



开放 多核 融合
AMD, 下一代计算趋势

AMD—推动创新



INNOVATION

AMD 荣登《财富》杂志半导体行业最具创新力公司榜首



AMD荣登《财富》杂志半导体行业最具创新力公司榜首 —

“引领了整个IT行业进入64位计算的普及时代，并开辟了多核计算的新时代。”

- AMD64位平台，已在全球赢得了200多个行业奖项
- 90%以上的《福布斯》全球100强企业在使用基于AMD64位处理器的系统。

AMD @2006年

上海研发中心成立

AMD美国以外最大的研发基地

支持亚太区OEM/ODM业务

投资54亿美金

纽约州建立32nm芯片工厂

投资28亿美金



AMD & ATI

AMD并购ATI

将为市场提供更出色的计算、视频解决方案



•携手“方正”“TCL”
发布基于 AMD 处理器的电脑

AMD solutions for SAP customer



Customer considerations:

- Consolidation of SAP landscapes
 - SAP NetWeaver
 - Virtualization
- Migration to 64-bit
 - Upgrades to ERP 2005
 - Unicode
 - Large database addressability

Customer concerns:

- Energy efficiency
- IT manageability
- Resource utilization
- Balancing costs and growing computing demands
- Security

AMD Business values for SAP customers



AMD x86 64 Opteron based server

- Better performance and efficiency
- Better security and manageability
- Reduced complexity and increased stability
- Workload specific processing on industry standard processor

Customer Needs

server

- Performance/Watt/\$\$
- Virtualization
- x64
- Open Innovation
- Stable roadmap
- Native Multi-core

AMD benefits

Source: AMD estimate

The AMD Advantage

Driving x86 Processor Innovation



Enhance performance while offering the flexibility to support both 32- and 64-bit applications

64-bit and Multi-Core

Performance-Per-Watt

Can help reduce server power consumption and heat output



Direct Connect Architecture

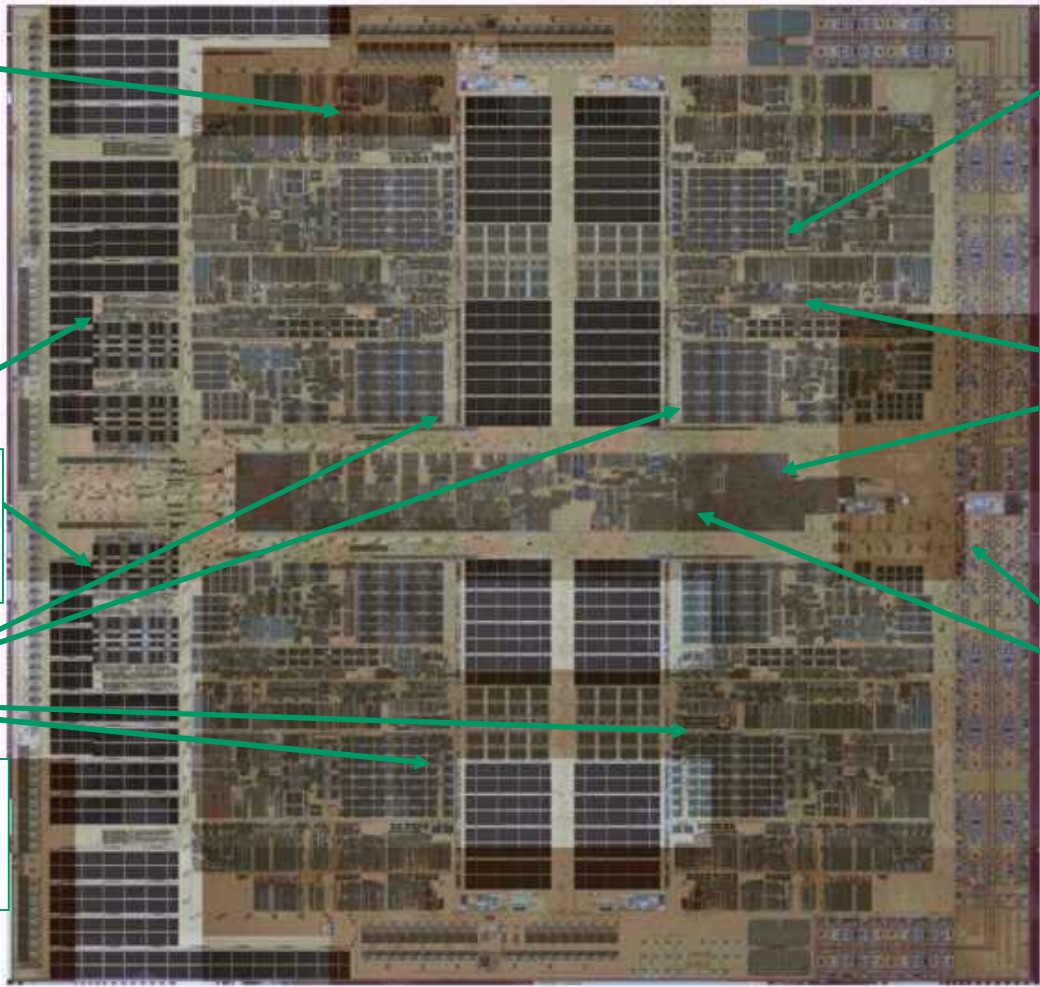
AMD Virtualization™

Eliminates the 20-year old traditional front-side bus, increasing system efficiency and scalability

Can increase utilization by enabling the running of separate, secure operating environments

AMD Quad-Core Processor Architecture

A Closer Look at Barcelona



Comprehensive Upgrades for SSE128

Quadruples floating-point capabilities

New Highly Efficient Cache Structure including a shared L3

Balance of dedicated and shared cache for optimal Quad-Core performance

Enhanced CPU Cores

Benefits all applications by improving the overall efficiency and performance of the cores

Enhanced Virtualization

New "Nested Paging" feature designed for near native performance on virtualization applications

Advanced Power Management

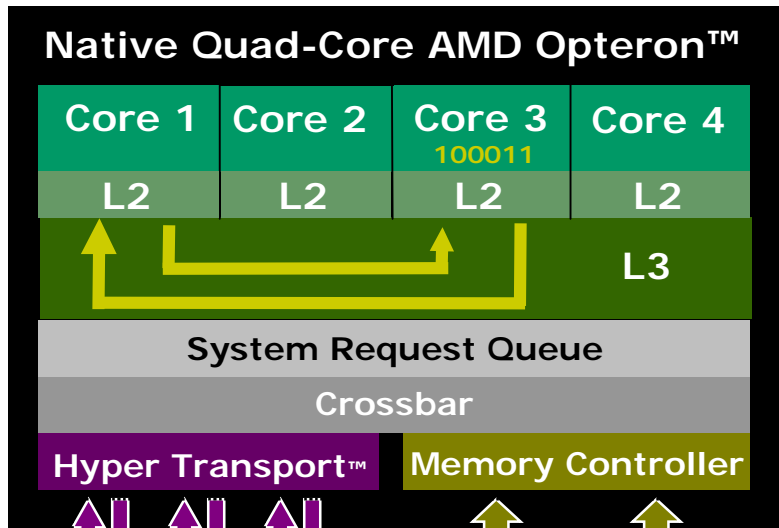
Provides granular power management resulting in improved power efficiency

DRAM Controller Enhancements

Specifically tuned for Quad-Core memory accesses, improves overall memory performance

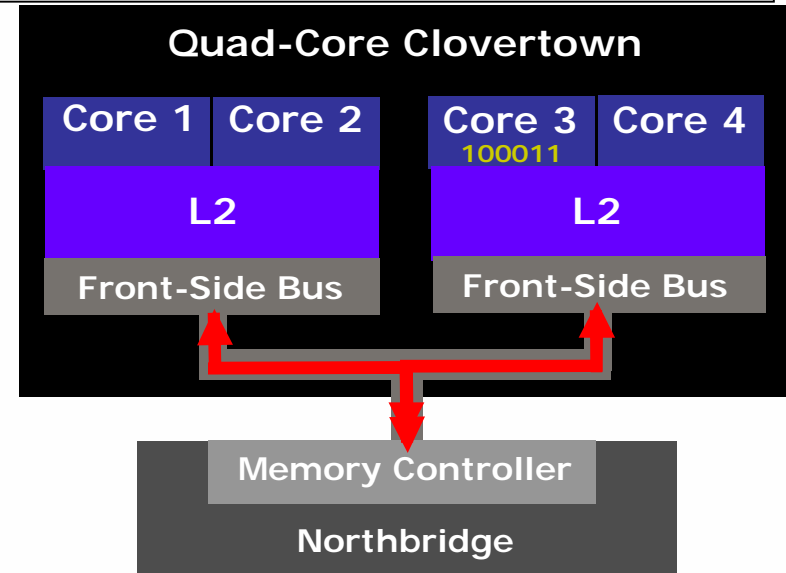
Native Quad-Core Benefit: Faster Data Sharing

Situation: Core 1 needs data in Core 3 cache ... How Does it Get There?



1. Core 1 probes Core 3 cache, data is copied directly back to Core 1

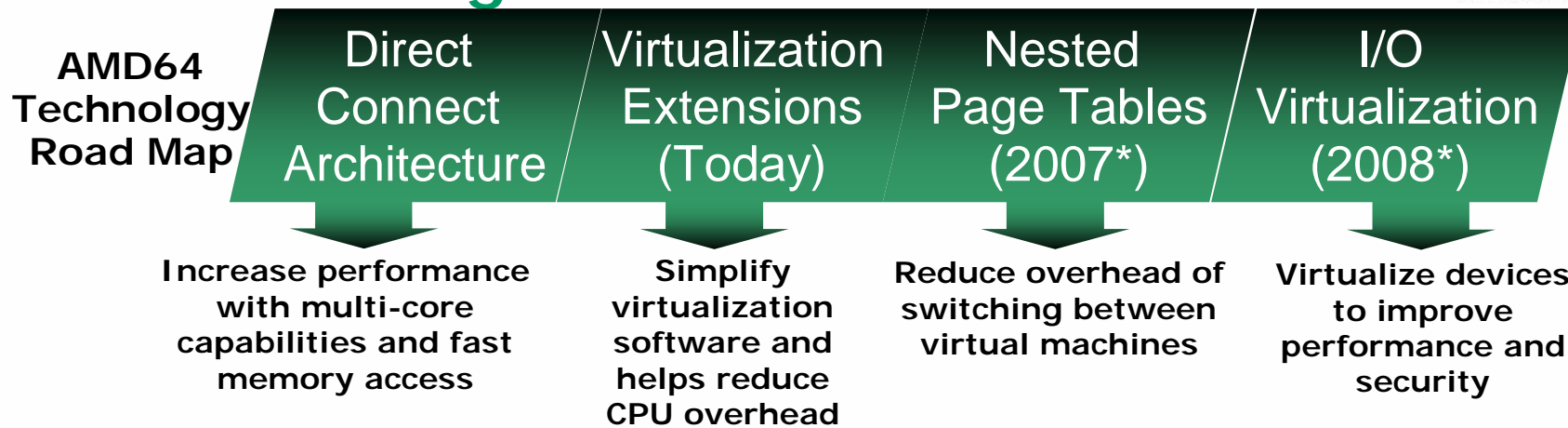
This happens at processor frequency
Result: Improved Quad-Core Performance



1. Core 1 sends a request to the memory controller, which probes Core 3 cache
2. Core 3 sends data back to the memory controller, which forwards it to Core 1

This happens at front-side bus frequency
Result: Reduced Quad-Core Performance

AMD Is Driving x86-based Virtualization



AMD is developing a robust virtualization ecosystem that provides users with innovation and choice



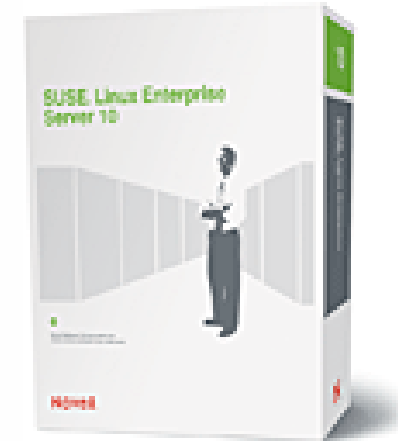
Driving Linux into the Enterprise



AMD and Novell have collaborated for 6 years to bring enterprise-class functionality to the x86-based Linux market

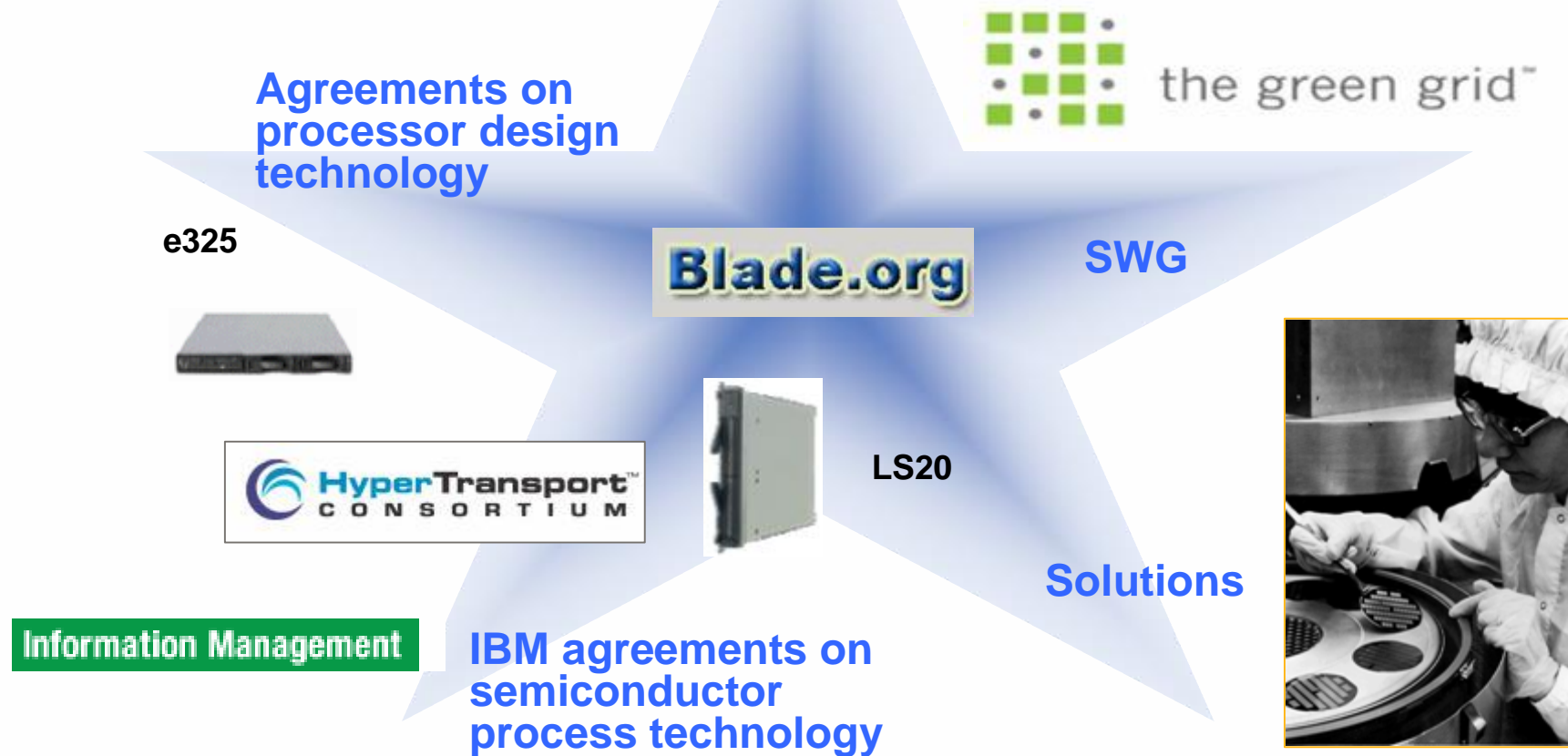
Novell SUSE Linux Enterprise Server's aggressive support of AMD Opteron functionality includes:

- First 64-bit server OS to support AMD Opteron™ processor (2003)
- Optimization for Direct Connect Architecture (2004)
- Optimization for dual-core processing (2005)
- Advanced NUMA implementation (2005)
- Support for AMD PowerNOW! Technology (2005)
- Support for AMD Virtualization (2006)
- Support for XEN Virtualization (2006)



IBM's Collaboration with AMD

The broad & unique IBM and AMD relationship yields true industry innovation



German Customer, Arvato Systems increases Performance and reduces Costs with the AMD OPTERON™ processor



Customer Challenge :

- Retain its competitive edge in hosting business, increase Performance, Reduce costs for IT infrastructure and take advantage of new technologies

Customer Benefits :

- Reduced its total cost of ownership (TCO) by 40 percent while more than doubling the speed of its SAP applications.

Customer Solution :

- The AMD Opteron CPU was chosen because of its high-performance and cost-effectiveness.
- Arvato Services migrated their SAP servers to 64bit servers with 142 AMD Opteron™ processors running Suse® Linux®

German Customer, Arvato Systems increases Performance and reduces Costs with the AMD OPTERON™ processor



“We selected AMD Opteron™ processors primarily because of their exceptional performance when running 64-bit SAP applications and their value. Secondarily, but equally important, we chose AMD for its ability to deliver a highly available platform based on industry standards. We believe that AMD’s unique Direct Connect Architecture will allow us to introduce new services for our customers more rapidly and cost-effectively without sacrificing the performance of our existing applications.”

“We recently migrated a business intelligence system for one of our top media customers to AMD Opteron processor-based HP servers. Prior to the migration, reports would take one minute to run, but the AMD Opteron processor helps complete the reports in just 20 seconds. The customer was completely thrilled with the 65 percent improvement in run time.”

— Dr. Karsten Lienau, IT Project Manager, arvato systems GmbH

Thanks!

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