BARC Keypanel

1, 5, 10...

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February 3, 2006
Short Term - Bensley Platform

- 65nm Dual-Core
- Highly Scalable Memory Architecture with FB-DIMM Technology
- Intel® Active Management Technology
- Intel® Virtualization Technology
Medium Term

- Better virtualization
- More cores...
- I’d tell you more, but...
Disclaimer

The remainder of the talk is based on personal opinions and does not represent the position of Intel (or MIT) nor does it constitute a product description, or a commitment to build any product.
General Purpose Power Trends

From Doug Carmean
Special purpose vs. General purpose gap

From Shankar Borkar
General purpose processors: the platform for innovation

- Network routers
- Visicalc
- WIMP interface
- Desktop publishing
- Graphics
- Media processing
Impediments to special purpose innovation

- Custom ASIC
  - Speed
  - Tool-chain
  - Development
  - Verification cost
  - Mask cost

- FPGA
  - Mask cost
  - Tool-chain
  - Development
  - Verification cost
  - Speed
Specialized General Purpose Processing
An oxymoronic future?

Cache

CPU Vector CPU Vector Reconfig Reconfig Reconfig Reconfig

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Oh, and make it reliable…

SDC FIT from Vulnerable Latches

- 100% Vulnerable
- 20% Vulnerable
- 1000 yr MTBF Goal