



Large Contributing OpenStack Operators

An OpenStack Working Group

November 2017



LCOO Origins & Founding Vision



APR 26 Service Providers reception hosted by AT&T

OpenStack Austin Summit Gathering to Share the Vision

Greetings from Texas!

Our industry is transforming at a remarkable rate due to an increasingly demanding marketplace with a broad set of competitive alternatives. As we all pursue our respective business transformation strategies, we recognized here at AT&T that we can take better advantage of the opportunities available to us to collaborate.

The common fabric for our industry's transformation is cloud, and while we're all racing to solve largely the same business problems, with largely the same collection of technologies, we're not taking advantage of opportunities we can create together. With this in mind, we will be jointly forming a working group focusing on Service Provider's operational and technical needs. Join us in Austin, TX, on Tuesday the 26th, from 5:30 – 7pm, as we bring together leaders throughout our industry to begin mapping a direction that will benefit us all.

Sincerely, Sorabh Saxena

Founding Members



at&t

Your world. Delivered.

orange™



中国移动
China Mobile



NTT

Walmart*

First Meeting August 2016

OpenStack Days Silicon Valley



You are invited to...

Join like-minded service providers and large operators to contribute to OpenStack.

- Share your experiences and thought leadership
- Commit your people into joint development of OpenStack
- Get the efficiency of shared development while meeting business needs
- Make new relationships with other Senior Executives
- [Learn more](#)

We hope you'll join us in the late afternoon August 8 the day before OpenStack Silicon Valley. The goal of our first meeting is to establish a preliminary foundation to guide our ongoing collaboration. We benefit from the pure-play, no lock-in, software-only solution so we should be a source of real-time direction and active participation for joint success with OpenStack.

Sincerely, Greg Stiegler



LCOO is an OpenStack Community “Working Group”

Foundation Board of Directors

Strategic and Financial Oversight

Active Technical Contributors

Technical Committee (TC)

13 Elected Members



Mission:

- Provide Technical Oversight and Leadership
- Enforce OpenStack Ideals
- Oversee Issues Affecting Multiple Projects
- Ultimate Appeals Board for Technical Decisions

Active User Contributors

User Committee (UC)

5 Elected Members



Mission:

- Provide Requirements to the Board and TC
- Provide User Feedback to Project Teams
- Gather OpenStack Usage and User Experience Data
- Keep the Community Vibrant and Informed

Foundation Staff



29 Staff Serving the OpenStack Community

Budget

Marketing

Operations

Infrastructure

Release Management

Community Events

Projects



Working Groups

API

Architecture

Deployment

VM & Bare Metal

Stewardship

Working Groups

Product

Enterprise

Scientific

Large Deployment

Fog Edge Massively Distributed Clouds

Operators Telecom/NFV

Fault Genes

LCOO

Project Team Lead's (PTL's)

Project Core Members

General Contributors

Emerging: Special Interest Groups (SIG's) - Combinations of both Technical & User Contributors

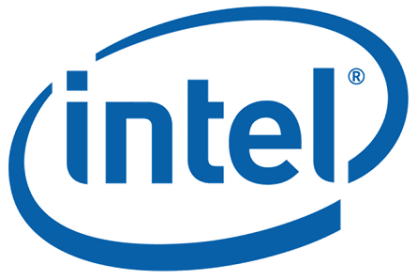
- **Intra-Company Sharing/Discussing of OpenStack Priorities, Strategy, Challenges and Successes**
- **Share Information about Community Happenings**
- **Provide a Framework to Encourage Intra-Company Collaborations**
- **Promote the Operational Needs of Large Users**
- **Encourage Increased Contribution and Platform Enhancement**



Key Differentiators

- Membership by *Company*
- Collaboration by Individuals
- Companies are Contributors
- Private Cloud focused
- Horizontal scaling focus
- Carrier dominated, but not Exclusive

LCOO Member Companies



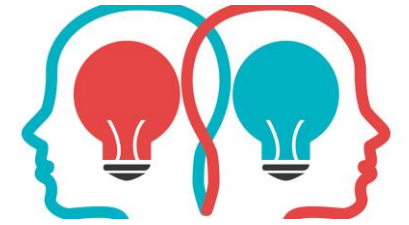
Benefits of Active Membership in LCOO



Increased Professional Network



Synergies and Mutually Beneficial Opportunities



Awareness of Community happenings



Common Purpose
Amplified Voice

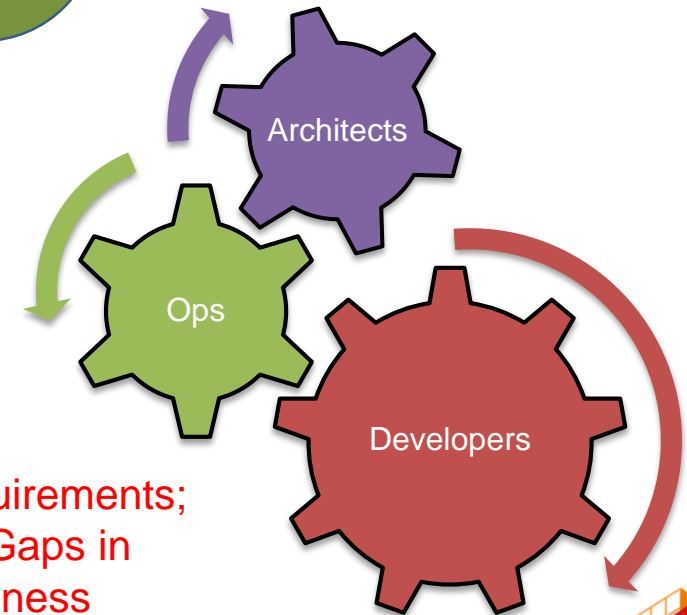
Increases Influence



Amplified Voice in the Community for Greater Influence



Shapes OpenStack



Better Requirements; Closed Gaps in Awareness

LCOO Roles & Responsibilities

Executive Board Members

- Executive Leadership representing each Member Company
- Set the overall direction and priorities for LCOO

Coordinators

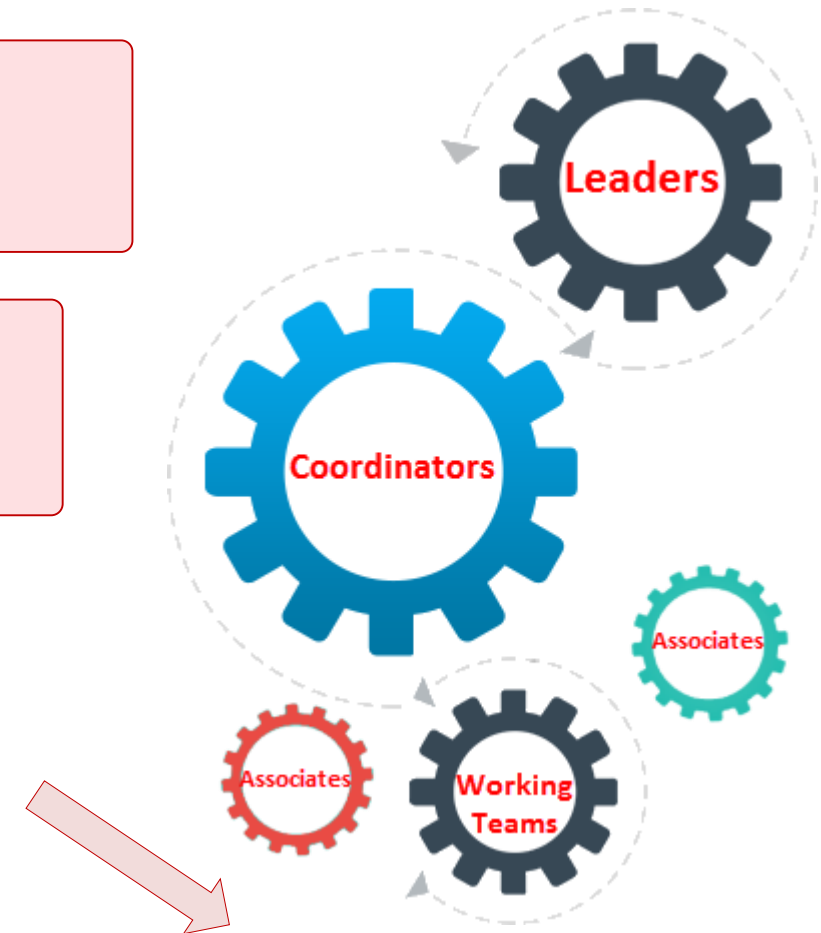
- Represent their Member Company in the day to day LCOO functioning
- Shares in the overall coordination of LCOO activities

Contributors

- Opportunities for Collaboration emerge organically from LCOO activities resulting in sub-teams spinning off
- Stakeholders / SME's from Member Companies
- Stakeholders / SME's from the Community at large
- Meet Ad Hoc per the needs of the engagement

Associates/Collaborators

- Attend Topical Meetings when desired / do not present at sessions
- Misc interested, non-member individuals, who attend meetings and/or occasionally participate in 'Contributor' sub-teams



LCOO's Revised Meeting Structure and Cadence

Topical Sessions

- Open to ALL
- Monthly for 90 minutes
- Rotate times to accommodate global participation
- Web-Meeting / Video Conference
- Members each present key interests, priorities, strategy, pain points, accomplishments, etc., for the topic
- Q&A and discussion
- Capture synergies and opportunities for collaboration

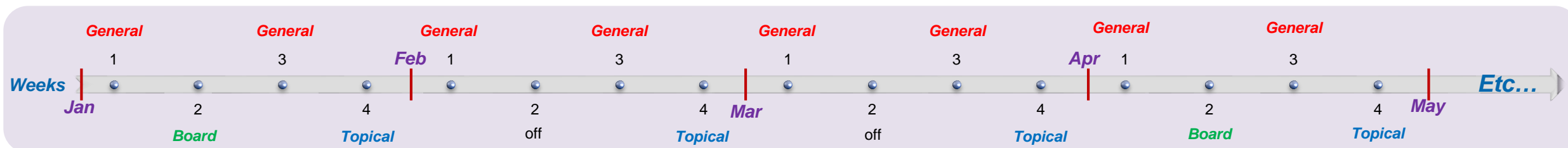
General Meetings

- Open Meeting attended by LCOO Coordinators
- Bi-weekly for 60 minutes
- Rotate times to accommodate global participation
- Web-Meeting / Video Conference
- Plan/coordinate Topical Sessions
- Status updates for collaborations underway
- Share information / plan for community happenings, etc.

Executive Board Meetings

- Attended by executive leadership from member companies
- Meet 2-4 times per year as needed for ~ 90 minutes
- Telepresence or face to face
- Steer the overall activities and direction of LCOO
- Set common priorities and strategy relevant to LCOO

Month to Month Meeting Cadence



LCOO Tools: A Key Part of the Framework for Collaboration

In addition to the standard OpenStack tools, LCOO uses the following tools to provide a framework for intra-company collaboration. These tools are all fully Open to everyone.



***JIRA** for agile issue tracking and lifecycle management of LCOO projects/collaborations:

<https://openstack-lcoo.atlassian.net>



***Confluence** wiki for joint editing and sharing of documents, maintaining meeting notes, action item tracking and more: <https://openstack-lcoo.atlassian.net/wiki>



GitHub provides Git source code repositories for our efforts that cannot utilize git.openstack.org:

<https://github.com/LCOO>



Our Meeting Agenda's and notes are published in Confluence here:

<https://openstack-lcoo.atlassian.net/wiki/pages/viewpage.action?pageId=8847424>



Meetings are also announced in advance through the User Committee mail list



Slack for convenient instant messaging across our global members and collaborators: <https://lcoo.slack.com>



Skype for Business and **Webex** are used for Web-Meetings and Video Conferencing.

*We are grateful to Atlassian the maker of Jira and Confluence for providing these tools to open-source efforts, free of charge on their cloud

LCOO Sessions and Collaborations

Examples of past Topical Sessions



Contrail



Gluon



cLCP



Destructive
Testing

Resulting Successful Project Collaborations



OpenStack
-Helm



LCOO Jira
cLCP Portfolio



Patrole



Eris

The screenshot shows the JIRA interface for the LCOO project. The top navigation bar includes 'Large Contributing OpenStack Operators Working Group', 'Dashboards', 'Projects', 'Issues', 'Capture', 'Boards', 'Portfolio', 'Training', 'More', and a 'Create' button. A search bar is also present. Below the navigation, a welcome message states: 'Welcome to the Large Contributing OpenStack Operators (LCOO) JIRA Site. LCOO is an OpenStack working group. All are welcome to create an account. You must login to View Kanban and Scrum boards.'

The main content area displays a 'Kanban board' for 'cLCP (All) Kanban Board'. It features a sidebar with 'Backlog', 'Kanban board', 'Reports', and 'Invite your team'. The board is organized into columns representing different stages of work: '19 Analysis/Vetting', '18 In Design', '35 Ready', '32 In Progress / Coding', '11 Blocked', '35 In-Review', and '296 Done'. Each column contains task cards with details such as titles, issue numbers, assignees, and progress indicators.

Column	Count	Task Title	Issue #	Assignee
Analysis/Vetting	19	[DD] Ceph Journal deployment	#29	OSherman
In Design	18	enhance endpoint dependency checking	#22	OSherman
Ready	35	OSherman-64 Documentation	None	OSherman
In Progress / Coding	32	Add helm testing coverage to each chart	#22	OSherman
Blocked	11	Armada Deployment of OpenStack-Helm	#33	OSherman
In-Review	35	Prometheus Chart/Operator	#54	OSherman
Done	296	OSherman-7 Create Helm Chart for Prometheus	None	OSherman



LCOO 2.0 Target Member Profile

Characteristics

- Utilizes OpenStack as a key Technology Enabler
- Embraces the 'open-source philosophy' of openness, collaboration and contribution
- Is committed to driving OpenStack enhancement
- A Large Operator
- Maintains a self-hosted private cloud
- Is Horizontally Scaling / Distributed Cloud focused
- Need NOT be a significant contributor to OpenStack
- Need NOT contribute resources toward common LCOO collaborations

Potential New Members to Recruit

- Verizon,
- China Mobile
- China Telecom
- Telstra
- DT
- Charter Communications
- China Unionpay
- ??



How to Join

Any individual may participate in LCOO and all are welcome.

If a *company* wishes to become an 'LCOO Member Company', there are some minimum requirements and procedures.

Requirements for Member Companies:

- Prospective member company must commit:
 - A minimum of one Executive representative to the Executive Board Member Role
 - A minimum of one person to the Coordinator Role
- The Executive representative must commit to the active participation in these roles on behalf of their company



Procedure to Join:

- One or more people from the company actively participate in the General (Coordinator) Meetings and other activities of LCOO
- Participant(s) formally express their company's desire to join during a General Meeting
- The company provides an Executive representative
- The Executive representative attends the next LCOO Executive Board Meeting and is welcomed by the other board members



LCOO Members are plugged in to the Community

LCOO member company's also contribute to many other Community efforts, representing our member interests and obtaining valuable information to bring back and share.

Product Team

Foundation Board

Ops Meetup Team

SIG Task Force

More...

Fog Edge Massively Distributed Clouds Team

*Numerous Big Tent Projects:
Nova, Neutron, Keystone,
Horizon, Etc.*

LCOO Members Contributed to 70+ OpenStack Modules in Pike

LCOO member companies contributed 5 or more code commits to each of these OpenStack modules for the Pike release

Barbican	Horizon	Kolla	murano-tempest-plugin	Octavia	python-glanceclient	python-troveclient	Syntribos
Blazar	interop	Kolla-Ansible	Networking-bagpipe	OpenStack-Helm	python-ironicclient	python-zunclient	Tempest
blazar-dashboard	Ironic	Kolla-Kubernetes	Networking-bgpvpn	openstack-helm-addons	python-magnumclient	Rally	Trove
blazar-nova	ironic-inspector	Kuryr-Kubernetes	networking-odl	OpenStack-Manuals	python-masakariclient	Ranger	Valence
Cinder	ironic-lib	Magnum	networking-ovs-dpdk	openstack-user-stories	python-novaclient	releases	Valet
collectd-ceilometer-plugin	ironic-python-agent	Masakari	networking-sfc	osc-lib	python-octaviaclient	requirements	watcher-specs
Devstack	ironic-specs	masakari-monitors	Neutron	oslo.policy	python-openstackclient	rsd-lib	Zun
Glance	Keystone	Mogan	neutron-lib	Patrole	python-openstacksdk	Stackalytics	
Gluon	keystone-specs	Murano	Nova	project-config	python-rsdclient	Storlets	
Grenade	keystonemiddleware	murano-dashboard	nova-specs	python-blazarclient	python-tricircleclient	Swift	

Source: Stackalytics.com



LCOO Birds of a Feather Session

Monday, 11:35 - 12:15, Level 2 - C2.4



LCOO Working Session

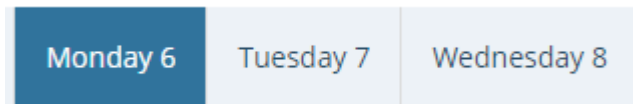
Wednesday, 11:50 - 12:30, Location - TBD



LCOO Members Sessions at the Summit - Monday



Schedule

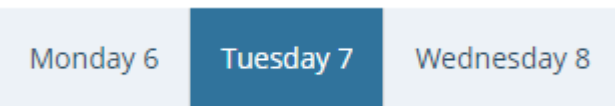


Topic	Summit Schedule URL	When	Who
AT&T's Strategy for Implementing a Next Generation OpenStack Cloud	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20565/at-and-ts-strategy-for-implementing-a-next-generation-openstack-cloud	09:00-11:15	Sorabh Saxena (AT&T) Ryan Van Wyk (AT&T)
Implications of 5G RAN and IoT on OpenStack based edge computing	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19547	14:20-15:00	Kandan Kathirvel (AT&T)
LCOO 'Birds of a Feather'	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20581/lcoo-bof6	11:35-12:15	Jaesuk Ahn (SKT)
Congress - Project Onboarding	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20429/congress-project-onboarding	11:35-12:15	masahito muroi (NTT) Hiroaki Kobayashi (NTT)
Blazar - Project Onboarding	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20432/blazar-project-onboarding	13:30-14:10	masahito muroi (NTT)

LCOO Members Sessions at the Summit - Tuesday

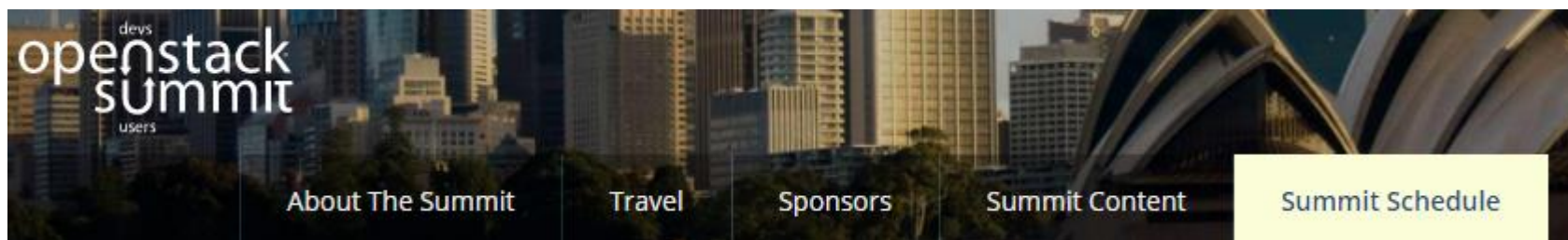


Schedule



Topic	Summit Schedule URL	When	Who
"I pity the fool that builds his own cloud!" – Overcoming challenges of OpenStack based telco cloud:	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19860/i-pity-the-fool-that-builds-his-own-cloudovercoming-challenges-of-openstack-based-telco-clouds	09:50-10:30	Ryan Van Wyk (AT&T) Alan Meadows (AT&T) Jaesuk Ahn (SKT) Shintaro Mizino (NTT)
Containerised Cloud from Core to the edge	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20548/containerised-cloud-from-core-to-the-edge	10:50-11:30	Kandan Kathirvel (AT&T)
From Kubernetes to OpenStack - Kubespray, Helm and OpenStack	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20053/from-kubernetes-to-openstack-kubespray-helm-and-openstack	11:40-12:20	Seungkyu Ahn (SKT) Jaesang Lee (SKT) Taeil Choi (SKT)
Guaranteed Provisioning by the Resource Reservation with Blazar	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19424/guaranteed-provisioning-by-the-resource-reservation-with-blazar	11:40-11:50	masahito muroi (NTT) Ko Harada (NTT)
Murano Project Update	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19266/murano-project-update	11:40-12:00	Felipe Monteiro (AT&T)
From Kubernetes to OpenStack - Kubespray, Helm and OpenStack	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20053/from-kubernetes-to-openstack-kubespray-helm-and-openstack	11:40-12:20	Seungkyu Ahn (SKT) Taeil Choi (SKT)
Neutron-Neutron interconnections	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19465/neutron-neutron-interconnections	13:50-14:00	Thomas Morin (Orange)
Cloud-Native Design/Refactoring Across OpenStack (Part II)	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20472/cloud-native-designrefactoring-across-openstack-part-ii	13:50-14:30	Alan Meadows (AT&T)
Extreme Testing (ERIS)	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20470/extremedestructive-testing	13:50-14:30	Sampath Priyankara (NTT)
AT&T's CI/CD Revolution: A Conversation: Ship it! Charting the way to smoother CI/CD with Kubernetes and OpenStack:	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20067	15:35-15:45	Elise Eiden (AT&T) Jared Stein (AT&T)
A slimmer, thinner, lightweight OpenStack – why it is needed for the success of Edge Cloud?:	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19568/ship-it-charting-the-way-to-smoother-cicd-with-kubernetes-and-openstack	16:10-16:50	Jared Stein (AT&T)
OpenStack-Helm: The Ideal Solution for Telco Cloud Life-Cycle Management	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19579/a-slimmer-thinner-lightweight-openstack-why-it-is-needed-for-the-success-of-edge-cloud	17:00-17:40	Kandan Kathirvel (AT&T)
	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19938/openstack-helm-the-ideal-solution-for-telco-cloud-life-cycle-management	17:50-18:30	Alan Meadows (AT&T)

LCOO Members Sessions at the Summit - Wednesday



Schedule

Monday 6

Tuesday 7

Wednesday 8

Topic	Summit Schedule URL	When	Who
Multi-cloud management project	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20471/multi-cloud-management-project	09:50-10:30	Matt McEuen (AT&T)
LCOO Working Group	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20532/lcoo-wg-session	11:50-12:30	Shintaro Mizuno (NTT)
OpenStack-Helm Workshop: Deploy OpenStack on Kubernetes	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20424/openstack-helm-workshop-deploy-openstack-on-kubernetes	13:50-15:20	Matt McEuen (AT&T) Pete Birley (AT&T)
Moving tenant workloads transparently across hosts	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/20479/moving-tenant-workloads-transparently-across-hosts	15:30-16:10	Matt McEuen (AT&T)
Integrating OpenContrail into the OpenStack Neutron Stadium	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19570/integrating-opencontrail-into-the-openstack-neutron-stadium	16:00-16:10	Bin Hu (AT&T)
Life or Death - AT&T's First Responder VNF Platform Enablement Approach:	https://www.openstack.org/summit/sydney-2017/summit-schedule/events/19883/life-or-death-at-and-ts-first-responder-vnf-platform-enablement-approach	16:30-17:10	Elise Eiden (AT&T) Matt McEuen (AT&T)



<https://wiki.openstack.org/wiki/LCOO>



<https://openstack-lcoo.atlassian.net/wiki/wiki/spaces/LCOO>

