Existing Project Taxonomy

The below is a snapshot of where the existing projects under LF Edge currently sit. Updates to the taxonomies should be requested through the Project's TAC representative. The Glossary Project will further define the terminology as outlined below.

Last Updated:

- Akraino (May 16, 2019)
- Alvarium (September 7, 2022)
- Baetyl (OpenEdge) (July 22, 2019)
- EdgeX Foundry (September 19, 2022)
- eKuiper (June 8, 2021)
- Fledge (FogLAMP) (June 27, 2019)
- Home Edge (October 14, 2022)
- Open Horizon (April 9, 2020)
- Project EVE (April 3, 2023)
- Fido Device Onboard (August 9, 2023)
- Fledge (July 28, 2021)

Existing Projects by Function (Provide, Consume, Facilitate, or N/A; Add context as needed)

Functions	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
APIs	Provide	Provide	Provide	Provide	Provide, Consume, Facilitate - Microcontroller Example - South Microservice (esp8266)	Provide	Provide, Consume	Provide	Provides
Cloud Connectivity	Provide	Provide, not only Baidu Cloud	Provide	Provide	Provide, Consume and Facilitate - North repos, GCP, OSI-OMF, Azure	Provide	Consume	Provide	Consumes
Container Runtime & Orchestration	Provide	Consume	Consume	Consume	Consume - (debian, rpm, docker, Project Eve)	Consume -(Docker)	Provide, Consume, Facilitate	Provide for Edge Container	Consumes
Data Governance	NA	Provide	N/A	N/A	Provide and Facilitate - Auditing logs and asset tracking.	In Future	N/A		Provide and Facilitate
Data Models	Provide	N/A	Provide	Provide	Provide, Consume and Facilitate	In Future	Consume, Facilitate	Provide for Edge Container (not app data)	N/A
Device Connectivity	Provide	Provide, MQTT protocol	Provide	Consume	Provide, Consume and Facilitate	Provide	Consume	Provide (incl LTE, WiFi, serial)	Consumes – HTTP, HTTPs, with architectural support for other connectivity protocols not yet implemented
Filters/Pre-processing	Provide	Provide	Provide	Provide	Provide and Facilitate	In Future	N/A		N/A
Logging	Provide	Provide	Provide	Provide	Consume	In Future	Consume	Provide for its own runtime	Provides
Management UI	Provide	Provide, not determined yet	Facilitate	Provide, not open sourced	Provide, Consume and Facilitate	In Future	N/A	Provide for its own runtime	Provides (some use cases)
Messaging & Events	Provide	Provide	Provide	Consume	Provide, Consume and Facilitate	In Future	N/A		Provides
Notifications & Alerts	Provide	Provide, under developing	Provide	Consume	Provide, Consume and Facilitate	In Future	N/A		Provides
Security	Provide	Provide	Provide	Consume	Provide, Consume and Facilitate	Provide	Provide, Consume, Facilitate	Provide	Provides
Storage	Provide	Provide	Provide	Facilitate	Provide, Consume and Facilitate - Buffering	Provide	Consume	Provide (local virtual disks)	N/A

Existing Projects by Deployment & Industry Verticals (Support, Possible, N/A; Add context as needed)

Deployment Type	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
Customer Devices (Edge Nodes)	Support	Support	Support	Support	Support	Support	Support (Agent)	Support	Support
Customer Premises (DC and Edge Gateways)	Support	Support	Support	Support	Support	Support	Support (Agent, Management Hub)	Support	Support
Telco Network Edge (MEC and Far-MEC)	Support	Support	Possible	Support	Possible	NA	Support (Management Hub)	Possible	Possible
Telco CO & Regional	Support	Support	Possible	Support	Possible	NA	N/A		Possible
Cloud Edge & CDNs	Support	Support	Possible	Support	Possible	Possible	N/A		Support
Public Cloud	Support	Support	Possible	Support	N/A	Possible	N/A		Support
Private Cloud	Support	Support	Possible	Support	N/A	Possible	N/A		Support

Existing Projects by Deployment & Industry Verticals (or X; Add context as needed)

Directly applicable Industry/Verticals use cases	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
Automotive / Connected Car			x		X	X			
Chemicals		X				X			X
Facilities / Building automation									
Consumer		X			X		X		X
Manufacturing					- Production deployments	X			
Metal & Mining					- PoCs	X			
Oil & Gas					- PoCs	X			
Pharma		X			- PoCs	X			X
Health Care		X	X		X		X		X
Power & Utilities					- Production deployments				
Pulp & Paper		X				X	X		X
Telco Operators			X		X	X			
Telco/Communications Service Provider (Network Equipment Provider)			X		X	X			
Transportation (asset tracking)					X	X			
Supply Chain					X	X			
Preventative Maintenance					- Production deployments (Not a vertical)				
Water Utilities		X			- PoCs	X			X
Security / Surveillance					X				
Retail / Commerce (physical point of sale with customers)		X			X	X			X
Other - Please add if not listed above (please notify TAC-subgroup@lists.lfedge.org when you add one)			Energy, Smart venue						

Deployments (static v dynamic, connectivity, physical placement) - (or X; Add context as needed)

Use Cases	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
Gateways (to Cloud, to other placements)									
NFV Infrastructure		X	X		X	X	X		X

Stationary during their entire usable life / Fixed placement edge constellations / Assume you always have connectivity and you don't need to store & forward.					X				
Stationary during active periods, but nomadic between activations (e.g., fixed access) / Not always assumed to have connectivity. Don't expect to store & forward.					X	X			X
Mobile within a constrained and well-defined space (e.g., in a factory) / Expect to have intermittent connectivity and store & forward.									
Fully mobile (To include: Wearables and Connected Vehicles) / Bursts of connectivity and always store & forward.		X							

Compute Stack Layers (architecture classification) - (Provide, Require, or N/A; Add context as needed)

Compute Stack Layers	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
APIs	Provide	Provide	Provide	Provide	Provide	Provide	Require	Provide	Provide
Applications	Deployed	Provide	Provide	Provide	Provide	N/A	Require		Provide
Firmware	Update and Configure	Provide, OS as a Firmware	Require	N/A	Require	N/A	N/A		Require
Hardware	Provision and Configure	Require	Require	N/A	Require	Require	Require	Require	Require
Orchestration	Require	Require	Require	N/A	N/A	Provide	Require	Provide	N/A
OS	Require	Provide	Require	N/A	Require	Require	Require	Provide	Require
VM/Containers	Require	Require, vm is optional	Provide	Provide	Require	Require	Require	Provide	Require, vm is optional

Cloud Stack Layers (architecture classification) - (Provide, Require, or N/A; Add context as needed)

Cloud Stack Layers	Akraino	Baetyl	EdgeX	eKuiper	Fledge	Home Edge	Open Horizon	Project EVE	FDO
Applications		Yes	Provide (services can live in cloud layer)	Provide	N/A	Provide	Require		Yes
Configuration (drive)		Yes		Provide	N/A	N/A	Provide		Yes
Content (management system)		Yes		Provide	N/A	N/A	Provide		Yes
IaaS		No		N/A	N/A	Provide (at Edge but not cloud)	N/A	Provide (at Edge but not cloud)	No
PaaS		Yes		N/A	N/A	N/A	N/A		No
Physical Infrastructure		No		N/A	N/A	N/A	N/A		No
SaaS		No		N/A	N/A	Provide	N/A		No