ELIOT: Edge Lightweight and IoT Blueprint Family

Project Committers detail:

Initial Committers for a project will be specified at project creation. Committers have the right to commit code to the source code management system for that project.

A Contributor may be promoted to a Committer by the project's Committers after demonstrating a history of contributions to that project.

Candidates for the project's Project Technical Leader will be derived from the Committers of the Project. Candidates must self nominate by marking "Y" in the Self Nominate column below by Jan. 16th. Voting will take place January 17th.

Only Committers for a project are eligible to vote for a project's Project Technical Lead.

Please see Akraino Technical Community Document section 3.1.3 for more detailed information.

Attributes	**Description**	**Informational**
Type	New	
Industry Sector	WAN edge, enterprise, diverse IoT applications in various vertical market segments, Carriers/service providers	
Business driver	1. Many diverse business applications require a converged IoT gateway 2. Enterprise WAN edge use of SD-WAN solutions or universal CPU (uCPE)	
Business use cases	1. IoT gateway a. Smart cities b. Smart homes c. Smart offices d. Connected vehicles e. Connected farming, agriculture f. Logistics, Agriculture g. Industrial, IIoT (OPC-UA, TSN, ...) h. ... 2. SD-WAN, WAN edge, uCPE a. Hybrid WAN b. Hybrid cloud deployment c. BYOD d. ...	
Business Cost - Initial Build Cost Target Objective	These devices can potentially be very low cost for the build material. For example, a common DIY platform, such as Raspberry Pi, costs only $35 retail. This cost can go substantially higher however once industrial or other market segment requirements are added, e.g. environmental hardening, specialized communication interfaces, hardware security, regulatory constraints and additional processing (e.g. GPU), and so on. The target objective is to be low cost relative to a given market segment. The eventual deployment cost really depends on actual use scenarios and scale of the deployment, among many other factors.	
Business Cost – Target Operational Objective	The business operational cost of course also diverges very much depending on deployment scenarios. A public cloud enabled modest deployment, e.g., can cost very low, to a level that can apply to many use scenarios not traditionally possible before. The overall design of this blueprint stresses its scalability and zero touch operation automation, such that, with all other factors being equal, it will have extremely low operational cost averaged per unit (of gateway or device).	
Security need	Security is very important in this use case. The system should support strong security, support regular security updates as a normal part of operation, and support the gateway units in out of security perimeter deployments.	
Regulations	Various, depending on market segment and target regulatory regions, e.g. GDPR, NIS Directive, Government's Code of Practice for Consumer Internet of Things (IoT) Security for Manufacturers (UK), US FTC, ePrivacy regulation. Further regulation related information or requirements will be specified for use cases.	

Other restrictions	NA	
Additional details	NA	

Use Case Details:

ELIOT Blueprint Family Template:

Case Attributes	Description	Informational
Type	New	
Blueprint Family - Proposed Name	ELIOT	
Use Case	Enterprise Edge Lightweight and IoT	
Blueprint proposed	▪ IoT gateway ▪ SD-WAN, WAN edge, uCPE	
Initial POD Cost (capex)	▪ IoT gateway: e.g. 100's USD or less ▪ SD-WAN, WAN edge, uCPE: varies, 1000's, 100's or less Note: Not factoring in "cloud" or data center infrastructure cost. We assume that infrastructure is a given in a Network Edge, Network Data Center, or other cloud data centers.	
Scale	Very scalable, from 1 single unit to 10K, 100K, 1000K, or more.	
Applications	Diverse types of edge applications in many industries and market segments, including but not limited to: telco's, operators, service/cloud providers, medicine, smart cities, industrial IoT, home, enterprise...	
Power Restrictions	Varies	
Preferred Infrastructure orchestration	The cloud/network infrastructure: Containers, Kubernetes, Kubernetes ecosystem Operating systems: Linux, lightweight, container runtime	
Additional Details	NA	

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Presentation:



Eliot Blueprint Dr...ft 2 - Akraino.pdf



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