
Java™


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FUTURE
JAVA
Java Embedded
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ORACLE

RANBIR MAZUMDAR

Principal Sales Consultant
World Wide Java Sales

Java™ ORACLE®

Building an Embedded Platform for Big Data in Manufacturing

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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.

"During the first day of a baby's life, the amount of data generated by humanity is equivalent to 70 times the information contained in the Library of Congress."

- The Human Face of Big Data

WHAT IS BIG DATA?

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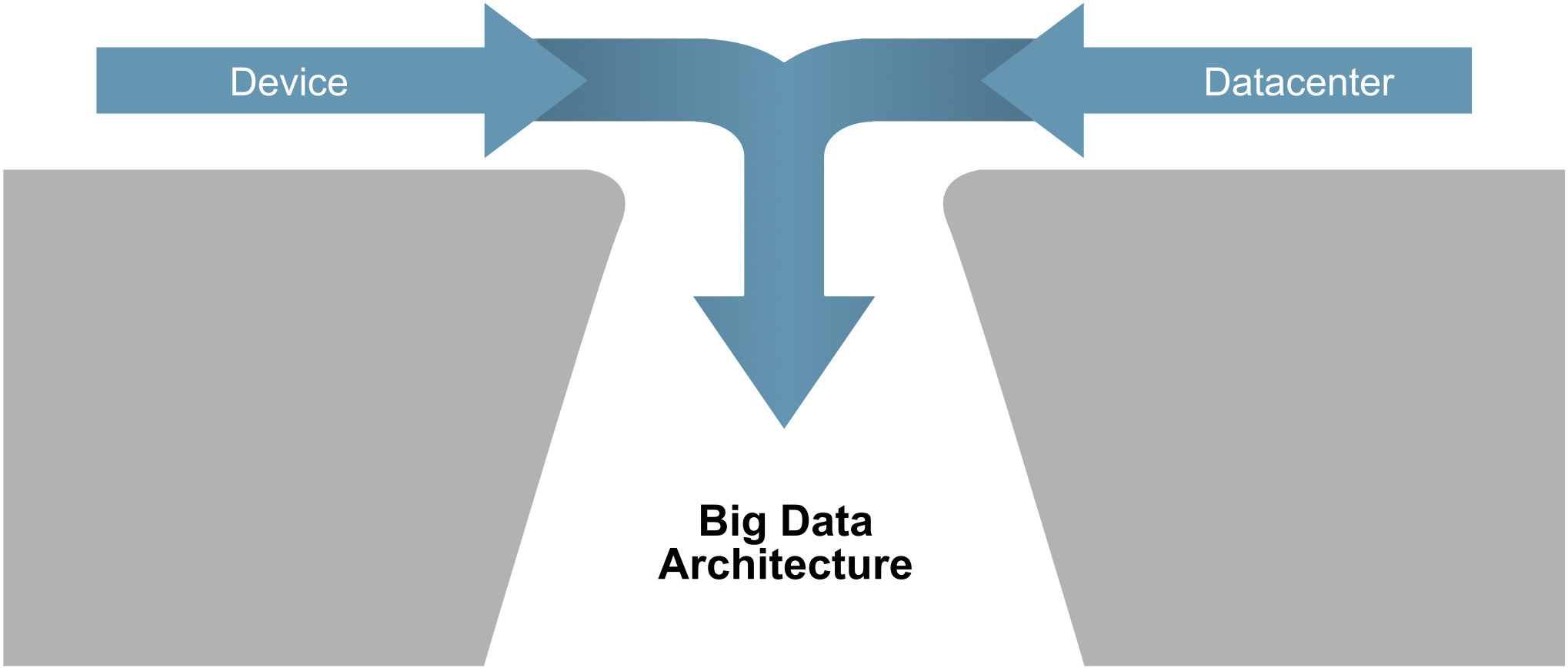
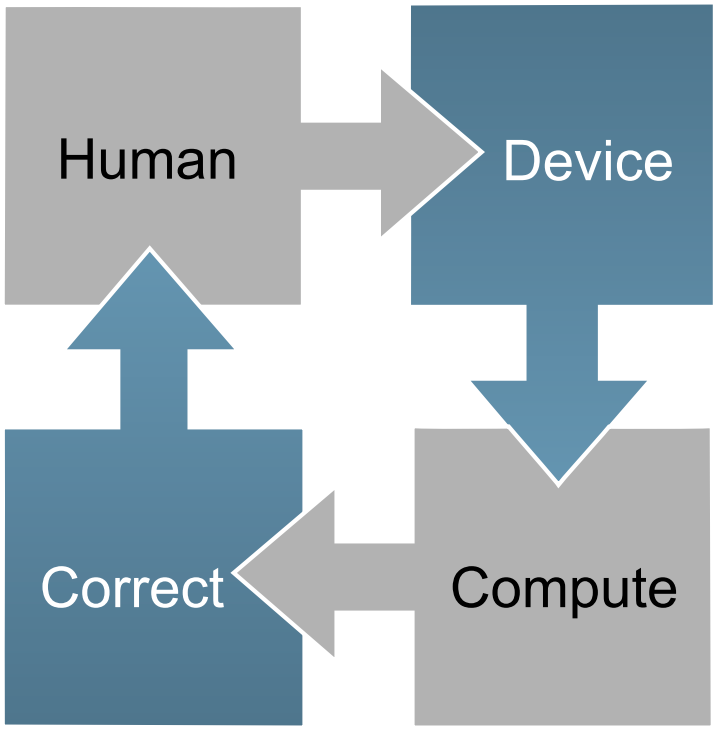
Convergence of Compute

Nodal vs. Infinite



What Creates Big Data

Feedback Loop



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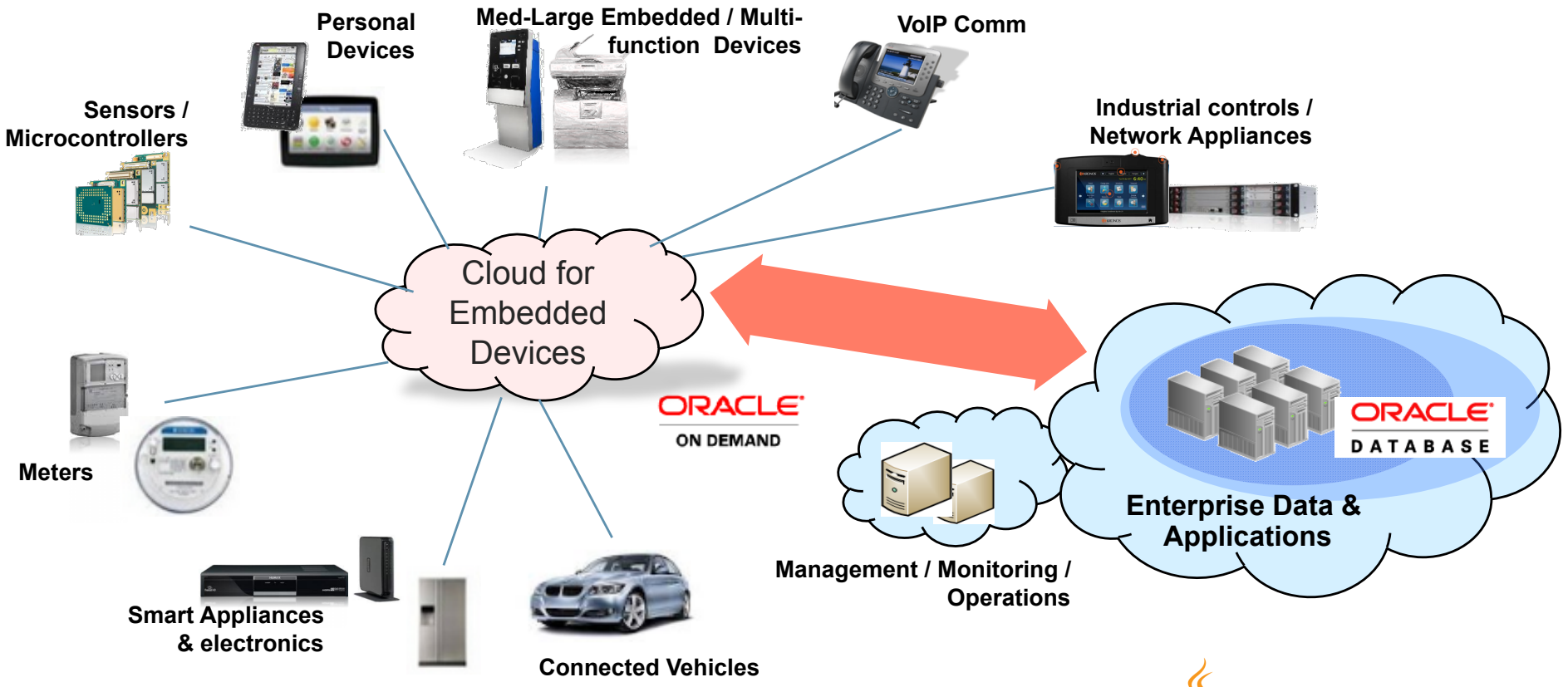
Java in the Internet of Things

31 billion devices, 4 billion people connected by 2020



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Oracle for Internet of Things

Complete Stack

- Oracle Java on Devices & in Data Center
- Best-of-Breed Solutions
- Open Standards
- Vertical Integration
- Extreme Performance
- Engineered Systems

Complete Customer Choice

- On-Premise
- Private Cloud
- Public Cloud
- Hybrid

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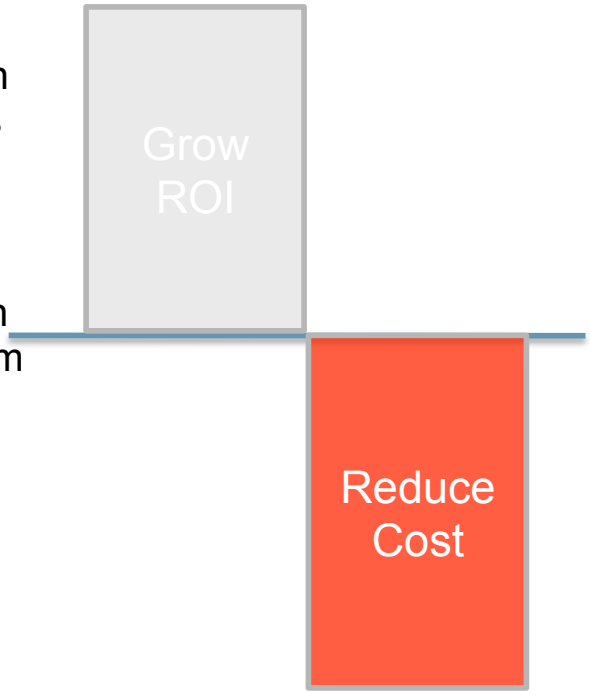
Java delivers Business Value

- **Extend Product Lifecycle**: In-market update and refresh
- **Competitive Advantage**: Focus on business value, reuse commodities from ecosystem
- **Innovation:** Fueled by largest pool of developer talent
- **Increase Market Reach**: Partner in world's largest developer ecosystem



- **Portability**: Increase flexibility to manage BOM and roadmap
- **Shorter Time-to-Market**: Reduce QA cycles and remove reinvention
- **Reduce Support**: Remote update
- **Reduce Risk**: Most widely deployed, secure, reliable development platform
- **Standards-based**: Developed in the open and backed by Oracle

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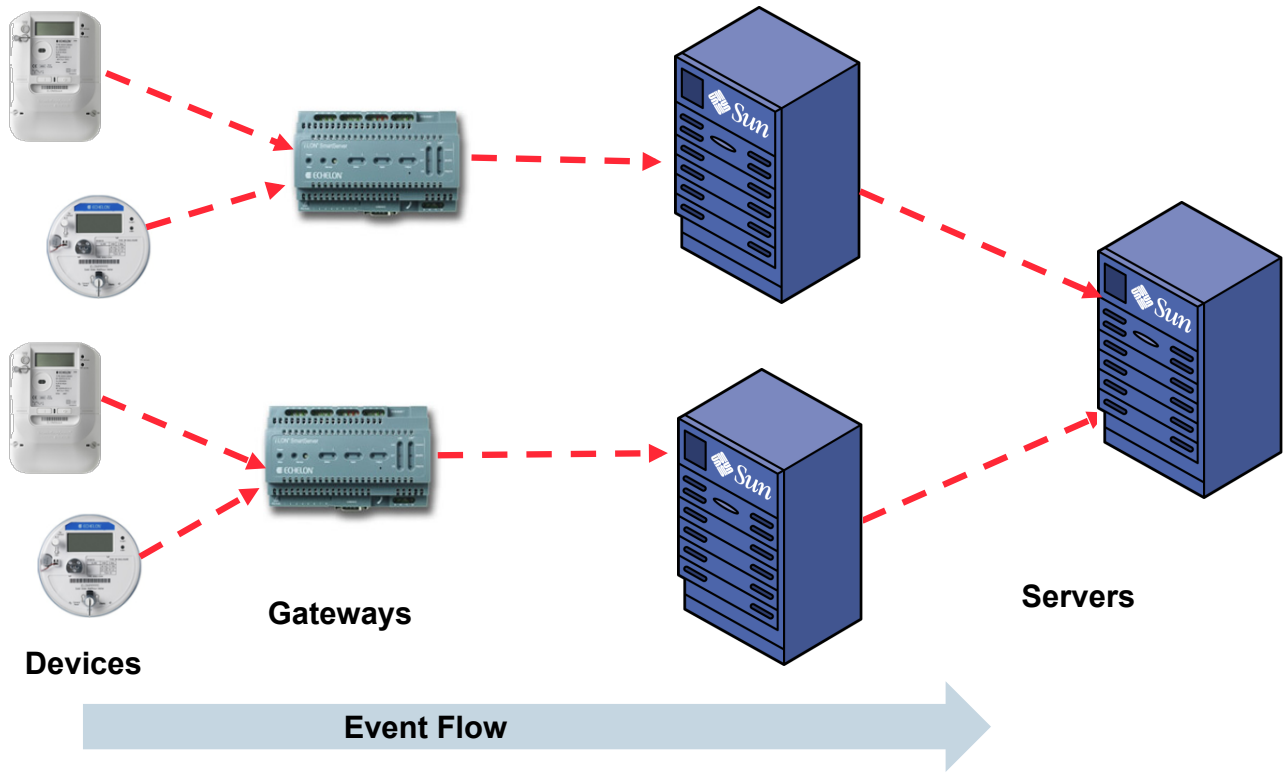
Oracle Event Processing for Edge Analytics

OEP Processing Distributes Seamlessly – Event Processing Network



- Events output by one node become inputs for subsequent nodes.
- Upstream nodes perform basic filtering and aggregation on individual streams. Larger servers downstream perform complex combining and correlation across multiple streams.
- Embedded OEP allows initial processing to be handled by less powerful devices near the origin/edge.

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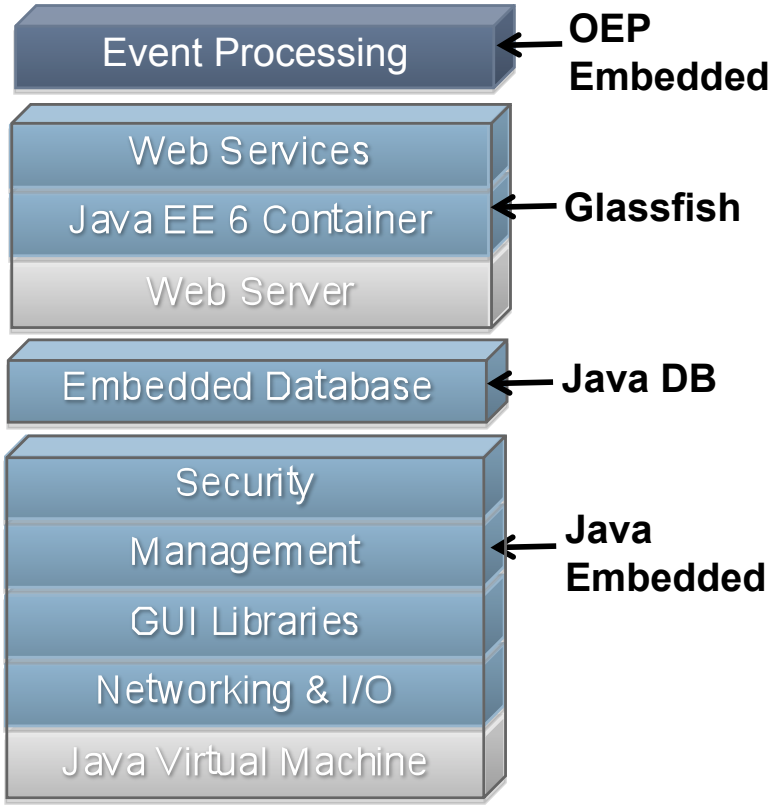
OEP Embedded on Smart Devices

OEP Embedded running on Java Embedded enables applications to track and analyze data to enable **real-time intelligence devices**



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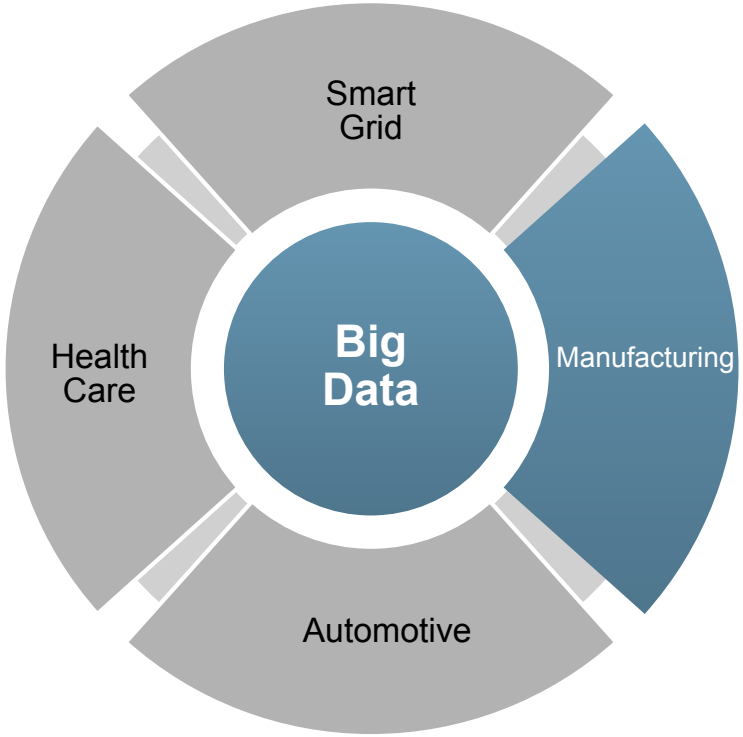
Embedded OEP Enables Edge Processing

- Embedding OEP on edge devices allows initial processing to be pushed to the edge.
  - Edge devices perform data reduction (filtering), aggregation, basic pattern matching on single streams
  - Queries involving multiple event streams (correlation, stream joins) handled further downstream on larger servers.
- Early filtering reduces network load
- Distributing the processing and pushing closer to source improves scalability and responsiveness

Manufacturing Big Data

A Special Case



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For More Information About Java Embedded

Technical Information:

otn.oracle.com/java/embedded

Product Information:

www.oracle.com/java

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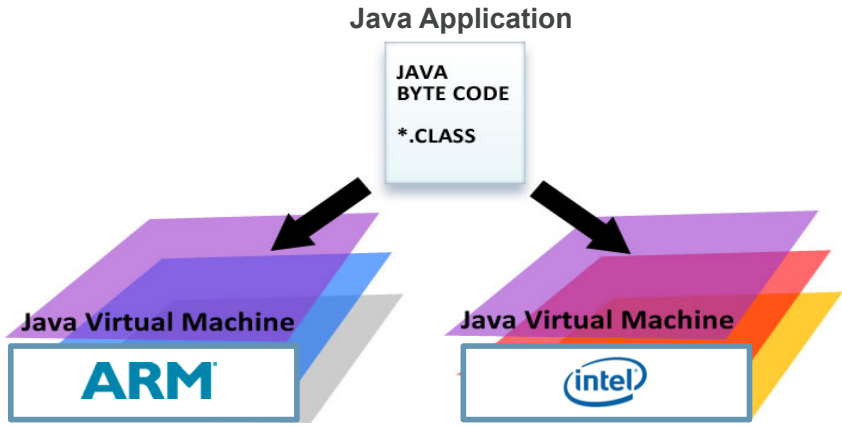
Why Java for M2M Development

Solves the tough problems for M2M & ”The Internet of Things”

- Java is a highly productive development and deployment platform
- Any market, any device, any size (Write Once Run Anywhere)
- Ecosystem of 9 million+ developers: the largest community in the industry
  - The same language is used in IT and on devices – so your IT resources can contribute to – or code for – device clients needed in M2M



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