ARM

Stephen Pattison VP Public Affairs



The Architecture for the Digital World®



What does ARM do?



"is the world's leading designer of energy efficient processor technology that is designed into the vast majority of today's digital electronic devices."

We have a unusual business model in that don't manufacture silicon chips but design and license the technology.



We describe it as "licensing semiconductor intellectual property(IP)"





Global Role

ARM is

committed to energy efficient processing technology "Architecture for the Digital World"



- Over 50 billion ARM technology based chips shipped to date
- ARM at the heart of almost all mobile phones
- Fast growing microcontroller architecture
- ARM is used in almost every conceivable electronic device

The Architecture for the Digital World®



Celebrating 50 Billion ARM-Powered Chips





The Architecture for the Digital World®

Technology To Improve Motor Efficiency

42%

of all electricity used powers industry



2/3 of this is used by electric motors





- Advanced ARM-based motor control systems can reduce energy use > 60%
- In excess of 300M electric motors are installed each year
- Globally this means smart motor control systems could save 1,718 Billion KWh...
- Equivalent to the output of 286 power stations





Big.LITTLE

- 'ARM Unveils its Most Energy Efficient Application Processor Ever; Redefines Traditional Power And Performance Relationship With big.LITTLE Processing' (19 October 2011)
- Big.LITTLE processing combines two different, but compatible processors within the same SoC and allows the power management software to seamlessly select the right processor
- The latest big.LITTLE software and platforms can save 75% of CPU energy in low to moderate performance scenarios, and can increase performance by 40% in highly threaded workloads.



Some other energy efficiency dimensions

- Smart approaches to reducing energy consumption of devices on standby.
- Embedded Cortex-M is enabling more sophisticated power management and driving down standby power.
- Incorporating renewable energy into network infrastructure e.g. solar and wind for local site energy generation.
- Low energy lighting, smart city calibrating power to streetlights.



What is a Network?

A series of Consumer and/or B2B relationships to fulfil the connectivity needs of the individual and/or components.

Cellular Subscriber

- Network and Device Management (Home Network and Roaming)
- YouTube Video, Flickr Photo Sharing, Netflix
- Business Applications (B2B, Transaction Based)

^{2013.4.15} DE:20

Office/Home User

- Entertainment, Business, Banking
- Control: Heating, Monitoring

IOT

Industrial, Automotive, Infotainment

Internet of Things = Connected, Autonomous



Billions

10s of Millions

ARM®

10s of Billion





Thank You!

rld® The Architecture for the

the Digital Worl



