viewpage.action?pageId=81406119 Persistency Service (C&PS) g F R7 C&PS DDF Presentations at: https://wiki.onap.org/pages/viewpage.action?pageId=81406119 Project Overview & Model-Driven Weekly Meetings at: https://wiki.onap.org/pages/viewpage.action?pageId=84644224 Se C& C&PS PoC C&PS Project Proposal: https://wiki.onap.org/pages/viewpage.action?pageId=71834216 Ро Slic Overview of C&PS and Model Driven C&PS PoC tps ona /pa Configuration & Persistency Service (C&PS) . ∕vi€ act pa **Management Framework Data** Network Element Data 40 **ONAP DMaaP** Configuration **RUN-TIME Persistency** DCAE Inventory **Service** Configuration NameSpace topic **VES** 3GPP-Provisioning **PNF DCAE VES DCAE** Collector **VNF** C&PS Update **Event** Standards Defined VES Event for Configuration 50 CU/VNF Service Orchestration Read **PNF** Netconf Controller **C&PS Database** Read/Write **VNF** 01 SDN-C, VF-C, APP-C CM Notification Change Config Run-Time Operational Data Configuration Info A&AI CU/VNF Exo-Inventory Data State Information A&AI Sync Real-Time Inventory Network Element Data **Micro-Service** Read/Write PCI, E2ENS, A1P, MD PoC THE LINUX FOUNDATION **SONAP**



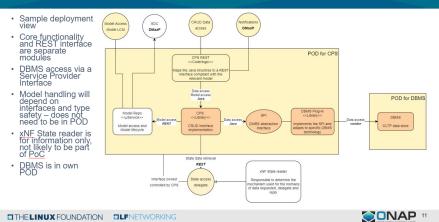
Presenter: Tony **Finnerty**

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



C	OpenDaylight
1	rack

releases and

LFN infra

migrations

Sync OpenDaylight

Key Points

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, Ifn-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 transpar ency on LFŃ infra migration s - can

be

Challenges

s 11 lt

achieved with more non-LFN contribut ors TSC should

be able to block LFN

migrations controlloop between users / TSC and TAC

ODL BGPCEP Magnesium Retrospective and Roadmap for Aluminium

This retrospective presented a quick overview of Graph & Algo features introduce 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

/LFN

Growth the community

challenge for the project

PT ado rev 100

De

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	Ne Ste /Ac
RI-2 DeepDive	 Georg Kunz Rihab Banday 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 requirem ents in the newly created project are taken from CNTT.	

C-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.
NTT/OPNFV Release Sync	CNTT/OPNFV Releases Sync	

OBNEY Treek	Karine Sevilla led a discussion on Security Karine Sevilla led a discussion on Security Keu Pointe	Status on RA-1 security Evolution planed for Baraque release For security testing, tests and tools available Challenges	
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 requirments are part of OPNFV Release process. Full Stop Requirments will come from CNTT, AND Openstack, ETSI NFV, and OPNFV participants. There are already LOTS of requirments 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 Ste /Ac
TF Integration with ONAP			
Making TF Cloud Native			
Move Upstream DPDK for TF			