Eclipse Ditto

Digital Twins for Eclipse IoT

- new project introduction

Created by Thomas Jaeckle (@thjaeckle)
who are we?

project leads

Gerald Glocker

Thomas Jaeckle
our profession

DevOps’ing a cloud service @boschsi

foundation for Eclipse Ditto

distributed + highly scalable

on active codebase since > 2.5 years

battle proven

we are eager to work on OpenSource
Digital Twins
a mechanism for simplifying IoT solution development
Digital Twin metaphor

→ mirrors physical devices
→ provider of aspects+services around devices
→ keep real and digital worlds in sync
→ industrial and consumer-centric IoT scenarios
in IIoT / Industry 4.0

→ asset administration shell ("Verwaltungsschale")

→ holistic view of all capabilities (services) and aspects of an asset

Source: DIN SPEC 91345:2016-04
Eclipse Ditto

... where IoT devices and their digital twins get together
context
in context of Eclipse IoT
Contribution

what is initially contributed and what comes next?
initial contribution

→ domain model, commands, events, protocol-adapter

→ Java based microservices bundled as Docker containers

→ dependency to MongoDB
what comes next?

→ milestone release
→ documentation + examples
→ project site + logo

→ optional integration of Eclipse Vorto for validation
→ Eclipse Hono "bridge" for receiving device telemetry
Demo time!

may the demo gods be with us
setup

Hardware
- seeed studio
- GrovePi+
- Buzzer
- Light Sensor
- Temp&Humidity Sensor
Thank you

Questions?

visit us at our Bosch Software Innovations booth @eclipsecon or engage via:

https://projects.eclipse.org/projects/iot.ditto
https://github.com/eclipse/ditto