EdgeX Foundry Project Wiki

Getting Started with EdgeX

New to EdgeX? Visit our Tech Talks learning series and Getting Started Guides (link to the latest version)

Help Us Improve the Wiki

This Wiki is owned by the EdgeX Community. Contributions are always welcomed to help make it better!

In upper right, select Log In. You will need a Linux Foundation Account (can be created at http://myprofile.linuxfoundation.org/) to log-in. For a Wiki tutorial, please see Confluence Overview. Thank you!



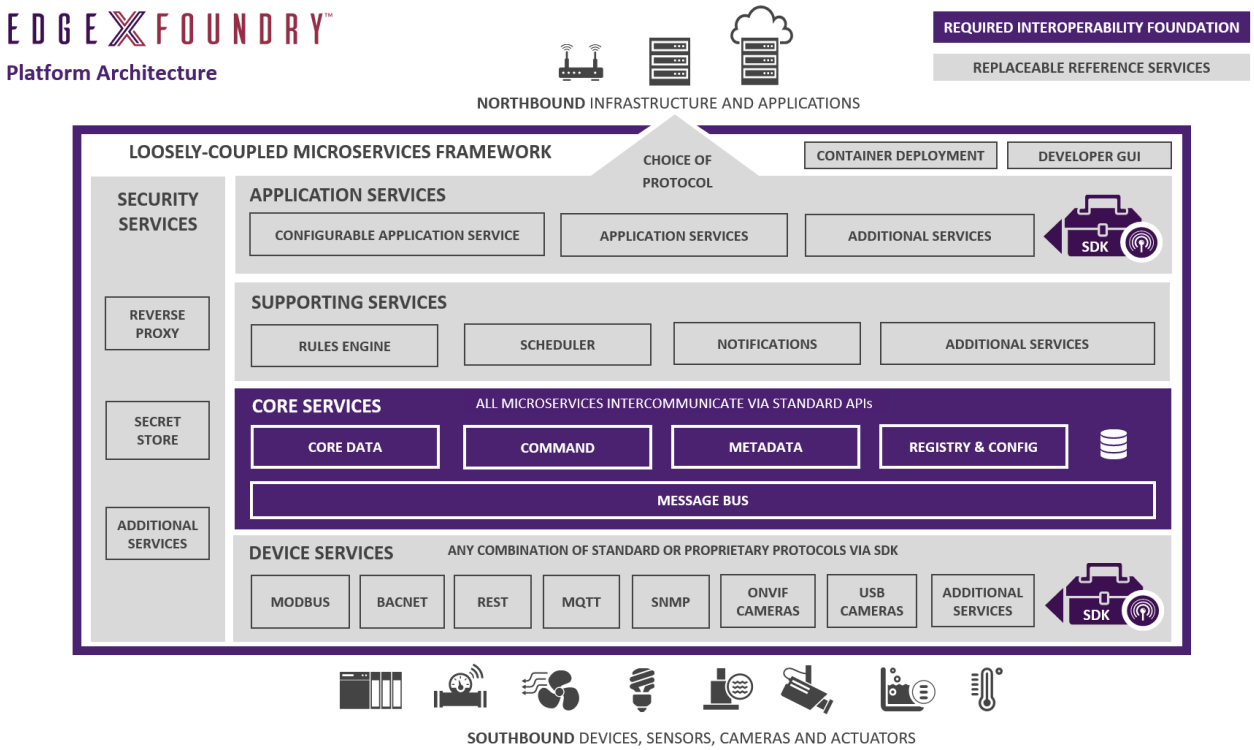
The open interoperability platform for the IoT edge

LF Edge Stage 3 (Impact Stage) Project

EdgeX Foundry is an impact stage project under the LF Edge umbrella project. LF Edge aims to establish an open, interoperable framework for edge computing independent of hardware, silicon, cloud, or operating system. Stage 3 projects in LF Edge are those that have reached their growth goals and are now on a self-sustaining cycle of development, maintenance, and long-term support.

Introducing EdgeX Foundry

The vendor-neutral EdgeX Foundry Project has been launched under the Linux Foundation. The initiative is aligned around a common goal: the simplification and standardization of the foundation for edge computing architectures in the Industrial IoT market, while still allowing the ecosystem to add significant value. The seed for the new project was a fully-functional, Alpha-grade edge platform based on over 125,000 lines of code donated by Dell with references to other open source projects and developed with feedback from their partners, customers, and even competitors. The EdgeX project has already garnered a diverse and experienced membership base of supporting companies that is continuing the development of the architecture and code base.



Key tenets for the EdgeX Foundry Project include:

- Provide a flexible microservices architecture that can support the use of any combination of heterogeneous ingredients plugged into a common interoperability foundation
- Be agnostic to hardware CPU (*e.g.*, x86, ARM), OS (*e.g.*, Linux, Windows, Mac OS), and application environment (*e.g.*, Java, JavaScript, Python, Go Lang, C/C++) to support customer preferences for differentiation
- Allow services to scale up and down based on device capability and use case
- Enable support for any combination of device interfaces to normalize connectivity protocols (both existing standards and proprietary) into a common API
- Allow functionality to be distributed across multiple edge hardware nodes or across processors within a given node
- Enable reference microservices (*e.g.*, northbound message bus, rules engine, database) to be quickly replaced with a preferred open source or proprietary alternative
- Support best-in-class industrial-grade security, manageability, performance, and reliability while still maintaining extensibility
- Support drop-in replacements of microservices or entire subsections with more performant versions without requiring architectural changes (*e.g.*, enabling a developer to replace a Java-based microservice with one written in Go Lang while not having to replace the entire solution)
- Allow for additional community improvements that enable performance metrics (*e.g.*, to support hard real-time operation)

Developer Resources

See below to begin participating in the next wave of edge computing!

- How to Get Started: https://www.edgexfoundry.org/community/#HowToGetStarted
- Watch an existing EdgeX Tech Talk (learning session): EdgeX Tech Talks
- Access the Code: https://github.com/edgexfoundry
- Join the Discussion on GitHub: https://github.com/orgs/edgexfoundry/discussions
- Participate on EdgeX Foundry Mailing Lists: https://lists.edgexfoundry.org/g/main
- Follow us on Twitter: https://twitter.com/EdgeXFoundry
- Connect with us on LinkedIn: https://www.linkedin.com/company/edgexfoundry/
- Become a Member of LF Edge: https://www.lfedge.org/members/join/
- Contact us for more information: https://www.lfedge.org/about/contact-us/

Other Resources

- Confluence Overview
- You will need an Linux Foundation Account (https://identity.linuxfoundation.org/) if you would like to contribute to this wiki or the EdgeX Foundry Project

The full Confluence User's Guide can be read here: https://confluence.atlassian.com/doc/confluence-user-s-guide-139509.html

Recently Updated



Lindsey Cheng
Device and Device SDK Working Group updated Mar 27, 2024 view change
Device Working Group - 20240326.pdf attached Mar 27, 2024
Device Working Group - 20240312.pdf attached Mar 13, 2024

James Butcher
2024 Meeting Records updated Mar 06, 2024 view change
EdgeX Foundry TSC Meeting 03_06_2024.pdf attached Mar 06, 2024