

Connected Vehicle Blueprint(Aka CVB)



Connected-Vehi...t-20190305.pdf

Case Attributes	Description	Informational
Type	New Blueprint for the Edge	
Blueprint Family - Proposed Name	It is an independent blueprint, NOT a blueprint family yet.	
Use Case	MEC platform used for Connected Vehicle.	
Blueprint proposed Name	Connected Vehicle Blueprint	
Initial POD Cost (capex)	The Minimum Configuration: 4 Servers in total MEC Platform(1 Server) + 1 App Server(1 Server)+ 2 Simulators(2 Server)	
Scale & Type	Up to 4 Arm/X86 server	
Applications	The MEC platform which can be used to connect vehicles, the general data flows are itemized below: 1)Grab the traffic/vehicle information 2)Dispatch the traffic/vehicle information to the corresponding edge process unit. Note well: The dispatch policy can be configurable. 3)Process the data in the Edge or Cloud and figure out the suggested action item for the vehicle driver 4)Send the suggested action items to the vehicle driver	
Power Restrictions	Less than 6KW. The Maximum Power consumption for each server is around 1500W, $1500 * 4 = 6000W$	
Infrastructure orchestration	Docker + K8s VM and OpenStack/StarlingX	
PaaS	TARS	
Network	OVS, DPDK, VPP	
Workload Type	Bare metal, VM, Container	
Additional Details	openNESS	
ETSI MEC Spec. Compliance	Interface of Mp1 and Mm5 is referenced in implementation.	

Criteria	Connected Vehicle Blueprint
Each initial blueprint is encouraged to take on at least two committers from different companies	Tencent, Arm, Intel, Nokia
Complete all templates outlined in these documents	Detailed in this slide
A lab with the exact configuration required by the blueprint to connect with Akraino CI and demonstrate CD. Users should demonstrate either an existing lab or the funding and commitment to build the needed configuration.	A test and simulation lab will be provided in Tencent Cloud Silicon Valley.

Blueprint is aligned with the Akraino Edge Stack Charter	All opensource, Edge use case, Aligned with the Akraino Charter
Blueprint code that will be developed and used with Akraino repository should use only open-source software components either from upstream or Akraino projects.	Yes, all open source.
For new blueprints submission, the submitter should review existing blueprints and ensure it is not a duplicate blueprint and explain how the submission differs. The functional fit of an existing blueprint for a use case does not prevent an additional blueprint being submitted.	An edge platform for deploying connected vehicle applications does not exist in Akraino yet.

Criteria	Connected Vehicle Blueprint
Name of the project is appropriate(no trademark issues etc.); Proposed repository name is all lower-case without any special characters.	Connected Vehicle Blueprint
Project contact name, company, and email are defined and documents	TaoWang, Tencent tuckerwang@tencent.com
Description of the project goal and its purpose are defined.	Establishing a MEC edge platform for connected vehicle use cases.
Scope and project plan are well defined.	The target for Release2, 30 July 2019.
Resource committed and available	There is a team, resources, and lab in place.
Contributors identified	Tencent, Arm, Intel, Nokia
Initial list of committers identified (elected/proposed by initial contributors)	Tencent, Arm, Intel, Nokia
Meets Akraino TSC policies	The project will operate in a transparent, open, collaborative, and ethical manner at all the times.
Proposal has been socialized with potentially interested or affected projects and/or parties	Have already reached a consensus with sponsors. Talk with chair/co-char
Cross Project Dependencies.	OpenStack, K8s, Docker, DPDK, openNESS, OVS et al.

As per the Akraino Community process and directed by TSC, a blueprint which has only one nominee for Project Technical Lead (PTL) will be the elected lead once at least one committer seconds the nomination after the close of nominations. If there are two or more, an election will take place.

Self Nominations start 23 April and go through 29 April

A list of team members is located [here](#).