Oracle* and IA-64

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Agenda

• Oracle Products and Solution Stack
  – Industry can expect IA-64 Oracle platform at launch

• Supported Platforms
  – Oracle solution will be available on all major IA64 OS platforms

• IA-64 Challenges
  – OEM and ISVs need to address certain concerns such as co-existence of platforms

• Industry Participation
  – Oracle platform taking advantage of industry standards

• Resource Kits
  – Use these to build an IA64 solution on top of Oracle
Oracle Leads UNIX RDBMS Market

UNIX RDBMS Market Share 1998

- Oracle: 61%
- Informix: 7%
- IBM DB2: 7%
- Sybase: 4%
- NCR: 8%
- Others: 13%

Dataquest, March 1999
Oracle Leads Windows NT RDBMS Market

Windows NT RDBMS Market Share 1998

45%
30%
12%
10%
3%

Oracle
Microsoft
IBM DB2
Sybase
Others

Dataquest, March 1999
Top Business Web Sites

- Marshall Industries
- Cisco Systems
- Bay Networks
- Dell
- Compaq
- Federal Express
- IBM
- W.W. Grainger
- 3 COM
- First Union Corp

Source: NetMarketing

9 Out Of 10
Powered By Oracle
Top Consumer Web Sites

- 1800 Flowers
- Amazon
- CDNOW
- Charles Schwab
- Cisco
- Dell Computers
- E-Trade
- NECX
- OnSale
- REI

Source: Giga Group 1998
Products for IA-64

- Oracle8i Database Server
- Oracle Express OLAP Server
- Oracle Developer Server
- Oracle Application Server
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# Major Platforms

<table>
<thead>
<tr>
<th>Platform</th>
<th>32 bit</th>
<th>64 Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solaris Sparc</td>
<td>Now</td>
<td>Now</td>
</tr>
<tr>
<td>Solaris IA</td>
<td>Now (IA-32)</td>
<td>Proposed (IA-64)</td>
</tr>
<tr>
<td>Windows</td>
<td>Now (IA-32)</td>
<td>Proposed (IA-64)</td>
</tr>
<tr>
<td>HP-UX (PA Risc)</td>
<td>Now</td>
<td>Now</td>
</tr>
<tr>
<td>HP-UX (IA-64)</td>
<td></td>
<td>Proposed (IA-64)</td>
</tr>
<tr>
<td>IBM AIX</td>
<td>Now</td>
<td>Now</td>
</tr>
<tr>
<td>Project Monterey (IA-64)</td>
<td></td>
<td>Proposed (IA-64)</td>
</tr>
<tr>
<td>Compaq Alpha Tru64</td>
<td></td>
<td>Now</td>
</tr>
<tr>
<td>Linux</td>
<td>Now (IA-32)</td>
<td>Proposed (IA-64)</td>
</tr>
<tr>
<td>IBM Numa Q</td>
<td>Now</td>
<td>Proposed (IA-64)(?)</td>
</tr>
<tr>
<td>DG-UX</td>
<td>Now</td>
<td></td>
</tr>
<tr>
<td>SGI IRIX</td>
<td>Now</td>
<td>Now</td>
</tr>
<tr>
<td>SCO Unixware</td>
<td>Now</td>
<td></td>
</tr>
<tr>
<td>SNI Reliant UNIX 64</td>
<td></td>
<td>Now</td>
</tr>
<tr>
<td>IBM OS/390</td>
<td>Now</td>
<td></td>
</tr>
<tr>
<td>Novell Netware/Modesto</td>
<td>Now</td>
<td>Proposed (IA-64)</td>
</tr>
</tbody>
</table>
New Platforms for IA-64

- IBM Monterey/64
  - Sequent, SCO, Compaq, Unisys, ICL, Bull
- HP-UX IA-64
  - Hitachi, NEC
- Sun Solaris IA-64
  - NCR, Siemens, Fujitsu, Toshiba, Amdahl
- Linux Trillian
  - VA Linux, Cygnus, SGI, CERN, IBM, HP
- Microsoft Windows 2000 64-bit
- Novell Modesto
New Standards

- **Hardware**
  - DIG-64: Platform blueprint
  - InfiniBand: I/O (replacing PCI, etc)

- **O/S**
  - UNIX98: Posix standard (The Open Group)
  - UDIG: Firmware, systems management
  - UDG-PI: IBM-led, promising

- **Result**
  - Vendors are working together to standardize
  - O/Ss more aligned
  - Oracle co-operating in setting standards
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IA-64 Build Strategies

- Support all viable platforms
  - HP-UX, Monterey, Win64, Linux, Solaris
- Ready at launch with Oracle products
  - 8i released & supported
  - Express, Tools, Apps to follow quickly
  - Re-enforcing Oracle as 64-bit leader
- Vendor Objectives
  - Common ABI on IA-64
  - Make IA-64 a premier build
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IA-64 driving industry forums

- DIG64
- UDIG
- UDG-PI
  - TOG
  - UNIX2001
- InfiniBand
Industry Participation

- DIG64:
  - “Appliance Certification”
  - “Oracle Parallel Server Certification”
  - Boot-strapping on minimal Operating System
  - Hardware support for Oracle’s Internet Platform Performance (eg. NUMA)

- UDIG:
  - Systems Management Features
Industry Participation

- **UDG-PI:**
  - Features for better performance
  - Features for Better Systems Management
  - Common ABIs and APIs eases builds

- **Infiniband:**
  - Specifications for OPS & NET8 development
  - Drive vendors to support a common interconnect and fabric architecture and optimize Oracle on that platforms
  - Drive OPS certification requirements
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IA-64 Resource Kit

Objectives

- Create market demand for IA64 systems by
  - Enabling IA64 development
  - Enabling IA64 deployment
  - Co-existence with IA32 and RISC platforms
  - Support for multiple operating systems
  - Building and supporting Very Large Databases
  - Building and supporting In-Memory Databases
  - Business Intelligence on IA64 systems
Audience

- Oracle’s preferred partners
  - ISVs that complement Oracle Products
    - CAI partners
    - Development partners

- Systems Integrators
  - Big x, EDS, Hardware Vendors SI Units, Internet Integrators, Oracle Consulting

- Major Customers
  - Investors in IA64 fund
  - Recipients of IA64 fund
  - ISVs targeted by IHVs and OSVs
IA64 Offerings – What are they

- Seminars
- Workshops
- Project Plan Templates
- How-to Guides
- Low level Tools, Techniques, Methodology
IA64 Resource Kits - What are they?

- Presentation Material
  - Business Content
  - Technical Content

- White Papers
  - Business
  - Technical

- Tools, Scripts, Templates

- Assistance resources
  - Hardware, OS, Database, Development assistance, Labs etc.
IA-64 Resource Kits

- Get ready for IA-64
- Single Source Multi OS options
- Migrating to IA-64
- IA-64 and current hardware co-existence
- Change Management
- VLDB, VLMDB
Resource Kit #1: Get Ready for IA-64

Content:

- What is IA-64
- Why IA-64
- Oracle Technology on IA-64
- What can you do today
  - Complete functionality & Code Freeze
  - Utility to check C and C++ Code
  - Use of ASC labs for migrations
  - Refine application for 64-bit support
Resource Kit #2: Single source multi OS support

Content:

- **Tips and Techniques for supporting**
  - AIX on PowerPC
  - HP-UX (PA-RISC and IA-64)
  - Linux (IA-32 and IA-64)
  - Project Monterey
  - Tru64
  - Win32 and Win64
  - Others
Resource Kit #3: Migrating to IA-64

Content:

- Utilities available for ‘C’ and ‘C++’ code checking
- Tips and Techniques
- Options:
  - Native 64 bit
  - Native 64 bit but compiled with 32 bit libraries
  - 32 bit binaries
- ASC lab experience
Conclusion

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Get Ready for IA64!
Backup
Key Web Integrators
18 Web Integrators partnering with Oracle

- Agency.com
- Sapient
- USWeb/CKS
- Viant
- iXL
- Scient
- Razorfish
- Organic OnLine
- Cambridge Tech Partners
- US Interactive
- T3 Media

- Nicholson NY
- Modem-Media Poppe Tyson
- C-Bridge
- Zefer
- Proxicom
- AnswerThink
- Bowne Internet
Oracle Solutions & Products

Consulting, Education, Support

Solutions

Intranet
Electronic Commerce
Data Warehouse
Knowledge Management
Collaboration
Mobile Computing

Internet Messaging
(Services & application agents)

Messageing
Directory
Scheduling
Workflow
Library

Oracle Applications
(ERP and CRM)

Oracle Express
(Sales and Financial Analyzer)

Self-service
Web applications

Tools

Designer
Developer
Programmer

JDeveloper
WebDB

Oracle Application Server

Gateway, ODBC, JDBC
Open Connect
Oracle Media Net

Middleware

Oracle Mobile Agents

Net8, Networking products
(Encryption, authentication ...)

Oracle Application Server

Proxy server

Developer Svr - Perl - JCorba - JWeb - PL/SQL - Live HTML - VRML - ODBC - Internet Commerce & Payment Server

Oracle8i

Types of data
Partitioning
Management Pack
Context
Spatial
Video
Time Series

Operating systems / Network operating systems

INTEL, RISC, ALPHA, others...

Hardware Platforms

Partners and alliances
Partner Solutions
Vertical Applications
3rd party Tools
TP Monitors
Application Cartridges
Data Cartridges
Intel Labs