# ECLIPSE FOUNDATION ONICO

The distributed operating system that connects consumer devices big and small

FOSDEM 2022. Lightning talk 2022–02–06 Agustín Benito Bethencourt - @toscalix



# The speaker: Agustín Benito Bethencourt (toscalix)

- Oniro Program Manager at Eclipse Foundation
- +17 years experience in Open Source as entrepreneur, executive, manager or consultant.
- Focused on operating systems and platforms in a variety of companies, foundations and trade associations.
- Remote work advocate, located in Málaga, ES
- More about toscalix at http://www.toscalix.com







### Assets

- Website: <u>https://oniroproject.org/</u>
- <u>Code</u> and configurations.
- Default license: Apache-2.0 Others approved too.
- Technical <u>documentation</u>
- Oniro video channel

## Communication channels

- Oniro Working Group mailing list: <u>oniro-wg@eclipse.org</u> <u>Subscribe</u> <u>Archive</u>
- Oniro Projects mailing list: <u>oniro-dev@eclipse.org</u> <u>Subscribe</u> <u>Archive</u>
- Chat channel: <u>#oniroproject</u> at libera.chat
- Twitter: <u>@oniro\_project</u>



## DELIVERING A **UNIQUE USER EXPERIENCE** ACROSS DIFFERENT CONSUMER DEVICES AND SCENARIOS

In a **fully-connected world vision**, consumer device fragmentation is impacting on our daily life...



Think about **how many devices you use on a regular basis** that accompany your day and **how many actions you have to do to achieve a good user experience from each of them**.





Oniro envisions an evolution in the operating system front that will foster more modular platforms, covering a significantly wider range and number of connected devices, while granting developers a simpler and more curated development experience, enabling them to provide consumers a significantly better user experience.



# Oniro value proposition





The **Oniro Working Group** creates an ecosystem of organizations to support the community in the production and evolution of the Oniro technologies as well as to drive its commercial success across different industries. Such an ecosystem arises in a neutralvendor environment where collaboration is promoted under the Eclipse Foundation principles, like transparency and core openness.



# Oniro Working Group Lifecycle















synesthesia the digital experience company



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Eclipse Oniro Core Platform is an Open Source project aimed at reducing fragmentation in the consumer and IoT device industry which is interoperable with OpenAtom Foundation's **OpenHarmony project.** The project aims at fulfilling the vision of "any app running anywhere", where "any app" is achieved via building Oniro as an OpenHarmony compatible implementation, ensuring interoperability, and "anywhere" is achieved by leveraging the Linux Foundation's Yocto Project tools and rich ecosystem as well as a well known upstream technologies.



## **Eclipse Foundation Launches Oniro: key milestones**



#### **Eclipse Foundation Oniro Projects Oniro Working Group** Oniro WG launch the Call for Oniro TLP launch for community **Eclipse Foundation and** review on 26-Oct-2021 **OpenAtom Foundation** Participation on 26-Oct-2021 **Press release Press release** collaboration • Oniro TLP Charter Oniro WG Charter Framework agreement around • Open Harmony: press release on Oniro track at EclipseCon 2021 Oniro announcement: • 28-Sept.-2021 Check the Oniro video channel. keynote at EclipseCon 2021. • IoT & Edge WG and Oniro Founding Members join Oniro WG ( Oniro projects approved. Now at Participation Agreement). collaboration: WIP provisioning stage: Incubation Phase **Eclipse Foundation and** IP/license evaluation Oniro WG Steering Committee kick-Code migration to be hosted by **OpenAtom Foundation** off on 27-01-2022 Eclipse Foundation. collaboration agreement: WIP. Then Marketing Committee kick-off Engineers working at Eclipse Work on specifications start at Oniro WG Program Plan and Budget Foundation infrastructure. Oniro Working Group and

Oniro 1.0 release •

## https://www.oniroproject.org

creation and approval.

projects.



# Oniro: key elements

ECLIPSE FOUNDATION

- Solid technical team
  - Over <u>10 technical talks approved</u> at FOSDEM 2022.
  - Upstream core contributors to a variety of projects.
- Well structured roadmap
  - Open and transparent requirement gathering and prioritization process
  - First Oniro Platform release expected in 2022
  - Maintenance cycle associated to each release.
  - Blueprints as a way to interact with Oniro consumer or integrator organizations
- Specifications and Compatibility Program: towards a global market
  - Leverage the Eclipse Foundation experience. Eclipse Foundation <u>Specification License</u> v1.0
  - Includes a Test Compatibility Kit (TCK) for self testing.
  - Aligned and shared with OpenHarmony (OpenAtom Foundation)

# **Oniro architecture: layers**

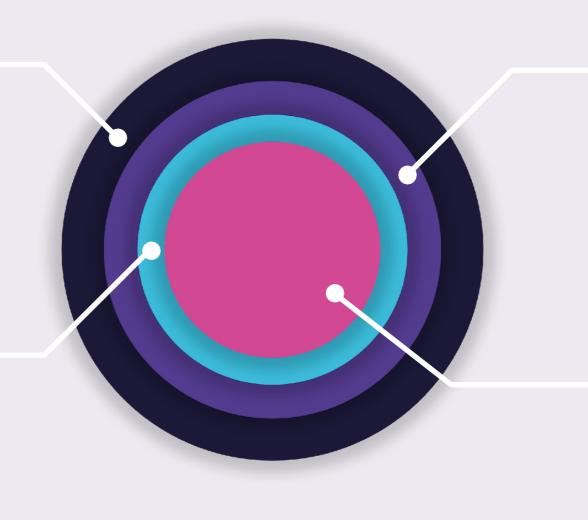


#### **Application Layer**

When completed, it will host the system and third-party applications. Oniro applications will be able to use APIs to expose business logic as abilities that may be utilized inside other applications

#### System Service Layer

It will contain the bulk of the differentiating features of Oniro. It will provide a complete set of capabilities essential for Oniro to offer services for applications through the Framework Layer



#### **Framework Layer**

It will provide an SDK to develop Oniro applications in multiple languages such as Java, C, C++ and JS depending on the target device class and its HW constraints

#### Kernel Layer

Oniro will support a multi-kernel design design out of the box so that appropriate OS kernels can be selected for devices with different resource limitations











# Current oniro blueprints







The distributed operating system that connects consumer devices big and small



A unique opportunity to frame the Operating System for the XXI century! Ready for the machine economy!



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