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# Java ME Platform Evolution

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# Java ME 7 Platform: Design Objectives

**Enrich the Java ME content Ecosystem**
**Prepare for New Frontiers in Embedded Markets**

- ✓ Synchronize SE and ME heartbeats
- ✓ Renovate MSA to enable delivery of smart-phone experience on feature-phones
- ✓ Define new APIs targeting better user experience & services on mass market mobile phones
- ✓ Expand Java ME to become the leading services & application platform for billions of connected embedded devices

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# ME 7 Core Components

APIs & platform facilities for mobile phones, small embedded devices and information modules

- CLDC 7
  - New Java VM alignment with latest Java SE
- MIDP 7
  - Core platform spec. targeting to address both mobile and small embedded device
- ME 7 JSRs
  - Defining / Adapting API behavior for specific device functionality

Umbrella JSR specifying the default APIs for each device category

- MSA
  - Umbrella JSR specifying default APIs for mobile devices
- ESA
  - Umbrella JSR specifying default APIs for small embedded device

*TBD: ESA may be a separate JSR or part of MSA.*

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# CLDC Highlights

- Synchronize with the Java SE 5/6/7 language features
- Easier memory management; using Reference Queue for garbage collection
- Simplify and Optimize native library integration by introducing optimized NIO buffers implementation
- Use the latest JDK for application development
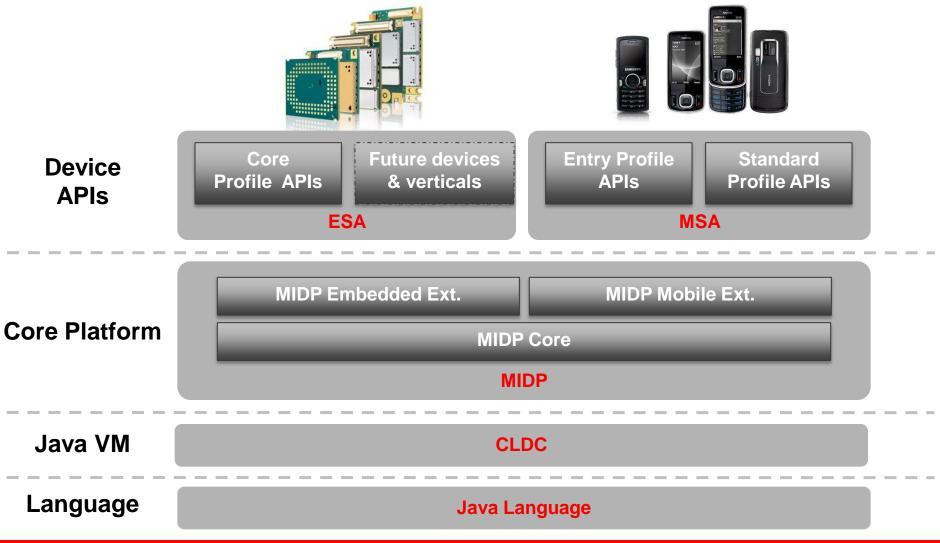- Target limited footprint increase to meet strict requirements of mobile and embedded markets

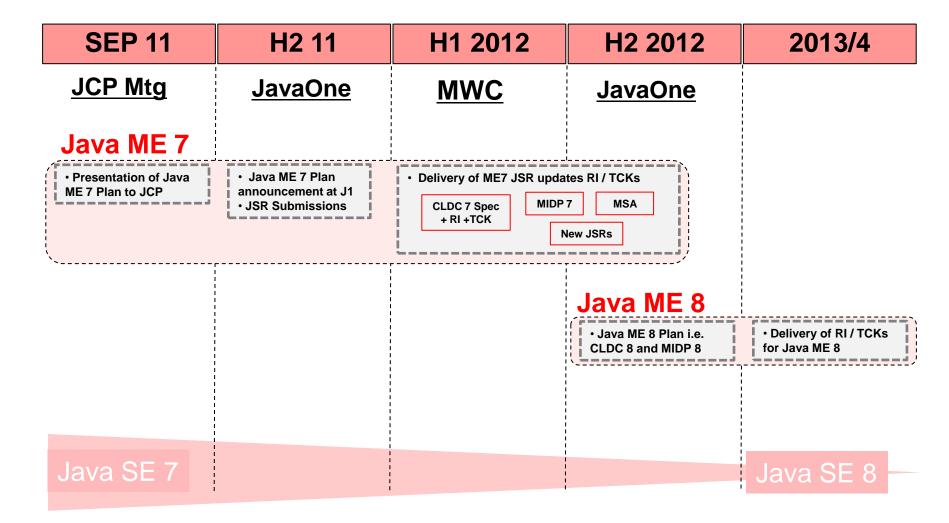**ORACLE**

# Java ME 7 JSRs (New / Updates)
## Initial Proposal

| JSR | Justification |
|---|---|
| CLDC | Base set of APIs and VM for resource-constrained devices |
| MIDP | Core ME platform specification target to address both mobile and small embedded device |
| MSA / ESA | Java architecture definition describing essential components for mobile and small embedded devices. |
| JSR 266: Unified Message Box | Finishing the JSR process |
| AMS API | • Application and Content Lifecycle<br>• Runtime Control of Applications<br>• Content Meta-data management |
| RESTful API | • Consider the RESTful Web Services adoption to Mobile & easier Social Network APIs access. |

+ Potential Updates to JSR 177, 229, 179, 120, 135, 234, 211

# Java ME 7 Platform



| Device APIs | | | | |
|---|---|---|---|---|
| | **Core Profile APIs** | **Future devices & verticals** | **Entry Profile APIs** | **Standard Profile APIs** |
| | **ESA** | | **MSA** | |

| Core Platform | | |
|---|---|---|
| | **MIDP Embedded Ext.** | **MIDP Mobile Ext.** |
| | **MIDP Core** | |
| | **MIDP** | |

| Java VM | **CLDC** |
|---|---|

| Language | **Java Language** |
|---|---|

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# Java ME Platform: Timeline

| SEP 11 | H2 11 | H1 2012 | H2 2012 | 2013/4 |
|--------|-------|---------|---------|--------|

**JCP Mtg**  |  **JavaOne**  |  **MWC**  |  **JavaOne**

**Java ME 7**

- • Presentation of Java ME 7 Plan to JCP

- • Java ME 7 Plan announcement at J1
- • JSR Submissions

- • Delivery of ME7 JSR updates RI / TCKs

  CLDC 7 Spec + RI +TCK     MIDP 7     MSA

  New JSRs

**Java ME 8**

- • Java ME 8 Plan i.e. CLDC 8 and MIDP 8

- • Delivery of RI / TCKs for Java ME 8

Java SE 7

Java SE 8

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