



15 billion intelligent, connected devices.

TRANSFORMING THE FUTURE OF EMBEDDED

Doug Davis

VP Digital Enterprise Group
GM Embedded & Communications Group

The Embedded Internet BY 2015

Researchers



Mainframes

Many



Servers, PC's

Ubiquitous



Cell Phones

Invisible



Embedded

15B
Devices

Internet 7X 24
Every Modality of Life



**“ In the Future...
If it consumes power.. it will compute
If it's connected to the internet...
it will run best on IA”**



CORNERSTONES OF INNOVATION

EMBEDDED DEVICES

Energy Efficiency



Manageability & Security



Performance



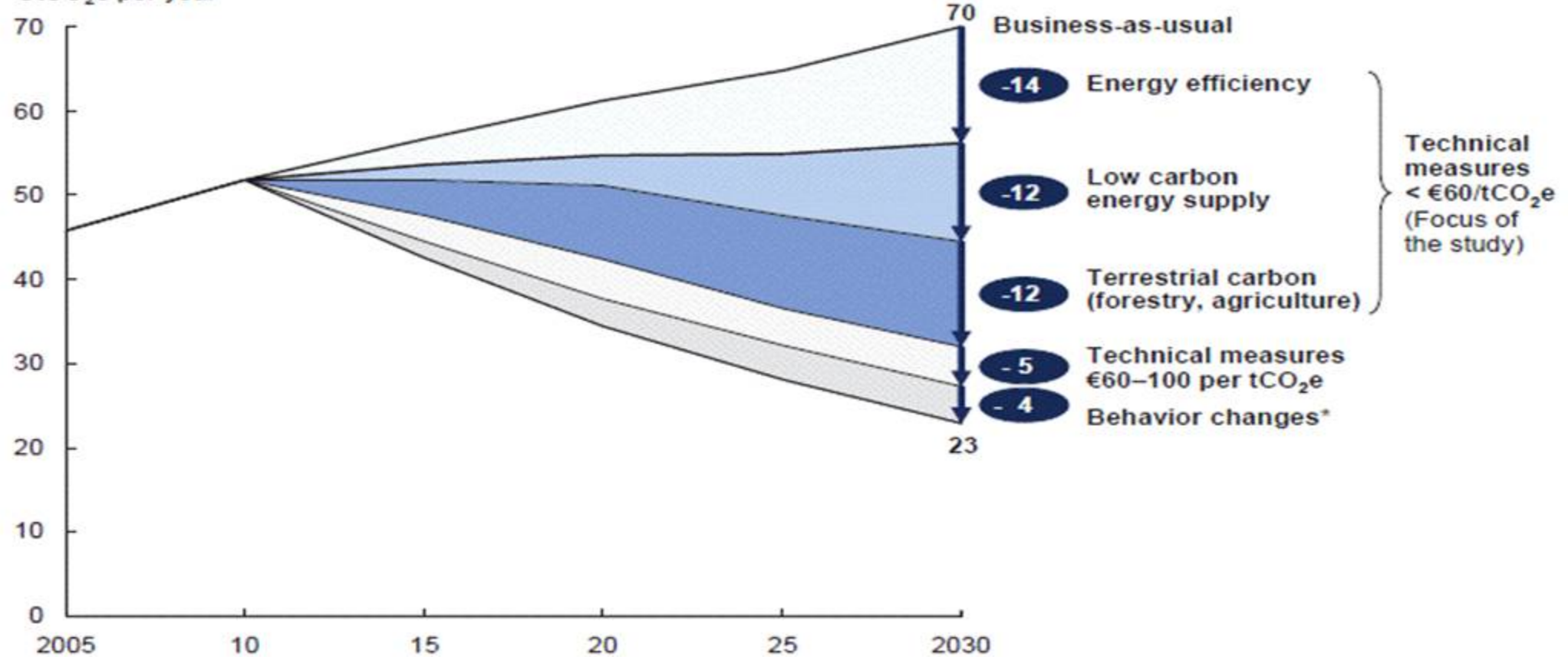
Internet Compatibility



ENERGY EFFICIENCY

REMAINS #1 CARBON ABATEMENT OPPORTUNITY

Global GHG emissions
GtCO₂e per year



TRANSFORMING EMBEDDED IA DELIVERING GREENER FOOTPRINTS

Retail



Medium Sized U.S. Retailer

Uses ~50K POS Terminals
≈ 4-5 Days of output
from the Hoover Dam

Communications

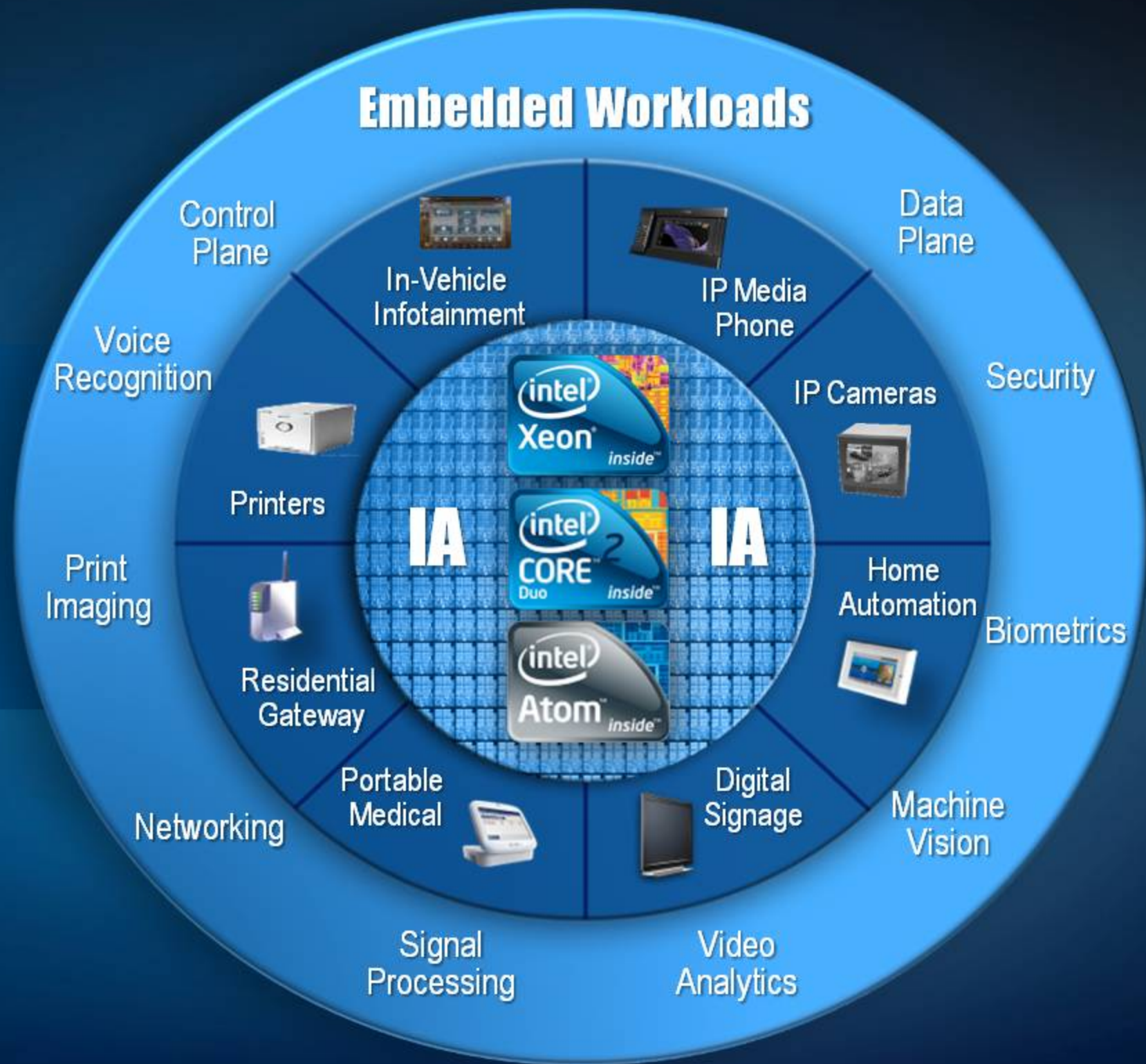


EU Broadband Network

Uses 50TWh of Electricity/Year
≈ Switzerland's Electricity/Year

Imagine reducing electricity usage by up to 75%

PERFORMANCE
*WORKLOADS IN EMBEDDED
INCREASINGLY DIVERSE*



TRANSFORMING EMBEDDED IA PERFORMANCE DELIVERING NEW CAPABILITIES



MOVADO

the art of time

artisan[™]
complete

COGNOVISION
INTELLIGENT. IMAGING. ANALYSIS.

Imagine Increasing Advertising Effectiveness Real Time



MANAGEABILITY & SECURITY

OPEX MORE IMPORTANT THAN EVER

\$1,000

The typical truck roll cost for Digital Signage in Retail

\$2.3B

Spent by retailers recovering from security breaches

>2 per year

The number of service calls per POS per store in the U.S.

32%

of Retail security breaches were POS related

Sources:

2009 Wirespring Yearly Cost Data

2008 Annual Study: Cost of a Data Breach; understanding financial impact, customer turnover and preventative solutions (Ponemon Institute, LLC)

2009 Data Breach Investigations Report (Verizon Business RISK Team)

TRANSFORMING EMBEDDED

BEYOND COMPUTE... IA MANAGEABILITY AND SECURITY

Manageability



Intel™ Active Management Technology

Security



Intel™ Trusted Execution Technology
Intel™ Virtualization Technology

Today

Slot Machines



Digital Signage



Point of Sale



ATM



TRANSFORMING EMBEDDED

BEYOND COMPUTE... IA MANAGEABILITY AND SECURITY

Manageability



Intel™ Active Management Technology



Metro Cash & Carry Stores



**WINCOR
NIXDORF**



Beijing International Airport



AirMedia
航美传媒

DT Research

Wendy's Restaurants



WANDTM
corporation

INTERNET COMPATIBILITY

NY Times*



AJAX
Asynchronous Javascript And XML

RMVB **BBC iPlayer**
Broadest support
For Rich Video



MTV*

Yahoo!*



**CSS -
Cascading
Style Sheets**

**Flash 10
Player**



Hulu*

Mozilla*



XML

ADOBE AIR **Fx**
Adobe Suite



Anywhere.FM*

NOTE: Availability of these features and capabilities is dependent on OEM implementations.

*Other brand and names are the property of their respective owners.

TRANSFORMING EMBEDDED

EXTENDING IA'S INTERNET ECOSYSTEM TO EMBEDDED

IA Worldwide

- 15-16M Software Developers
- 3rd Largest Software Developer Network
- 2nd Largest Linux Contributor



Scalability

Programmability

Compatibility

IP Phones



Infotainment



Signage



Kiosks



Printers



Gaming



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Gloria Open Infotainment Architecture



Summary

Embedded Computing Fueling the 4th stage of the Internet

Intel Leadership in 4 Cornerstones

Performance, Power, Manageability/Security, Internet Compatibility

Unprecedented Opportunity for IA to Transform Embedded
Xeon™ to Atom™



Intel Mid-Summer Technology Summit

July 29, 2009