Software Defined Camera (SDC)

Project Technical Lead:

Attributes	Description
Type	New
Industry Sector	IoT and Infrastructure Smart Edge
Business driver	Surveillance camera for consumers, commercial and industrial segments
Business use cases	Expedite the growth of cameras with more machine learning capabilities to make more decisions at the edge. Use cloud services for making cameras more future proof
Business Cost - Initial Build Cost Target Objective	Cost of a proof of concept on existing Commercial Off the Shelf hardware (Reference designs)
Business Cost – Target Operational Objective	Varies widely depending on use-cases and the associated accompanying elements.
Security need	Security mechanisms need to be implemented at each layer of abstraction. PSA and PARSEC both provide a security framework.
Regulations	Varies depending on local regulations, GDPR etc.
Other restrictions	N/A
Additional details	**Project Cassini** is the baseline for this initiative and is a open, collaborative, standards-based initiative to deliver a cloud-native software experience across a secure Arm edge ecosystem. Whether exploring the impacts of urbanization and climate change with software-defined sensor networks, pinpointing origins of power outages in smart grids with data provenance, or enhancing public safety initiatives through data streaming, Project Cassini leverages the power of diverse Arm-based platforms to create a secure foundation for edge applications.

Family - Project Cassini - IoT and Infrastructure Edge

Use Case Attributes	Description	Informational
Type	New	
Blueprint Family - Proposed Name	Project Cassini - IoT and Infrastructure Edge	There are many possible UCs that would be covered under Project Cassini
Use Case	All of the use cases under Project Cassini	See below
Blueprint proposed	Software Defined Camera	
Initial POD Cost (capex)	Varies widely depending on the Blueprint	
Scale of Servers	Varies widely depending on the Blueprint	
Applications	Multiple workloads on devices and gateways, deployed through containers	
Power Restrictions	None/Varies	

Preferred Infrastructure orchestration	Docker/K8 - Container Orchestration OS - Linux	
Additional Details		

BluePrint (Species) - Software Defined Camera

Case Attributes	Description	Informational
Type	New	
Blueprint Family - Proposed Name	Project Cassini - IoT and Infrastructure Edge Blueprint Family	SC - Smart Camera or other abbreviations
Use Case	Traffic management to reduce congestion, monitor vehicle violations	With a few modifications, it is possible to change this blueprint to meet many similar Use Cases
Blueprint proposed Name	**Software Defined Camera (SDC)**	
Initial POD Cost (capex)	Existing reference platforms from different ODM's	
Scale & Type of Server	A server on the edge is not needed	
Applications	Applications that can be managed remotely using cloud native practices	
Power Restrictions	NA	None of the devices require power that is outside of a normal wall socket
Infrastructure orchestration	VM - Linux	
SDN (Software Defined Networking)	None	
Workload Type	• Continuous video streams • VM- Ubuntu	
Additional Details		

Per Akraino rules, PTL's are self nominated. If there is more than one person self nominated, we will have an election. If there is only nominee, that person will become PTL. To self-nominate, please put a 'Y' in column, otherwise please put a 'N'.

Self Nomination starts on 28 July and will go for one week, ending on 4 Aug 2021.

Committer	Committer Company	Committer Contact Info	Time Zone	Committer Bio	Committer Picture	Self Nominate for PTL (Y/N)
Parag Beeraka	Arm	parag.beeraka@arm.com	GMT-8	Parag Beeraka is the Director of Segment Marketing for IoT Smart Camera business at Arm		Y
Fanping Deng	ThunderSoft		GMT+8			
Xiaojing Xu	ThunderSoft		GMT+8			
Yan Zhang	China Unicom		GMT+8			
Mingxuan Li	China Unicom		GMT+8			
LiMing LI	Arm		GMT+8			

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