Embedded OS Trend

in Wireless Network

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Agenda

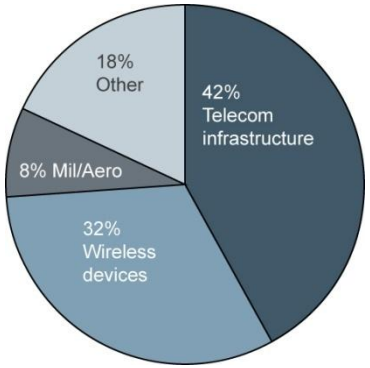
- Enea In General
- Embedded OS Current Situation
- Technology Development Drives Demand
- Homogeneous Multi-core Embedded OS
- Heterogeneous Multi-core Embedded OS

ENEA

Leader in Communications Software & Services

Global software and services company focused on solutions for communication-driven products.
Founded in 1968

Revenue per segment (2009)



85 M€ in Sales 2009

620 employees

16 offices in;
Sweden (HQ), China
France, Germany, Israel,
Japan, North America
Romania and UK

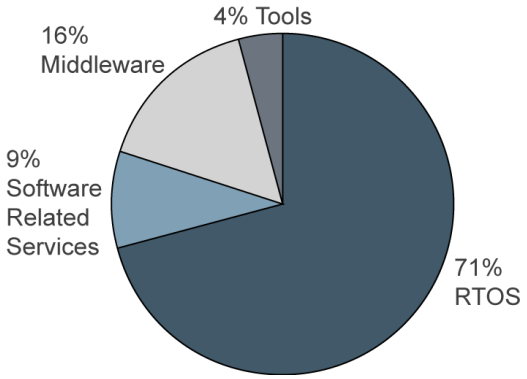
Enea Software

Embedded OS Software and Tools

Among the most widely deployed in the world within telecom

- 5 billion phone calls every day
- installed in approx. 50% of all 3G base stations in the world
- is installed in more than 1.5 billion mobile phones

Revenue per product (2009)



Enea Consulting

- Full product life cycle software development
- Outsourcing capabilities
- Training
- Solution centers for Android, Linux, wireless communication and certification

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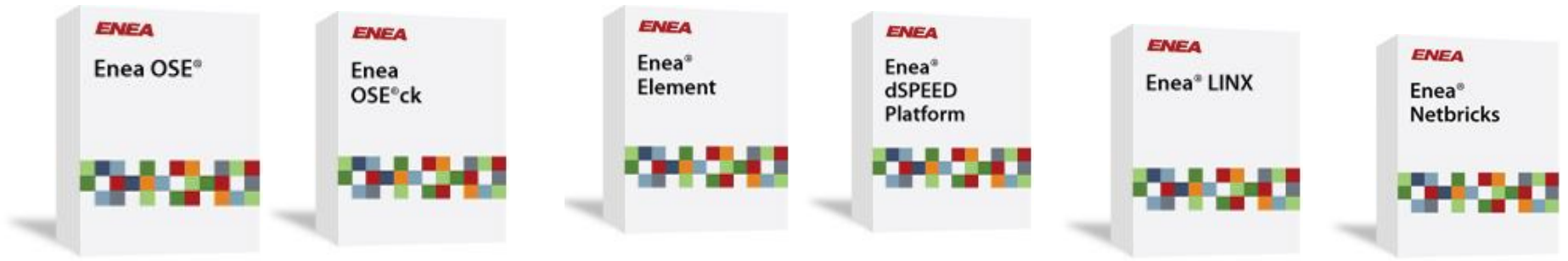
Enea Family of Products



Real-Time OS

OSE

- Fault tolerant, preemptive
- Memory protection
- Highly available (99.999%)

OSEck

- Compact kernel version
- Optimal for signal processing
- Highly available (99.999%)

OSE Epsilon

- Ultra-Low Interrupt Latency
- Very-Low memory footprint

Optima Tools

- Eclipse-based debug and profiling tools suite

Linux OS

- Full Linux Distribution
- Integration of Enea features
- Strong Support Driven

Middleware Platforms

Element

- System-wide IPC, discovery, and publish/subscribe services
- Ideal for networking infrastructure equipment and HA

dSPEED

- Ideal platform for controlling DSP farms & Multicore DSPs

Embedded Database

Polyhedra

- SQL RDBMS
- Fault tolerant, in-memory
- Instant failover
- Highly available (99.999%)

Communication Protocols

LINX – IPC

- Multiple OS, distributed, multicore / multiprocessor communications

Netbricks - Telecom stacks

- Sigtran, SIP, DIAMETER, MEGAC, FAX, ISDN, X.25, etc.

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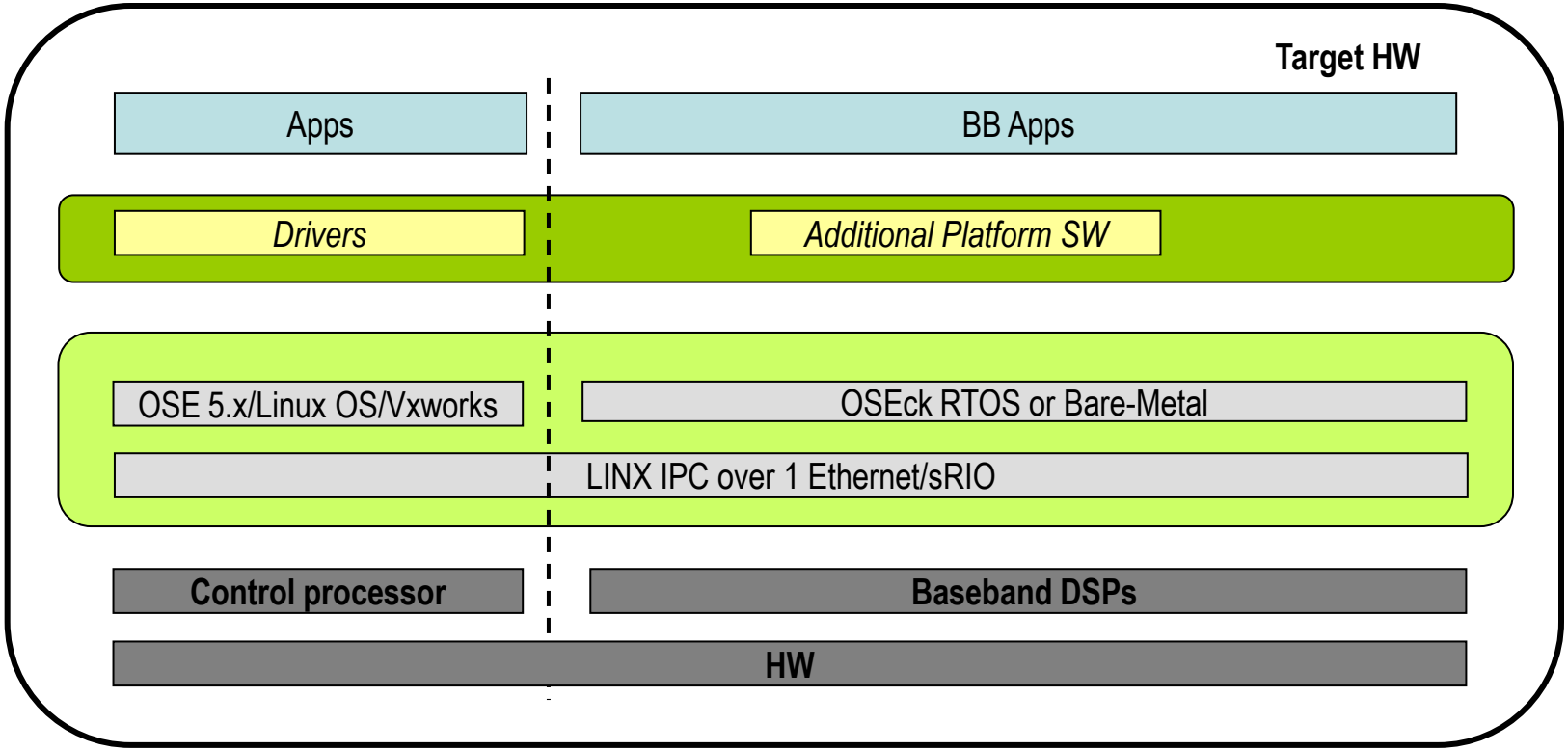
Embedded OS Current



Single-Core OS dominate the industry, however it is changing……

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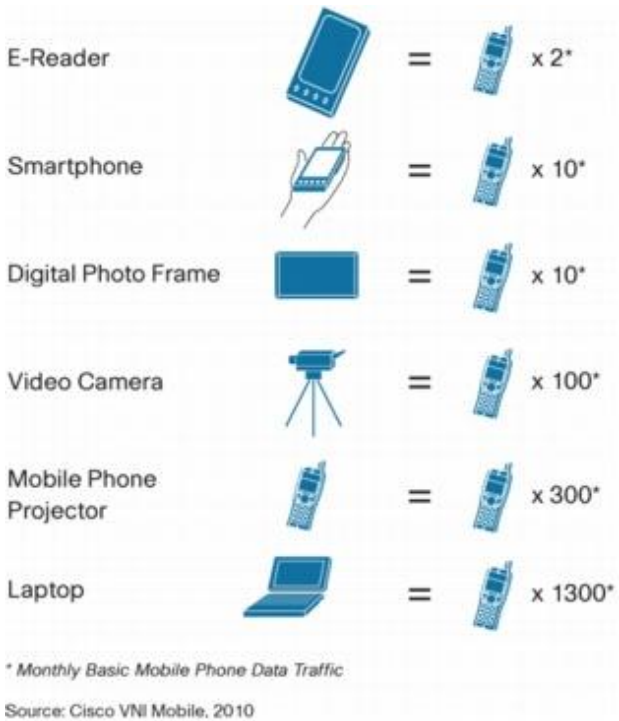
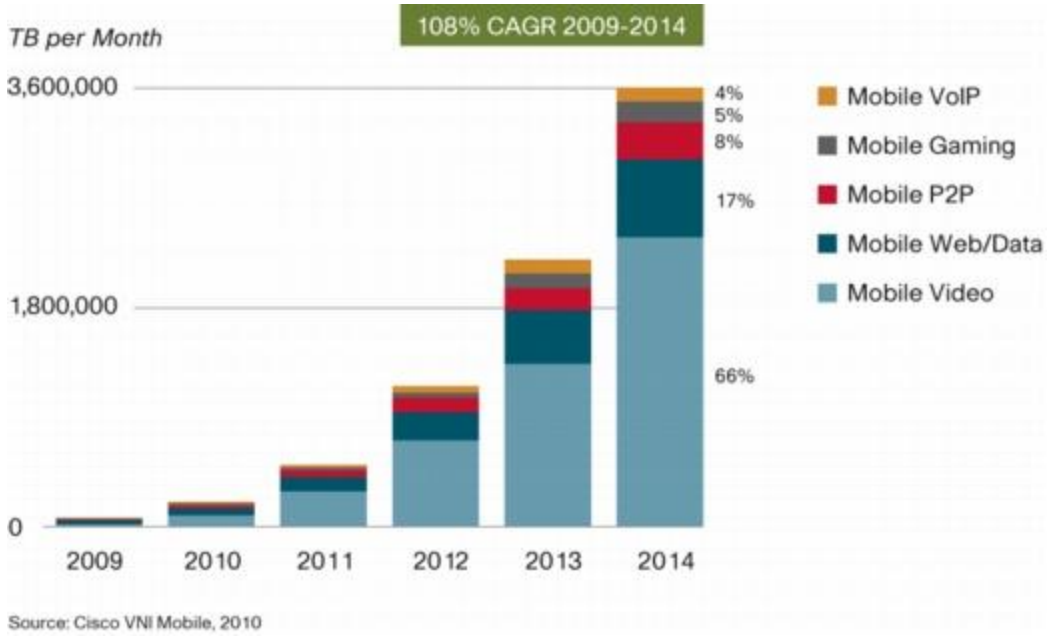
Technology Development Drives Demand

- Ericsson predicts 50 billion **connected devices** by 2020
- Cisco believes mobile data traffic will double every year through 2014, increasing 39 times





Trends in Wireless Broadband

TREND	FOR Embedded OS vender, THIS MEANS
IP-based communications • Data traffic will be 26 greater in five years • 8.5 times more base stations	• An increase in demand for multicore solutions • Greater opportunity to sell more operating systems
Latest hardware a must • Constant switches to new hardware requires operating systems that can be transferred between hardware environments	• Greater demand for commercial operating systems • Greater emphasis on good relations with hardware manufacturers
Best solution for every case • The best solutions must be combined to reach the high performance requirements	• Support is required for a number of OS – commercial and open source

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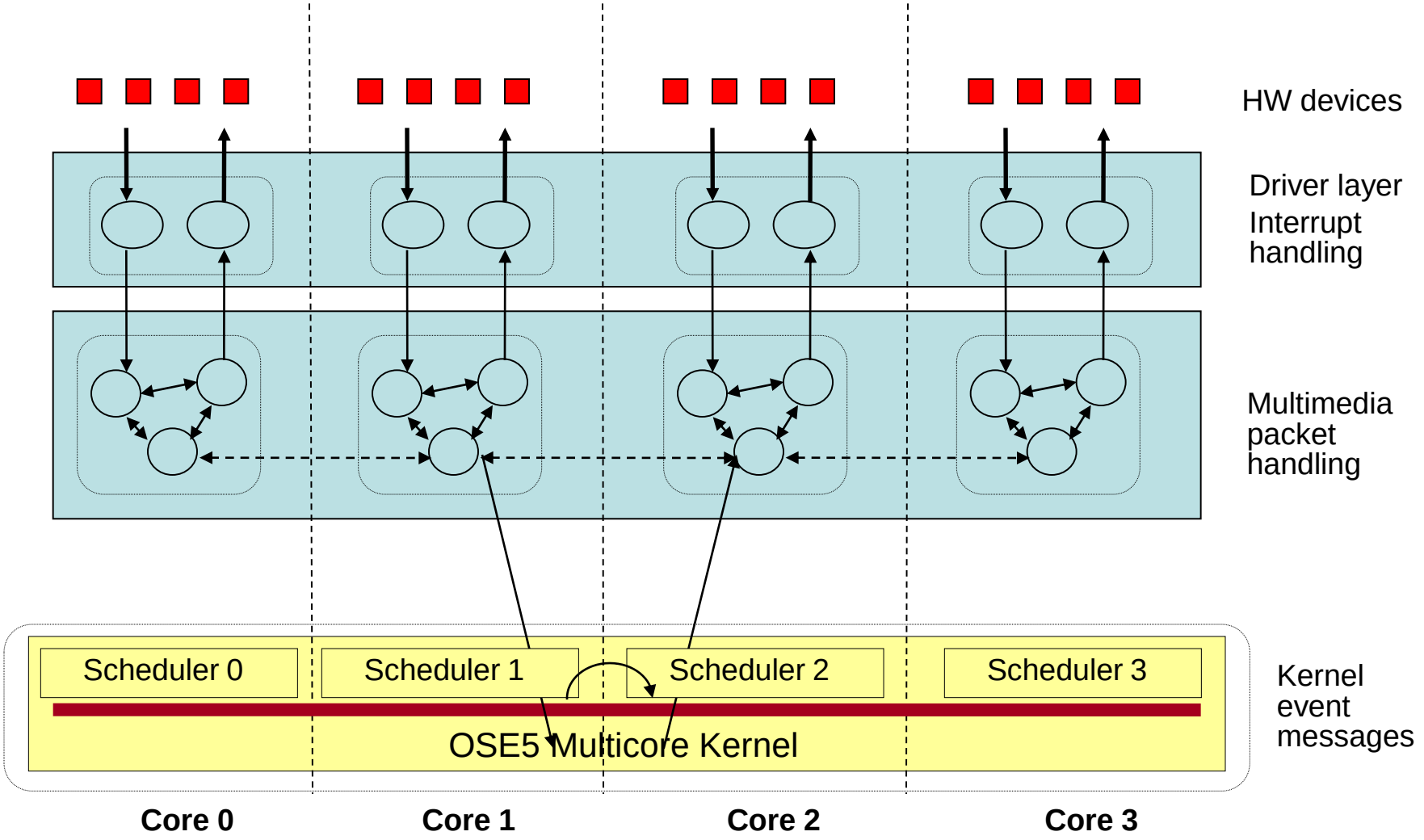
Homogeneous Multi-core Embedded OS



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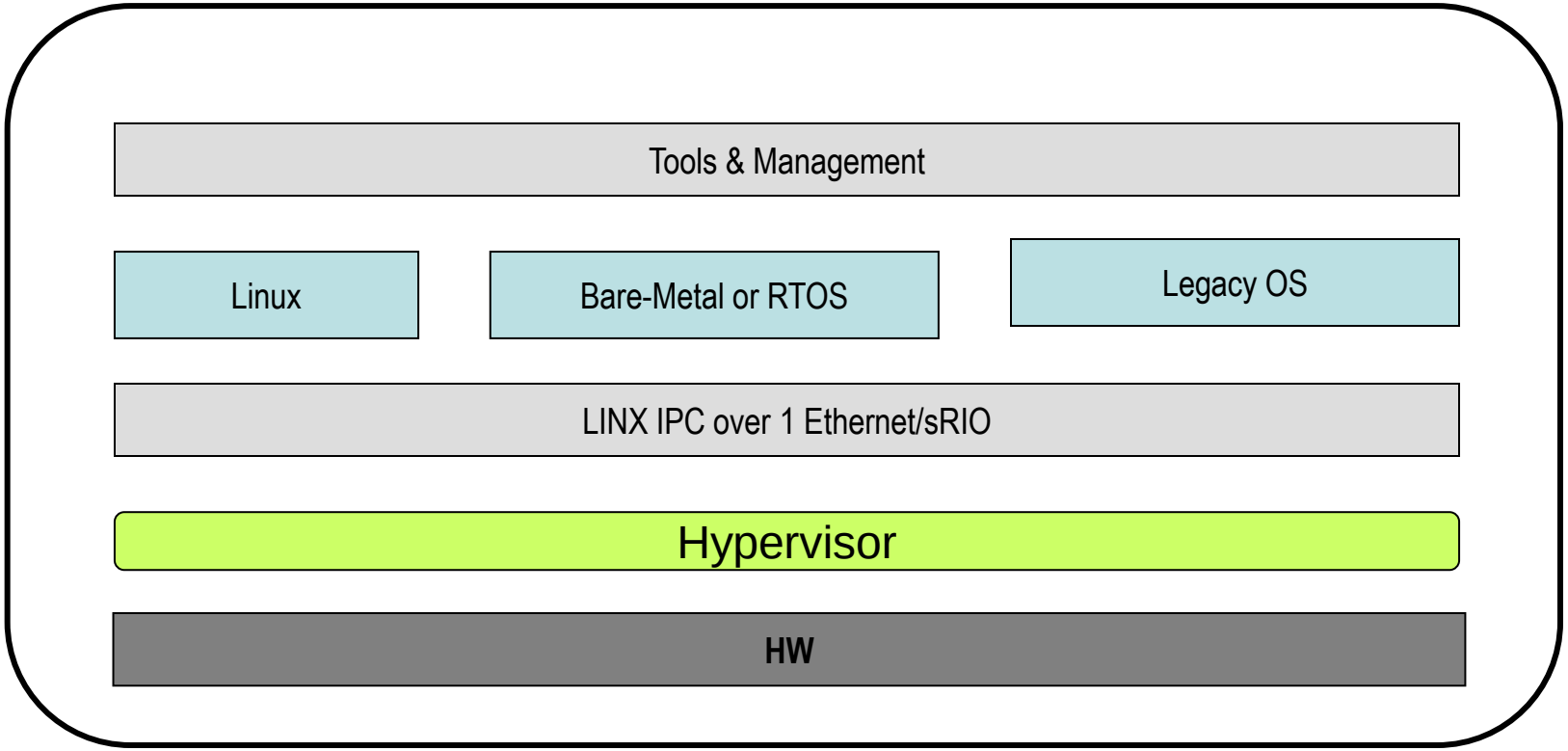
Heterogeneous Multi-core Embedded OS



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Question & Answer