

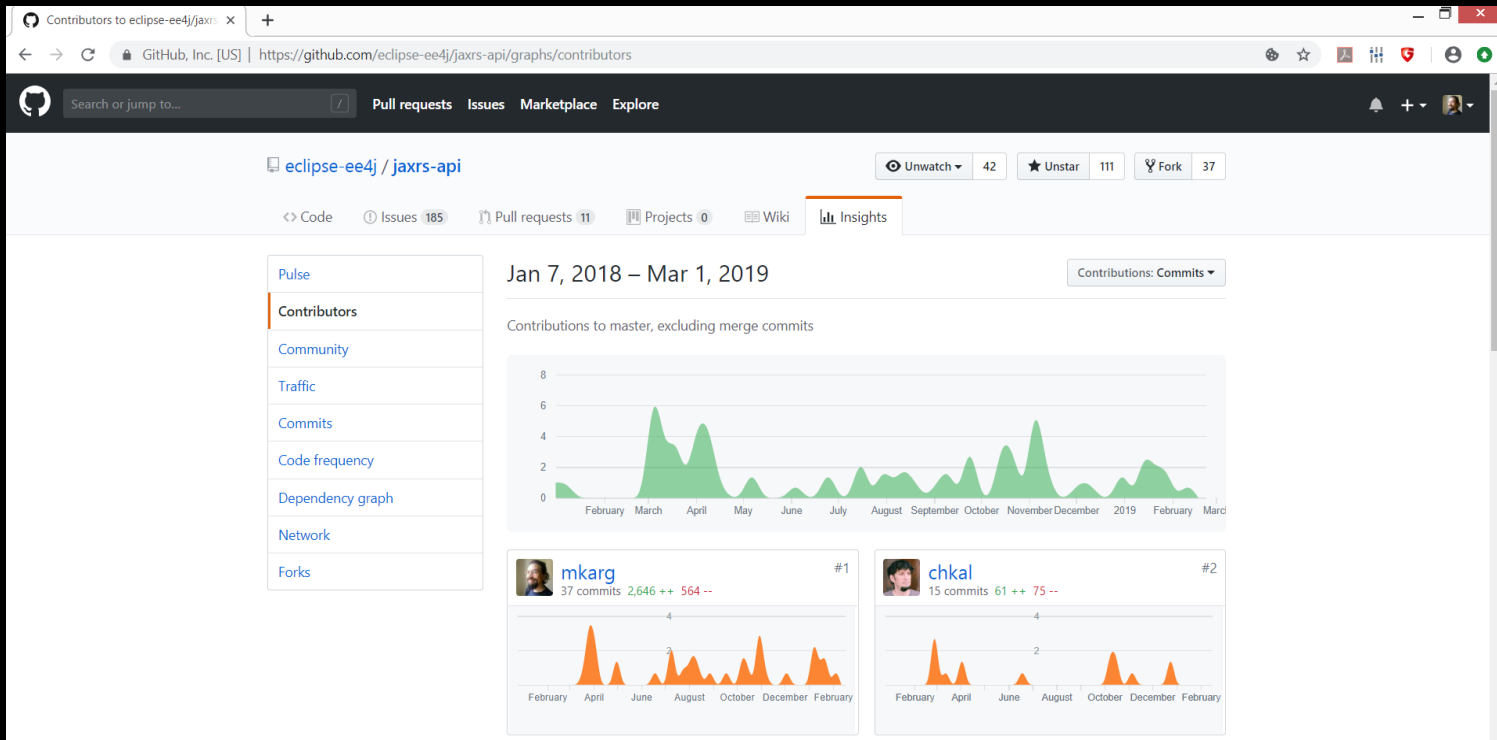
JAX-RS 3.0

The Next Generation

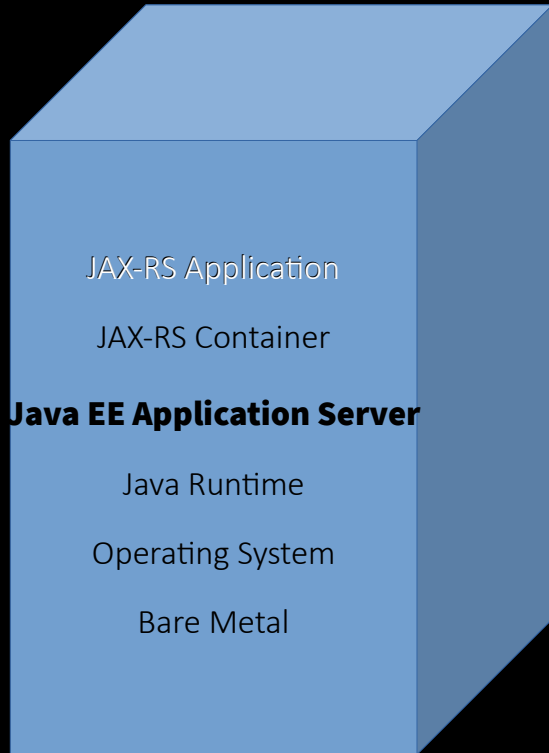
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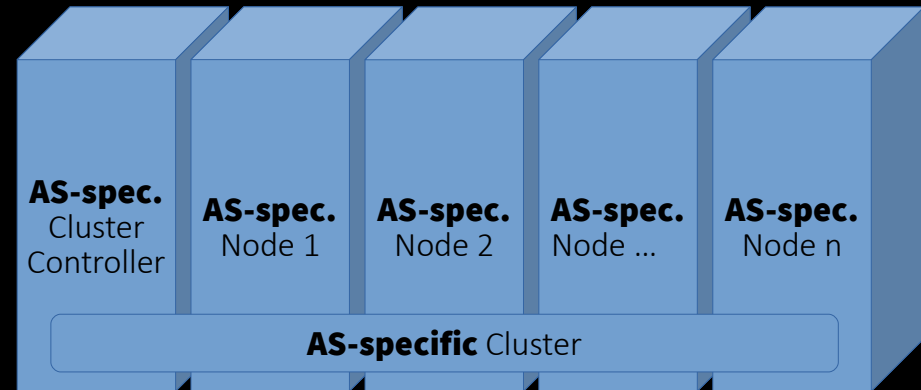
About Me



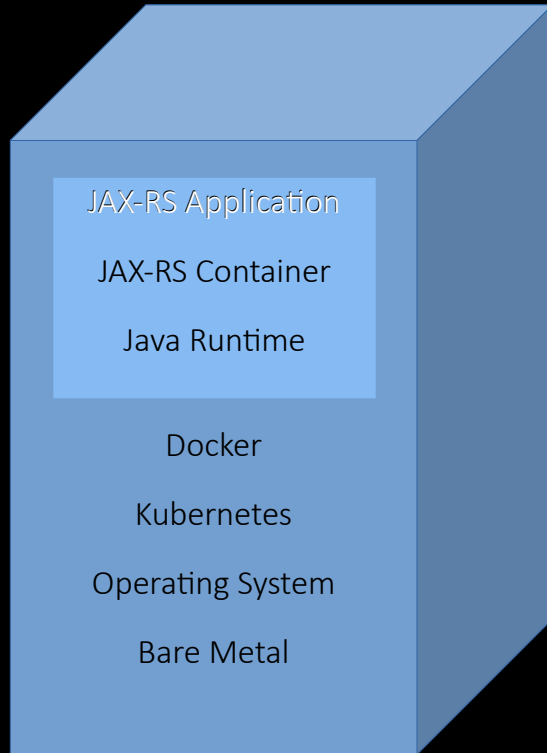
Application Servers: Old-School Scaling



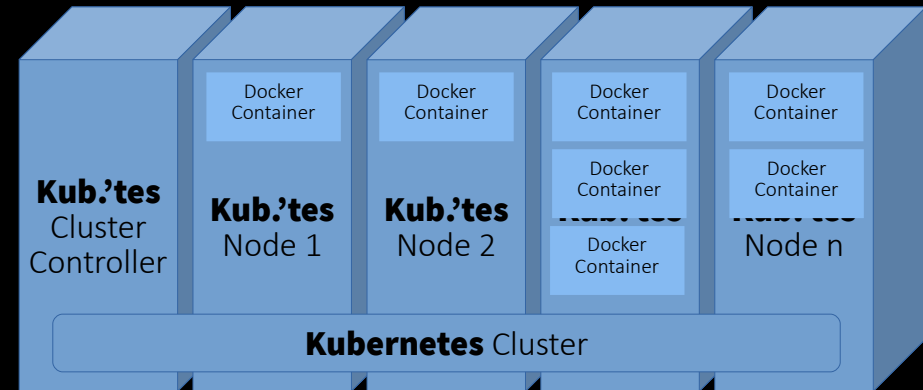
Clustered Application Server Nodes
e. g. GlassFish including Jersey



Cloud Computing: The Modern Approach

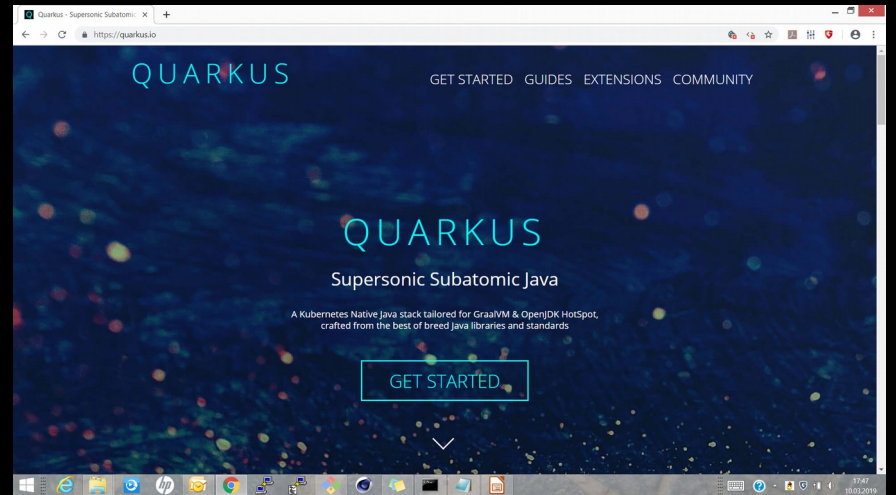
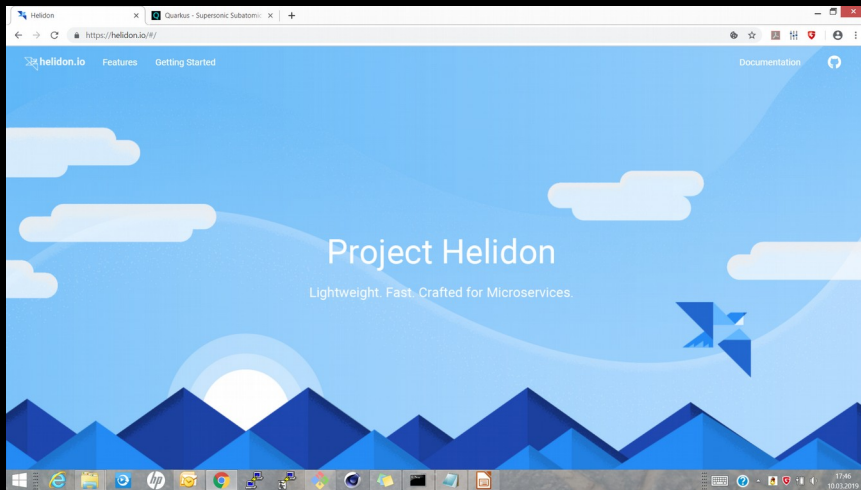


Elastic creation and disposal of lightweight processes (e. g. Kubernetes with Docker)



Cloud Computing

JAX-RS + Netty + Docker + ... = Cloud Native Java



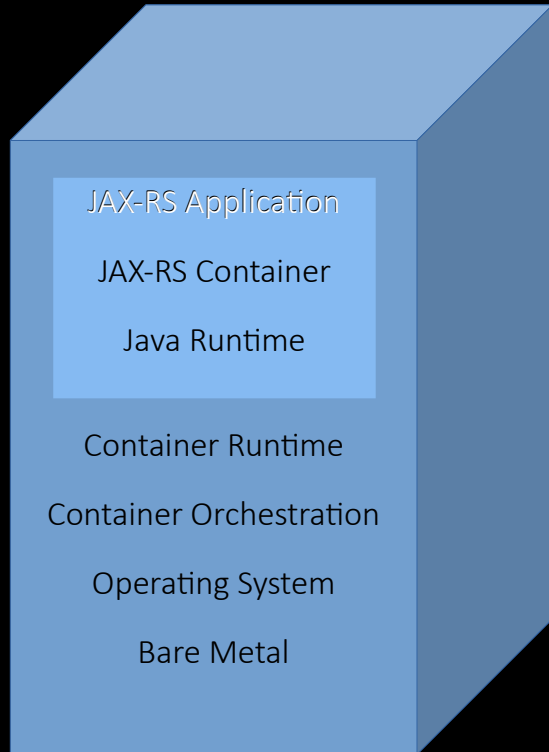
RESTful Devices



5 x 2,5 cm
1 Core @ 1 GHz
256 MB RAM
100 Mb/s LAN
\$ 10

Try to start GlassFish...

Effects upon JAX-RS



should start and stop instantly
should consume less resources
must provide http server
must read external config
must accept *application*-provided resources

R.I.P WORA

WARNING!

Java SE 11: ~~JAXB~~ → <dependency>

JAX-RS 2.2: ~~javax.ws.rs~~ → jakarta.ws.rs

JAX-RS 3.0: ~~@Context~~ → @Inject

Roadmap

~~DELETED~~ JAX-RS 2.2 [~~Q1~~/2019]: Java SE Bootstrap API

(instant on/off, low resource, includes http server, reads external config incl. optional support for Microprofile Config API)

~~DELETED~~ JAX-RS 2.3 [~~Q2~~/2019]: CDI 2.0 Support – Deprecate @Context

(accept *application*-provided resources)

Further Roadmap

JAX-RS 2.4 [TBD]: JPMS, Java 9

JAX-RS 3.0 [Q4/2019]: Replace @Context by @Inject

WARNING: You MUST use CDI now!

JAX-RS 3.1 [TBD]: Flow API, NIO

...

<https://github.com/eclipse-ee4j/jaxrs-api/wiki/Roadmap>

JAX-RS 2.2: Java SE Bootstrap API

instant on/off – boot in one second

low resource – run on limited devices

includes http server – choose by actual need

reads external config – from app, controller or orchestrator

optional support for Microprofile Config API – cloud standards

Bleeding Edge Cookbook

Java SE 8, Maven 3.6.1

maven-shade-plugin: master

jax-rs 2.1: d5f18229e3d57ffb8960ca2b19b51893c946be0a

jersey: JAXRS_2_2

JAX-RS 2.2: Java SE Bootstrap API

(live coding)

LGTY?

<i>Platform (1 CPU Core)</i>	Jersey + Netty JAX-RS 2.2	Microprofile JAX-RS 2.1	Java EE Server JAX-RS 2.1
<i>Boot Time</i>	~ 2.5s	(~ 10s)	(~ 60s)
<i>JAR Size</i>	6 MB	70 MB	142 MB
<i>Java -Xmx</i>	6 MB	(?)	(?)
<i>Java -Xms</i>	1 MB	(?)	(?)
<i>Docker -m</i>	< 32 MB	(?)	(?)

Questions?

<https://github.com/eclipse-ee4j/jaxrs-api>

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JAX-RS Committer

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