Plenary: Daily Summaries for '22 January Developer Event

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Topic Leader(s)

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30m

This page will be used to provide a brief summary of the daily topics, provide feedback to the LFN staff, and plan for the next day.

Meeting minutes and action items should be recorded on your Topic page

- 10 Jan 2022
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- Event Survey
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- Event Survey
- Please!
- Thank You!

10 Jan 2022

Track w/Link	1-2 Key Points	Challenges
2022-01-10 - Plenary: Event Welcome and Opening Comments	there is an event today 🙂	
2022-01-10 - Plenary: Intro to Open Source and LFN	The usual Intro – Thank you Heather!	
2022-01-10 - Plenary: EUAG Future Direction	• Many members stopped seeing value as emphasis has shifted to creation of papers vs. providing input to communities • White papers that are positioning papers are perceived as more valuable than research papers • EUAG could be a coordinating committee for the project Telco representatives • Beth Cohen will take today's input back to the EUAG for discussion.	How to get the correct people involved and input fed back to the communities.
2022-01-10 - Plenary: Consistent Documentation Standards	• Need for consistent docs standards is critical. • Identified minimum set of required docs • Need to require docs as part of a release – no docs/no release • Create tools and templates to make it easier for the docs as part of the release process	Gain consensus in the LFN community on how to do it Tactics to support it Consistent Documentation Standards.pdf
2022-01-10 - Plenary: Magma 5G - Exploring future feature development and testing topics 2022-01-10 - Plenary: Magma 5G - Understanding ongoing feature development and testing	• Thank you to the Wavelabs Team! • Magma vision and opportunities • Magma technical Overview and Architecture • Steps to test Magma and a demo showing how to test Magma and capture test logs. • Features under development & Testing • Magmas place in the 5G SBP • Discussed 3GPP Standards & Requirements	• Call to action for interoperability and feature proposals, for example network slicing requirements.

2022-01-10 - Software Bill of Materials - ONAP story	• Software Bill of Materials (SBOMs) help in improving software development, supply chain management, vulnerability management, asset management, procurement, and high assurance processes. • There are several benefits of creating and using SBOM include reducing cost, security risk, license risk, and compliance risk. • SBOMs available formats were reviewed with an explanation of selected SPDX as ISO standard for an ONAP SO pilot and real ONAP SBOM generation in LFN CI pipeline. • Adding SBOM capability in the pipeline has no roadblocks, call for action was to implement it sooner as it does not require a lot of efforts on project teams.	Implement SBOM for all ONAP projects. Manage SBOMs.

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Project: ONAP - Track w/Link	1-2 Key Points	Challenges
2022-01-11 - ONAP: CDS Error Handling in Production deployments	• Handling various error scenarios in real life production deployment of CDS. • Real Demo	
2022-01-11 - ONAP: Disaster management for ONAP	• To backup and restore Kubernetes cluster resources and persistent volumes. • Real Demo	

2022-01-11 - ONAP: 2022 TSC priorities and Action Plan	• Review 2022 ONAP priorities and collect feedback
	• Next Steps:
	  ○ Kick Off Offline vote with the ONAP TSC
	  ○ Define an action plan on 1/20	

2022-01-11 - ONAP TSC Task Force: ONAP For Enterprise Business	• Share the latest updates about ONAP For Enterprise Business Roadmap, accomplissments and current activities.	Call for Enterprise Use Cases
2022-01-11 - ONAP: Release Process Review and Istanbul Retrospective	• Reviewed changes to release process approved by TSC last spring and rolled out in Istanbul. General agreement that changes were useful. • Reviewed Istanbul lessons learned and discussed actions for each item. Ran out of time for the last few items, so we will plan time during the PTL meeting to finish up.	• Architecture Reviews - Increase # reviews prior M2? • Last Minute Requirements prior M2 (Specification Freeze)
2022-01-11 - ONAP: CNF Orchestration Tutorial	• Overview of existing and new functionalities / Demo	
2022-01-11 - ONAP: Code quality demo	• Integrate SonarCloud during review process instead of daily runs	
2022-01-11 - ONAP Security: Jakarta Global Requirements and Best Practices	• ONAP Security Requirements (Initiatives, Best Practices and Global Requirements) • Deep Dive: Logging architecture leveraging open-source logging framework	
2022-01-11 - ONAP: CM notification handling in SDN-R demo and tutorial	• Presentation of new functionality available to receive and store CM notifications • Demo	
2022-01-11 - ONAP: TOSCA Defined Control Loop Lifecycle Management Demo	• Presentation and demo on TOSCA defined control loop Life Cycle Management • WOrking demo of control loop commissioning/creation/instantiation/removal performed	

2022-01-11 - ONAP: Joint SDO Modeling Workshop	• Presentation from Lukasz on the K8S resource model (A&AI runtime model) used in CNF orchestration use case • Presentation from Joerg on the latest progress of ETSI NFV on container modeling (VNFD) and reference point (NFVO-VNFM) • Presentation from Alex and Jack on topology model from O-RAN and MEF perspective	
Project: ODL - Track w /Link	**1-2 Key Points**	**Challenges**
2022-01-11 - ODL: Overview of TransportPCE feature	• General presentation of odl-transportpce feature • Reviewed main functionalities available on Phosphorus release, and those planned for next releases. • Live demo with an example of one connectivity service available: 10GE service over OTN/WDM optical Transport Network	
2022-01-11 - ODL: open talk about the current release process	• Q&A session about the history of the release process, MRI/MSI + self-managed /managed projects. Relevancy of this project today. Limits of Autorelease process today. • documentation generation issues with RTD and automation • release rebranding roll-out	• How to improve current release process automation and face the coming migration to pipelines / blue ocean?
2022-01-10 - ODL: Deploy Opendaylight on Kubernetes	• Discussed the motivation, use-cases, and the need for ODL (Network controller services) on the microservices platform. • Reviewed status of the work complete on ODL docker containers, and how to use them. • ODL Helm charts and clustering setup with COE or microk8s, with examples. • CI/CD, job templates are available for projects to migrate existing CSIT tests on the K8s platform. • Future work and scope for improvement.	
Project Anuket- Track w/ Link	**1-2 Key Points**	**Challenges**
2022-01-11 - Anuket: Hybrid Multi-Cloud Infrastructure	• Reviewed the essential problem statement of Telcos wanting to leverage cloud infrastructure and capabilities but needing the flexibility, choice to be able to support multiple cloud environments • Support public, private and hybrid • Consensus that many solution providers were seeking to create Single Pane of Glass management solutions but without some common requirements, specifications and perhaps APIs, this could lead to more chaos • Consensus that it seem to be appropriate for ANuket to consider adding requirements in this area. • Bob Monkman also suggested collaboration with EMCO, which is a multi cluster orchestration sister project in LFN, could be beneficial in conjunction with such specification work.	Conversations needed with EMCO and ONAP communities on how to handle multi-cloud
2022-01-11 - Anuket: Lakelse Retrospective	• Reviewed history of Lakelse release, including milestone tasks and work products • Value of RA review is questionable, as done for Lakelse. Need input from telcos on testing needs to help drive requirements definition. • Need to define release criteria for RI. Do all tests need to pass? Suggestion: let's use performance of RI in Lakelse as a baseline for future releases. • May need additional information for software release page on website, particularly regarding RA dependency for RC and RI specifications.	• Insufficient input from telcos on testing needs • Need to integrate other test /performance projects into common CI chain
2022-01-11-Anuket: RA-1 What's next	• Status of Lakelse release Reference Architecture 1 • Acceleration: further work on Cyborg if we can identify use cases requirements • Edge: discussion on deployments based on OpenStack • Hybrid and multi-cloud: to be addressed in interaction with the Reference Model. It is an orchestration topic, cross-community topic	
Project EMCO- Track w/ Link	**1-2 Key Points**	**Challenges**

2022-01-11 - EMCO: Project overview and Architecture	• Went over EMCO architecture, deeper dive of EMCO features and Open APIs • Went through a Demo and some slides on a vFW Use Case • Noted that Anuket is now considering defining some requirements around Telco multi cloud support for customers, which would benefit potentially from EMCO capabilities and so this project can connect with Anuket representatives to discuss collaboration.	
2022-01-11 - EMCO: Hands-on experience with demo application.	• Excellent real world test case with the Huawei team who used an earlier version of EMCO to deploy and manage an internal application • Gave a good indication of how to apply EMCO, ease of use considerations for the team, and possible some contributions back to the project.	

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Event Survey		
Project: ONAP - Track w/Link	**1-2 Key Points**	**Challenges**
2022-01-12 - ONAP: Stability, Resiliency and Stress tests	• Overview of stability and resiliency tests since Guilin	
2022-01-11 - ONAP: Database Upgrade and Rollback in Policy Framework	• Overview of new upgrade/rollback functionality / Demo	
2022-01-12 - ONAP: Deutsche Telekom Portal presentation - LF Networking - LF Networking Confluence	• Presentation of DT's ONAP based "TNAP" portal architecture. ○ Midterm plan to contribute the portal code to the community (not yet decided and scheduled) • Real Demo!	

2022-01-12 - ONAP: Unmaintained code handling and its impact on documentation	• Explanation of the documentation changes planned for "Jakarta" release, the reasons for them and current activities to fix the root cause of the problem (management of unmaintained code). • Good discussion; request from Amy Zwarico to Kenny Paul to check how unmaintained code and dependencies are managed in the Linux Operating System	
2022-01-12 - ONAP: How DT deploys ONAP with the help of Argo CD	• Argo CD helps us, doing GitOPs in the "TNAP" project and install ONAP and TNAP components. • Real Demo!	

2022-01-12 - ONAP: E2E Network Slicing Use case - Istanbul Release Highlights and Demo	• Presentation on E2E Network Slicing Overview and Istanbul release highlights
	• Demo on the below scenarios
	  ○ NSMF driven TN Slices and E2E Network slice allocation
	  ○ E2E Network slice allocation and reuse with all internal NSSMFs (RAN NSSMF driven TN-FH & TN-MH)
	  ○ E2E Network Slice Reuse using external NSSMFs (Option 2)	

Project: ODL - Track w/Link	**1-2 Key Points**	**Challenges**

2022-01-12 - ODL: T-API contribution to T-PCE	• Overview of Open and Disaggregated Transport Networks
	• Introduction to ONF T-API YANG models
	• Explanation on Nokia contribution to tapi NBI of ODL /TransportPCE:
	  1. T-API topology service
	  2. T-API connectivity service
	  3. T-API notification service
	• Demo showing the creation of an OTN 10GB service using T-API interface	

2022-01-12 - ODL: Planned extension of T-API module and integration of OpenConfig device models in T-PCE	• Nokia's view in open multi-domain & multi-device YANG data model optical networks
	• On going development to extend ODL/TransportPCE capabilities, and make it more agnostic to handle brownfield equipment:
	  1. External PCE based on T-API topology aided by ML application to select the optimal configuration parameters of the devices across the computed path
	  2. Introduction of OpenConfig device data models, to support multi-device data model networks
	  3. Integration of OpenConfig Renderer to provision OpenConfig based optical devices
	  4. Creation of an E2E network services across a multi device data model network
	• Great discussion with Olivier Renaisabout the release of this contribution and some technical aspects about the implementation
		1. Conversations needed in order to position the proposed extended optical SDN controller in the Transport Slice use case of ONAP

2022-01-12 - ODL: OpenDaylight Scale Architecture	• Provided high-level overview of Verizon's Opendaylight scaling architecture. • Discussed the important blocks of the diagram along with the scaling procedures. • Good questions from the community about callhome feature support and how to move forward.	

Project Anuket- Track w/ Link	1-2 Key Points	Challenges
2022-01-12 - Anuket: DevIntOps -- Agile Delivery of NFV	1, Promoting more close collaboration between vendors and operator by continuous integration multiple vendor products, continuous testing, continuous optimizing. 2, Promoting Pre-integration and Pre-deployment before production deploy, will help improve the quality and save time.	1, Openstack deploy could be very complex, hard to fully automate deploy and upgrade 2, Not easy to define which vendor should be responsible for the defect, suggesting apply RC testing.
2022-01-12 - Anuket: Anuket Assured - How can we deliver on the Anuket Value Proposition for Cloud Infrastructure and Cloud Native Workloads?	Overview of AAP, and overview of the value proposition • Cost and time savings • Efficiency/Simplicity Discussions/feedback from Operators and vendors as well as other Communities Transport-ability and ease of adoption added to the list of values	1) Develop a cross LFN community strategy 2) Assist Telcos with RFP/RFI questions 3) Outreach 4) Include Capacity testing
2022-01-12 - Anuket: RC2 Glossary Definition & Path Forward	Agreement on RC2 Scope and differentiation between RC2 and AAP Issues still to be resolved on Traceability and Release Mgmt.	
Project EMCO- Track w/ Link	**1-2 Key Points**	**Challenges/2022 Plan**
Automate traffic routing for 5G MEC	Various MEC scenarios Complexity of networking to address various MEC scenarios Need for automation Enhancements in EMCO to address traffic steering scenarios between 5G and MEC applications	Supporting MEC is divided into four phases Phase 1: Supporting Local MEC Phase 2: Multiple instance of apps across MECs Phase 3: Security as a Service for MEC applications. Phase 4: Selection of application instance based on 5GFF EDS
Lessons learnt in realizing slicing with free5GC	Network slicing requires many projects to work together. Network slicing is realized using EMCO, Nodus, SDEWAN, ExternalDNS, MetalLB, Cert-manager and other CNCF projects. Session went through the challenges faced in integrating all of these together, problems founds and fixes made by different communities.	More can be done. 2022 plan ▪ full automation ▪ Slicing orchestration
Synchronizing Resources with Target Clusters via Git	GitOps model is popular way of synchronizing resources in target K8s clusters. Azure Arc, Google Anthos, AWS managed K8s support Gitops model. EMCO enhancements are discussed to work with GitOps	2022 will support ▪ Azure ARC ▪ Fluxv2 ▪ Google Anthos
Project Tungsten Fabric- Track w/ Link	**1-2 Key Points**	**Challenges**
TF: Collaboration between Akraino and Tungsten Fabric Communities	• Quick walkthrough of collaboration with Akraino and Tungsten Fabric	Seeking further collaboration with the LFN community
Project 5G Super Blueprint w/ Link **(Cross-community with EMCO)**	**1-2 key Points**	**Challenges**

5G Super Blueprint: Realizing Multiple Network Slices & MEC Apps in each Slice with LFN/LFE/CNCF Projects	• Discussed evolution of Network slicing; current and future capabilities. • Demo of EMCO orchestration of slices & MEC applications	Planning for 2022 in regards to: • Automation needs. • Performance isolation needs • Security isolation needs • Type of observability & closed loop actions needed to maintain SLAs even when there are noisy neighbors.

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Event Survey		Please! Thank You!
Spring vDTF Discussion	• Program committees need adequate run-way between this and the June F2F DTF • Input to TAC we'll propose a few dates, and get input on the duration for a possible vDTF ~March	
Project: ONAP - Track w /Link	**1-2 Key Points**	**Challenges**
2022-01-13 - ONAP: ONAP data provider presentation and short demo	• Overview and architecture of data provider tool • CNF instantiation demo	
2022-01-13 - ONAP: Orchestration of xNF Based 5G Service	• Demonstration of the complete life-cycle management of the 5G Service implementation, based on Free5GC and UERANSim • Showing ONAP capabilities of CNFO and PNF Plug&Play working jointly on the creation of one service. • Demo step by step with all the process + implementation hints for the reuse purpose	Integration of real RAN PNF Integration of P4 UPF implementation
2022-01-13 - ONAP: Performing an Interim Agile Release, Experiences from the Policy Framework Project	• Presentation of proposal for interim releases in ONAP • Experiences of doing an interim release from the Policy Framework • Short explanation and demonstration of release scripts done by the Policy Framework	
2022-01-13 - ONAP: Policy Framework Update	• Achievements in the Istanbul release • Look forward to the Jakarta release	

2022-01-13 - ONAP: RAN Simulation for ONAP and OSC Use Cases	• Review of different aspects of RAN Simulation for ONAP and OSC use cases • Summary of existing work • Discussion on recommendations for future work	

2022-01-13 - ONAP: ONAP-based SMO in 5G Berlin Test Network	▪ Live demo using open source to mange and control a 5G network (RAN, Transport, Core)
	▪ Discussion about
	  ▪ Inventory Modeling
	  ▪ Synchronization Modeling
	  ▪ Vendor integration
	  ▪ Abstraction of several SDO models
		▪ Impacts by modeling and software lifecycles on running End-to-End use cases

Project: ODL - Track w/Link	**1-2 Key Points**	**Challenges**
2022-01-13 - ODL: Tox jobs parallelization in OpenDaylight CI	• tox jobs parallelization overview and quick demo • steps necessary to activate its support in a CI (example of TransportPCE functional tests)	
Project FD.io - Track w/ Link	**1-2 Key Points**	**Challenges**
2022-01-13 - FD.io: CSIT Performance Benchmarking with Anomaly Detection and Results Tracking	• FD.io Overview with VPP and CSIT core projects • A walk through of the CSIT Daily Trending and Release Reports • Performance anomaly patterns observed, automated detection with alerts, algorithms used • Portable CSIT Data Processing Infrastructure • All illustrated with live data sets	
Project EMCO- Track w/ Link	**1-2 Key Points**	**Challenges**
Orchestration of Magma	Integration of EMCO and XDS to realize Magma based distributed 5G	
Service Upgrade/Update using G UI		
2022-01-13 - EMCO: Multidomain orchestration using Terraform & ONAP CDS	DevOps-driven Multi-domain INfra Orchestration combines CDS, Camunda, Terraform and EMCO to enable Infra-as-Code as part of the orchestration workflow for activating infra components in public clouds, edge clouds and interconnection fabrics. The orchestrator effectively becomes model-free, devops driven and using a uniform method (Terraform) for activating very diverse infra components and enabling their interworking. The integration with EMCO enables app and function deployments on top of the activated and interconnected infra.	Need to integrate better with 5G function deployment leveraging work done in other EMCO-related initiatives
Edge Relocation with EMCO		
VNF Lifecycle management with EMCO and Kubevirt	This session presents our experience in deploying commercial VNFs on multiple K8s clusters with KubeVirt and EMCO.	
2022-01-13 - EMCO: SFC automation - LF Networking - LF Networking Confluence	• Overview of Nodus and support for Network chaining • Overview and demo of EMCO support for deployment and use of Nodus Network Chains by adding SFC and SFC Client intents to EMCO Deployment Intent Groups.	An example using 'real' network functions to create a network chain and attach to 'real' applications will be a useful next step.
Project Tungsten Fabric- Track w/ Link	**1-2 Key Points**	**Challenges**

2022-01-13 - TF: Tungsten Fabric Deployment Walkthrough	• Tungsten Fabric architecture overview • Ansible Deployer Overview • OpenStack installation walkthrough • Kubernetes installation walkthrough	
Project XGVela- Track w/ Link	**1-2 Key Points**	**Challenges**
2022-01-13 - XGVela: Microservice UPF design experience and interactions with PaaS platform	• UPF microservice design experience sharing + its requirements on PaaS • Interactions happened between UPF and PaaS (several PaaS functionalities and architectures will be provide) • Demo	
Project L3AF- Track w/ Link	**1-2 Key Points**	**Challenges**
2022-01-13 - L3AF: eBPF for Windows and Cross Platform eBPF programs	• Overview of eBPF for Windows Architechture • What's next in eBPF for Windows • eBPF for Windows Bind Hook demo	