Developing OPC UA with Eclipse Milo™

Jens Reimann

- https://github.com/ctron
- https://dentrassi.de
- https://twitter.com/ctron

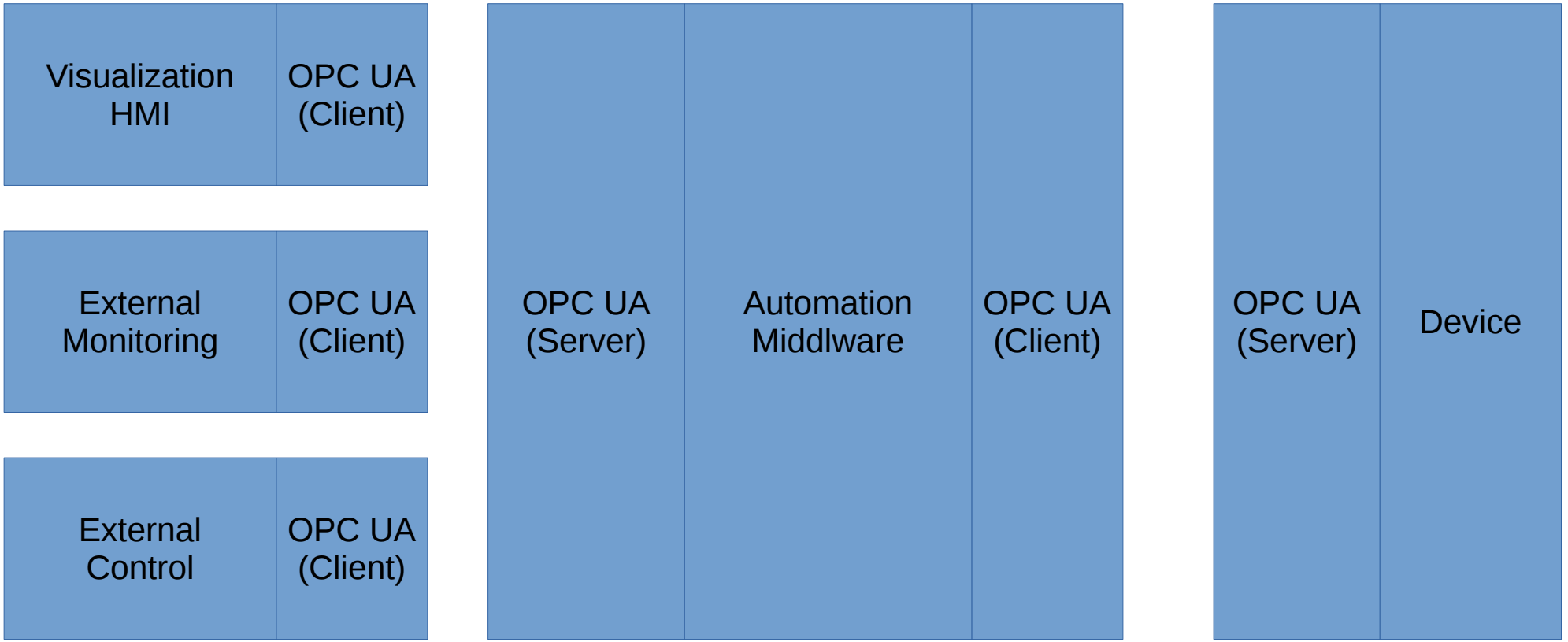
A few basics

OPC UA in a nutshell

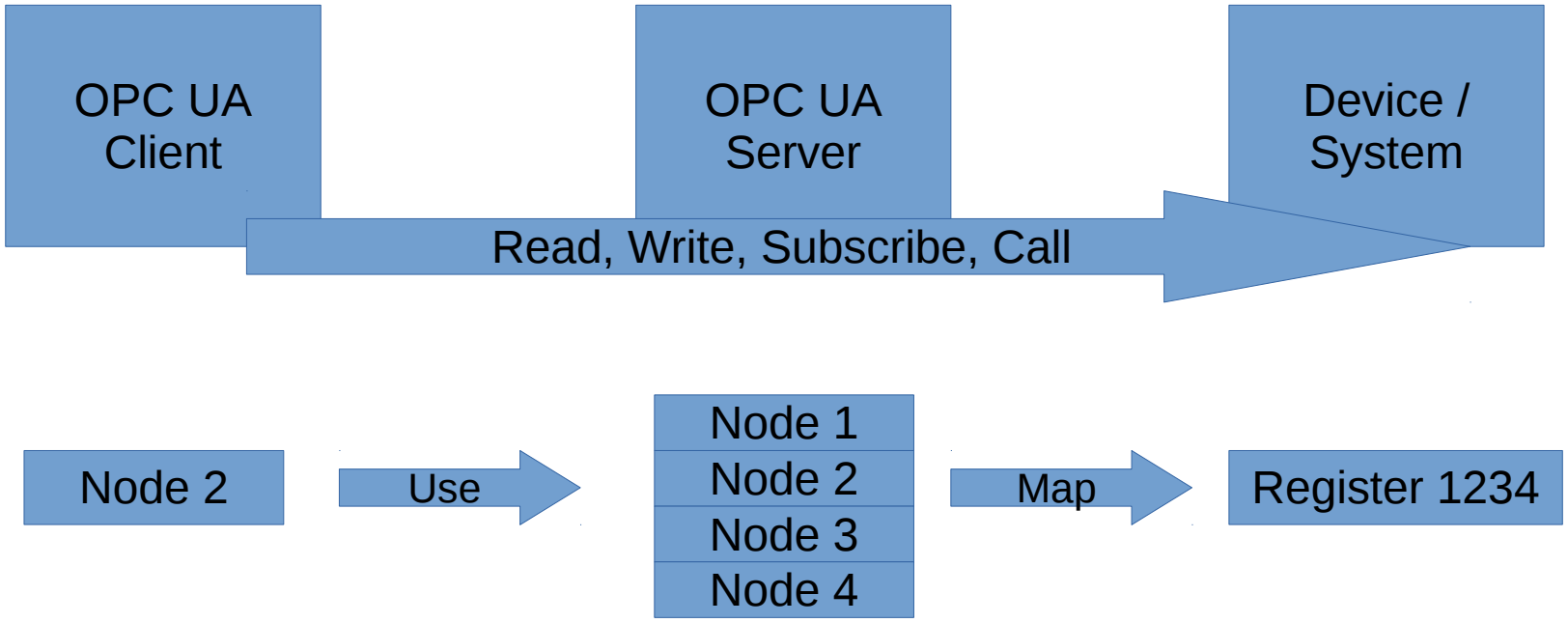
- (I)IoT/M2M protocol
- Based on TCP/IP, point-to-point, client/server
- Popular in industrial automation
- Industry 4.0

- And yes, there is OPC UA using HTTP/XML and an upcoming Pub/Sub variant

OPC UA in a nutshell



OPC UA in a nutshell



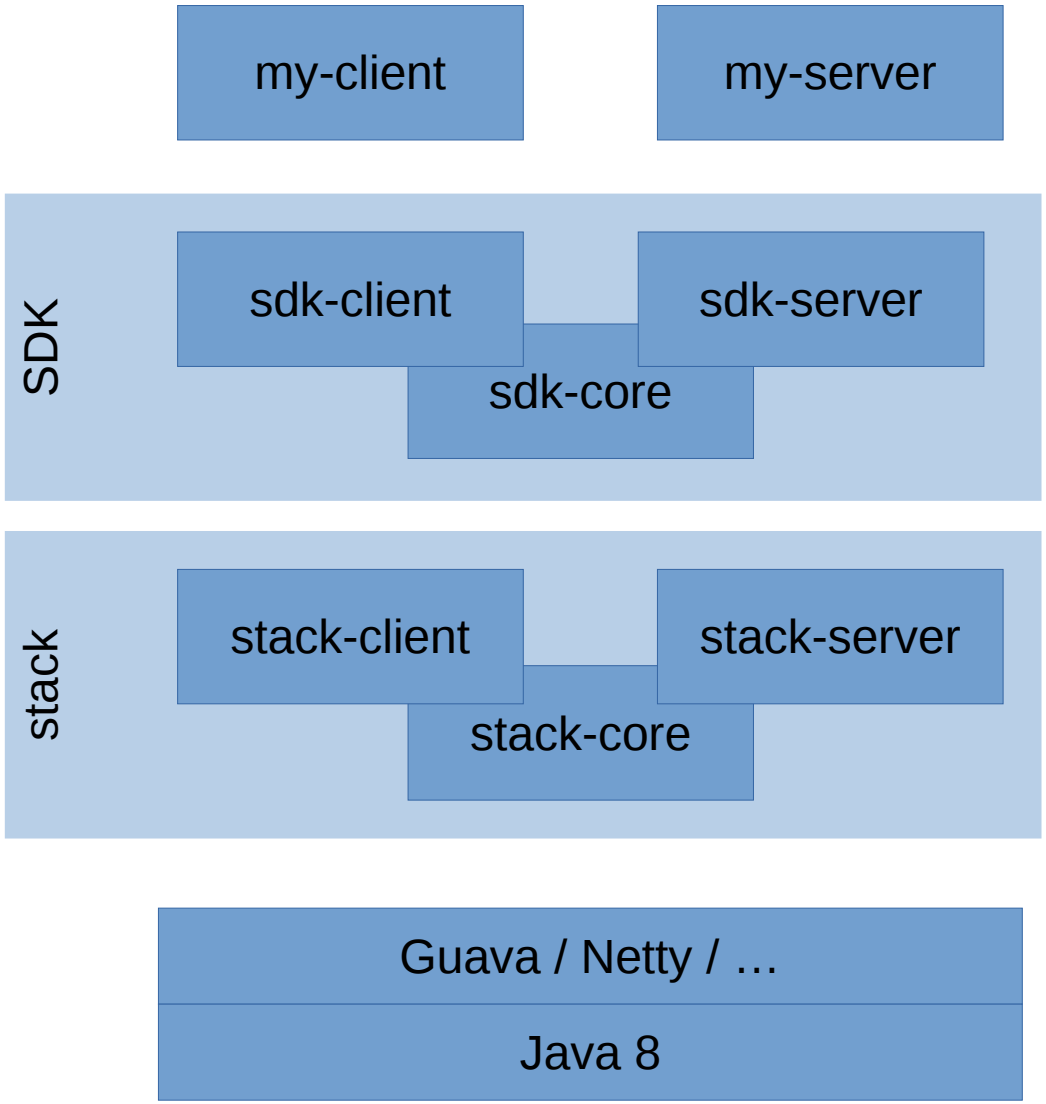
OPC UA …

- … is the successor of OPC DA/HD/AE/XML DA
- … is platform independent
- … security is a key feature
- … also known as IEC 62541
- … is around for quite a while

Eclipse Milo …

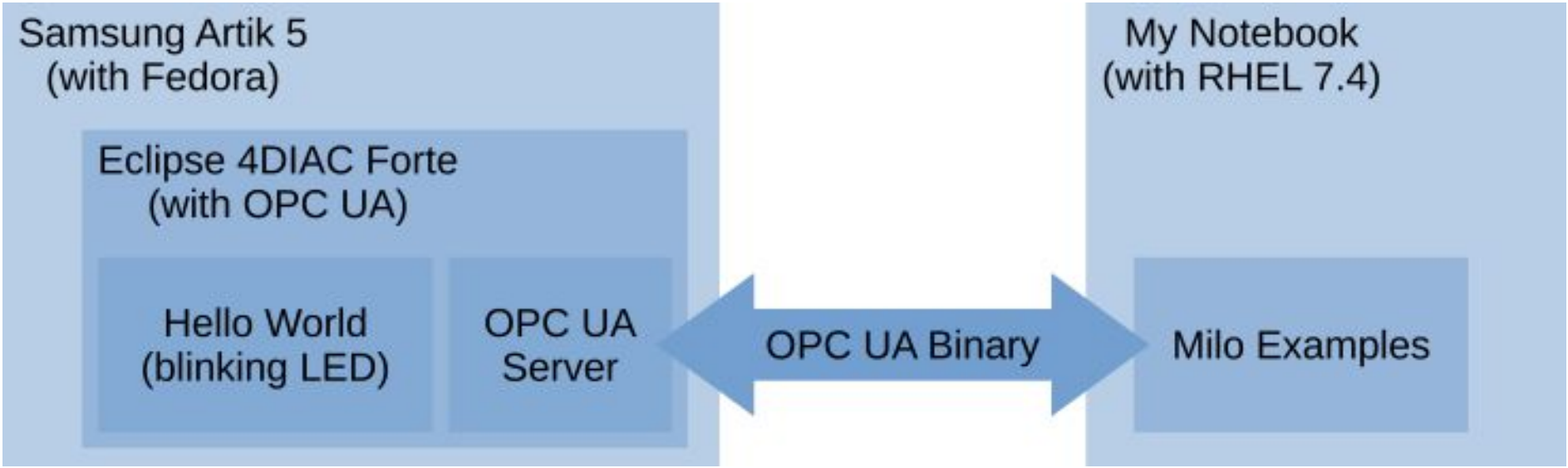
- **… is an implementation of OPC UA in Java**
- … is an Eclipse IoT project
- … is open source (EPL & EDL)
- **… is not based on any OPC Foundation code**
- … provides “stack” & “SDK”
- … provides client & service functionality
- … originates “digital petry OPC UA”

Eclipse Milo



The examples

Architecture of Examples



WARNING

JAVA LAMBDAS

If the heavy use of lambdas make you feel nauseous …

… please grab a paper bag …

… right now!

That was too fast?

KEEP CALM

AND

`git clone`

GitHub – ctron/milo-ece217
https://github.com/ctron/milo-ece2017

GitHub – eclipse/milo
https://github.com/eclipse/milo

GitHub – Kevin Herron – Milo Project Lead
https://github.com/kevinherron

Milo dev-list
https://dev.eclipse.org/mailman/listinfo/milo-dev

The Code

That was too fast!

KEEP CALM

AND

`git clone`

GitHub – ctron/milo-ece217
https://github.com/ctron/milo-ece2017

GitHub – eclipse/milo
https://github.com/eclipse/milo

GitHub – Kevin Herron – Milo Project Lead
https://github.com/kevinherron

Milo dev-list
https://dev.eclipse.org/mailman/listinfo/milo-dev

eclipsecon Europe 2017

OSGi™ Community Event 2017

Evaluate the Sessions

Sign in and vote at **eclipsecon.org**

- 1 0 + 1

Thank you!