Foundries.io Q&A- March 2020

What is the Foundries.io vision?
Our vision is to deliver an open, customizable, secure OS and firmware platform for an IoT/Edge product's lifetime. We aim for cross-industry adoption, with no lock in. We use industry standards and a new business model to disrupt the status quo of the fragmented IoT device market.

What are Foundries.io's products?
Foundries maintains two free open source microPlatform distributions - one for SoCs running Linux, and one for microcontrollers using the Zephyr RTOS. The commercial [FoundriesFactory](#) cloud service enables customers to tailor Linux to their own hardware, IP and use case, and to securely deploy and maintain software for their IoT and Edge devices over their product lifetimes.

What is the Foundries.io business model?
FoundriesFactory has an annual subscription business model, [priced per product](#). There are no per unit royalties, per transaction or per update fees. For start-ups and small companies we offer a 50% discount for the FoundriesFactory for the first two years. You may stop your subscription at any time and will retain all the source code for your product up to that time with no lock in.

What hardware do you support?
FoundriesFactory supports any hardware that can run Linux. It is specifically designed to enable customization to your own hardware and use case. For getting started we support a range of standard development boards for Arm, Intel and RISC-V. FoundriesFactory is designed to give maximum flexibility to OEMs to define their unique needs.

What do you mean by no lock-in?
You may stop your subscription at any time. You will not have access to FoundriesFactory from then, but you will have all the source code for your product up to that time.

What is the benefit of FoundriesFactory in comparison to in-house development of an Embedded Linux solution?
It accelerates your time to market whilst reducing your lifetime costs. Foundries.io gives you access to scarce, best-in-class, embedded Linux, security, orchestration and CI skills. FoundriesFactory brings the value of a team of domain expert engineers for less than the cost of a single junior developer. This frees up your engineering resources to focus on your differentiation and IP.

Why has this not been done before?

Embedded systems are different from mobile devices and servers. Every product has different needs, different use cases and different hardware configurations which creates software complexity. Currently there is no single source code base to build multiple products and deliver secure provisioning and updates. FoundriesFactory is designed to target the needs of building and deploying IoT and Edge Linux devices in one configurable, flexible solution.

TECHNICAL FAQ

What is FoundriesFactory?
FoundriesFactory is a cloud based platform to develop, test, deploy and maintain secure, updatable IoT and Edge devices.

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How do I update my devices once they have been installed?
Foundries.io can securely deliver OTA updates for your product and fleet software from the boot firmware right up the stack to your application.

Does my product stop working whilst it is being updated?
The end device will continue to function whilst it is being updated. Only the incremental changes are sent to the device, minimising bandwidth and energy costs. If a reboot is needed then you can schedule it according to your use case. Automatic roll-back takes place if the update fails for any reason.

How are my devices kept secure by Foundries.io?
Security is at the heart of everything we do at Foundries.io. Devices can be securely provisioned at manufacturing time, or automatically over the air when first deployed. FoundriesFactory and the underlying microPlatforms have been designed to minimise the attack surface to maximise their security. Your code will be continuously monitored for security vulnerabilities, and patches will be made available for inclusion, at your choice, in your Factory. This allows you to keep your device secure across its lifetime (which can be a decade or more) at the release cadence of your choice.

What manages the product data and am I restricted on cloud technologies?
Foundries.io supports all public and private clouds without restricting OEMs on where and how data is managed. We provide support for secure device/fleet provisioning, management and OTA updates. We also support your use of any public or private cloud infrastructure for device management and data services.

Can I add proprietary IP in FoundriesFactory?
FoundriesFactory is specifically designed to enable you to easily include your own IP and differentiation. Your modifications and IP are retained in your private FoundriesFactory.

How is my product software tested?
Foundries.io has an experienced CI team, including one of the founders of the Linux KernelCI project. Your Factory can generate tailored continuous build, integration(CI) and test infrastructure for your product testing in both development and production.