

EdgeX on ELIOT Blueprint

Akraino Blue Print - A proposal for EdgeX Base Platform

Background

In the recent past, EdgeX has experience challenges in running regression tests on different platforms. Some of the difficulty has been attributed to not running the EdgeX platform tests on While it could be attributed to a pre-validated OS/SW configuration.

Idea

By running on a pre-validated base platform, the hope was to eliminate the platform variabilities and limit the debug scope to EdgeX SW. This in turn would lead to a quicker debug, throughput and finally quicker time to market.

Why LF Edge Akraino Blue Print

Since LF Edge has been spearheading the Akraino Blue print effort to provide a holistic design of EdgeX suitable platforms with respect to scalability, availability, security using finite set of configurations, and ease of use by Zero-touch provisioning, a proposal was put forth by EdgeX QA/Test work group to use a light weight Akraino blue print as "pre-validated base platform" for EdgeX engineering activities. The motivation was that the team could leverage the results from Akraino's blue print validation framework and use it as a stable base platform for EdgeX engineering activities. While the motivation was from within the EdgeX community, this also served as a testimony to LF Edge's Akraino initiative and to the importance of the LF Edge umbrella project to provide wholistic solutions to the EdgeX and larger LF Edge communities.

Engineering Activity & Results

Akraino offers several Blue prints, so the first task was to identify the right blueprint for EdgeX needs. ELIOT blue print has been chosen by the EdgeX QA /Test WG for this initial feasibility study as it seems to have a light weight foot print as the name suggests and also it is supported on both ARM and x86 architectures. EdgeX QA/Test WG members got LF Edge accounts and access to the Thunder Pod2 ARM based system and were able to get the EdgeX tests up and running on ELIOT Blue print with minimal effort (which goes in line with the key principle behind Akraino's blue print goal).

The attachment is the EdgeX Fuji release blackbox test report running on the Akraino Lab's ARM based platform. (attached are the instructions to run edgex tests on ELIOT blue print.

[AkrainoELIOTBlueprint.pdf](#)

Conclusion

This activity is an example of the early engagements between EdgeX and other LF Edge projects – one of mutual value to the engineers in both communities and demonstrating the value of a larger edge computing umbrella project.

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