Making The Future Java

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MAKE THE FUTURE JAVA

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

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JavaOne 2013

By Developers, For Developers

5 Days

400+ Sessions

More Community Activities

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Progress

Community

OpenJDK
- New public bug system
- Infrastructure updates
- 114 new contributors

JCP
- JCP.next progress
- 20+ JUGs participating in Adopt-a-JSR program
- 14 JSRs finalized since last year

Java User Groups
- Increase in JUGs (growth from 197 to 228)
- Greater JUG interaction
- Piloting coding challenges

Technology

Java SE
- 50+ Security Enhancements, 7 JRE 7 Updates
- JDK 8 Dev Preview Available

JavaFX
- All code is open sourced as part of OpenJFX
- Released Scene Builder 1.1

Java Embedded
- Java ME 3.3 client runtimes available
- ARM 32-bit HardFP ABI support

Java EE
- Launched Java EE 7, Glassfish 4.0
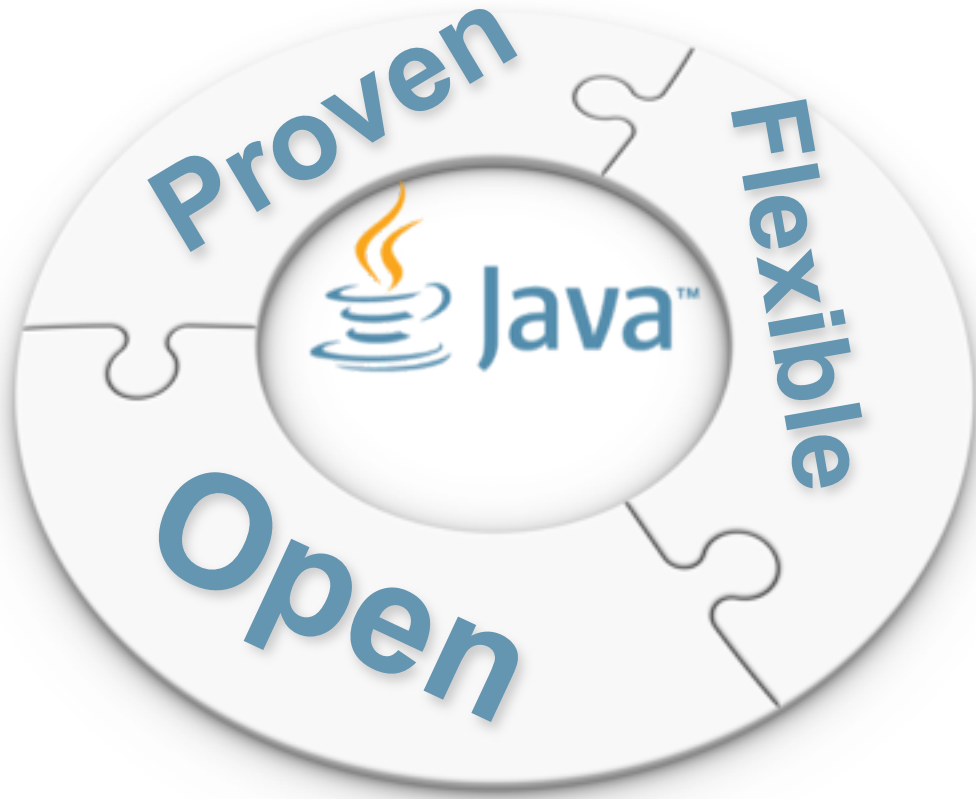- 4 new JSRs

Oracle Stewardship

Outreach
- 4 regional JavaOne events with over 5,000 attendees
- Over 1M touch points reached through Java Evangelism activities

Oracle Technology Network
- Over 150K subscribers to *Java Magazine*
- Over 100K @java followers on Twitter

Java.net
- Over 852,512 members
- Over 2,300 public projects

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9 Million+ Java developers worldwide

#1 Choice for developers

#1 Development platform

5 of Top 5 OEMs ship Java ME

3 Billion mobile phones run Java

100% of Blu-Ray players ship with Java

97% of enterprise desktops run Java

89% of desktops in USA run Java

5 Billion Java Cards in use

125 Million TV devices run Java

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60 sec

WordPress	**347** new posts
Pinterest	**11,000** active users
YouTube	**72** hours of video uploaded
(email)	**204 million** messages sent
LinkedIn	**11,000** professional searches
Twitter	**278,000** tweets
facebook	**41,000** searches
snapchat	**104,000** photos shared
flickr	**20 million** photos viewed

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1 Exabyte = 3,600 years worth of HD-TV video

2011 — 1,500 EB

2013

3,500 EB

2015 — 8,000 EB

Volume   Variety   Velocity

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World Population	6.3 Billion	6.8 Billion	7.2 Billion	7.6 Billion
Connected Devices	500 Million	12.5 Billion	25 Billion	50 Billion
Connected Devices per Person	0.08	1.84	3.47	6.58
	2003	2010	2015	2020

1x   3x   5x

Source: Cisco

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Architecture

EUROTECH
DEVICE
CLOUD

DEVICE/GATEWAY
(Data Collection)

CLOUD
(Device Management and Data Analytics)

UI
(Data Visualization)

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Today

APIs

Java SE 7

CDC 1.1

CLDC 1.1

Language

Java SE 7

CDC 1.1
(based on SE 1.4.2)

CLDC 1.1
(based on SE 1.3)

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Java 8

APIs

Java SE 8

Java ME
8

Language

Java SE
8

Java ME
8

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Beyond Java 8

APIs

Language

Java SE

Java SE

Small Devices

Small Devices

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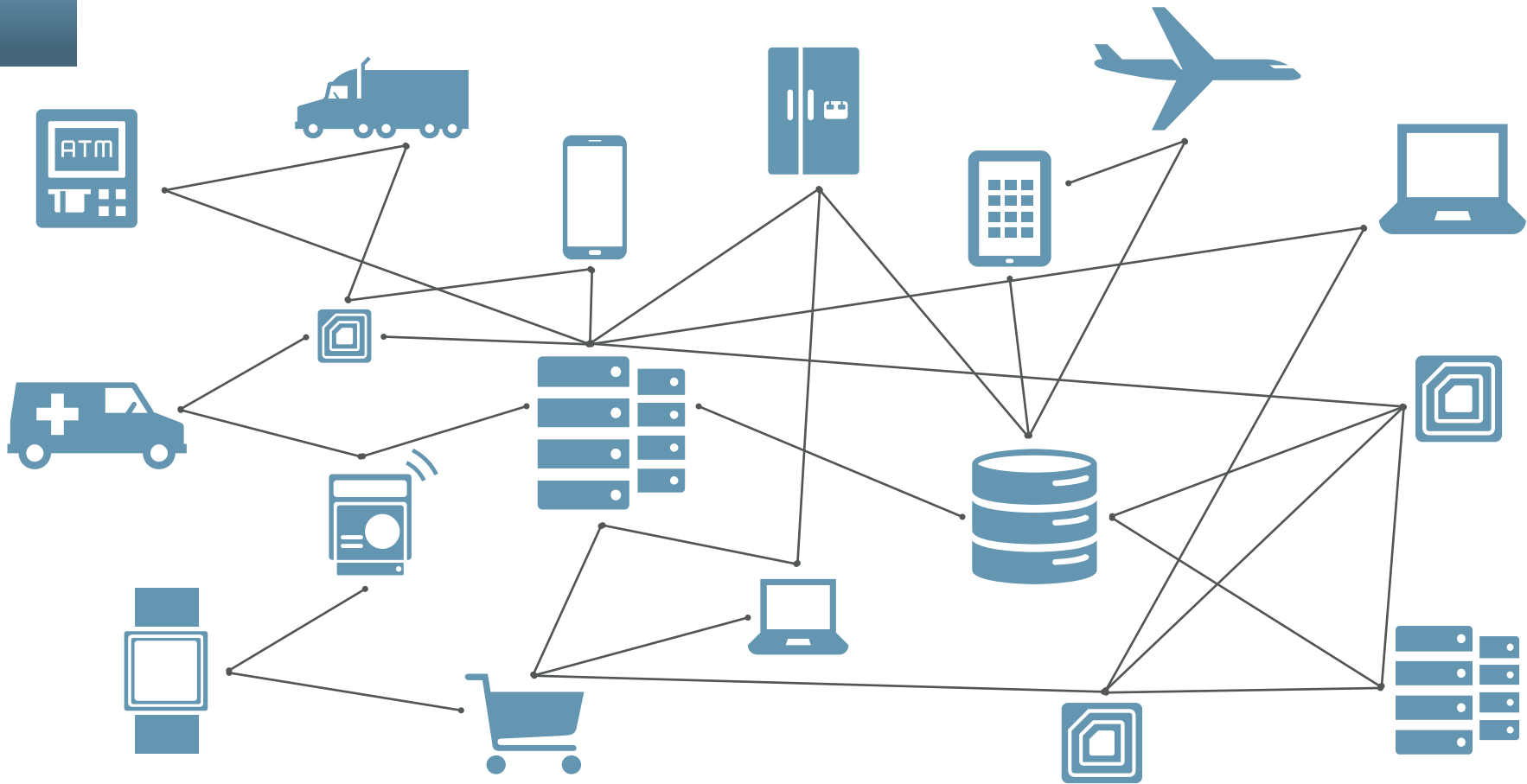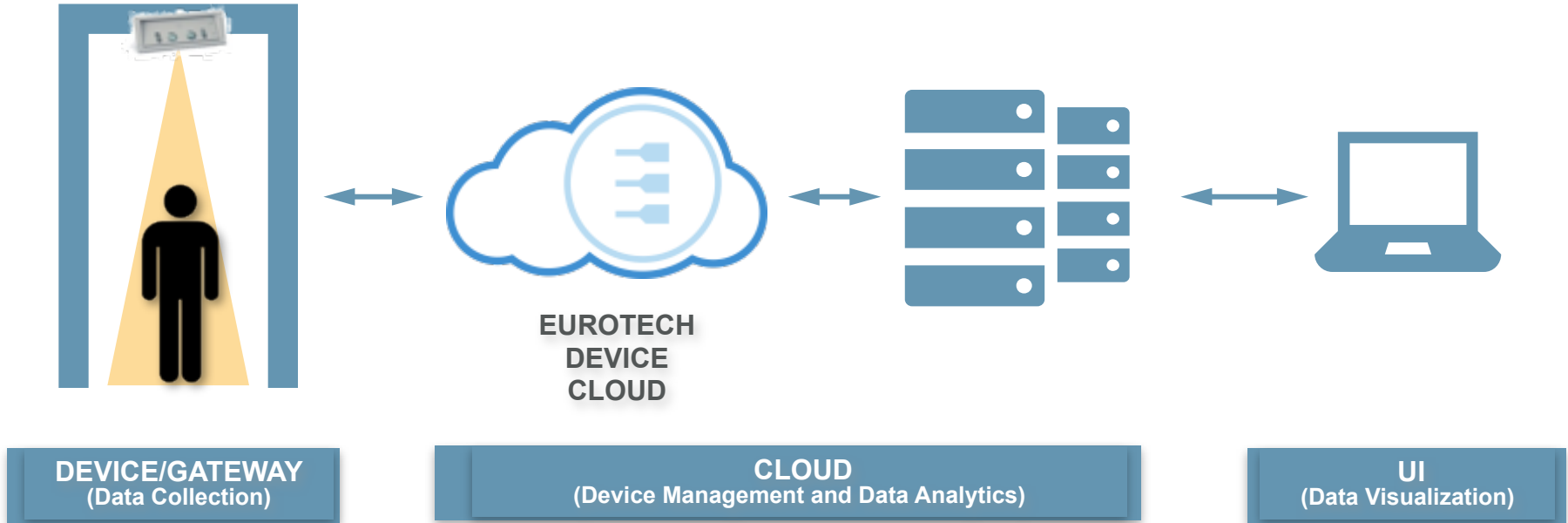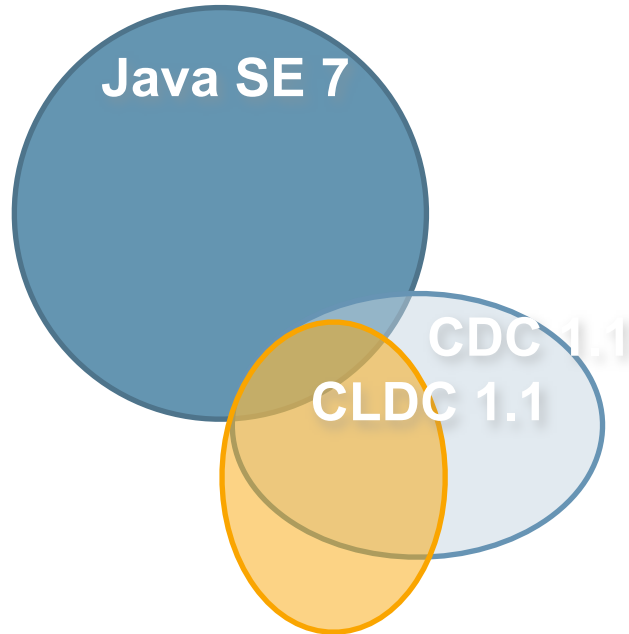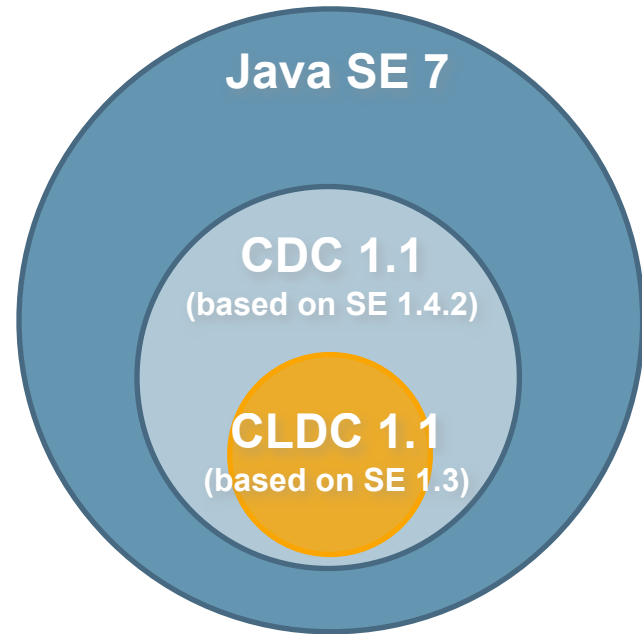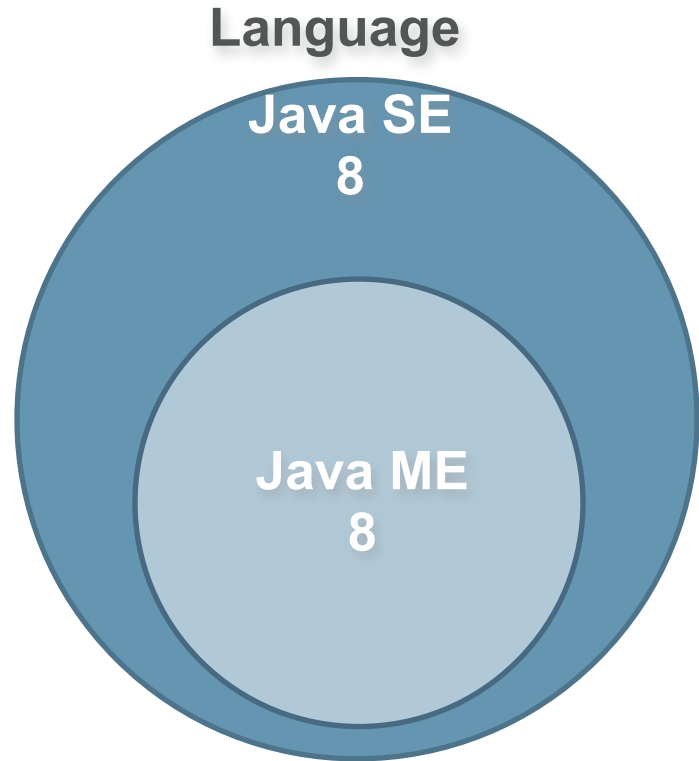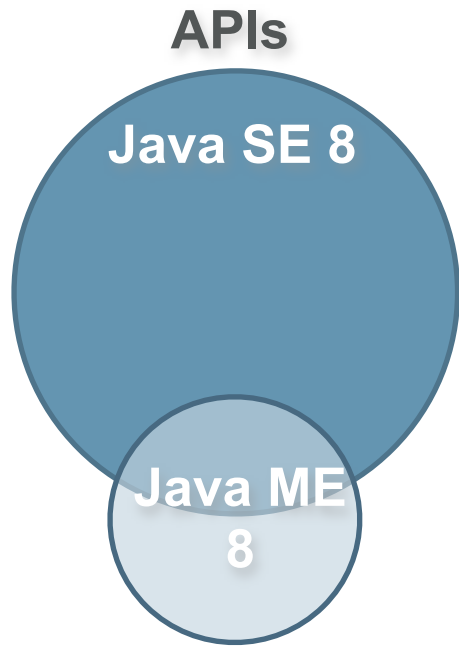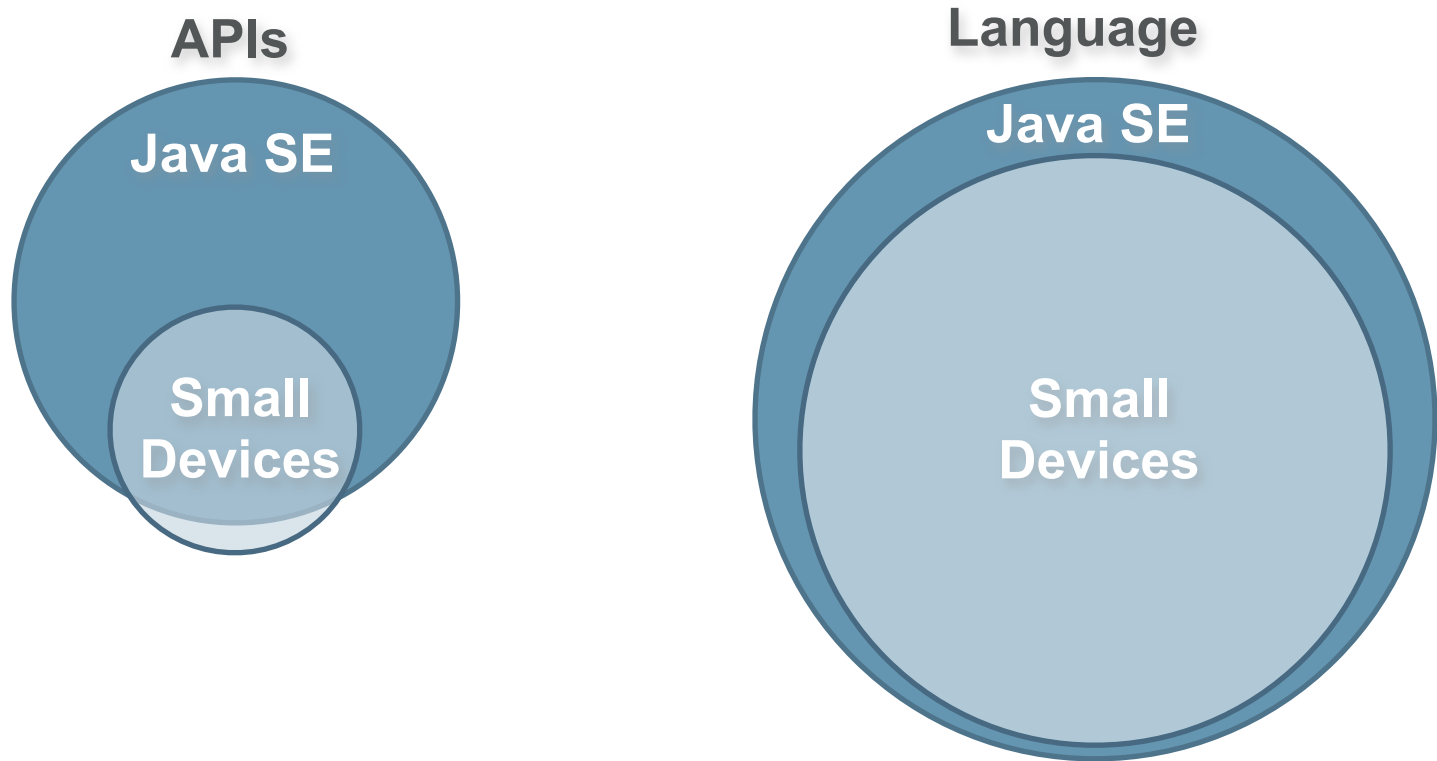
Oracle Java Platform Integrator Program

Partner Apps / APIs

Oracle Java Embedded Product Code

Java Platform Integrator's Product

Java APIs

Java Profile

Java VM

Porting Layer
for Platform Integrator

OS, Drivers

Device Hardware

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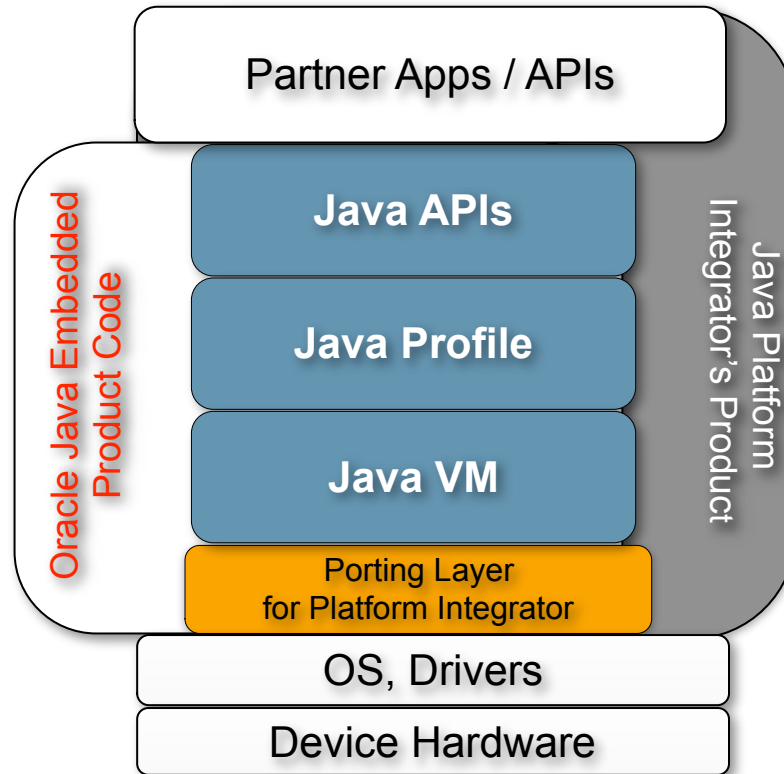
Java 8 Features

- Lambda -- JSR 335
- Date & Time API -- JSR 310
- Nashorn JavaScript Engine
- Compact Profiles
- Security Enhancements

Beyond Java 8

- Modular Platform (Jigsaw)
- Unified Type System
- Language Interoperability
- Memory-efficient data structures
- Java on GPUs (Sumatra)

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Java Roadmap

7u21
- Java Client Security Enhancements
- App Store Packaging tools

7u40
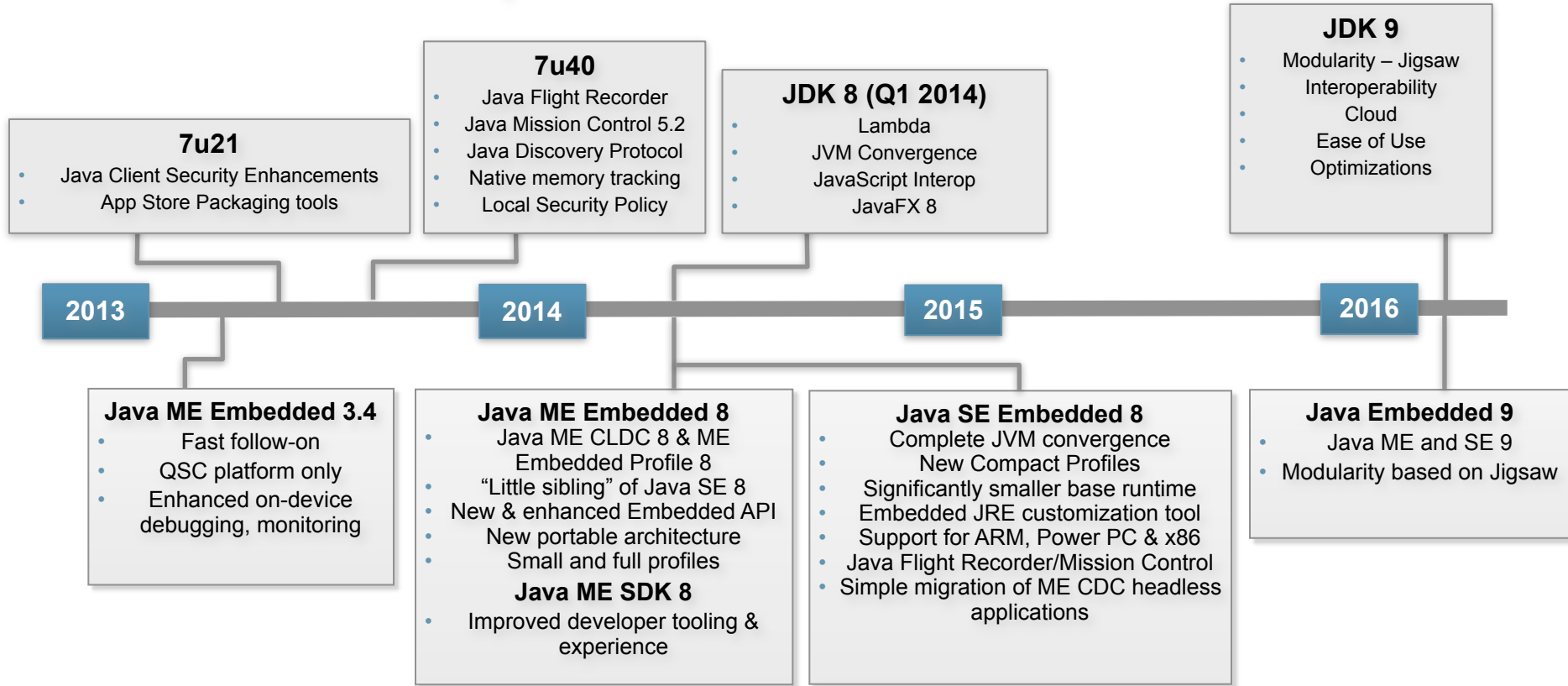- Java Flight Recorder
- Java Mission Control 5.2
- Java Discovery Protocol
- Native memory tracking
- Local Security Policy

JDK 8 (Q1 2014)
- Lambda
- JVM Convergence
- JavaScript Interop
- JavaFX 8

JDK 9
- Modularity – Jigsaw
- Interoperability
- Cloud
- Ease of Use
- Optimizations

2013   **2014**   **2015**   **2016**

Java ME Embedded 3.4
- Fast follow-on
- QSC platform only
- Enhanced on-device debugging, monitoring

Java ME Embedded 8
- Java ME CLDC 8 & ME Embedded Profile 8
- "Little sibling" of Java SE 8
- New & enhanced Embedded API
- New portable architecture
- Small and full profiles

Java ME SDK 8
- Improved developer tooling & experience

Java SE Embedded 8
- Complete JVM convergence
- New Compact Profiles
- Significantly smaller base runtime
- Embedded JRE customization tool
- Support for ARM, Power PC & x86
- Java Flight Recorder/Mission Control
- Simple migration of ME CDC headless applications

Java Embedded 9
- Java ME and SE 9
- Modularity based on Jigsaw

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TEST PREVIEW

Java SE 8 EA

Java ME 8 EA

http://JDK8.java.net

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Now Available

Java Platform, Enterprise Edition 7

The standard in community-driven enterprise software

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Java EE 7 Technical Foundation

DEVELOPER PRODUCTIVITY

Java EE 7

MEETING ENTERPRISE DEMANDS

HTML 5

- More annotated POJOs
- Less boilerplate code
- Cohesive integrated platform

- WebSockets
- JSON
- Servlet 3.1 NIO
- REST

- Batch
- Concurrency
- Simplified JMS

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Powering Java Standards in the Cloud

Deliver More Apps to More Devices with Confidence
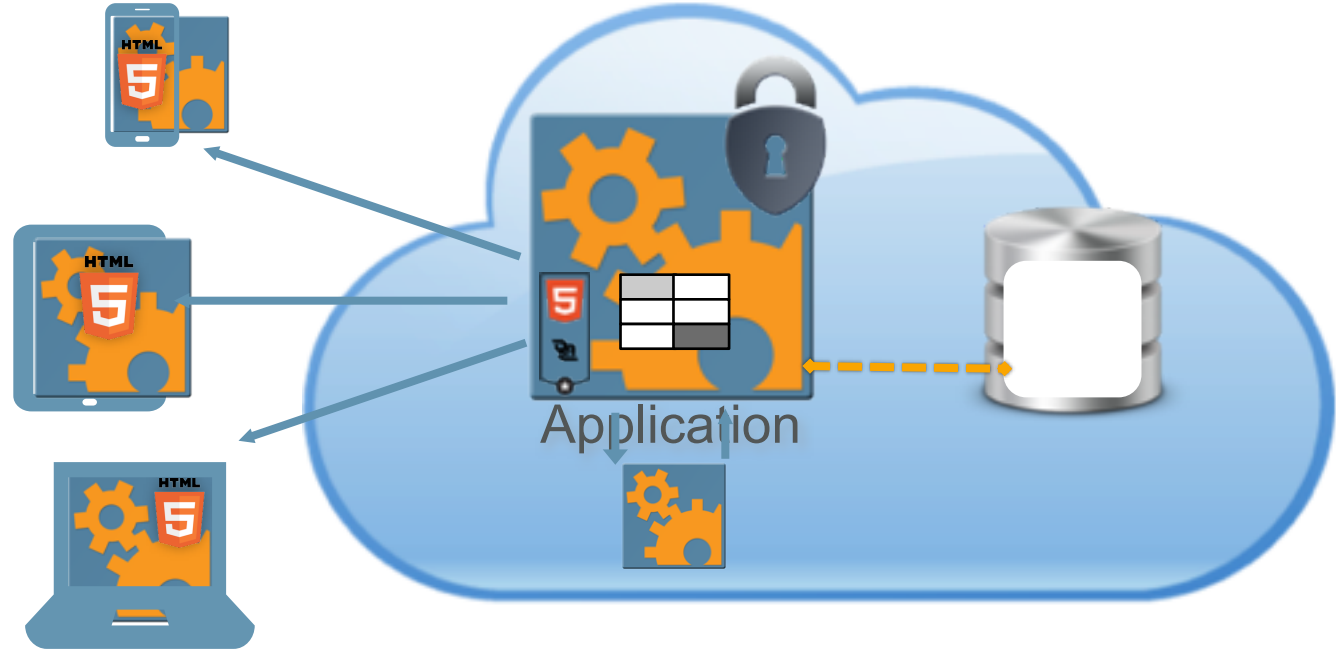
Container-based Security
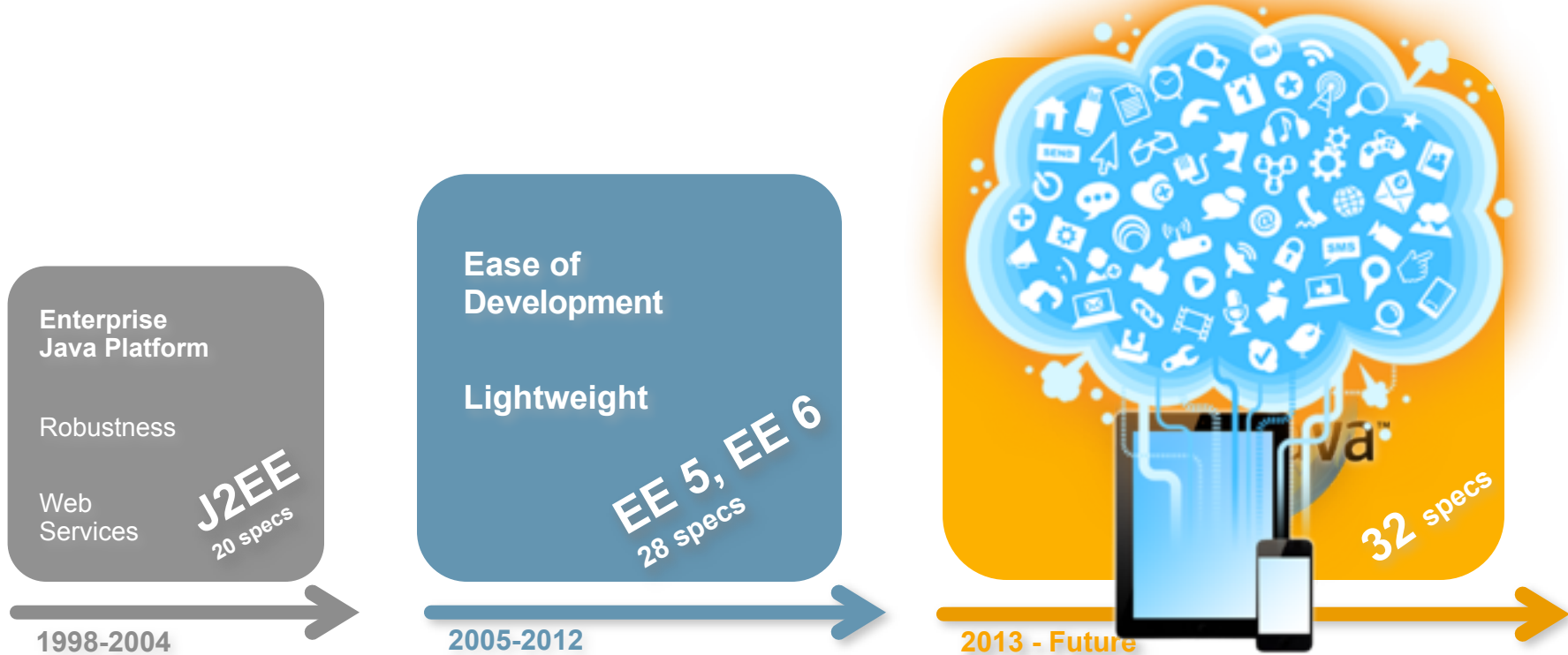
Default Resources

Schema Generation

Client API for RESTful Services

Faces Flow & Resource Templating

Application

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Java EE: Positioning for the Future

Enterprise Java Platform

Robustness

Web Services

J2EE
20 specs

1998-2004

Ease of Development

Lightweight

EE 5, EE 6
28 specs

2005-2012

32 specs

2013 - Future

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The Future of Java EE

NoSQL
Cloud

Enhanced HTML5

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DOWNLOAD
Java EE 7 SDK
oracle.com/javaee

GlassFish 4.0

Full Platform or Web Profile

glassfish.org

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Java EE for Next Generation Applications
Deliver HTML5 Dynamic, Scalable Apps

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Project Avatar

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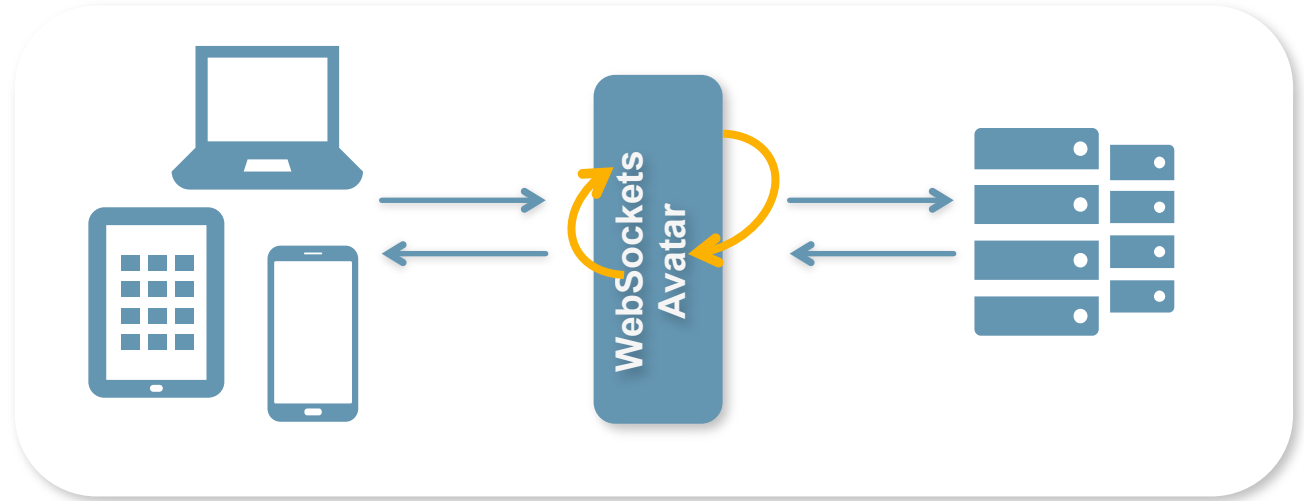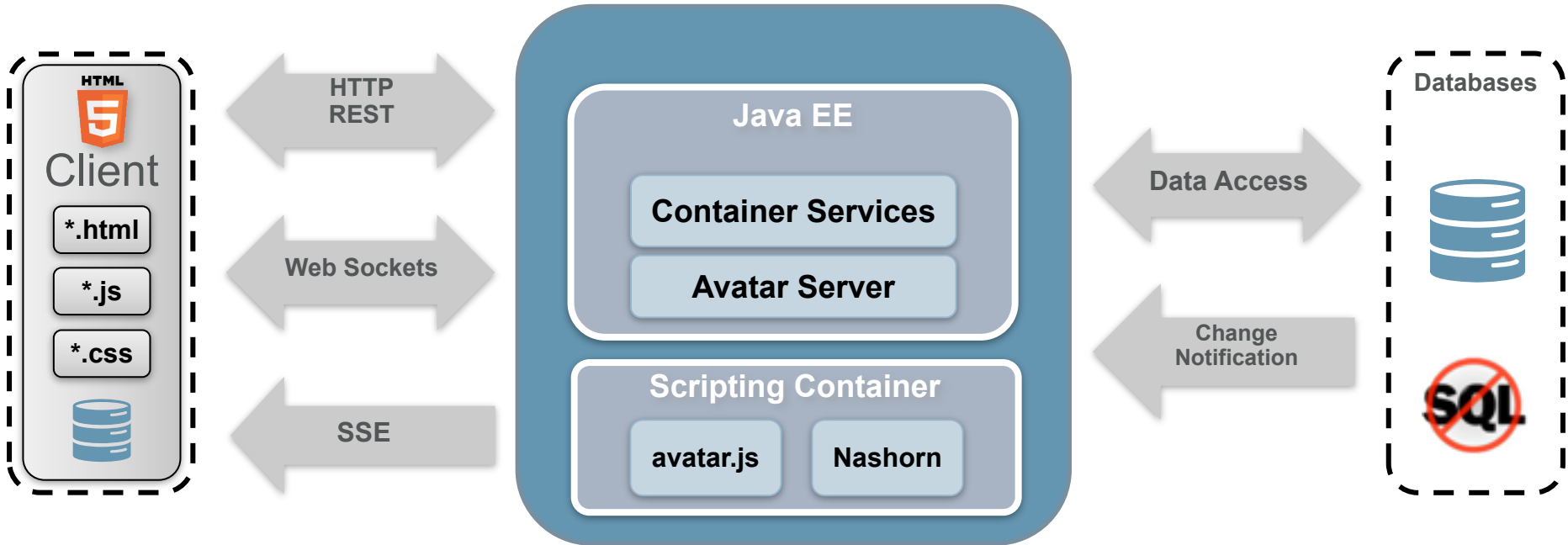
Open Sourcing
Project Avatar

avatar.java.net

Download and try now!
Get involved!

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Facebook	facebook.com/ eJava
Oracle Java blog	blogs.oracle.com/ java
Oracle Java Web site	oracle.com/java
Oracle Internet of Things	oracle.com/m2m

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