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| <b><u>Agenda &amp; Schedule</u></b>        | <b>Open Networking Community Meeting</b><br>-- June 5th - 6th, 2019, 9AM - 5PM --<br>- local host: Deutsche Telekom AG -<br>Germany, Berlin, Winterfeldtstr. 21, Room 7074 |  |  |
| <b>Day 1: June 5</b>                       | <b>Topic</b>   | <b>Speaker</b>   | <b>Details / Abstract</b>  |
| 09:15                                      | Get together   |  |  |
| 09:45                                      | Welcome & Agenda Intro   | Manuel Paul (DTAG)                                     |  |
| 09:50                                      | Host Welcome Note  | Rüdiger Kunze (DTAG)                                   | Host / Welcome<br>Speaker - Head of Cost-Engineering, Standards and Processes at Deutsche Telekom and ONF BoD representative   |
| <b><u>Program Updates and Keynotes</u></b> | <i>Lead theme: Deploying open source/disaggregated solutions into production</i>   | Moderator: Manuel Paul (DTAG)                          |  |
| 10:05                                      | Reliance Jio's Vision  | Dhiraj Sharma (Reliance Jio Infocomm Ltd.)             | Presenter details: Senior Vice President   |
| 10:30                                      | The Broadband-Services Use Case in ONAP: Lessons learnt  | Daniel Balsiger (Swisscom)                             | Presenter details: Senior Innovation Engineer, IT, Network & Infrastructure Department   |
| 10:55                                      | TIM FutureNet demonstrator: ONAP orchestration of cloud central offices and disaggregated optical network  | Carlo Cavazzoni (Telecom Italia)                       | Presenter details: Project Manager<br>Abstract: The presentation describes how CORD based cloud central offices and SDN controlled disaggregated optical transport network (based on results of Metro-Haul project) have been orchestrated by ONAP to provide enterprise services in TIM's FutureNet network demonstrator. |
| 11:20                                      | Update from KPN  | Eduard Metz (KPN)                                      | Presenter details: Network Architect, KPN CTO Office<br>Abstract: Update on status and challenges regarding open networking use-cases being worked on at KPN   |
| 11:40                                      | EWE TEL's Next Generation Access Platform  | Dirk Dreikandt (EWE TEL)                               | Presenter details: Project Manager NGAP<br>Abstract: The presentation describes two major aspects of a study conducted by EWE TEL regarding Whiteboxing.   |
| 12:05                                      | Access 4.0 Program Update  | Robert Soukup, Hans-Joerg Kolbe and Thomas Haag (DTAG) | Presenter details: Head of Program and Chief Access Architects<br>Abstract: The presentation will provide an update on where DT stands in terms of deliverables, the time-line but also in terms of maturity to embrace true dev-ops and agile.  |
| <b>12:30 - 13.20</b>                       | <b>Lunch Break</b>   | <b>Sponsor: EdgeCore Networks</b>                      |  |
| 13:20                                      | ONF Key Projects and Platforms   | Andrea Campanella (ONF)                                | Presenter details: MTS, ONOS TST member, ODTN Technical Lead, ONF ambassador<br>Abstract: Overview of ONF and it's projects  |

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| <b><u>SDAccess</u></b>         |  |                                    |  |
| 13:45                          | Path to SD-Success   | Vincent Wiese (ADTRAN)             | Presenter details: PM Services & Solutions Integration<br>Abstract: Discussing the challenges of bringing SDN Open Source to productization and how we can tackle those as a community   |
| 14:10                          | Vision on taking Open Source to production   | TBA                                | Presenter details: TBA   |
| 14:35                          | Getting VOLTHA to Production - The boring stuff  | David Bainbridge (Ciena)           | Presenter details: Senior Architect<br>Abstract: The community's goal is to produce a production quality product, but our behaviors sometimes betray that goal. This presentation will discuss the characteristics of a production system and propose some actions that may help the community move toward their goal. |
| 15:00                          | Harmonizing the ecosystems of open communities - building bridges to carrier-grade solutions     | Kurt Pynaert (Nokia)               | Presenter details: Head of End-to-End SDAN Solutions Team<br>Abstract: The eco systems of open communities, Nokia's role and strategy, How to harmonize – the best-of-breed, How to make SDN carrier-grade, SEBA w/ OB-BAA w/ DSC demo, Synergy with O-RAN/RIC – another ecosystem, Conclusions.                       |
| 15:25                          | ONF VOLTHA Project Update & Roadmap  | Bjoern Nagel (DTAG)                | Presenter details: Senior Solution Architect, ONF VOLTHA PO  |
| <b>15.45 - 16.15</b>           | <b>Afternoon break</b>   |                                    |  |
| 16:15                          | ONF SEBA Project Roadmap and community Update  | Saurav Das (ONF/Remote presenter)  | Presenter details: VP Engineering  |
| 16:40                          | mmWAVE in SEBA   | Olaf Bonness (DTAG)                | Presenter details: Senior Expert, Convergent Networks  |
| <b><u>PANEL DISCUSSION</u></b> |  |                                    |  |
| <b>17:05</b>                   | <b>PANEL</b> Highlights, lessons learned, opportunities, challenges - <i>with day 1 speakers</i> | Moderator: Stefan Meyerolbersleben | Moderator details: Associate Partner   |
| 18.00                          | <i>End of Meeting Day 1</i>  |                                    |  |
| <b>19:00</b>                   | <b>Social</b>  |                                    |  |

| Day 2: June 6                            | Speaking Slot / Topic   | Speaker                                  | Details / Abstract   |
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| 08:50                                    | <i>Get together</i>   |  |  |
| 09:00                                    | Welcome and Agenda Day2   | Agenda Intro Day2:<br>Manuel Paul (DTAG) |  |
| <b>Ecosystem &amp; Industry Adoption</b> | <i>Focus: What are the challenges that need to be solved deploying open source / disaggregated solutions into a production environment?</i> | Moderator: Manuel Paul (DTAG)            |  |
| 09:05                                    | Non-technical challenges to deploy open source in networks  | Stefan Meyerolbersleben                  | <p>Presenter details: Associate Partner</p> <p>Abstract: Most companies are used to leverage open source like Linux, Docker, Kubernetes. Still, moving open source into production provides challenges beyond the question if the software is carrier grade and fulfills the functional and technical requirements. As with traditional equipment, carriers demand clear ownership in case of defects or problems with open source, carriers demand rigid quality assurance even if CI/CD and DevOps replace traditional acceptance cycles, and they demand investment security for decades, not only a few years. The presentation will focus on such challenges and provide options to address them, both based on experience with data center technologies in other companies and based on projects in the telecommunications industry.</p> |
| 09:30                                    | Deployments lessons and working with a co-development partner   | Pier Luigi Ventre (ONF)                  | <p>Presenter details: Member of Technical Staff</p> <p>Abstract: Working in field deployments (and at scale) means also facing unique problems that you never see during the development process. Software and hardware issues can occur, sometimes all together and such issues are also unpredictable. The first part of the presentation shares with the audience pitfalls and lessons learnt coming from deployment experience of Trellis (ONF leaf-spine fabric). In such context the role of the co-dev partner is crucial in making all the dev/ops/integration process more "scalable". The second part of the presentation reports the experience of working with a co-dev partner and analyzes what works and what works less in the collaboration.</p>  |
| <b>Open Hardware</b>                     |   |  |  |
| 09:55                                    | EdgeCore activities with the ONF projects such as SEBA  | Mark Basham (EdgeCore Networks)          | Presenter details: VP Business Development and Marketing   |
| 10:20                                    | Taking Open Source SDN to Production – A Vendor Perspective   | Milo Tseng (Delta Electronics)           | <p>Presenter details: Director of Network, Delta Electronics EMEA</p> <p>Abstract: With the new disaggregation approach taking off, manufacturers have been repositioning itself in the ecosystem and facing the challenges of time to market and economics of scale, Delta will share its perspectives.</p>   |
| 10:45                                    | Latest achievements on SI3000 Lumia   | Andrej Krzisznik (Iskratel)              | <p>Presenter details: Broadband Product Manager</p> <p>Abstract: Innovative Dual Nature OLT for smooth transition from classical to SDN CORD use case; GPON vs XGSPON in CORD use case; Why also Multiple balde pOLT vs 1U pOLT; Future XGSPON pOLT propositions</p>   |
| 11:10                                    | OCP Update  | Paul Wagner (DT)                         | <p>Presenter details: PON expert, OCP delegate</p> <p>Abstract: OCP Update - plus (optionally): Open BMC and how systems can be remotely managed for system upgrades as well as fault diagnosis and recovery</p>   |
| 11:30                                    | OCP Telco rack for Central office   | Michel Geensen (KPN)                     | <p>Presenter details: Network Architect, KPN CTO Office</p> <p>Abstract: Getting a full pre-build, pre-configured, pre-cabled (OCP) rack into a Telco Central Office is very challenging, but KPN, together with OCP Platinum member Schneider Electric seems to have figured out the solution which enables this and can hopefully be used by other Telcos as well. In this talk KPN will share the concept of this rack for the first time with a larger audience. If with some minor changes this rack will fit more Telcos or non-Telco use cases, please share them with me as now is the time we can still make minor changes before we start we OCP Accepted process for this Rack.</p>   |

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| 11:45   | FPGAs as alternative data plane hardware   | Ralf Kundel (TU Darmstadt)                    | Presenter details: Research Assistant, TU Darmstadt  |
| 12:05   | Control/User Plane Separation for IPSec  | Hagen Woesner (BISDN GmbH)                    | <p>Presenter details: Co-Founder and CEO</p> <p>Abstract: The talk introduces options for hardware acceleration in IPSec and their integration into an Open Source control plane. As part of the A4 project, BISDN has performed an evaluation of various options for crypto acceleration. While the plain Linux kernel implementation yields only moderate performance, its DPDK and VPP siblings show impressive performance of multiple 10Gbit/s. However, so far no satisfactory control plane application could be run on top of the DPDK/VPP versions. The talk introduces the architectural options to run open source control plane applications like strongswan for IKE on hardware acceleration.</p>   |
| <b>12:30 - 13.15</b>                          | <b>Lunch Break</b>   | <b>Sponsors: ADTRAN, Delta Electronics</b>    |  |
| <b>Testing &amp; Validation at Scale</b>      |  |   |  |
| 13:15   | SDN-NFV Performance and Interoperability   | Carsten Rossenhövel (EANTC)                   | Presenter details: Managing Director   |
| 13:40   | Lifecycle Service Assurance – a Key to Automating the Service Delivery Lifecycle | Marc Cohn (Spirent)                           | <p>Presenter details: Director Marketing &amp; Technical Strategy, Virtualization</p> <p>Abstract: The inherently non-deterministic nature of dynamic services running in virtualized infrastructure, especially at the edge, poses new challenges. As a result, testing and validation throughout the lifecycle must be revisited. A Lifecycle Service Assurance methodology built upon rigorous testing during the development and deployment phase, and multi-layer validation of the operational network. While traditional testing has focused on performance and fault management, LSA adds configuration and security validation as well. This presentation examines the challenges migrating to the automated service delivery architecture and lifecycle, and an overview of the LSA methodology. We will introduce the methods and tools at each phase, including the overarching benefits of time-to-value and service agility.</p> |
| 14:05   | VOLTHA PON Simulation and Testing  | Zdravko Bozakov (Radisys)                     | <p>Presenter details: Software Architect</p> <p>Abstract: The delivery process for modern access stacks is shifting from a traditional vendor-centric model to an agile approach using open software, augmented with in-house development by operators. This transformation necessitates tools to streamline the development, testing and deployment lifecycle. In this context, simulated PON environments play a crucial role, removing dependencies on physical devices and enabling test automation. The talk highlights key challenges and explores how vOLTHA's BBSim and Radisys' RAPS framework can improve test coverage, -scale and -timescales associated with the design and validation of carrier grade solutions.</p>  |
| <b>Code Quality, Security &amp; Integrity</b> |  |   |  |
| 14:30   | Open Source – Really Open and Secure?  | Ibrahim Koese (Spike)                         | <p>Speaker details: Security Expert</p> <p>Abstract: Open source is usually developed and maintained by a community. But who guarantees integrity, quality, authentication of sources? We will present changes, risks, mitigation strategies with open source</p>  |
| 14:55<br><b>Talk + Forum Discussion</b>       | Community collaboration, code upstreaming  | Pier Luigi Ventre and Andrea Campanella (ONF) | <p>Presenter details: MTS</p> <p>Abstract: The talk will review best practices for community collaboration and code upstreaming with the objective to feed the discussion.</p> <p>Do you agree on these best practices ? Are we missing something from the picture ? What are the things not really working well ? These are just a few examples of questions we would like to get answered from the audience.</p>   |

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| <b>15:20 - 15.35</b>   | <b>Afternoon break</b>                           |                                     |  |
| <b>OSS Integration</b> |  |                                     |  |
| 15:35                  | Taking ONAP's SDN-Controller SDN-R to Production | Martin Skorupski (HighStreet)       | <p>Presenter details: Software Architect</p> <p><i>Abstract: After a brief introduction of the open source project ONAP (Open Network Automation Platform) the architecture and the functionality of the SDN-Controller SDN-R are explained. The development and test process for guaranteeing product quality are elaborated on. A standalone version of SDN-R is used to bring ONAP step-by-step into production network. By picking just individual ONAP components like the SDN-R operators may leverage on open source without the need for introducing the overall ONAP ecosystem. Finally, a roadmap of SDN-R towards a full-blown vendor agnostic SDN domain controller is sketched.</i></p> |
| <b>Mobile and Edge</b> |  |                                     |  |
| 16:00                  | OMEC, COMAC, and Multi-Access Edge               | Oguz Sunay (ONF/ remote presenter)  | Presenter details: Chief Architect   |
| 16:25                  | ONF OMEC as basis for IwEPC                      | Michael Sewera (T-Mobile Poland)    | <p>Presenter details: Head of EPC Engineering</p> <p><b>Abstract:</b><br/>Presentation is addressing challenges and opportunities related with implementation of the ONF based open source EPC platform in a production network bringing significant disruption by offloading heavy user plane mobile data. Fixed mobile substitution case study will be presented considering system architecture, integration of the critical interfaces (billing, LI) and software quality aspects.</p>   |
| <b>Closing</b>         |  |                                     |  |
| 16:50                  | Closing  | Closing remarks: Manuel Paul (DTAG) |  |
| <b>17:00</b>           | End of Event                                     |                                     |  |