Meeting of the **T**echnical **S**teering **C**ommittee of the Akraino Edge Stack Project

April 25th, 2019

TSC Voting Member Roll Call

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Agenda

› Due Date Reminders

› TSC Voting Decisions
  › Vote #1: AR/VR Blueprint
  › Vote #2: MEC API Framework
  › Vote #3: Repository Approval for REC Project
  › Vote #4: RT Cloud Rename

› Release 1 Marketing

› LF Tool Overview

› Sub-Committee Update

Due Date Reminders

1 Upstream Dependency Matrix and Upstream Project Information (link)
Due: 5/01/2019

2 BP Validation Project Incubation Stage Reporting (link)
Due: 5/01/2019

3 Release planning one page PDF (link)
Due: 5/24/2019

Vote #1: AR/VR Blueprint

Use Case Attributes	Description
Type	New Blueprint for VR/AR on the Network Edge
Blueprint Family	Integrated Edge Cloud (IEC)
Use Case	Deployment of generic edge end and cloud environment for VR/AR cloud streaming
Blueprint Proposed Name	IEC Type 4: AR/VR oriented Internet Edge Stack for Integrated Edge Cloud (IEC) Blueprint Family
Initial POD Cost (Capex)	NVIDIA RTX GPUs, Chelsio T580-CR NICs. less than $120k (3 nodes)
Applications	Generic blueprint POD: Small scale cloud AR/VR rendering farm with generic SO. Production/commercial service: 1.Consumer applications: High performance premium gaming, 3D video for movies, live concerts, events, LBE, etc. 2.Enterprise applications: training/education, product design collaboration, manufacturing, maintenance, data analytical etc,
Additional Details	The test configuration consists of 3 machines connected using Ethernet switch: a master and 2 worker nodes, each with TBD processor clocked at TBD GHz, with TBD GB of RAM and Ubuntu operating system for master, windows server 2019 or later for worker. MTU of 1450B is configured (to compensate for GTP tunnel header and to avoid fragmentation). Each windows server preconfigures with 2-3 VMs with fixed GPU allocation per VM.

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Vote #2: MEC API

Use Case Attributes	Description
Type	New submission
Industry Sector	Telco and carrier networks, enterprise networks, private networks, multi-access networks, edge cloud and verticals
Business Driver	One of the key drivers of 5G Systems are ultra low latency and high reliability communications enabled by edge clouds. Services can be hosted close to the end users and new type pf services can be enabled by exposing contextual information to applications. In this framework the services can be enhanced with Machine Learning. Applications hosted in distributed cloud i.e. edge and central cloud, can consume services offered by service producers. Service consumers can discover the services that are available in that location via API framework. Similarly. the service producers can advertise their offerings via the same API framework. In addition to service discovery, the API framework allows authentication and authorization and can also provide communications transport to the service consumers and producers.
Business Use Cases	1. An application in an enterprise network providing services using contextual information based on the location and Wifi network information 2. In a private network in a factory, an application collects IoT sensor information and makes it available to machine learning functions 3. An application in an edge cloud using radio network information and V2X control path information from a mobile network offers safety information to vehicles on the road
Operational Need	Orchestration framework (such as ONAP) needs to enable applications in a distributed cloud discovering their local service registry for service discovery

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Vote #3: Repositories for Approval

Repo List				
rec/access-management	rec/caas-lcm	rec/image-provision	rec/openstack-ansible-galera_client	rec/os-net-config
rec/ansible-role-ntp	rec/caas-logging	rec/infra-ansible	rec/openstack-ansible-galera_server	rec/python-ilorest-library
rec/build-tools	rec/caas-metrics	rec/ipa-deployer	rec/openstack-ansible-haproxy_server	rec/python-peewee
rec/caas-cpupooler	rec/caas-registry	rec/ironic	rec/openstack-ansible-memcached_server	rec/remote-installer
rec/caas-danm	rec/caas-security	rec/ironic-virtmedia-driver	rec/openstack-ansible-openstack_openrc	rec/rpmbuilder
rec/caas-etcd	rec/cm-plugins	rec/ironicclient	rec/openstack-ansible-os_ironic	rec/start-menu
rec/caas-helm	rec/config-manager	rec/lockcli	rec/openstack-ansible-os_keystone	rec/storage
rec/caas-install	rec/distributed-state-server	rec/manifest	rec/openstack-ansible-plugins	rec/yarf
rec/caas-kubedns	rec/hostcli	rec/monitoring	rec/openstack-ansible-rabbitmq_server	
rec/caas-kubernetes	rec/hw-detector	rec/openstack-ansible	rec/openstack-ansible-rsyslog_client	

Note: Linux Foundation requires TSC approval for REC repositories to be created.

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Vote #4: RT Cloud Rename

Case Attributes	Description	Informational
Type	Modification	
Blueprint Family - Proposed Name	Telco Appliance Family	Formerly RT Cloud
Use Case	RIC vRAN	
Blueprint proposed Name	Radio Edge Cloud	
Initial POD Cost (capex)		varies by blueprint
Scale & Type	x86/ARM OCP Open Edge servers	
Applications	RIC	
Power Restrictions		varies by blueprint
Infrastructure orchestration	Redfish ONAP	
SDN	OVS-DPDK, SR-IOV	
Workload Type	Containers	
Additional Details		

Rename RT Cloud Family to <u>Telco Appliance Family</u>

Vote #4: RT Cloud Rename

› When Radio Edge Cloud was approved it was created under a new family named RT Cloud which does not reflect the common attributes of the blueprints expected in this family

› The family consists of blueprints which are:

  › Designed as self contained solutions that address a specific set of network functions (RIC, access, etc)

  › Based on a common set of tools to deliver those network functions

  › Delivered as an integrated combination of hardware and software that includes the network function

› There is no change to the REC use case, scope, or other requirements

Rename RT Cloud Family to <u>Telco Appliance Family</u>

Vote #4: RT Cloud Rename

› Proposal: Rename RT Cloud family to Telco Appliance family

  › Create Telco Appliance (ta) repo for common tools

  › Rename Radio Edge Cloud (rec) repo to ta/rec for Radio Edge Cloud specific components

  › Create a Telco Appliance blueprint family wiki page

  › Move REC wiki pages under the Telco Appliance blueprint family wiki page to align with the Network Cloud Family wiki structure

Rename RT Cloud Family to <u>Telco Appliance Family</u>

Release 1 Marketing

› Balaji Ethirajulu, Ericsson

LF Tool Overview

› Eric Ball, Linux Foundation

Sub-Committee Updates

Sub-Committee	Chair	Notes:
Upstream	Wenjing Chu	
Process	Andrew Wilkinson	
CI and Blueprint Validation Lab	Cesar Berho	
Community	Tapio Tallgren	
Documentation	Sujata Tibrewala	
Security	Ken Yi	
API	Vikram Siwach	Newly elected as of April 22nd