Day 1	Grand F	Grand G
09:00 - 09:30	Opening & Welcome	
09:30 - 09:50	OPNFV 101 (Ildiko Vancsa, Ericsson) OPNFV is a very young community and very unique at the same time. It consists of several Telecom vendors and service providers along with IT companies to work on a platform that is suitable for NFVs and the puzzle is built from large open source projects as pieces. Many of us is not completely new to open source, but most of us is still learning how it works. OPNFV is a good example of how the mindset is changing to adapt to a new way of working. The road is full of turns, but we are learning our lessons and moving forward. The presentation will guide you through the changes in the projects' structure, life cycle and way of working. You will get an overview about our current project structure in OPNFV including co-operation, our processes including tools and best practices and areas that need further improvements.	
09:50 - 10:50	Container session (TBD)	
10:50 - 11:05	Morning Break	
11:05 - 12:05	Programmable Data Planes and the Role of IO Visor in NFV (Panel) Moderator: Margaret Chiosi/Panelists: TBD The telecom industry is being transformed by NFV, enabling faster time to market and flexible services through virtualization, programmability, and automation. Underpinning NFV deployments, programmable data planes are paramount to achieving agile service provisioning, management, and scalability. As a new open source collaboration project under the Linux Foundation, IO Visor offers a Linux based, in-kernel programmable data plane that is independent of hardware systems and silicon. In this panel, join the discussion on programmable data planes and hear from some of the most forward-thinking technology leaders around the world.	
12:05 - 13:00	Lunch	
13:00 - 13:20	DPDK, User Space Data Path, Open vSwitch and OPNFV (Thomas Herbert Red Hat SDN Group) In this presentation, Mr. Herbert discusses the layered architecture of Open vSwitch. Tom will discuss the OVSDB and Open Flow control protocol and the specific mechanism and internal API's with which OVS's layered architecture provides independence of the data plane from the control plane. Specifically, he discusses how user space accelerated software data paths can provide enhanced performance over the Linux kernel in some circumstances at wire data rates. The talk covers DPDK as an example of a user space data plane as well as the advantages and disadvantages of DPDK with respect to the LInux Kernel data plane in terms of configuration, flexibility, provisioning and network interfaces. Finally, he provides a discussion about the implications of utilizing OVS with DPDK or another accelerated software data plane to OPNFV higher level networking functions.	How to verify the reliability of OPNFV infrastructure? (panghao, Huawei) System reliability is one of most important features for the Network service. With the development of visualized network functions, system reliability and stability becomes more complex than before. Tes ting and verifying OPNFV infrastructure for tolerating the faults and failures is a great challenge. To address this challenge, the presentation presents a test framework which covers the means and types of faults injection as well as the implement of fault injection tools. Some test cases are shown to validate the framework.
13:20 - 13:40	DPDK, Data Plane Development Kit Architecture Overview M Jay Intel DPDK, Data Plane Development Kit, is a set of libraries and drivers for fast packet processing. With its I/O optimizing bulk mode operations and memory latency hiding s/w prefetch techniques, DPDK can receive and send packets within the minimum numbers of CPU cycles. Within DPDK tree, more than 20 different sample applications are provided for network developers to build their applications based on DPDK. DPDK is an Open Source BSD licensed project. A FreeBSD port is available for a subset of DPDK features.	Forging a clear path for collaboration with Model-driven interfaces (Peter Lee, ClearPath Networks) This talk will include a demo of the YangForge toolkit to showcase how it streamlines the traditional SDLC process by enabling common Model-driven tooling across the Requirements, Design, Coding, Testing, and Maintenance phases. This talk will highlight the current challenges by the development community in absorbing publication-centric outputs from the various SDOs and how YangForge directly empowers the members of the standards organizations to tackle the Design/Coding/Testing phases without any dependency on the downstream development com munity. In addition, this talk will illustrate how the YangForge framework fosters collaboration between users by publishing working implementations via a common repository. Various examples of best practices for leveraging YangForge by architects and developers as well as case studies on adoption across various OPNFV projects will be presented.
13:40 - 14:00	OpenFastPath –an open source accelerated IP fast path Tapio Tallgren, Nokia The exponentialgrowth in data traffic puts ever-increasing demands on the packetprocessing elements in the network, resulting in a need for highperformance IP packet handling. This drives the emergence of a newgeneration of hardware accelerated platforms as well as an emergenceof user space applications and libraries. Hardwareabstraction layers like OpenDataPlane (ODP) and Data PlaneDevelopment Kit (DPDK) provides a hardware abstraction layer and acommon API for applications and libraries. However, they do notinclude commonly required functionality such as IP forwarding orIPsec. To solve this an additional piece of technology is needed - anopen IP stack that provides needed protocols and features for highperformance environments. This framework will enable networkapplication developers to meet both performance and platform targetscreating a basis for scalable high-performance network functions. This presentation will introduce an open source project providingthat missing piece. OpenFastPath (OFP) is the industry's firsttruly hardware agnostic open source user space IP fast path solution.Backed by major industry players ARM, Nokia and Enea, OFP is aimingat providing industry leading scalability, performance and portability.	Use JavaScript to Visualize OPNFV System Performance (Wei Shao, Huawei) Web-based charts, graphs, maps etc are powerful tools for information displ ay and they empower user's understanding of operational status and potential issues of the system. In this talk, we will introduce some Javascript libraries for visualization of OPNFV system status and performance. These libraries allow browser-based graph rendering and improved user experience.
14:00 - 14:20	OVN for OPNFV (Vikram Dham Dell) OVN is the open virtual networking software which complements the existing capabilities of OVS to add native support for virtual network abstractions, such as virtual L2 and L3 overlays and security groups. In this session we intend to explore the option to use OVN for OPNFV. We will discuss the network capabilities supported by OVN and see if we can match them to the networking requirements of OPNV.	
14:20 - 14:40	Evolution of OPNFV CI system: what already exist and what can be introduced (Jun Li, Huawei) In Arno, the infrastructure of the CI system is shown in http://artifacts.opnfv.org/octopus/1026/docs/opnfv-ci-infrastructure.html, along with the growth of community development, new tools such as zuul, nodepool, etc, can be introduced, some famous storage/analysis tools, such as ELK, can be introduced to replace the existing Google Storage.	Functest in Depth: 1 hour workshop (Jose Lausuch, Ericsson) Functional testing is key to validate the installation and the correct behavior of the OPNFV platform. This session will cover how to prepare and execute the Functest framework over a fresh installed Arno and possibly some spoiler of the second release. It will also walk though the different tools used in Arno: Rally, Tempest, vPing and Robot.
14:40 - 15:00	ONOSFW Overview and Design (Brian OConnor, Onlab) Open Network Operating System (ONOS) is an open source SDN network operating system built by a community of service providers, vendors, network operators, and other collaborators. The goal of the project is to provide a network control plane that delivers high performance operation and resiliency in the face of data plane and control plane failures. ONOS also delivers software-speed feature agility, helps provide a migration path from legacy to white box devices, and helps reduce network operational expense. This talk will introduce the ONOSFW project in three parts -- describe the overall system architecture and the ONOS approach to network virtualization and tenancy; provide an update on the southbound protocols and drivers available in ONOS; and, discuss the integration with OpenStack and northbound abstractions that can be made directly available to tenants and VNF managers.	

Time	Session (Grand F)	Track (Grand G)
15:00 - 15:15	Afternoon Break	
15:15 - 15:35	OpenContrail Virtual Networking Stuart Mackie, Juniper Networks OpenContrail provides virtual networking using overlay networking between VMs in an OpenStack environment using a combination of L2 and L3 forwarding in the KVM hypervisor and distribution of routes from the Contrail Controller. In this tutorial we will describe the Contrail Controller architecture, how the route distribution and forwarding is accomplished, and how use of standard data plane and control plane protocols allow OpenContrail virtual networks to be easily connected into physical networks and how physical network functions (PNFs) can be linked with VNFs in service chains.	Project Breakouts
15:35 - 15:55	Compass - MetaData and Service Containerization (Wei Shao, Huawei) In this talk, we introduce Compass metadata support and how it provides extensibility of the installer's functionality without writing new code. We also introduce our experience in putting Compass service components into containers. We hope this could be useful and some technologies could be re-used in other projects in OPNFV.	Project Breakouts
15:55 - 16:15	Pinpoint - Fault localization in OPNFV (Adi Molkho Huawei) Fault localization (also known as Root Cause Analysis) is a process of deducing the exact reason of a failure from several fault indications. The Pinpoint project task is to explore the different information sources available for the IT/Tenant manager and define the API needed by the fault localization functionality block In this talk I will go through the use cases chosen for the projects, the exisiting open source projects that may provide usefull information for fault localization and the different methods that may be used inside the fault localization	Project Breakouts
16:15 - 16:35	Multisite - The Impact on the Upstream Community (Howard Huang, Huawei) Multisite Team has conducted successful discussions on the use cases, and produced some preliminary requirements to the upstream community. For an OPNFV project like Multisite which deals with multiple upstream projects/communities, how to conduct work in upstream is vital for our success. Since our usecases have been targeting both existing official top level OpenStack projects (Nova, Neutron, Cinder, Keystone...) as well as new projects (tricircle, kingbird), I want to use the opportunity of the design summit to discuss how to best output our requirements to the upstream projects/communities.	Project Breakouts
16:35 - 16:55	KVM4NFV - The path to meet NFV requirement Yunhong Jiang, Intel KVM4NFV project is to make collaborative efforts toward enabling the existing hypervisors for NFV features, so that we can provide crucial functionality in the NFV Infrastructure. In this session, we will discuss how are the community collect the NFV requirement, debugging and patch the kvm hypervisor, how to co-work with other project like CI/Yardstick to integrate kvm4nfv into opnfv infrastructure, how we setup the test environment and conduct the test to make sure we meet the requirement.	Project Breakouts
16:55 - 17:15	IPv6 - Service VM as IPv6 vRouter Bin Hu (AT&T) and Meenakshi Kaushik (Cisco) In this tutorial, we will demonstrate how to set up a service VM as an IPv6 vRouter in OpenStack+ODL environment	Project Breakouts
17:15 - 17:30	Day 1 Wrap-up	
17:30 - 19:00	Design Summit Happy Hour sponsored by Huawei (main Atrium)	
Day 2	**Grand F**	**Grand G**
09:00 - 09:15	Day 2 Kick off	
09:15 - 09:35	Jira 101 Mark Beierl, EMC	Project Breakouts
09:35 - 09:55	Jira 201 Mark Beierl, EMC	Project Breakouts
09:55 - 10:15	Orchestrator Lightening Round Hui Deng, China Mobile	Project Breakouts
10:15 - 10:35	Orchestrator Lightening Round (Cont'd) Hui Deng, China Mobile	Project Breakouts
10:35 - 10:50	Morning Break	
10:50 - 11:10	OPNFV Community Dashboard: Bitergia Aric Gardner/Ray Paik (LF)	Project Breakouts
11:10 - 11:30	Tutorial session/Project Breakout	Project Breakouts
11:30 - 12:30	Tutorial session/Project Breakout	Project Breakouts
12:30 - 13:30	Lunch	
13:30 - 16:30	Unconference	
16:30 - 17:00	Design Summit Close	