

Oracle Products for Linux on IBM zSeries Status and Directions

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Oracle for Linux/390 and z/Linux Early Customer Interest

- Statistics from Oracle.com
 - 60,000+ Unique visitors to Linux/390 page
- Developer's Release Downloads
 - 1,914 Oracle9i Database for Linux/390 (31-bit)
 - 1,643+ Oracle9i Database for z/Linux (64-bit)
- Production Release Downloads
 - 6,495+ Oracle9i Database for Linux/390 (31-bit)
- Over 10,052 Total Downloads

Production Customers That I know about...

- 52 Customers active in support (Dec. 31, 2002)
- 344+ Customers active in support (December 22, 2003)
- Dundee City Council
- Ebara
- Boellhof
- NS Solutions
- Porche
- State of Oklahoma – Department of Human Services
- MobilTravelGuide – <http://mobiltravelguide.com>
- Telemar – Brazil
- Pinellas County – Florida
- San Jose State University
- Santa Clara County
- College of New Jersey
- Central Missouri State University
- Banco Mercantil (Venezuela)

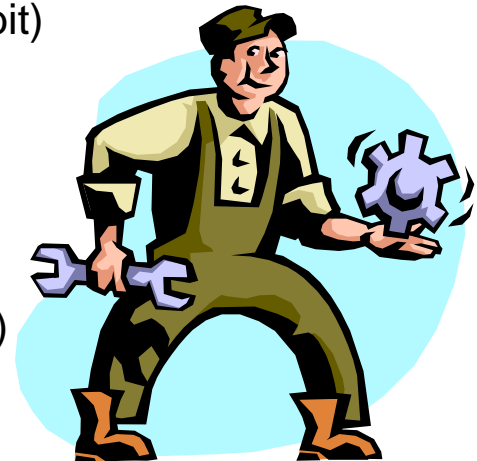
What is Oracle9i Database Linux on IBM S/390 and zSeries

- Oracle9i Release 2 Database
 - Same as any other major UNIX port
- Oracle9i R2 Database for Linux/390 (31-bit)
 - Built on SuSE (SLES7) for IBM S/390 (31-bit)
 - 31-bit database implementation
 - Runs on IBM S/390 (32-bit) and zSeries (64-bit) hardware
- Oracle9i R1 Database (Developer's Release) for z/Linux (64-bit)
 - Built on SuSE (SLES7) 64-bit for IBM zSeries
 - 64-bit database implementation
 - Runs on IBM zSeries (64-bit) hardware
- Oracle Transparent Gateway for DRDA
- Oracle Application Server for Linux/390
 - OC4J (Oracle Containers for Java – J2EE)

Oracle9i Database for Linux/390

Linux Distribution Certifications

- Complete
 - Red Hat Linux 7.2 for IBM S/390 (31-bit)
 - SuSE Linux Enterprise Server 8 for IBM S/390 (31-bit)
 - Including RAC (Real Application Clusters)
 - SuSE Linux Enterprise Server 8 for IBM zSeries (64-bit)
 - Including RAC (Real Application Clusters)
- In progress
 - Red Hat Advanced Server 3.0 for IBM S/390 (31-bit)
 - Target H1CY04
 - Red Hat Advanced Server 3.0 for IBM zSeries (64-bit)
 - Target H1CY04
- Not possible due to lack of 31-bit libraries
 - Red Hat Linux 7.1 for IBM zSeries (64-bit)





Oracle Product Directions

Linux on IBM S/390 and zSeries

- Oracle Database 10_g for z/Linux
 - 64-bit implementation only
 - Build on SuSE Linux Enterprise Server 8 for IBM zSeries (64-bit)
 - Certify on Red Hat Advanced Server 3.0 for IBM zSeries (64-bit)
 - Target for release
 - April 2004
 - Split-Tier certifications – Planned
 - E-Business Suite 11*i*
 - Oracle Collaboration Suite Release 2 (9.0.4)
 - Oracle Application Server



Oracle Product Directions

Linux on IBM S/390 and zSeries

- Oracle Application Server 10_g for z/Linux
 - OC4J (Oracle Containers for Java – J2EE)
 - Core Release (9.0.4.1)
- Native ports (full implementation) – Not Planned
 - Oracle E-Business Suite
 - Oracle Collaboration Suite
 - Oracle9i Application Server
 - Oracle9i R2 Database for z/Linux (64-bit)

Oracle Database 10g for z/Linux Feature Differences...

- INSO filters unavailable
 - Oracle Text/Ultra Search affected, can use remotely
- VeriSign, Entrust, CyberTrust not available
 - Authentication using other methods
- No Generic Connectivity
 - OLE, ODBC gateways

Backup/Recovery and Management

- Backup and Recovery
 - Recovery Manager (RMAN) provides extensive backup and restore/recovery tools
- Media management tools
 - Tivoli Data Protector for Oracle – available
 - Veritas Netbackup – available
 - FDR Upstream – available
 - Legato Storage Manager – TBD
 - BMC SQL BackTrack – TBD
- Database Administration and Performance Tuning
 - Oracle Enterprise Manager
 - DB Patrol
 - Velocity Software



Oracle's Strategy

How does eServer fit?

- Platform Agnostic
 - Integral part of Oracle's focus on customer success
 - Provide Customer Flexibility
 - Hardware and Operating System
- Technical Leadership
- Enterprise Platform Integration
- Enterprise Integration
- Server Consolidation
- Legacy Migration

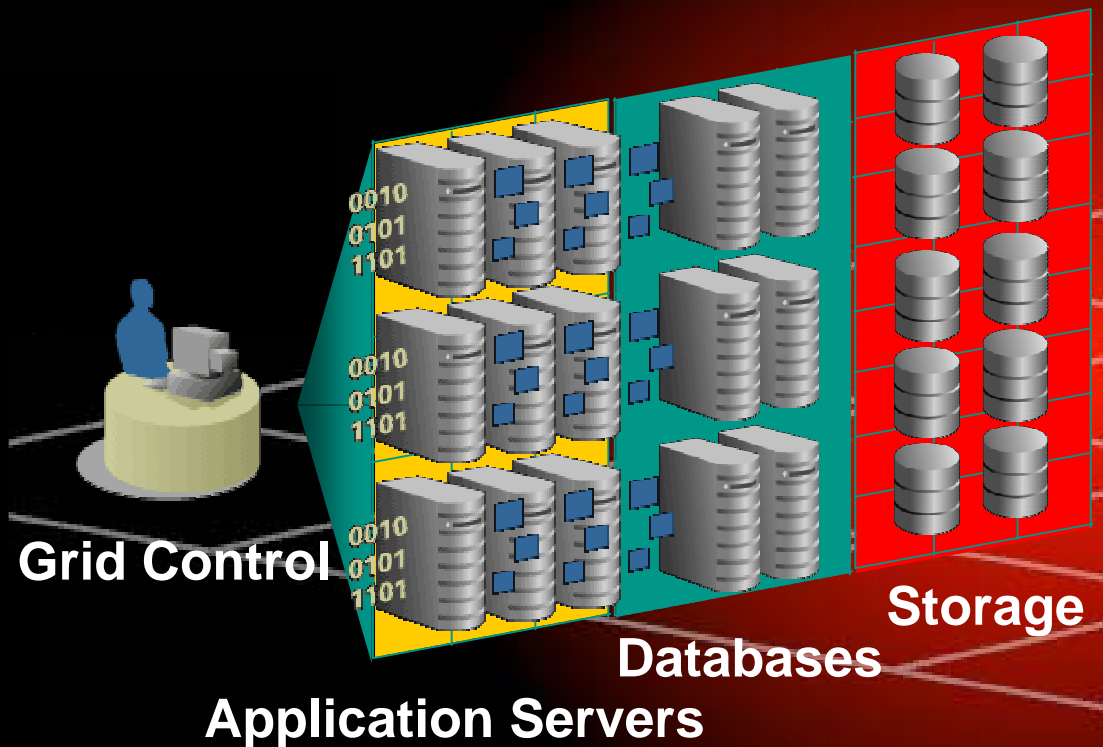
Oracle Solution: 10g

A Single Platform, Designed for the Grid

ORACLE®
DATABASE 10g

ORACLE®
APPLICATION SERVER 10g

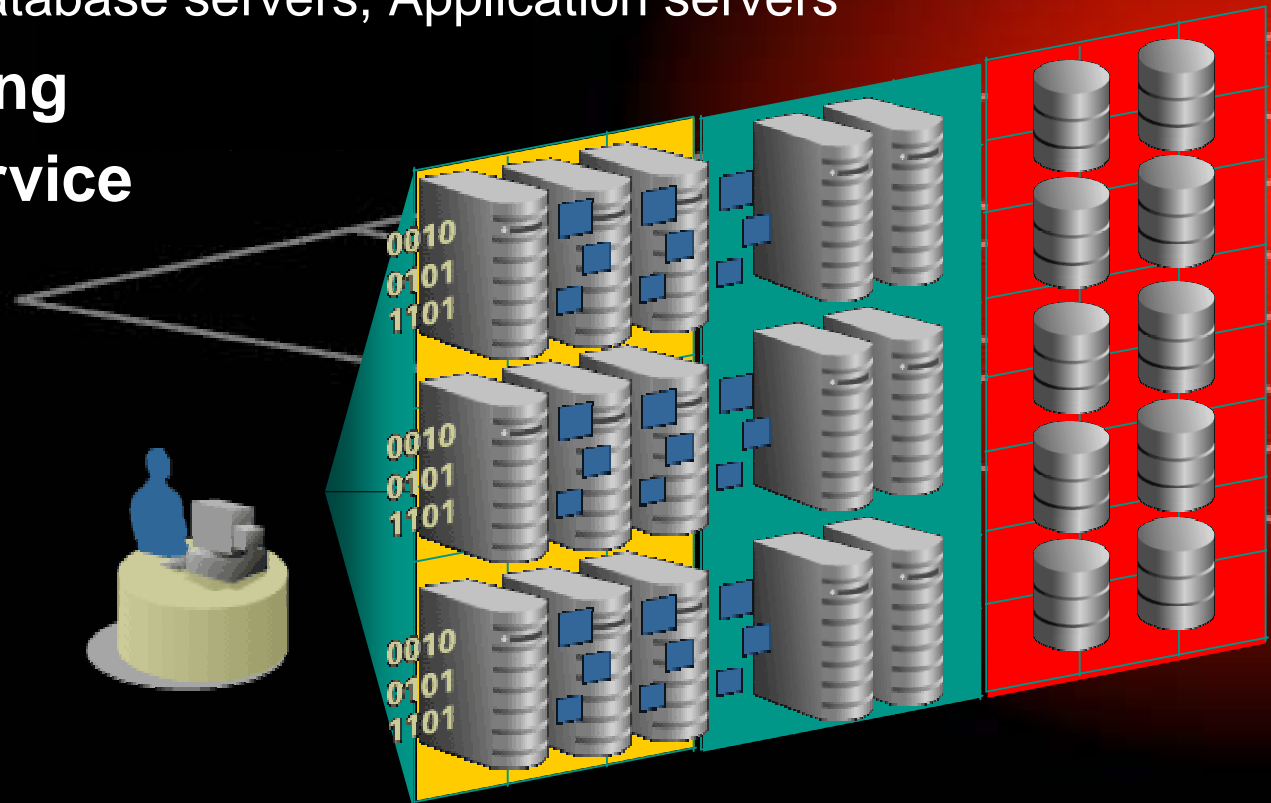
ORACLE®
ENTERPRISE MANAGER 10g



ORACLE®

Oracle Grid Computing Model

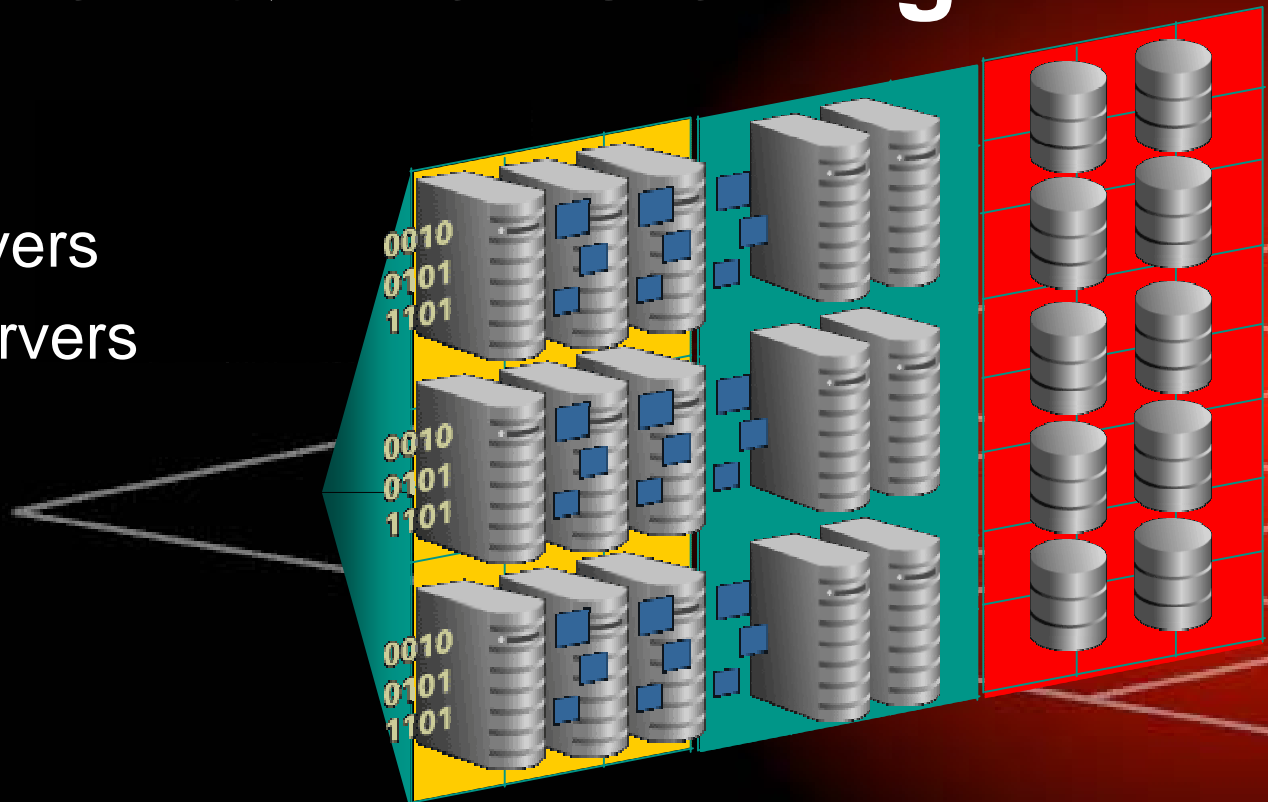
- **Pooling, Virtualization & Provisioning**
 - Storage, Database servers, Application servers
- **Load Balancing**
- **Quality of Service**
- **Automation**



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Oracle10_g: Pooling, Virtualization & Provisioning

- Storage
- Database servers
- Application servers

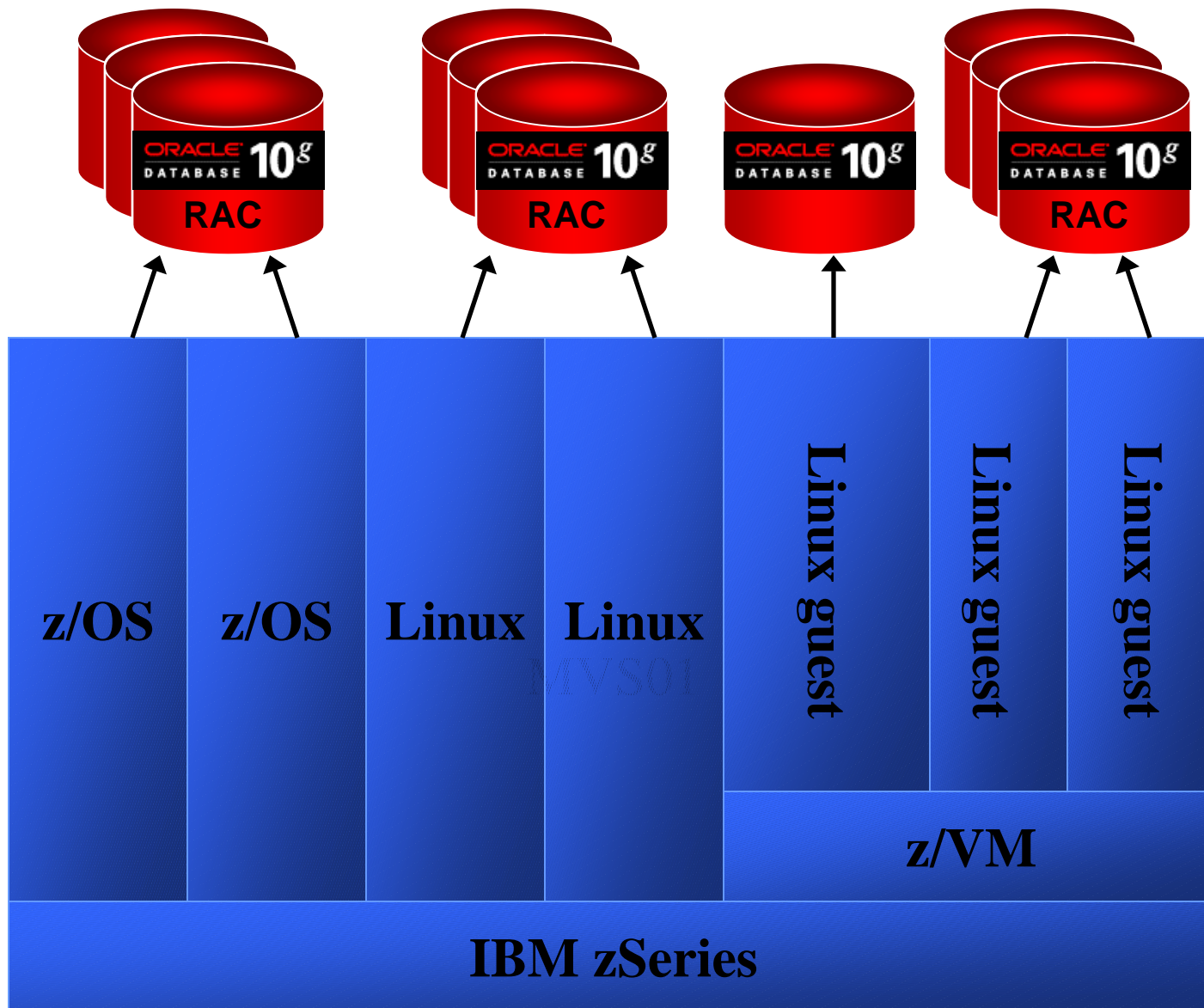


zSeries Configuration

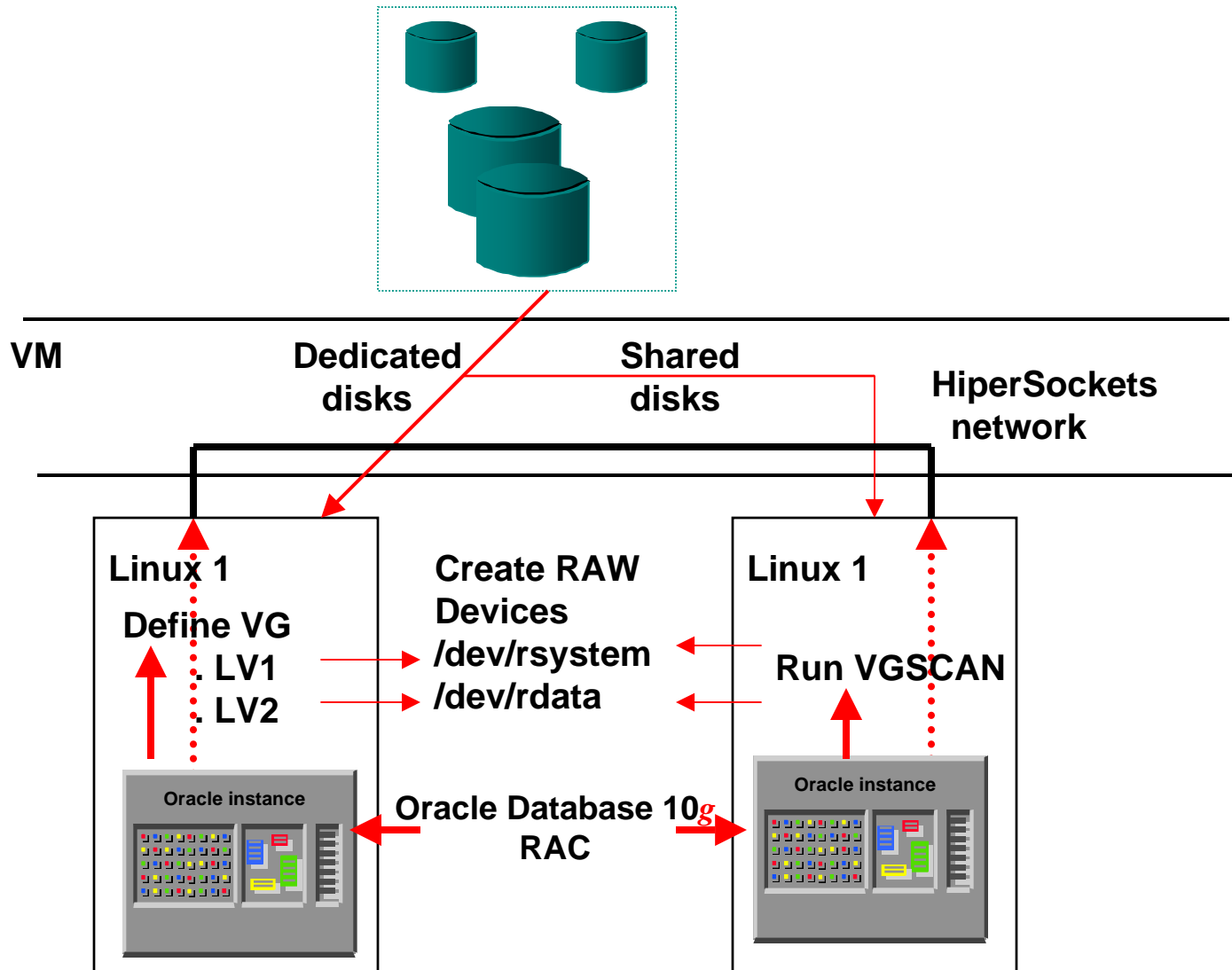
- Native
 - Hardware dedicated to single server per box
- Logical Partitions (LPAR)
 - Hardware partitioning enabling up to 15 "logical partitions" each of which runs a separate operating system, traditional operating system and Linux
- Virtual Partitions (z/VM)
 - zSeries virtualization technology
 - Support for large numbers of Linux images with rich system management capabilities
 - Very flexible, great for server consolidation

Scalability

- Vertical – scale large processor configuration (SMP)
 - Multiple databases on single Linux image
 - Single database on single Linux image
- Horizontal – “Virtual Blades”
Scale large number of virtual servers
 - Multiple distinct databases across multiple Linux images
 - Oracle9i Real Application Clusters (RAC)
 - Single database across multiple virtual servers
 - LPARs or virtual Linux images
 - Single database across multiple physical servers



Oracle Database 10g Real Application Clusters for Linux/390



Product Engineering

Oracle for pSeries – AIX

- Current Releases
 - Oracle Database 10g (AIX5L only – 5.2+)
 - Oracle Collaboration Suite V1 (AIX 4.3.3 only)
 - Oracle E-Business Suite 11i (11.5.5 – 11.5.9)
 - Oracle9i Application Server 9.0.2
 - Oracle Transparent Gateway for DRDA
- Planned Releases – AIX5L only
 - Oracle Application Server 10g (9.0.4)
 - Collaboration Suite 9.0.4.2, 9.0.5
 - Oracle Database 10g R2

Product Engineering

Oracle for iSeries

- Oracle Access Manager for OS/400
- Oracle Transparent Gateway for DB2/400

Product Engineering

Oracle for Power/Linux (iSeries, pSeries)

- Oracle9i R2 for Power/Linux (developer's release)
 - SLES8
- Oracle Database 10g for Power/Linux
 - SLES8, RH 3.0

Product Engineering

Oracle for xSeries

- xSeries Servers Certified and listed on Red Hat, SUSE
- Oracle9i/IBM Linux Centers in New York and London
 - Oracle9iR2 Database with RAC (Scalability, Transparent Application Failover, High Availability and Performance)
 - E-Business Suite (CRM, ERP, & SCM applications)
 - Collaboration Suite & Data Warehousing

Product Engineering

Oracle for xSeries – Windows

- Oracle9iR2 Database (with RAC)
- Oracle Database 10g (with RAC)
- Oracle Application Server (9.0.2, 9.0.3)
- Oracle Collaboration Suite (9.0.3, 9.0.4)
- Oracle E-Business Suite 11i

Product Engineering

Oracle for xSeries – Linux/x86

- Oracle9i Database with RAC
 - SLES8, RH 2.1, RH 3.0
- Oracle Database 10g
 - RH 2.1 with RAC
 - SLES8, RH 3.0 (RAC end of March)
- Oracle Application Server 10g (9.0.4)
 - SLES8, RH 2.1, RH 3.0
- Oracle E-Business Suite 11i
 - SLES8, RH 2.1, RH 3.0
- Oracle Collaboration Suite (9.0.4.1)
 - SLES8, RH 2.1, RH 3.0

Product Engineering

Oracle for xSeries – Linux/Itanium

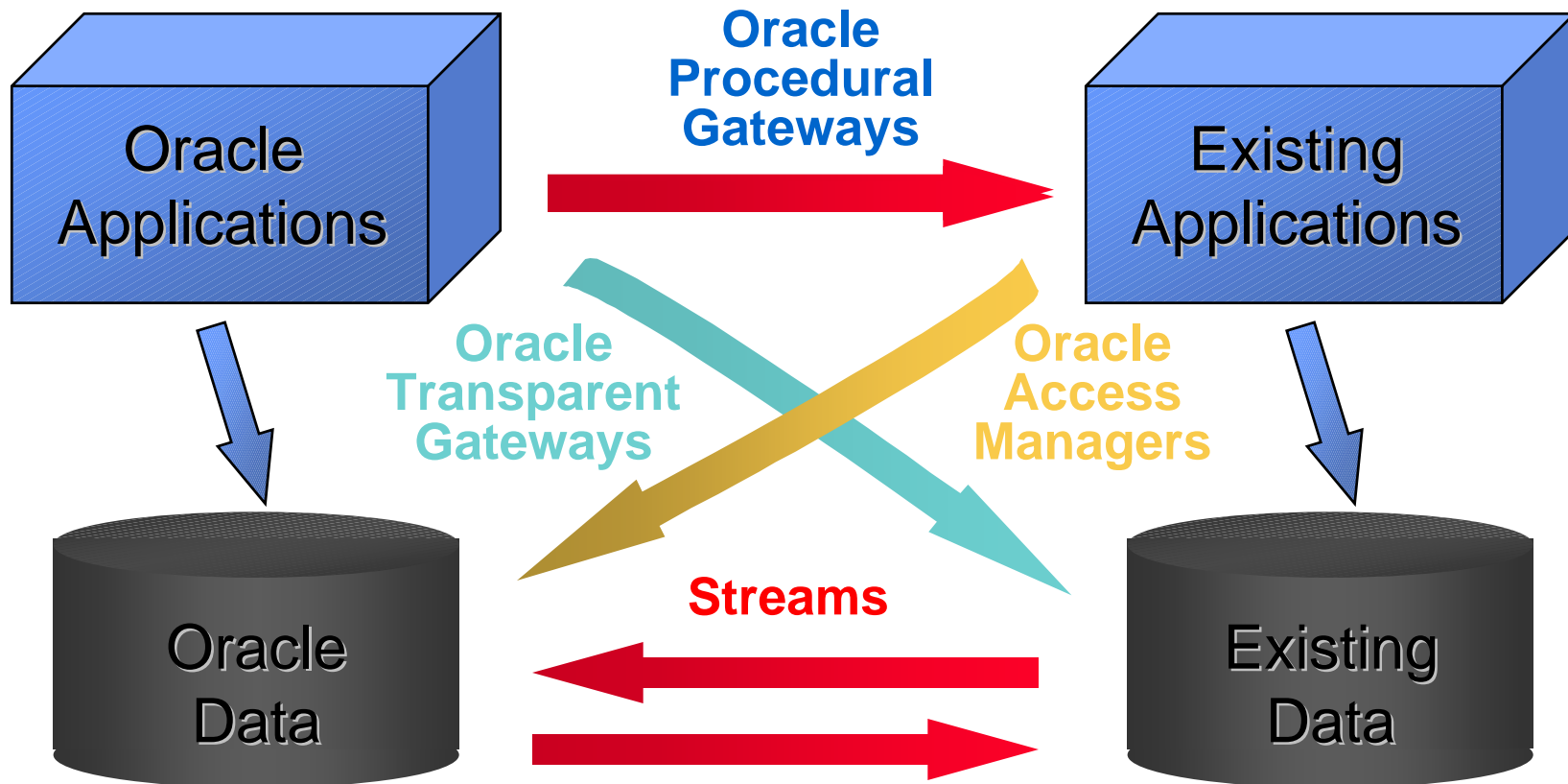
- Oracle9iR2 Database with RAC
 - RH 2.1
 - United Linux 1.0
- Oracle Database 10g with RAC
 - SLES8, RH 3.0

Product Engineering

Oracle for xSeries – Linux/x86-64

- Oracle9iR2 Database
 - Developer's Release on OTN
 - Production Release with RAC (target end of April 2004)
- Oracle Database 10g
 - Currently not planned

Product Engineering Oracle Integration Solutions

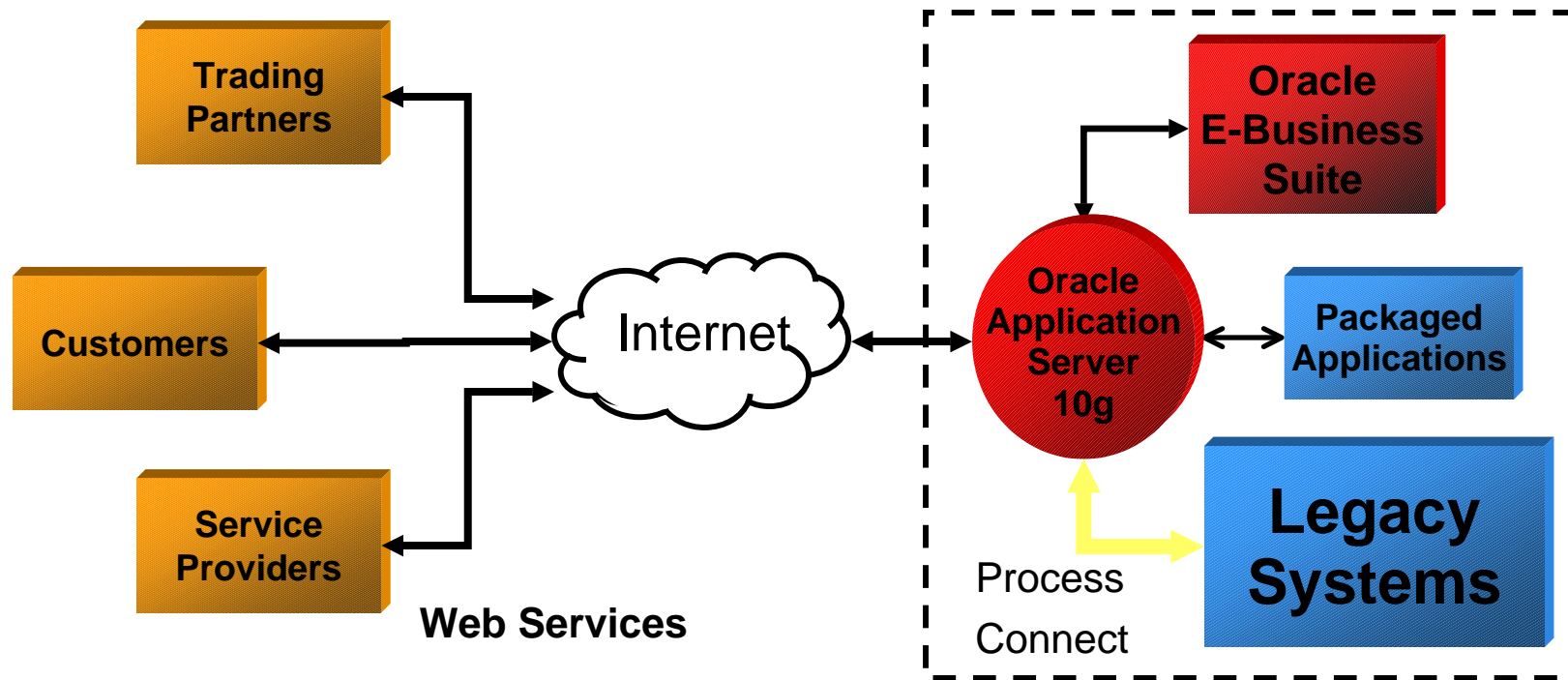




Product Engineering Oracle Integration Solutions

- Systems Integration
 - Full client transaction integration with CICS/TM, IMS/TM
 - Server-side integration of 3rd party data stores with transparent gateways
 - DB2/390
 - UDB
 - Adabas
 - IDMS
 - IMS
 - VSAM
 - etc...

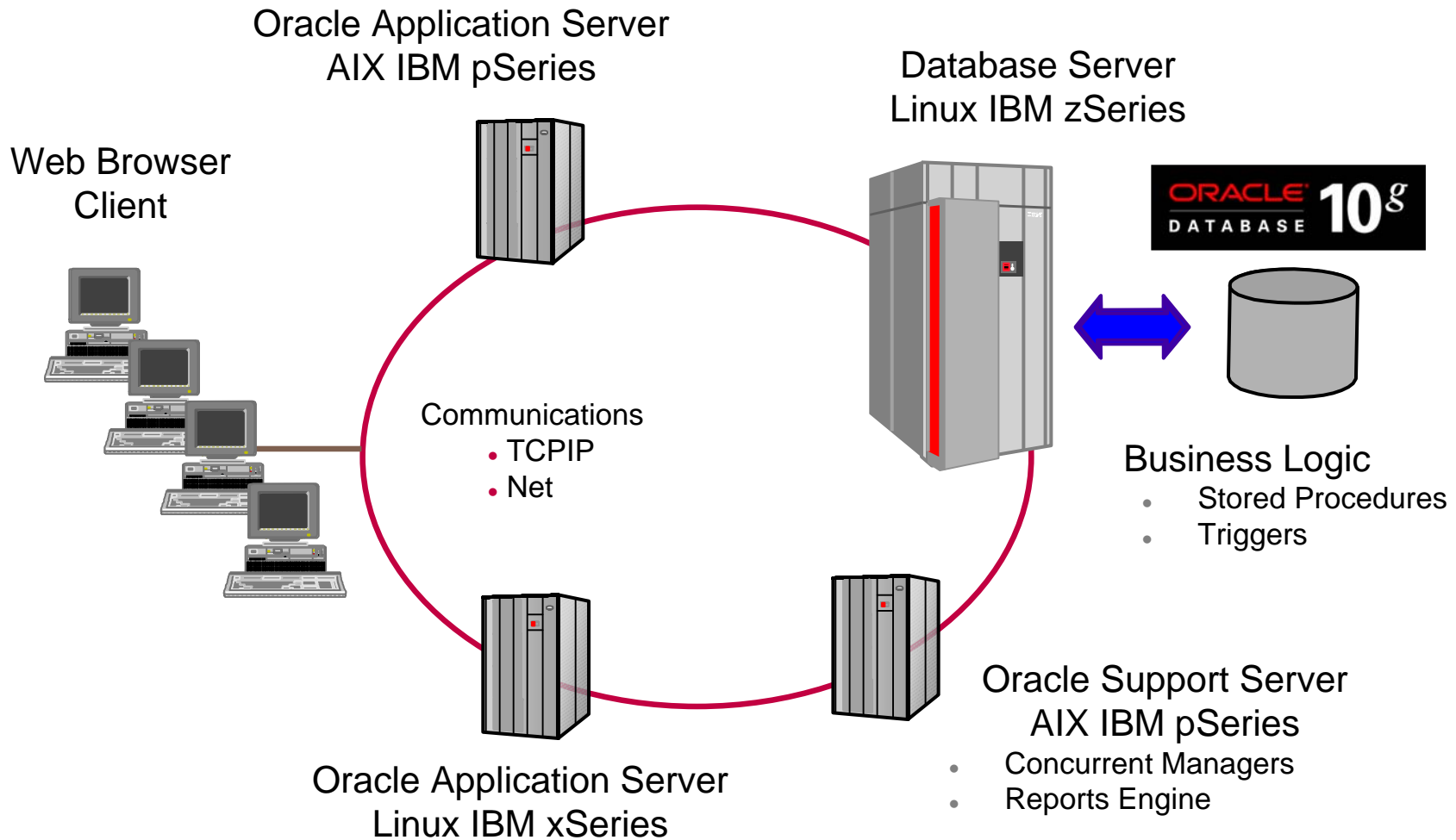
Product Engineering Business Application Integration



Business to Business (B2B)

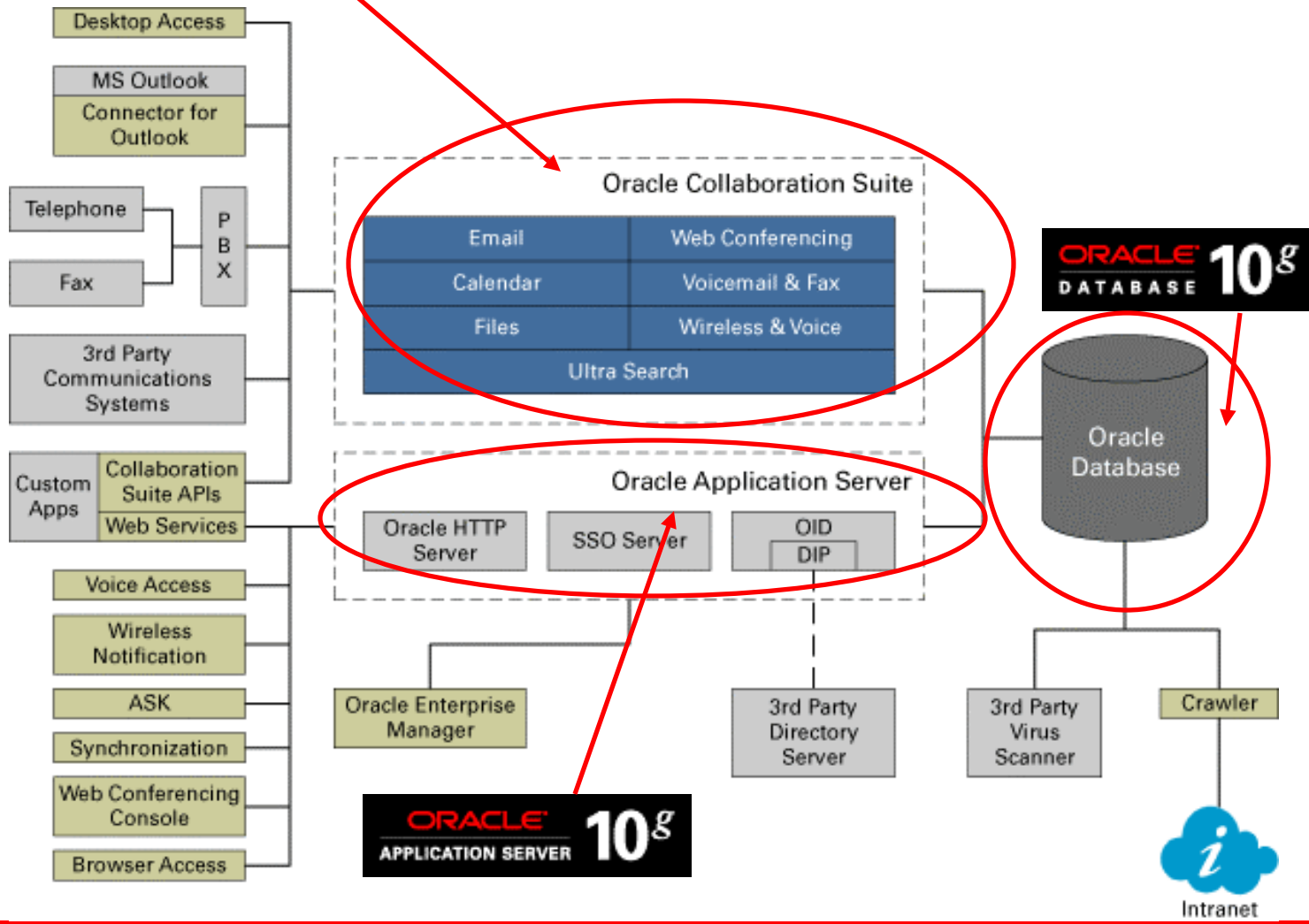
Enterprise Application Integration (EAI)

Example...

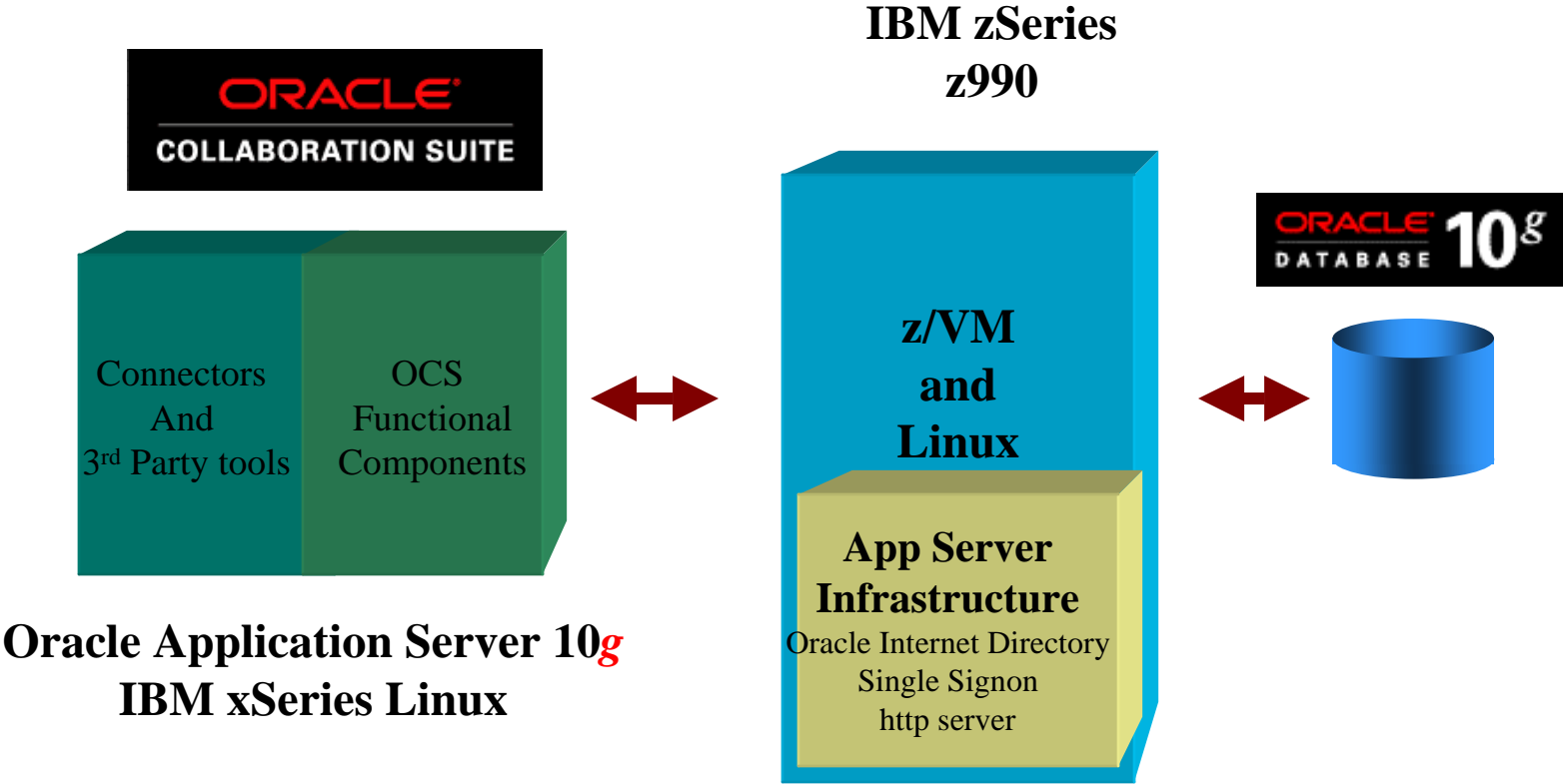


ORACLE
COLLABORATION SUITE

Example...

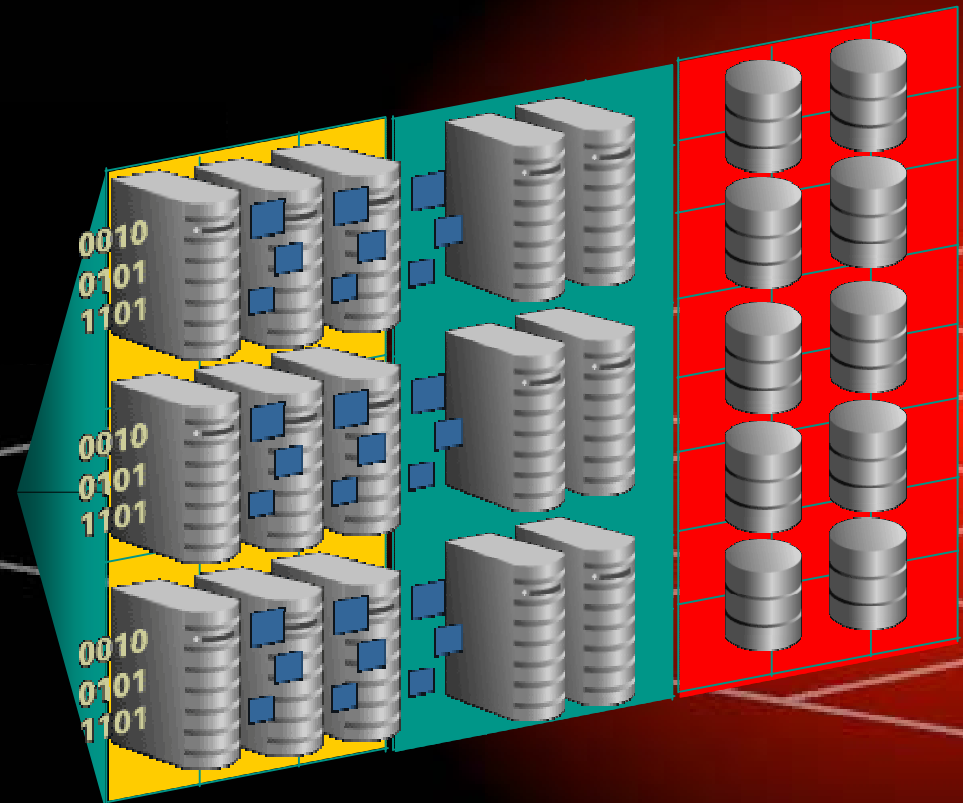


Example on Linux...



Oracle10g: Load Balancing

- Database and application server clusters
- Dynamic rule-based server allocation
- Automated routing of service requests



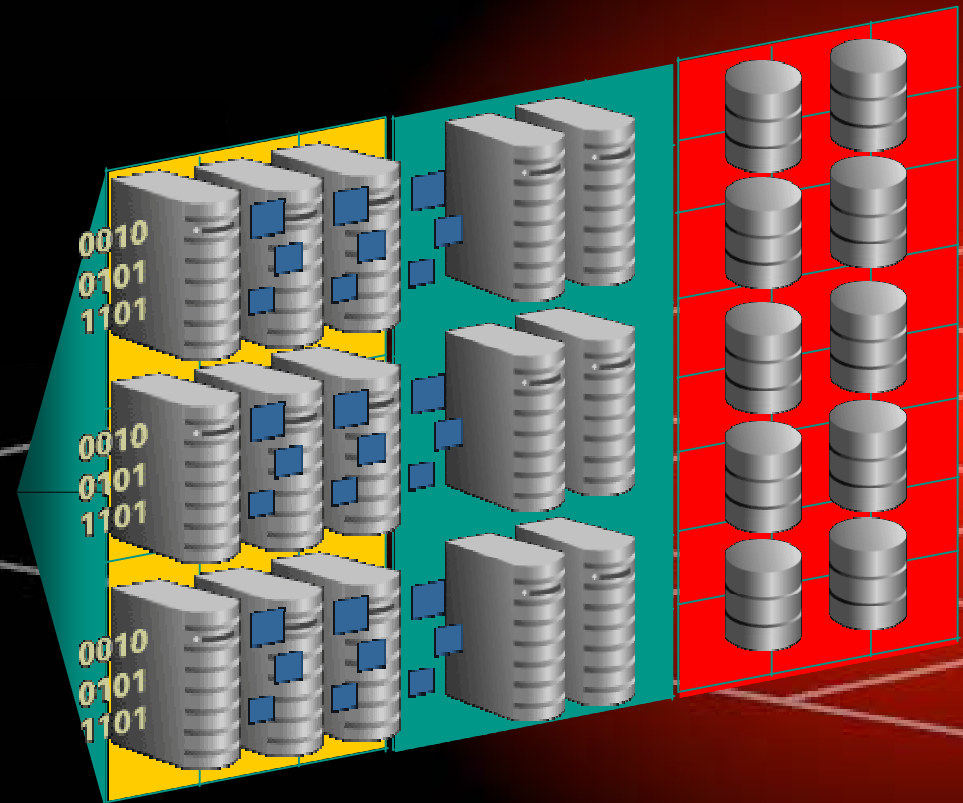


Good Performance Requires Understanding

- Software
 - Application
 - Application Server
 - Oracle Database
 - Linux for IBM zSeries
 - z/VM
- Hardware
 - Processor
 - Memory
 - I/O
 - Network

Oracle 10_g: Quality of Service

- Continuous availability
 - Recovery in Seconds
- Record-setting performance
- Low cost scalability



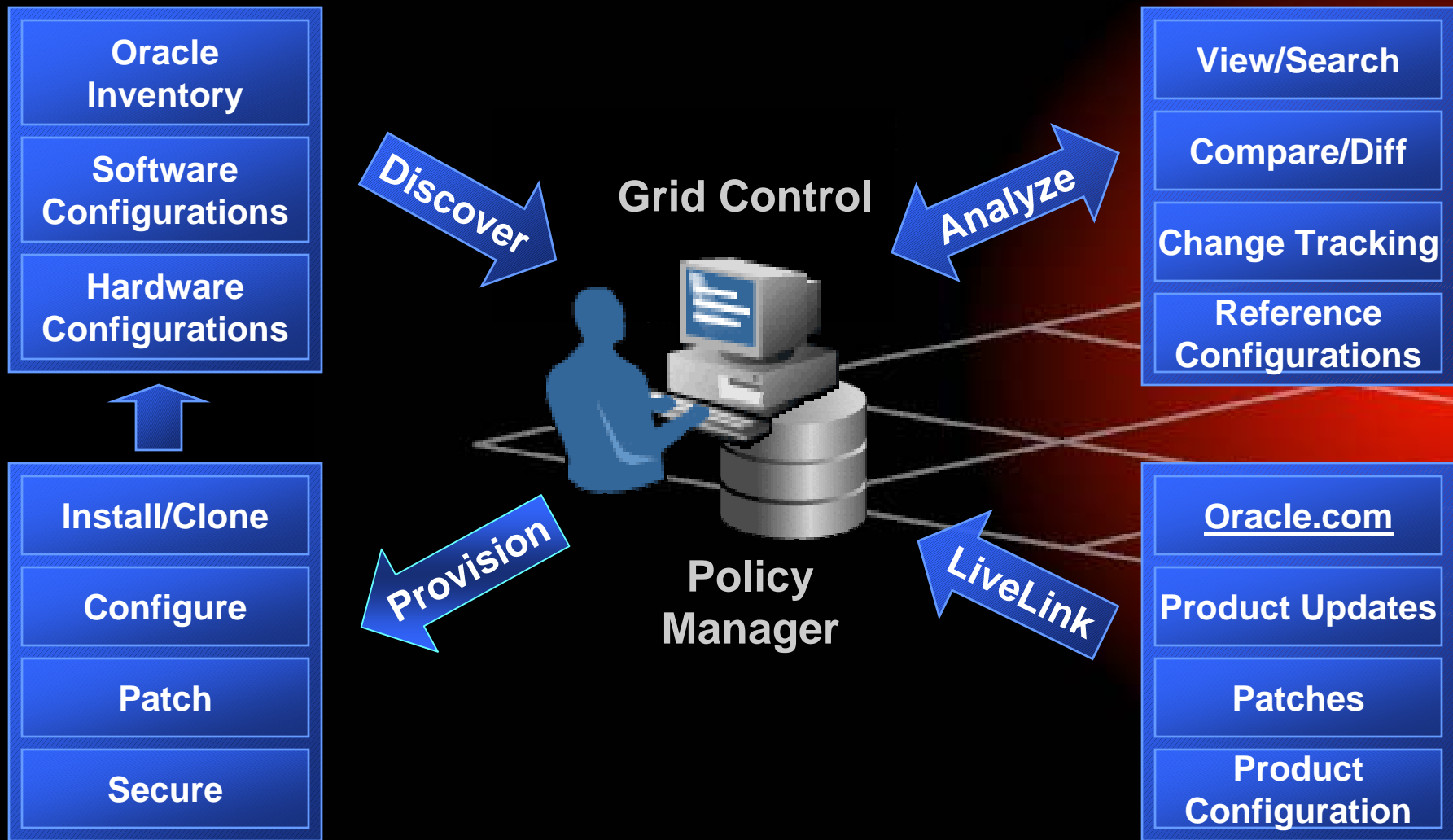
Support Who to Call

- Call Oracle for Oracle issues
 - Open a TAR
 - First level is generic support team (Database, Linux)
 - Oracle mainframe support team available
 - Link Oracle TAR with IBM PMR for tracking
 - Unbreakable Linux support
- Call IBM
 - Hardware
 - Proprietary Operating System
 - AIX5L
 - z/OS
 - z/VM configuration
 - SuSE support
- SuSE
- Red Hat

Support Coordination

- TSANet for inter-company supplier communication
 - www.tsanet.org
 - Organization that enables companies to work together
 - Escalation Policy in place
 - Contact and content coordination
 - If the problem looks like it needs IBM and Oracle to work together
 - Request to invoke the TSANet Process
 - Ask to speak to the duty manager if necessary
 - Oracle TSANet Coordinator
 - IBM Linux TSANet Coordinator

Enterprise Configuration Management



Grid Management

- **Application Service Level Management**
 - Reduces complexity of managing web applications
 - Ensures highest quality of service
- **Policy-Based Standardization**
 - Lowers the cost of managing large numbers of systems
 - Eliminates errors and inefficiencies
 - Drives consistency and improved performance
- **Automated Provisioning and Administration**
 - Reduces maintenance and administration costs for every system
 - Scale-out to more systems at minimal incremental cost

Why Customers Chose Oracle9i for Linux/390

- Total Cost of Ownership
 - Server Consolidation
 - Staffing
- Reliability, Availability and Serviceability
- Rapid deployment
 - Time to market competitive advantage
- Ease of management of servers
 - Cloning “Virtual Blades”
 - Cookie cutter approach
- Ease of horizontal and vertical growth
- Portability and ease of migration



Oracle Customers

Leveraged benefits

- Consolidation
 - Application systems playing well together
 - Reduced floor space and environmentalals
- Integration
 - Data
 - Oracle Transparent Gateways
 - Easy SQL Access
 - Application
 - JAVA with Oracle Application Server adapters
 - New legacy adapters in upcoming release
 - Enterprise exploitation of diverse systems
- Migration
 - Legacy data stores to modern RDBMS
 - Rapid development and web deployment
 - Exploit your mainframe environment

Oracle and IBM

Working together for customer success

- IBM provides hardware, software and engineering
- IBM provided test/benchmark support, software support, new Redbooks
- IBM is responsive to our issues
- Oracle influences IBM engineers and engineering
- Oracle and IBM focus on **Customer Success**

Oracle & IBM



We make a great team!

IBM Redbooks

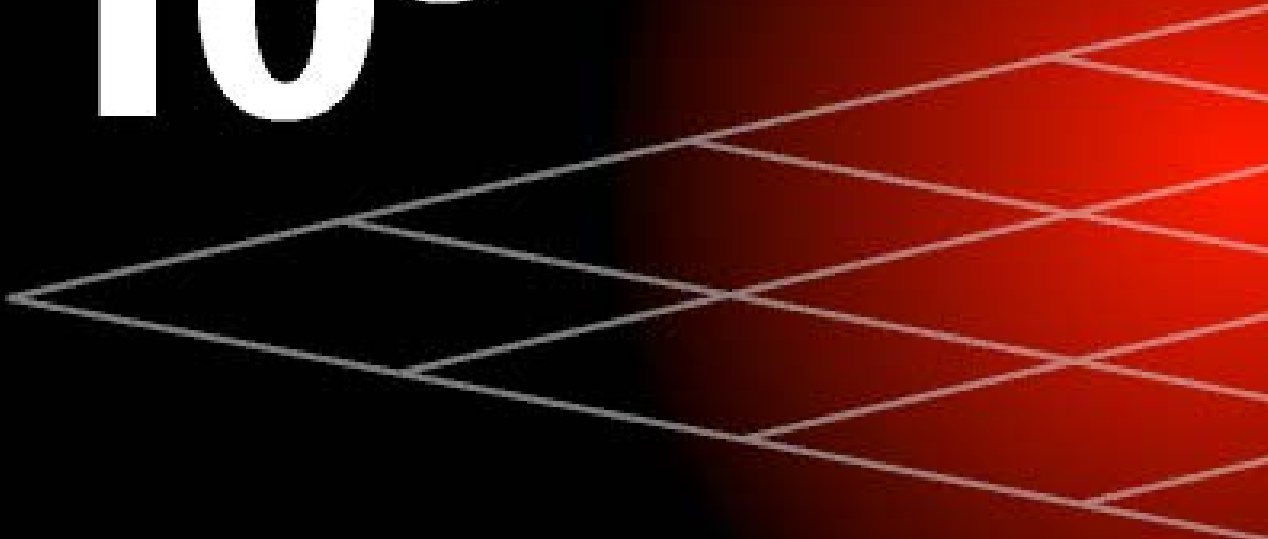
www.redbooks.ibm.com

- SG24 6552 - Experiences with Oracle for Linux on zSeries (Oracle9i)
- SG24 7055 - Experiences with Oracle10g on z/OS April 2004
- REDP3859 - Installing Oracle10g on Linux on zSeries (June 2004)



Q U E S T I O N S
A N S W E R S

10^g



Complete, integrated grid infrastructure

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