



Eclipse IoT and Eclipse Edge Native: An Overview

July 2020

A semi-transparent background image shows a group of diverse professionals in an office environment, focused on a computer screen. A white network graph with nodes and connecting lines is overlaid on the right side of the image.

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@BlueberryCoder

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The Eclipse Foundation - By the Numbers

375+
Projects

300+
Members

1600+
Committers

240M+
Lines of Code

30
Staff Members

14
Working Groups

**\$13
billion**
of shared
investment
to date

The Eclipse Foundation becomes a European-based organisation

The Eclipse Foundation is furthering its global expansion by establishing itself as a European-based organization based in Brussels.

Our goal is to grow the Eclipse global ecosystem and advance strategic open source projects with international impact.

Visit eclipse.org/europe



Strategic Focus Areas

Cloud Native Java



We provide a collaborative environment for the world's leading Java ecosystem players to advance open source enterprise Java technologies for the cloud.

IoT & Edge



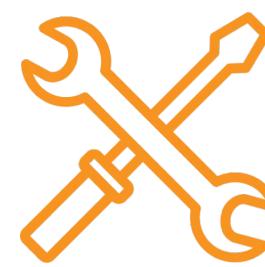
We enable industry leaders to collaborate on an end-to-end IoT architecture that is secure, flexible, and fully based on open source and open standards.

Automotive



We provide leading automotive OEMs, their suppliers, and partners with a sustainable, transparent, and vendor-neutral platform to collaborate on open technologies and standards.

Tools



The Eclipse IDE is the critical development environment for more than 6 million active users. Our community is innovating on the next generation of cloud native developer tools.



Our Working Groups at a Glance





Focus of this presentation



2019 Commercial Adoption Survey Highlights

- > IoT is real and adoption is growing. **About 40% are deploying IoT solutions today** and another 22% plan to start deploying IoT within the next 2 years.
- > **Caution rules in the IoT market**, with 30% of organizations planning to spend **less \$100K** in the next year.
- > **IoT investment is on the rise**, with **40%** of organizations planning to **increase** their IoT spending in the next fiscal year.
- > Open source is 'eating' IoT with **60% of companies factoring open source into their IoT deployment plans**
- > **Hybrid clouds lead the way for IoT deployments.** Overall, AWS, Azure, and GCP are the leading IoT cloud platforms for IoT implementations.



Powering the world's leading commercial IoT solutions



Things



Edge



Cloud



IoT Working Group Member Organizations

Strategic members



BOSCH

Invented for life



EUROTECH

Imagine. Build. Succeed.



Red Hat



CANONICAL



cedalo



cx COMPLEX



fortiss



itemis



NOKIA



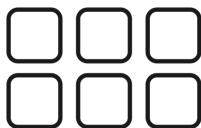
SIEMENS

Sterwen
Technology





Eclipse IoT Community (2019)



4.1M

lines of code

38

projects

325+

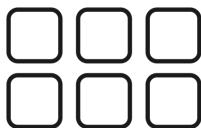
contributors

40

member
organizations



Eclipse IoT Community (2020)



8M+

lines of code

45

projects

350+

contributors

46

member
organizations

IoT Functional Concerns



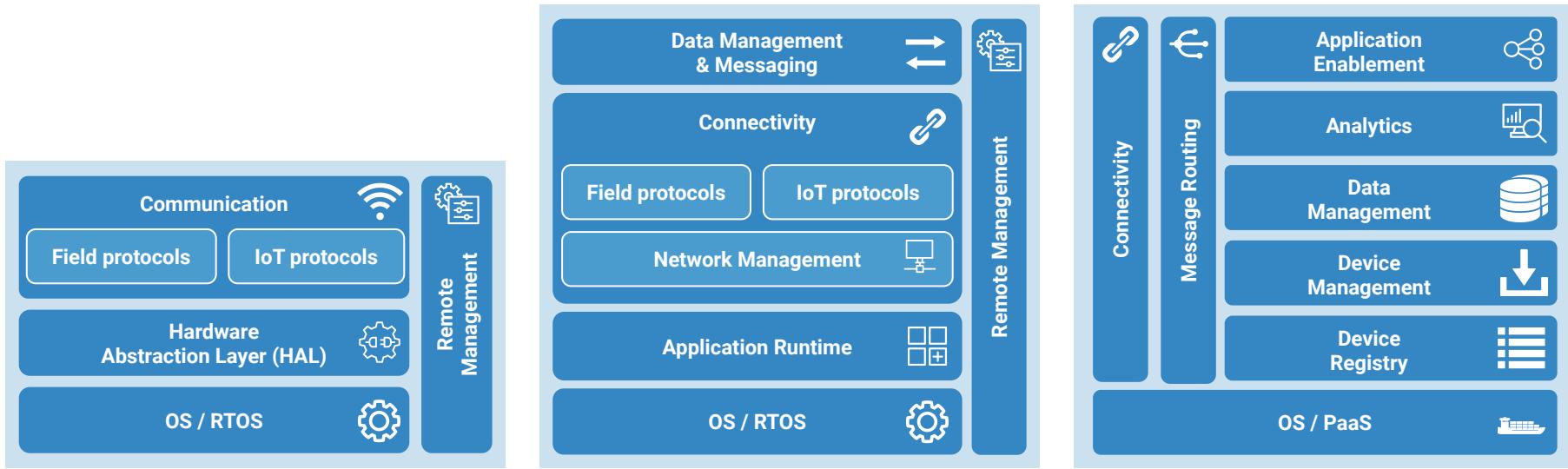
SECURITY



MODELS



TOOLS



CONSTRAINED DEVICES

EDGE NODES / GATEWAYS

IOT CLOUD PLATFORM



Where Eclipse Projects Fit



SECURITY



MODELS



Vorto



unide



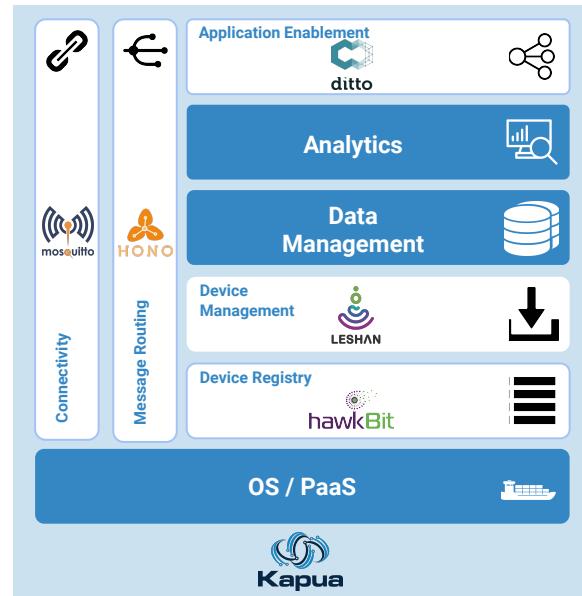
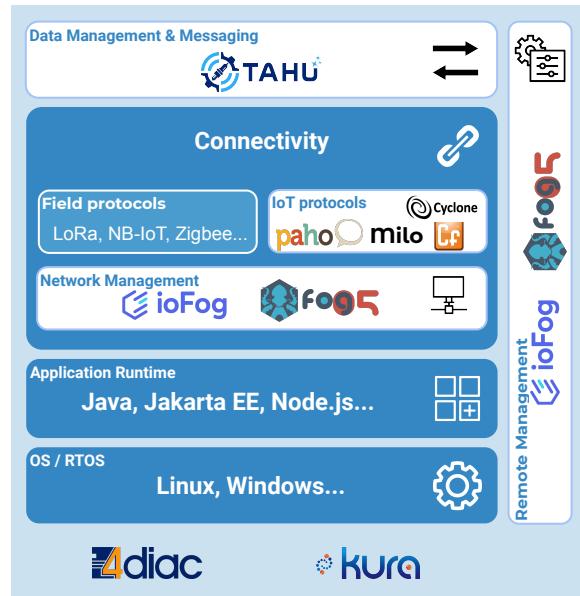
TOOLS



Eclipse Che



Mita



CONSTRAINED DEVICES

EDGE NODES / GATEWAYS

IOT CLOUD PLATFORM

eclipse **iot**



Sparkplug

Interoperability for MQTT-based Industrial IoT solutions



Standard Payloads



Standard
Topic Structures



Session Management



Sparkplug Working Group

- > A working group to steward the [Eclipse Sparkplug](#) specification and its implementations, such as [Eclipse Tahu](#)
- > Launched on February 3, 2020
- > More information: [sparkplug.eclipse.org](#)



EDGE | NATIVE

Delivering Open Source Edge Platforms. Now.



Code first



Simplify and streamline
Edge mass deployments



Edge Native DevOps

A black and white photograph showing silhouettes of several business people in a modern office lobby. Some are walking, some are standing and talking, and one is on a phone. Large windows in the background offer a view of a city skyline.

Industry Leaders



BOSCH
Invented for life



Production quality code



ioFog



Fog



TANGLE EE
ECLIPSE WORKING GROUP

Permissionless Solutions To Meet Enterprise Needs



Decentralized Ledger Technology
Innovation



Unified Identity



Decentralized Marketplaces

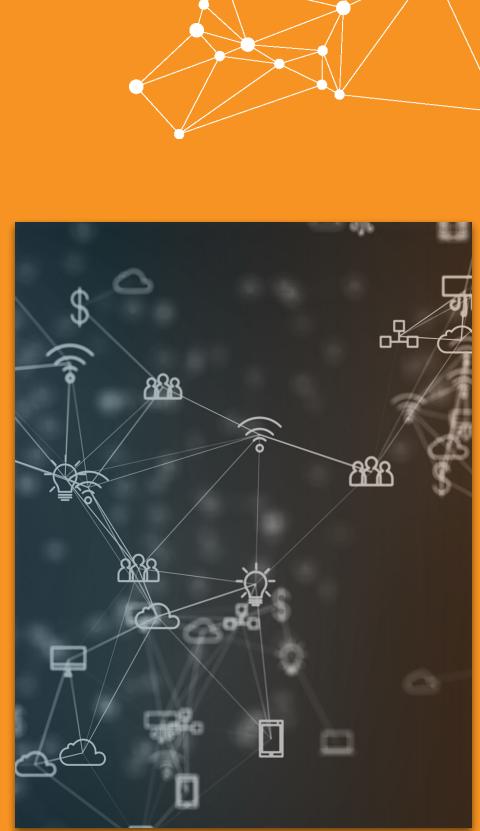
TangleEE Technology Vision

The Tangle is an open-source permissionless peer-to-peer network

- Highly scalable
- Zero-fee transactions
- Low resource requirements
- Secure data transfer
- Offline transactions
- Quantum-resistant

A global cross-industry co-creation ecosystem

- Blueprints & reference use cases
- Co-creation & business model innovation platform
- Open-source tech & modules
- Global community of developers, innovators & thought leaders



Tangle EE Working Group Member Organizations



AKITA
BLOCKCHAIN SOLUTIONS



Calypso
Networks Association

DELL Technologies

ENERGINET



Geometric Energy Corporation



HOTIFY



S software AG



tmforum

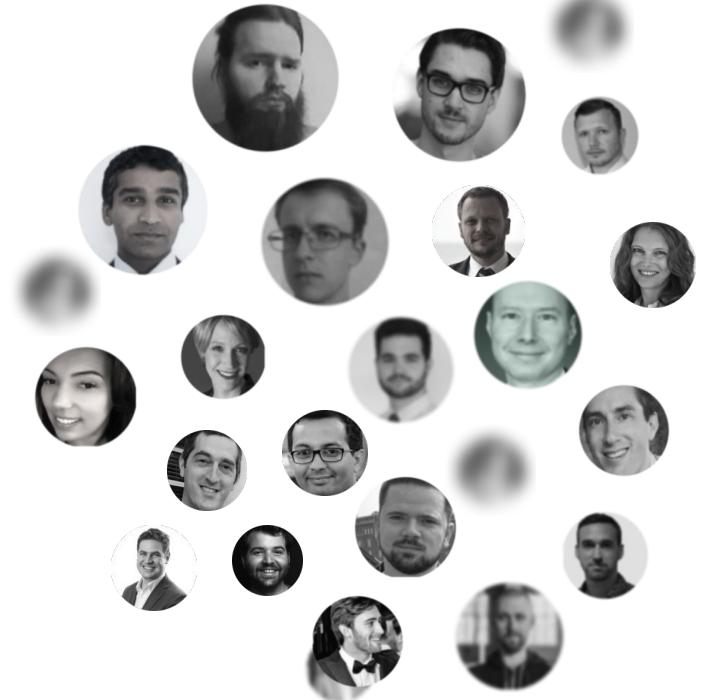




About the IOTA Foundation



- Non-profit foundation registered in Berlin
- 110+ employees in 23 countries
- Focused on fundamental research, development and adoption of the IOTA Tangle
- Funded through donations from IOTA token holders, research grants and project-based corporate financial support





Complementary Tangle EE-IOTA Initiatives

Tangle EE Eclipse Working Group

Developing the IoT backbone & standard protocol for the Economy of Things



IOTA Alliance

Identifying & addressing the problems worth solving and their business outcomes

The Tangle EE Working group will work alongside the IOTA Alliance to tackle all aspects of development and adoption





Thank you

Questions?

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iot.eclipse.org
edgenative.eclipse.org
sparkplug.eclipse.org
tangle.ee

