

Meeting of the Technical Steering Committee of the Akraino Edge Stack Project

March 21, 2019



TSC Voting Member Roll Call

Member Company	Voting Member Name	Contact info
Arm	Tina Tsou	tina.tsou@arm.com
AT&T	Kandan Kathirvel	kk0563@att.com
Dell	Tim Epkes	tim_epkes@dell.com
Ericsson	Torbjörn Keisu	torbjorn.keisu@ericsson.com
Huawei	Wenjing Chu	wenjing.chu@huawei.com
Intel	Jenny Koerv	jenny.koerv@intel.com
Inwinstack	Thor Chin	thor.c@inwinstack.com
Juniper	Sukhdev Kapur	sukhdev@juniper.net
Nokia	Tapio Tallgren	tapio.tallgren@nokia.com
NTT	Takeshi Kuwahara	kuwahara.takeshi@lab.ntt.co.jp
Qualcomm	Shahid Khan	shahidk@qti.qualcomm.com
Radisys	Prakash Siva	psiva@radisys.com
Red Hat	Frank Zdarsky	zdarsky@redhat.com
Seagate Technologies	Tim Walker	tim.t.walker@seagate.com
WindRiver	Dariush Eslimi	dariush.eslimi@windriver.com

Agenda

- › ONS Conference Volunteer Status
- › ONS Demo Status
- › F2F Meeting Agenda Update
- › LF Jenkin Tool Outage
- › API Gateway Blueprint
- › Sub-Committee Updates

ONS Conference Volunteer Status

Current Sign-up status as of March 19th at 5 PM cst: [Link](#)

Time slot	Volunteer 1	Volunteer 2	Volunteer 3	Volunteer 4
Wednesday, April 3 (Booth is open 12-1; 2:30-5:40)				
12 :00 -1:00	Glenn Seiler		Behdad Ebadifar	
2:30 - 3:30	Glenn Seiler		Behdad Ebadifar	
3:30 - 4:30		Kandan Kathirvel	Sarah Beaudoin	
4:30 - 5:40			Sarah Beaudoin	
Thursday, April 4 (Booth is open 7:30 - 9:00; 10:30 - 5:20)				
7:30 - 9:00	Cristian Mandras	Adrian Peret	Sarah Beaudoin	
10:30 - 11:30	Cristian Mandras	Adrian Peret	Sarah Beaudoin	
11:30 - 12:30	Trevor Tao	Kandan Kathirvel	Sarah Beaudoin	
12:30 - 1:30	Glenn Seiler	Tina Tsou	Sarah Beaudoin	
1:30 - 2:30	Robert Qiu		Behdad Ebadifar	
2:30 - 3:30	Yang (Gabriel) Yu		Behdad Ebadifar	
3:30 - 4:30	Trevor Tao		Behdad Ebadifar	
4:30 - 5:20	Robert Qiu		Behdad Ebadifar	
Friday, April 5 (Booth is open 7:30 - 9:00; 10:40 - 4:10)				
7:30 - 9:00			Sarah Beaudoin	
10:40 - 11:30			Sarah Beaudoin	
11:30 - 12:30			Sarah Beaudoin	
12:30 - 1:30			Sarah Beaudoin	
1:30 -2:30	Kandan Kathirvel		Joel Vincent	
2:30 - 3:30	XINHUI LI		Joel Vincent	
3:30 - 4:10			Joel Vincent	

ONS Demo Status

ONS Demo's uploaded as of March 19th at 5 PM cst [Link](#)

Projects	Interested in Participating	Main Contact	Demo Uploaded to Wiki
Akraino Blueprint Validation Framework			
Akraino Network Cloud Blueprint Family			
Akraino Overview	Yes	Kandan Kathirvel, Tina Tsou, Glenn Seiler	
Akraino Portal Feature Project			
Cluster Health & Overload Monitoring			
Connected Vehicle Blueprint	Yes	Xin Qiu	
Edge Video Processing			
ELIOT	Yes	Khemendra Kumar, Yang Yu	
Integrated Edge Cloud Blueprint	Yes	Trevor Tao, Xin Hulli	Yes
Kubernetes-Native Infrastructure Edge	Yes	Frank Zdarsky, Jennifer Koerv	
Micro-MEC	Yes	Tapio Tallgren	
OVS-DPDK Unicycle Blueprint		Rakesh Bohra	
Radio Edge Cloud	Yes	Cristian Mandras	
SEBA	Yes	Matt Taylor	
StarlingX	Yes	Bill Zvonar, Dariush Eslimi	
Time-Critical Edge Compute			



F2F Meeting Agenda Update

› Session 1, Tuesday April 2nd 2019

› Room: CR-SC12-638

Time	Topics
1:00pm – 3:00pm	Release 1 Planning 1. Documentation Sub-Committee update (<i>Sujata Tibrewala</i>) 2. Process Sub-Committee update/ Project maturity for release 1 @TSC (<i>Andrew Wilkinson</i>) 3. LF tools and Jenkins release process (<i>Eric Ball</i>) 4. Validation project (<i>Tapio Tallgren</i>)
3:00pm – 3:15pm	Coffee Break
3:15pm – 4:00pm	5. CI/CD 6. Community Lab update (<i>Cesar Berho and Brett Preston</i>) 7. Community Lab build process update 8. Co-chair for CI Sub-Committee
4:00pm – 4:30pm	9. LF Edge TAC process alignment @TSC 10. LF Edge overlap project -Define TSC Approach
4:30pm – 5:00pm	11. API Sub Committee Discussion

› Session 2, Friday April 5th 2019

› Room: CR-SC12-175

Time	Topics
8:00am – 9:30am	Project update from PTLs and TSC Members
9:30am – 9:45am	Coffee Break
9:45am – 10:40am	Open Discussion



LF Jenkin Tool Outage

- › Code updates have been on hold since March 7th
- › Iftools were fixed on 3/13/2019, but the update introduced new and incompatible changes.
- › *“A temporary solution is to remove the file specification in the JJB jobs that are using this particular maven parameter, leaving just the directory.”* –Eric Ball, Release Engineer- The Linux Foundation
- › Ticket 69606 has been submitted fix the issue.

API Gateway Blueprint

Thor Chin

(thor.c@inwinstack.com)

March 21, 2019

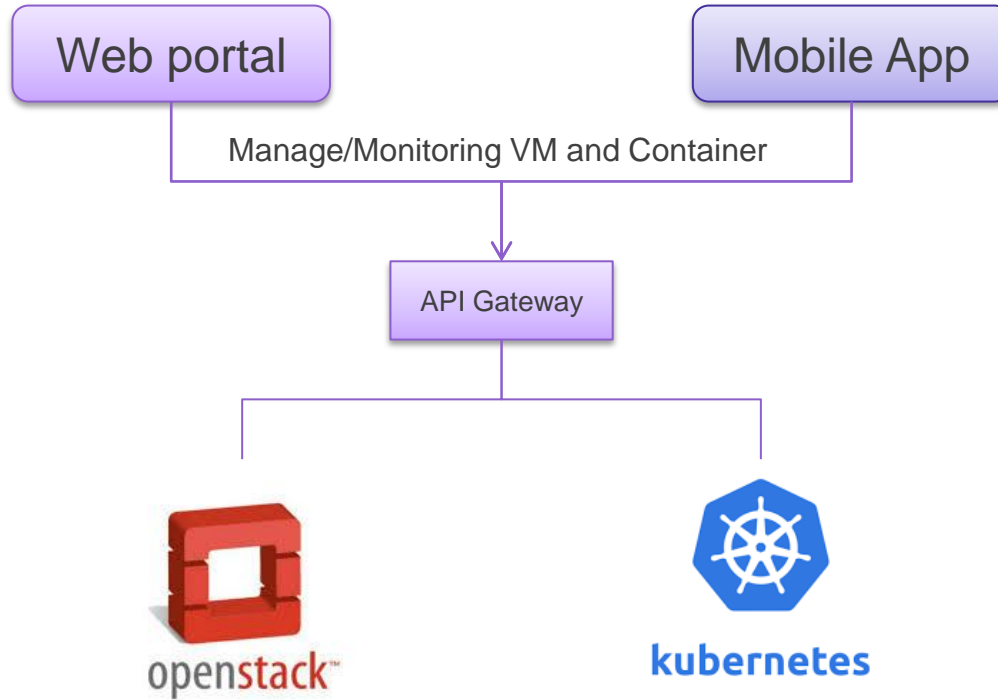
Blueprint Proposal: API Gateway

Case Attributes	Description	Informational
Type	New Blueprint	
Blueprint Family - Proposed Name	Not belong to blueprint family	
Use Case	Provide API Gateway for OpenStack, K8S and other platform or applications	
Blueprint proposed Name	API Gateway	
Initial POD Cost (capex)	1 node or 2 nodes for HA	
Scale & Type	Up to 2 Arm/x86 Servers	
Applications	API gateway for different platform integration. For example, api for create K8S containers and VMs.	
Power Restrictions	depends on hardware	
Infrastructure orchestration	OpenStack Queens or above - VM orchestration Docker 1.13.1 or above and K8s 1.10.2 or above- Container Orchestration OS - Ubuntu 16.04 Under Cloud Orchestration - Airship v1.0	
SDN	OVS, Calico	
Workload Type	Containers, VMs	
Additional Details	Kong	

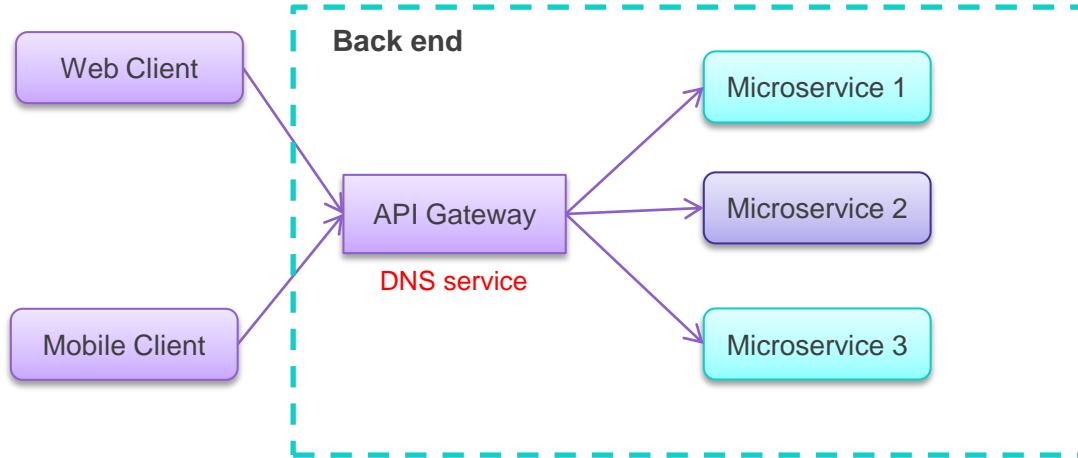
Motivation

- Complexity for client to connect to multiple micro services
- Mixing communication protocols such as REST, SOAP, XML-RPC
- Authentication and Authorization for multiple micro services
- Prevent DDoS or SQL-injection attack
- Monitoring for the API is used by whom and when or how
- Micro service IP may change and need to update all API connection info.

API Gateway Concept



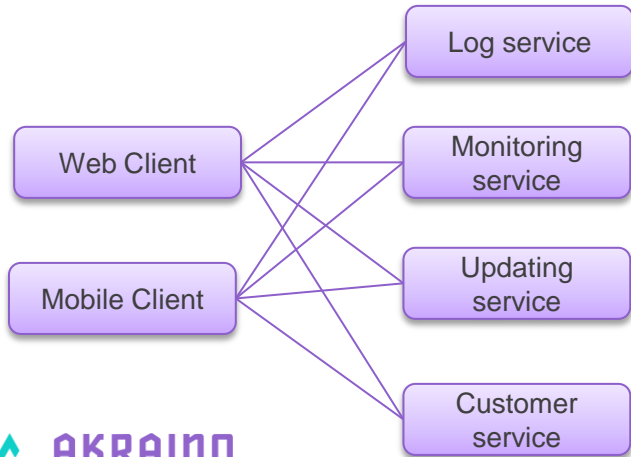
API Gateway Architecture



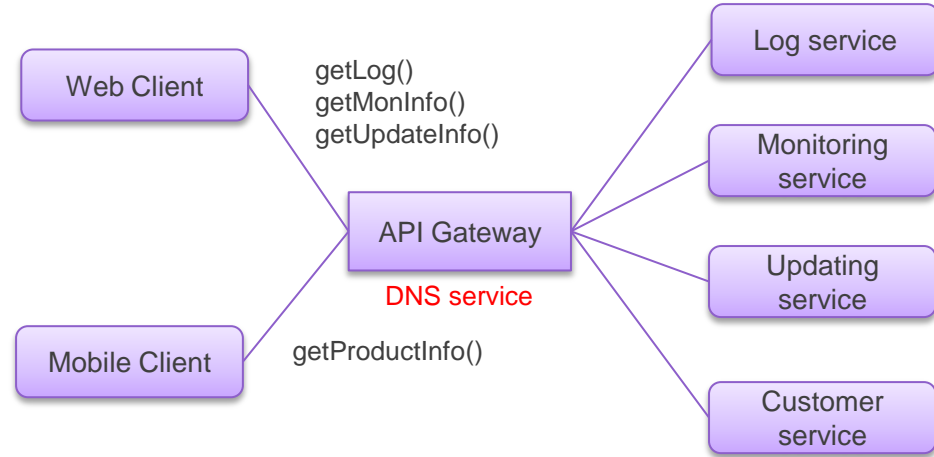
Benefits of API Gateway

- Security (Authentication and authorization)
- Load Balancing
- Lifecycle Management
- Ease to monitoring
- Service discovery (IP change Issue)

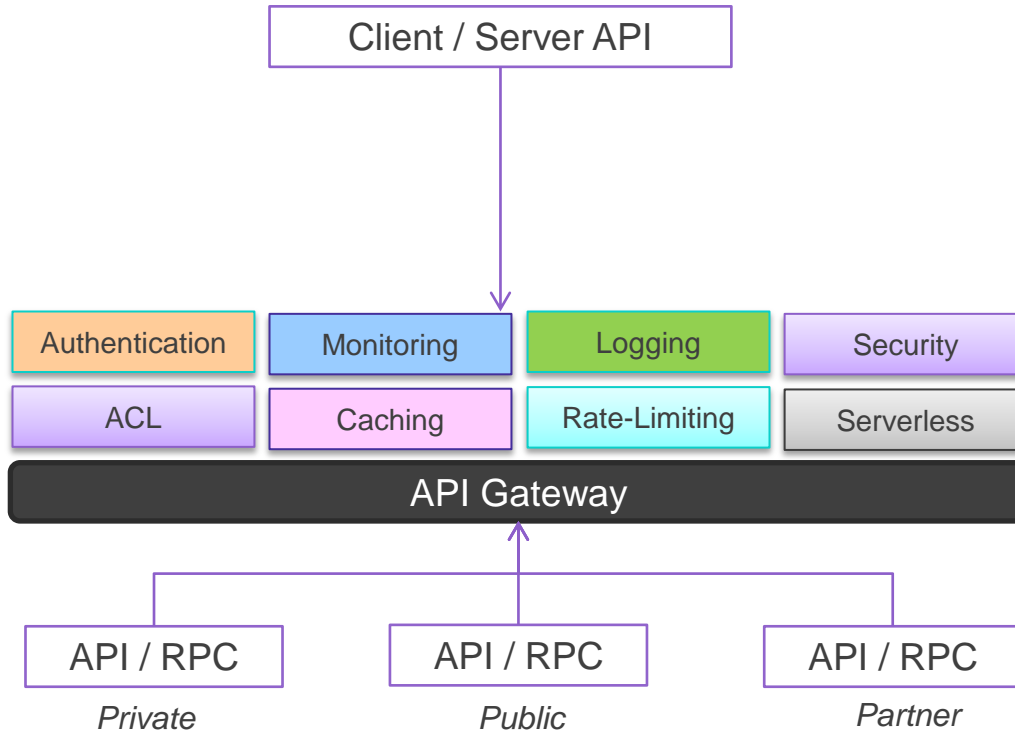
Before



After



Technical Architecture



*Can be set on Container / VM
/ x86 Server / ARM Server*

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	Release planning process/page: https://wiki.akraino.org/display/AK/Project+Status+in+Release+1
Security	Ken Yi	