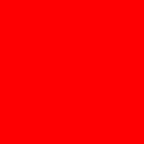




**ORACLE®**

## **Der richtige ORACLE-Server für Ihre Applikation**

**Detlef Drewanz  
Principal Sales Consultant**



**The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.**

**The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.**

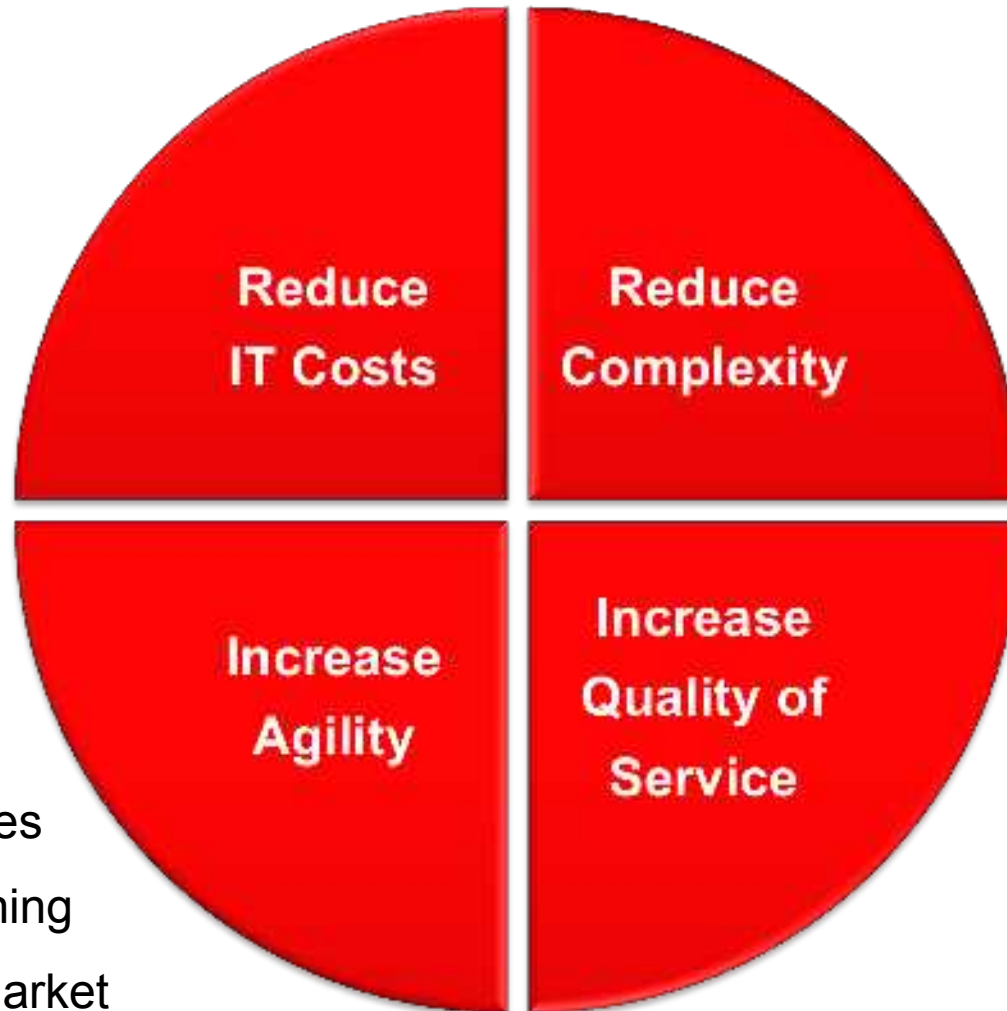
# IT Business Drivers

## Lower:

- CapEx
- Servers
- Storage
- S/W licenses
- OpEx
- Maintenance
- Management

## Enable:

- Online changes
- Rapid provisioning
- Faster time to market



## Reduce:

- Configurations
- Services

## Standardize:

- OS
- SW Versions

## Enhance:

- IT service time
- Availability
- Security

# Transforming the Technology Stack

## Maximize IT Investments to Drive Business Innovation



**Compute, Storage, Network  
Building Blocks**

**Optimized Systems  
and Solutions**

**Engineered  
Systems**

**Silo**

**Consolidated**

**Optimized**

**Cloud**

**ORACLE**

# Server Positioning ...

- **Workload**
- **Servertyp**
  - Rack vs. Blade
- **Architecture**
  - SPARC M-/T-Serie vs. x86-Server
- **Virtualization**
  - Dynamic System Domain/Oracle VM/Solaris Container
- **Requirements**
  - RAS-Level/Performance/Skalability

# Mapping Today's Datacenter Workloads

Highly Threaded

## Workload Attributes

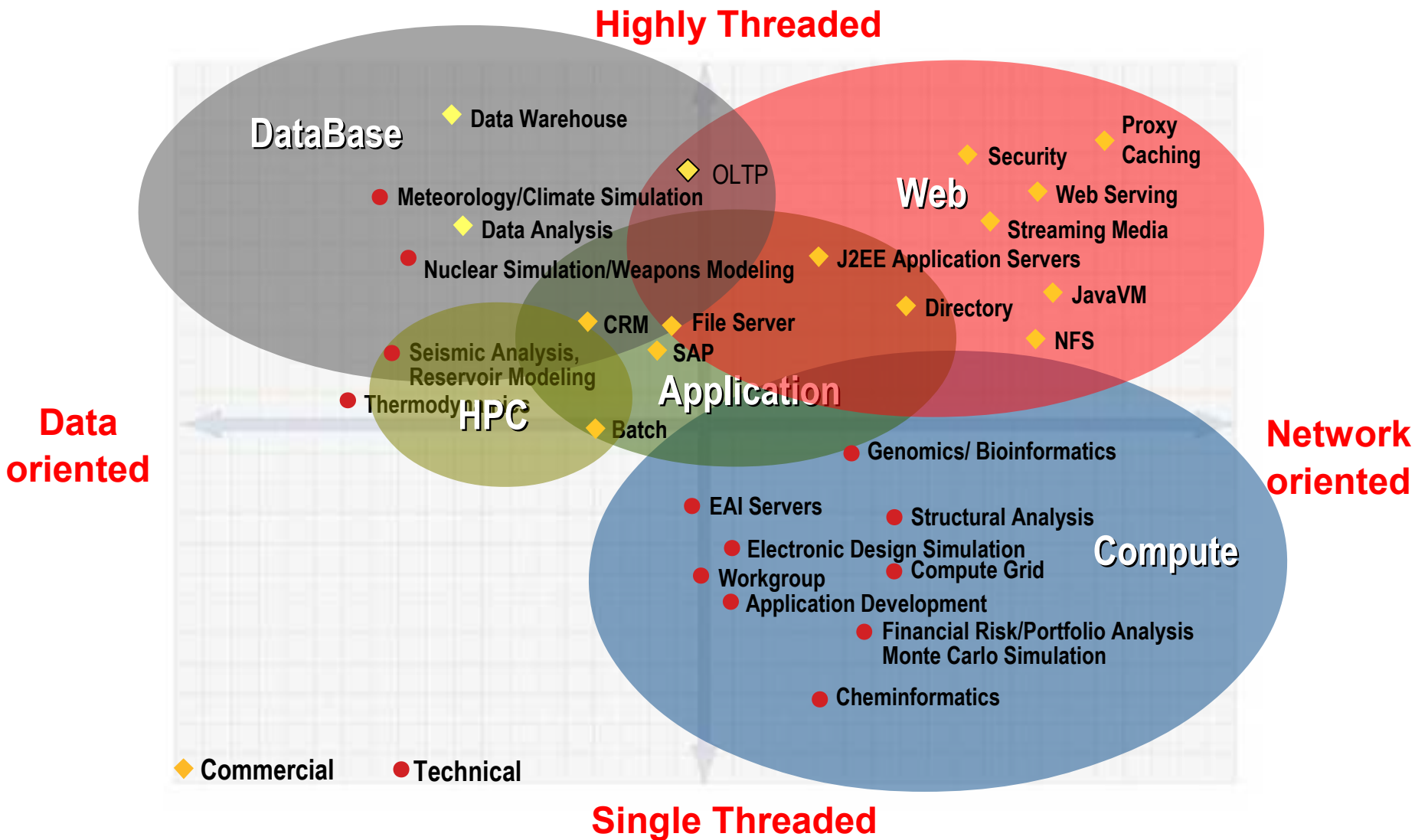
- All applications map to chart
- Highly Threaded, mixture of threading or single threaded
- Data Oriented is where there's lots of local data, large data-access more intensive
- Network oriented is where data accessed over network, across WAN, internet

Data oriented

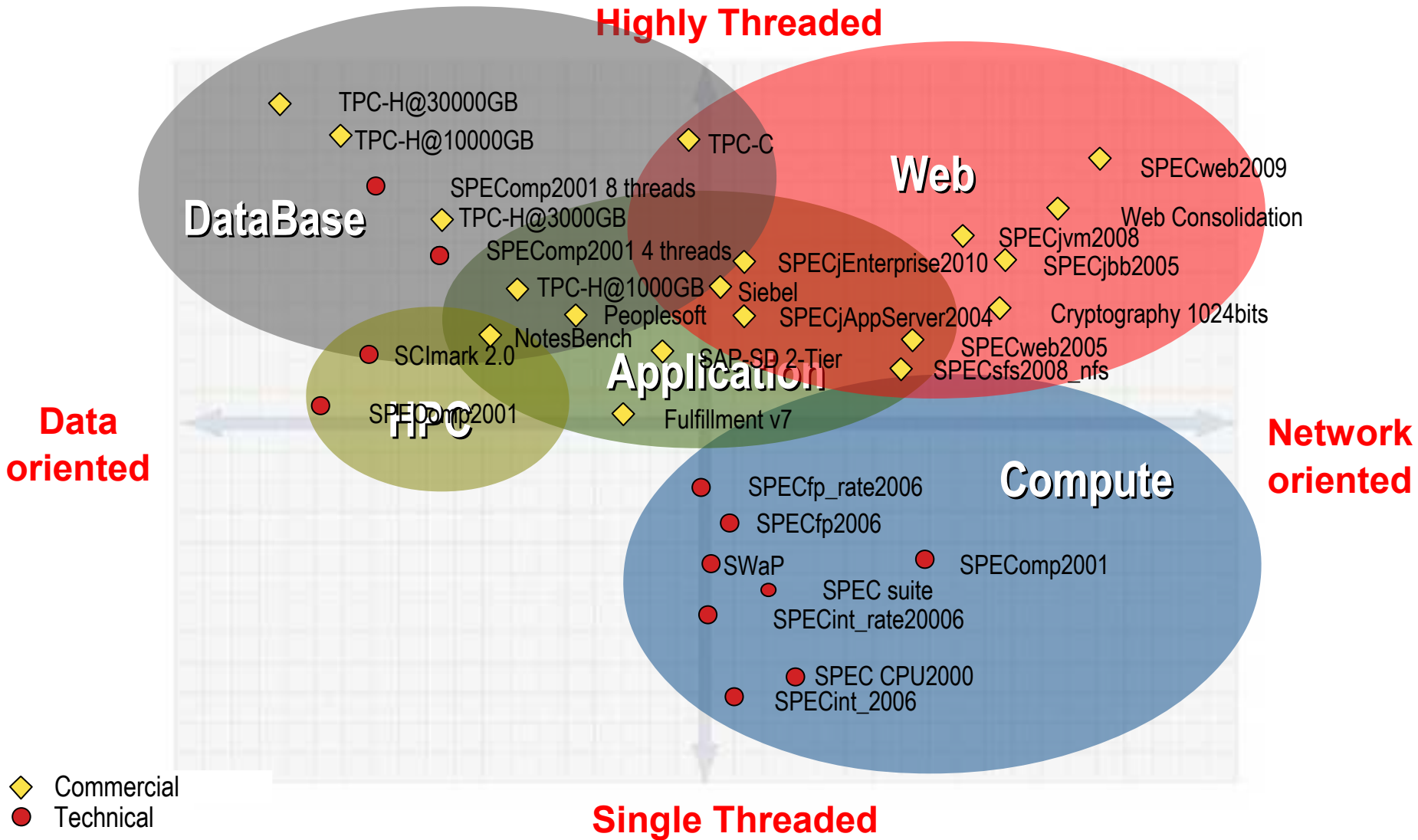
Network oriented

Single Threaded

# Mapping Application Workloads



# Benchmarks vs Workloads



◆ Commercial  
● Technical





## Mapping to Oracle Servers ....

# Oracle Sun Blade Systems

## Most Flexible Blade Architecture

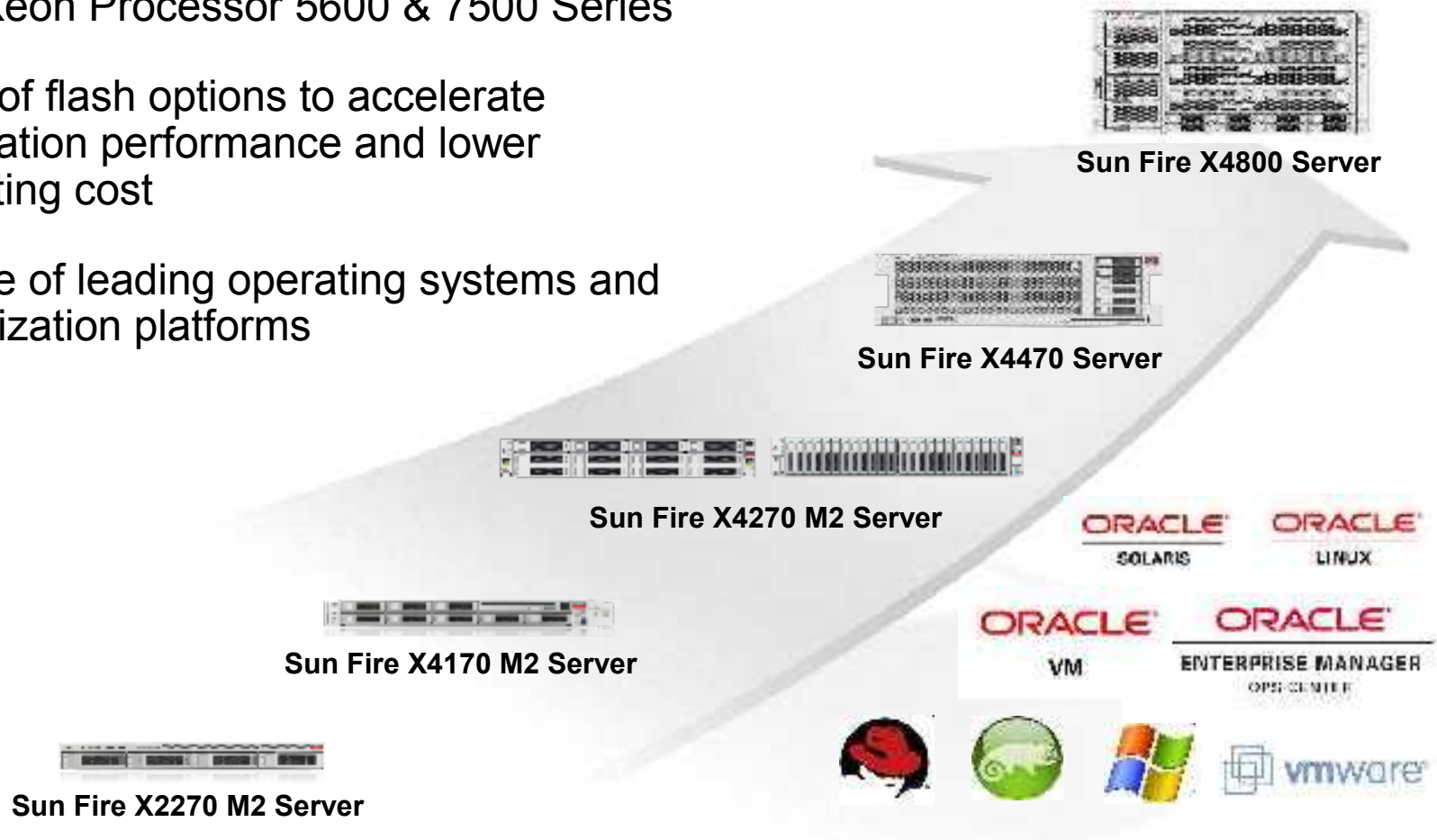


## Integrated Compute, Networking, Storage, and Management



# Sun x86 Rack-Mount Server Family

- Comprehensive portfolio refreshed with Intel Xeon Processor 5600 & 7500 Series
- Array of flash options to accelerate application performance and lower operating cost
- Choice of leading operating systems and virtualization platforms



# Sun x86 Servers

Ideal for Deploying  
Cloud and Technical  
Compute Farms

**Sun Fire X2270 M2**



Most Versatile IT  
Infrastructure Building Block

**Sun Fire X4170 M2**



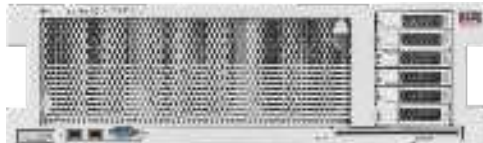
Optimal for Clustered  
Database and Virtualized  
Workloads

**Sun Fire X4270 M2**



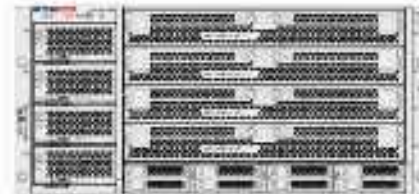
High Density Virtualization  
Platform

**Sun Fire X4470**



Redefining Enterprise x86  
for Memory-Intensive Apps  
and Consolidation

**Sun Fire X4800**



**ORACLE**  
LINUX

**ORACLE**  
SOLARIS

**ORACLE**

# Exadata Hardware Architecture

**Scaleable Grid** of industry standard servers for Compute and Storage

- Eliminates long-standing tradeoff between Scalability, Availability, Cost

## Database Grid

- X2-2: 8 Dual-processor x64 database servers

OR

- X2-8: 2 Eight-processor x64 database servers

## InfiniBand Network

- Redundant 40Gb/s switches
- Unified server & storage network



## Intelligent Storage Grid

- 14 High-performance low-cost storage servers



- 100 TB **High Performance** disk, or  
336 TB **High Capacity** disk

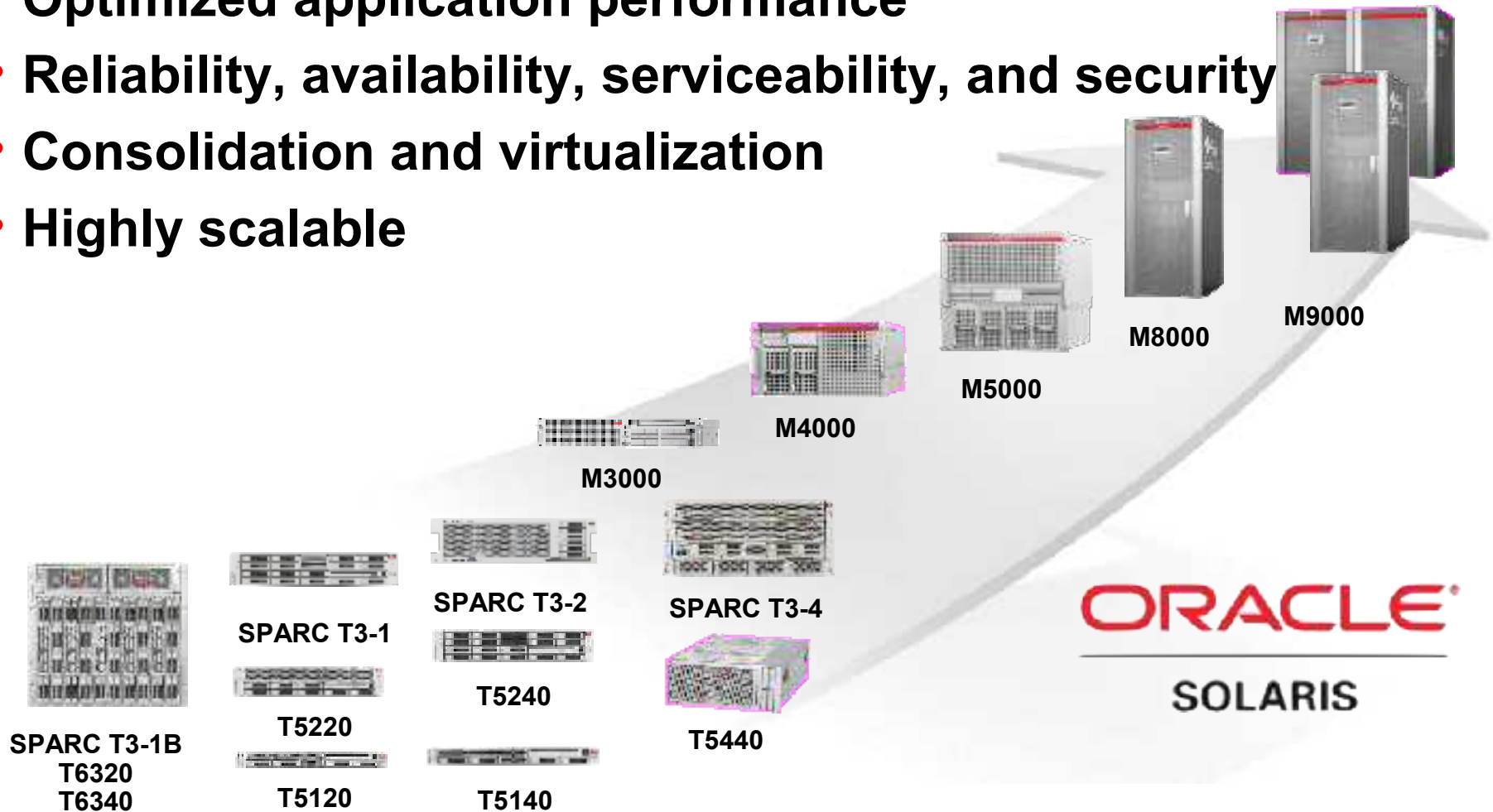
- 5.3 TB PCI Flash

- Data mirrored across storage servers

# SPARC Enterprise Servers

## Over 20 Years Of Mission Critical Computing

- Optimized application performance
- Reliability, availability, serviceability, and security
- Consolidation and virtualization
- Highly scalable



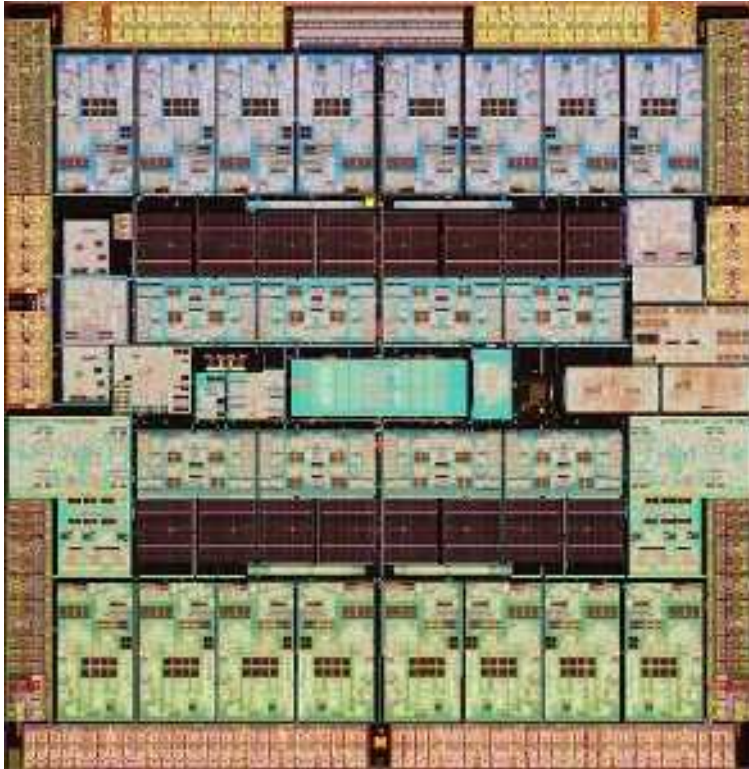
## M-Series: Investment Protection Delivers Longevity, Security and Scalability

- Industry leading reliability, availability and serviceability
- Extreme single threaded performance
- 4<sup>th</sup> in-box upgrade
- Seamless scalability: 1 to 64 CPUs
- Mix/Match CPUs for improved TCO
- Highest level of consolidation
- Breakthrough virtualization
- **New! SPARC64 VII+**
  - 2X L2 Cache for faster database performance
  - Up to 3.0GHz – 20% performance improvement





# World's First 16-Core Server Processor

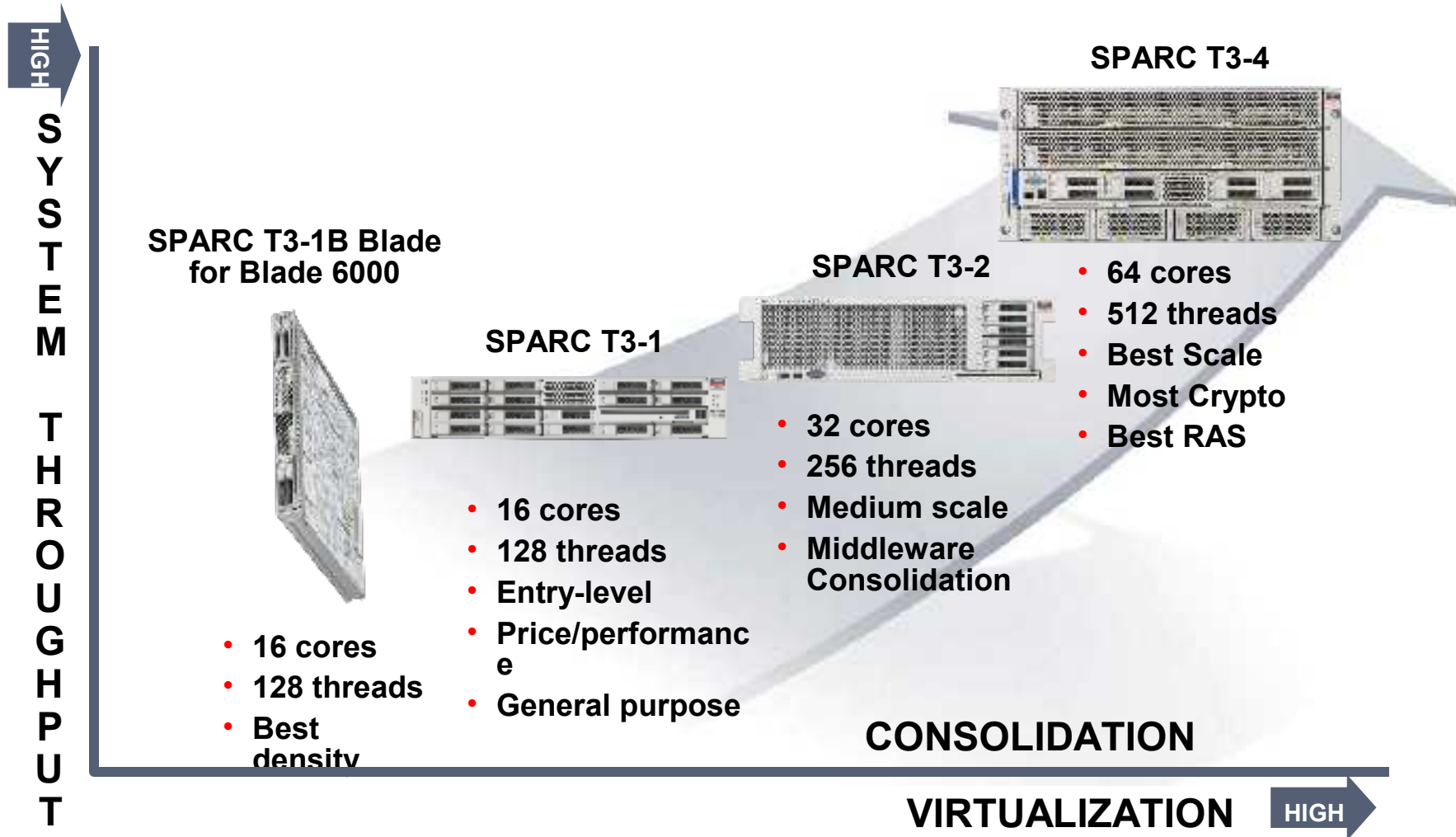


- **SPARC V9 ISA**
- **16 cores/128 threads**
- **Integrated on-chip encryption**
- **Integrated on-chip PCIe gen2 IO**



# SPARC T3 Servers: Scaling to New Heights

Integrated, High Throughput SPARC Systems for Massive Scale



# SPARC Processor Strategy



- **Compatibility**
- **Scalability**
- **Efficiency**
- **Availability**
- **Security**
- **Performance**
- **Accelerated roadmap**
- **Application performance**
- **Co-engineered with Oracle Software**

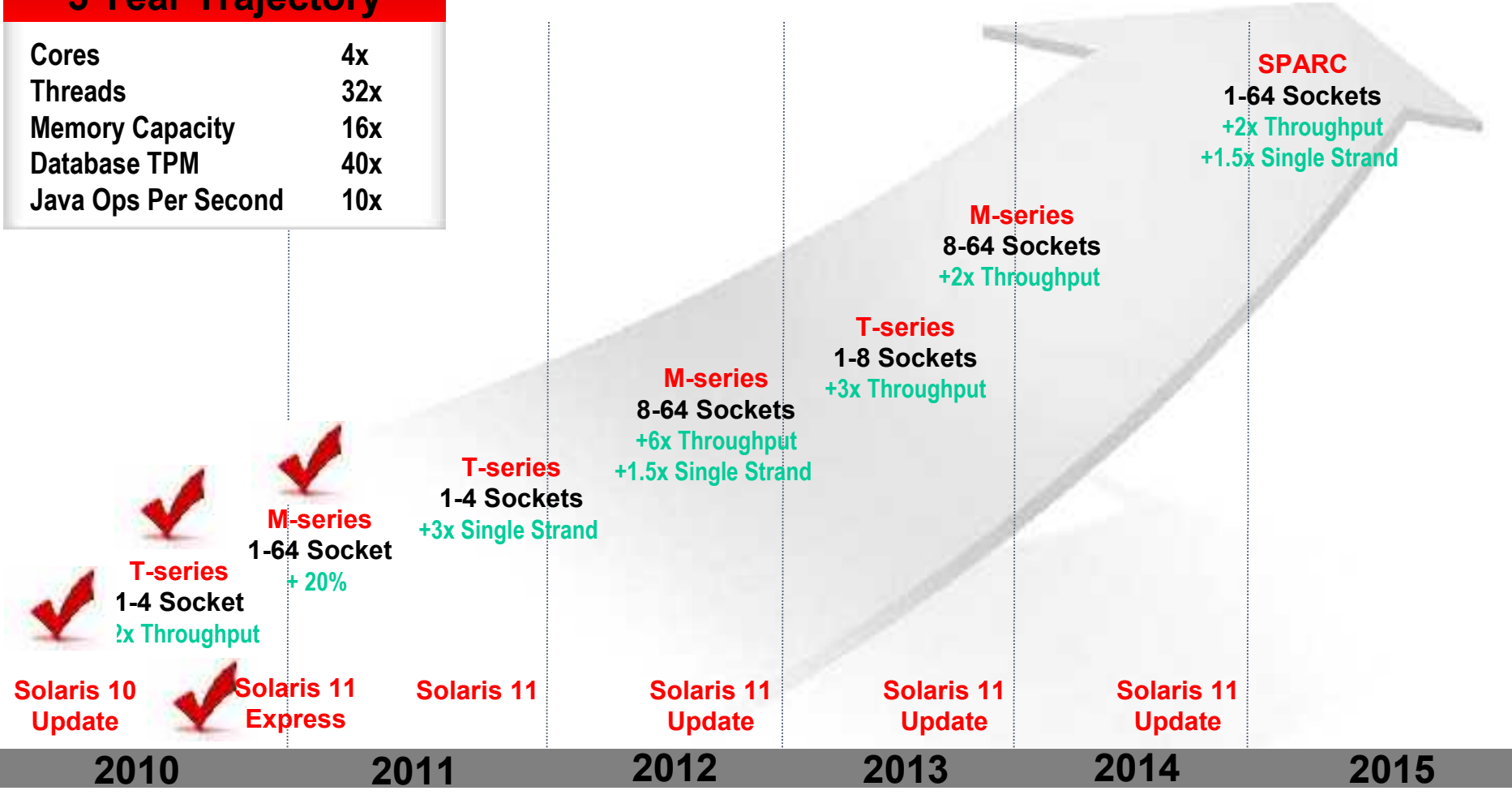
# SPARC Enterprise Servers

## Maximizing Results



### 5 Year Trajectory

Cores	4x
Threads	32x
Memory Capacity	16x
Database TPM	40x
Java Ops Per Second	10x



Solaris 10 Update

Solaris 11 Express

Solaris 11

Solaris 11 Update

Solaris 11 Update

Solaris 11 Update

2010

2011

2012

2013

2014

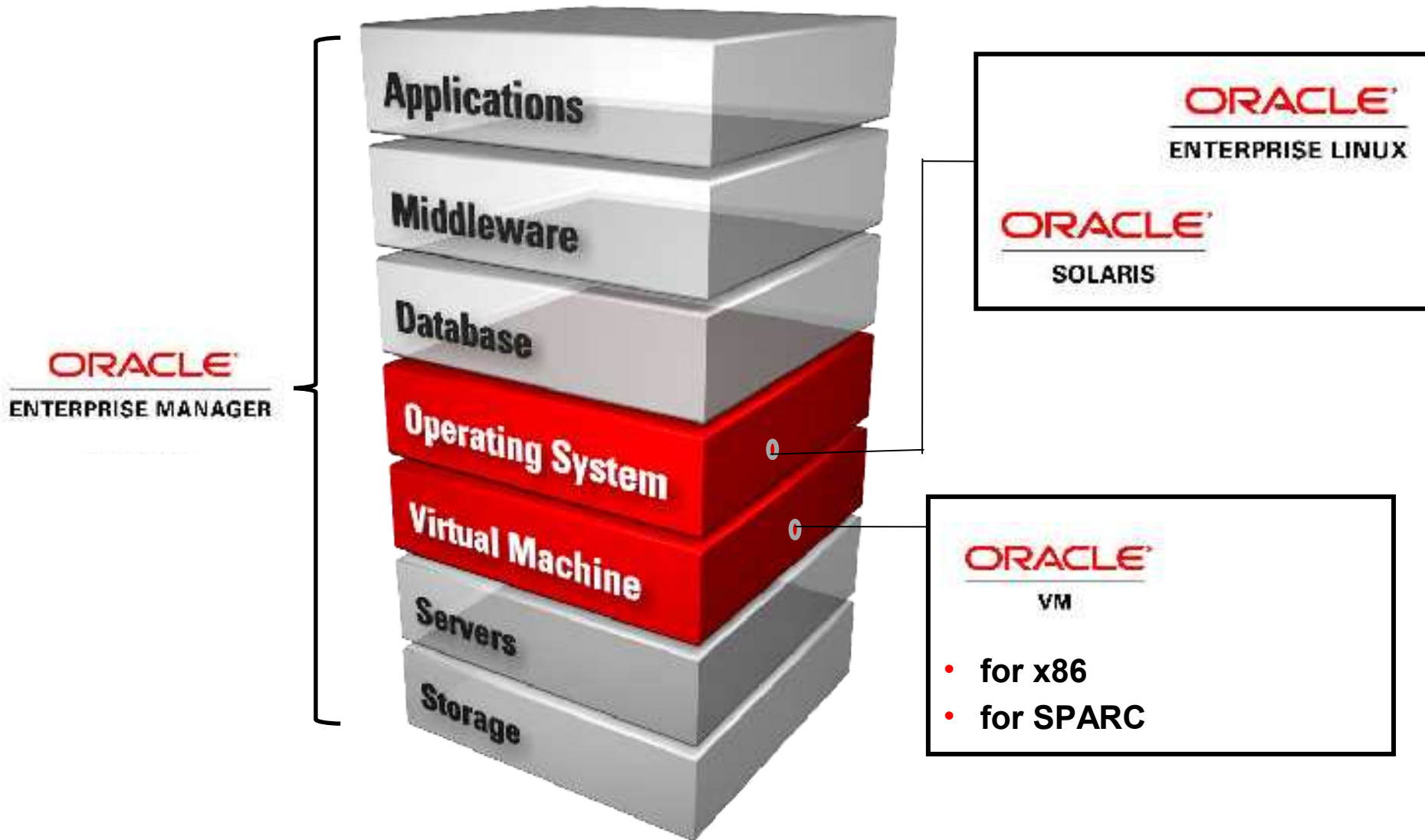
2015



# SPARC Technology Direction

- **Delivering Mission Critical RAS**
- **Extending SPARC performance leadership**
  - 2x plus performance improvement every 2 years
  - Scale to 1,000s of threads and multiple TBs of memory
- **Eliminating complexity, improving execution**
  - One SPARC architecture
  - One Operating System
  - One System Management solution
  - One Virtualization solution
- **Accelerated deployment, reduced risk**

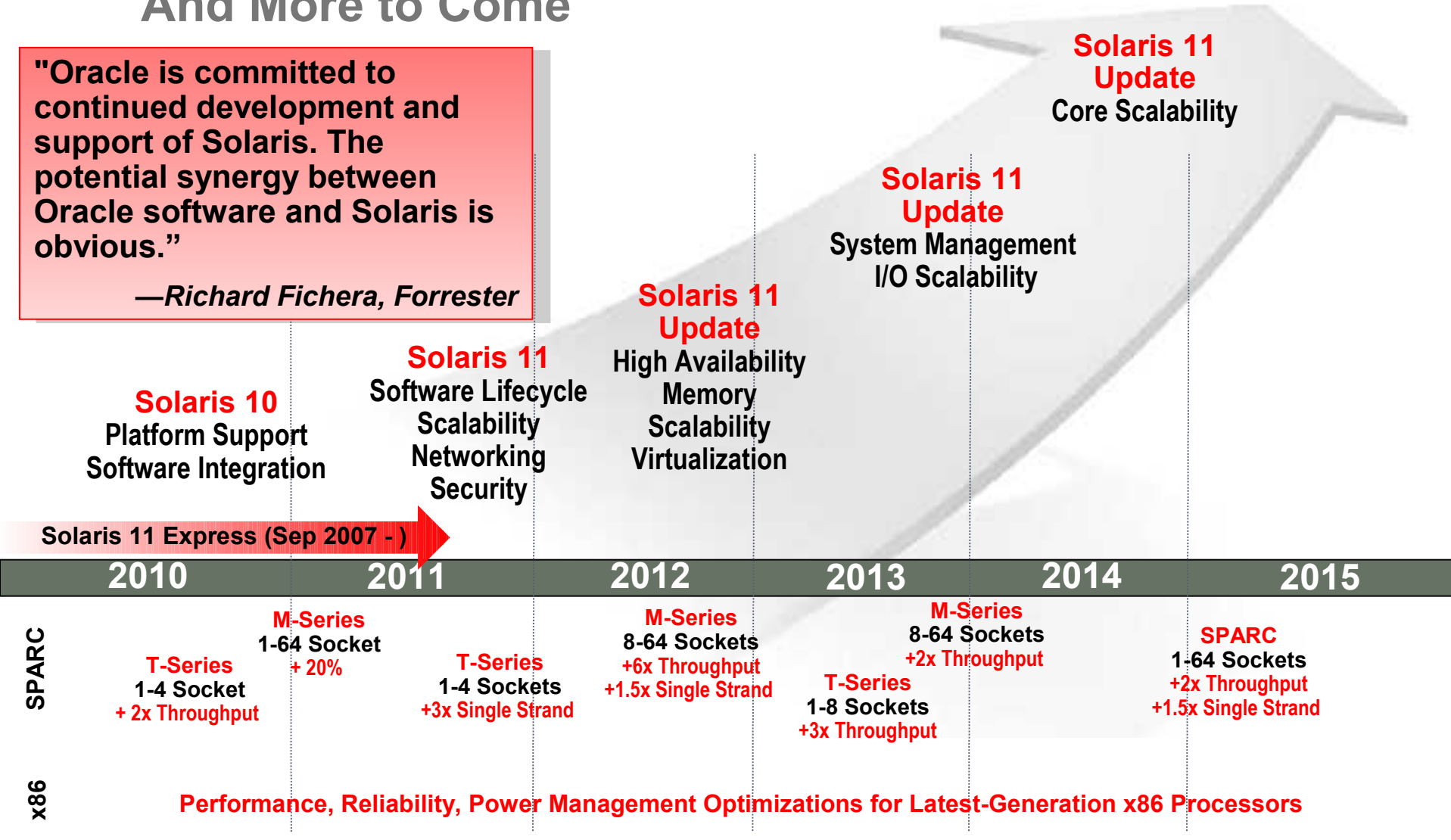
# The Operating System Matters



# Oracle Solaris Roadmap

And More to Come

"Oracle is committed to continued development and support of Solaris. The potential synergy between Oracle software and Solaris is obvious."  
—Richard Fichera, Forrester





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