

## ORACLE EXALYTICS IN-MEMORY MACHINE T5-8 DATA SHEET

*Oracle Exalytics In-Memory Machine is Oracle's scalable engineered system for in-memory analytics that delivers extreme performance for Business Intelligence and Enterprise Performance Management applications. Built using Oracle's market-leading business intelligence software, in-memory database technology and most powerful and scalable mid-range server, **Oracle Exalytics T5-8** is a complete system that delivers extremely high throughput performance*



*and is ideal for multi-tenancy environments where real-time performance, intelligence, simplicity and manageability are crucial. Requiring no application redesign, Oracle Exalytics can be deployed in existing IT*

*environments independently or in conjunction with Oracle Exadata, Oracle SuperCluster, Oracle Big Data Appliance or Oracle Exalogic to enable even higher performance with even more compelling business user experience.*

### SPEED OF THOUGHT ANALYTICS

#### KEY FEATURES

- 128 CPU cores
- 4 TB of RAM
- 6.4 TB PCIe Flash
- 9.6 TB of raw disk capacity
- Four 40 Gbps InfiniBand ports
- Four 8 Gbps Fibre Channel ports
- Four 10Gb Ethernet Ports
- Oracle Business Intelligence Foundation Suite for reporting, ad-hoc query, dashboards, scorecards and OLAP
- Optimized Oracle TimesTen database & Oracle Essbase
- Oracle Hyperion Planning applications

### First Engineered System for Analytics

Oracle Exalytics is a complete solution that includes best-in-class hardware, an enterprise BI platform and in-memory analytics software optimized to work together.

- **Oracle Exalytics In-Memory Software.** Oracle Exalytics in memory software is a collection of in-memory features, optimizations and configuration that enable BI Foundation Suite and components to make most of the in-memory architecture of Oracle Exalytics In-Memory Machine. Exalytics in-memory software is certified and supported only on Oracle Exalytics In-Memory Machine. Oracle Exalytics in-memory software consists of
  - OBIEE Accelerator
  - Oracle Essbase Accelerator
  - Oracle In-Memory Data Caching
  - Oracle BI Publisher Accelerator
- **Oracle Exalytics Hardware.** Oracle Exalytics T5-8 features Oracle's powerful and scalable compute platform, abundant memory and fast networking options optimally configured for in-memory analytics of business intelligence workloads. Oracle Exalytics T5-8 is powered by eight of industry's fastest processors for a total of 128 CPU cores, 4 TB of DRAM, 6.4TB of PCI Flash, 9.6TB of raw disk capacity, four 40 Gb/s InfiniBand ports, four 8Gb/s Fibre Channel ports and four 10 Gb/s Ethernet ports.
- **Ideal Platform for Consolidation.** Oracle Exalytics T5-8 is the ideal platform for customers looking for a multi-department, shared analytic infrastructure. Fixed partitioning options, pre-built virtualization, and fine-grained resource allocation availability bring unparalleled consolidation and efficiency. One or two Logical Domains,



**KEY BENEFITS**

- Built-in zero-overhead virtualization for resource management
- Ideal platform for multi-department shared analytic infrastructure consolidation
- No-limits, extreme performance for business intelligence and enterprise performance management applications
- Rich visualizations deliver insights at the speed of thought
- Most scalable engineered system for analytics delivers unmatched speed, intelligence, simplicity and manageability
- Adaptive in-memory cache intelligently caches the hottest data
- Fast deployment of analytics applications

**RELATED ORACLE PRODUCTS**

- Oracle BI Foundation Suite
- Oracle Times-Ten In-Memory database for Exalytics
- Oracle BI Applications
- Oracle Hyperion Performance Management Applications
- Oracle Exadata
- Oracle Exalogic
- Oracle SuperCluster
- Oracle Big Data Appliance

with customer-defined CPU and memory allocations lead to faster time to production.

- **Built-In Virtualization.** Oracle Exalytics T5-8 delivers built-in virtualization and zones for resource management. This allows for each zone or VM to run multiple applications concurrently, with each zone availing of a proportion of the available compute, DRAM, storage, and networking resources.

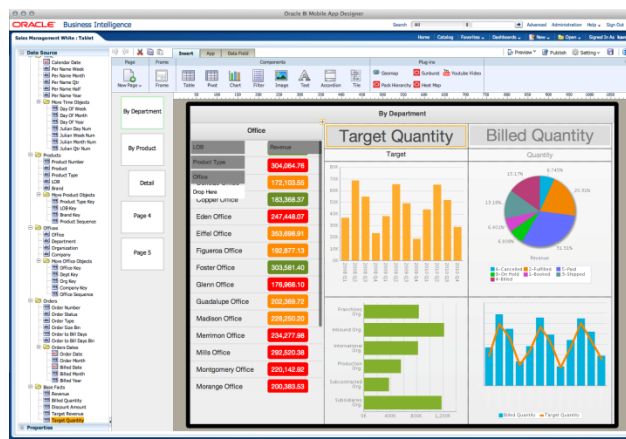
**Oracle Business Intelligence Foundation Suite.** Oracle Business Intelligence Foundation Suite delivers the most complete, open, and integrated business intelligence platform on the market today. Oracle Business Intelligence Foundation Suite provides comprehensive and complete capabilities for business intelligence, including enterprise reporting, dashboards, ad hoc analysis, multi-dimensional OLAP, scorecards, and predictive analytics on an integrated platform.

Oracle Business Intelligence Foundation Suite includes the industry’s best-in-class server technology for relational and multi-dimensional analysis and delivers rich end user experience that includes visualization, collaboration, alerts and notifications, search and mobile access.

- **Oracle TimesTen In-Memory database for Exalytics.** Based on Oracle Times-Ten In-Memory database, Times-Ten for Exalytics has been specially enhanced for analytical processing at in-memory speeds. With lightening fast scan speed of up to 100 million rows/second and enhancements like support for analytical functions and up to 10x columnar compression, TimesTen for in-memory analytics delivers faster reports & dashboards for departmental as well as enterprise wide consumption.

**Best Visual Analysis with No Limits**

Oracle Exalytics features a number of user interface enhancements to leverage the powerful compute capacity and abundance of memory. Features like auto-text complete, cascaded prompts, dynamic user interface refresh and contextual right-click interactions makes it easier for the end user to analyze data enabling insights at the speed of thought. Rich visualization capabilities, including a wide range of interactive chart types, maps, and tabular formats present information in more meaningful and compelling ways. Oracle Exalytics promotes self-service analytics and makes it easier to develop analytics content by introducing a Presentation Suggestion Engine (PSE) which provides recommendations on type of visualizations to use to best represent a data set.



Speed of thought analytics using highly interactive visualizations.

### Smarter Analytical Applications

Oracle Exalytics delivers the widest range of reporting and analysis capabilities on a single, integrated system including hardware, software & storage.

- **Certified for Oracle's Analytic Applications.** Oracle Exalytics delivers out of box support for all BI & EPM applications available from Oracle. This delivers fastest time to value by making the pre-built reports, dashboards and data marts for ERP, CRM, EPM and Industry analytics available out of the box.
- **Foundation for a new class of Analytic Applications.** Oracle Exalytics' unmatched speed, visualizations, and scalability delivers extreme performance for existing analytical and enterprise performance management applications and enables a new class of real-time analytic applications like Yield Management, Revenue Management, Demand Forecasting, Inventory Management, Pricing Optimization, Profitability Management, Rolling Forecast and Virtual Close etc.

### Oracle Exalytics In-Memory Machine T5-8 Specifications

The Oracle Exalytics In-Memory Machine T5-8 hardware is a single server that is optimally configured for in-memory analytics for business intelligence workloads and includes powerful compute capacity, abundant memory, and fast networking options. Multiple Oracle Exalytics machines can be clustered together to expand available memory capacity and to provide high availability.

The following section describes the specific hardware and software components of the Oracle Exalytics In-Memory Machine T5-8.

Architecture
<b>Processor</b> <ul style="list-style-type: none"> <li>• Eight sixteen-core 3.6 GHz SPARC T5 processors</li> <li>• Sixteen cryptographic units per SPARC T5 processor</li> <li>• On-chip Encryption Instruction Accelerators with direct non-privileged support for 16 industry standard cryptographic algorithms plus random number generation in each of the sixteen cores: AES, Camellia, CRC32c, DES, 3DES, DH, DSA, ECC, Kasumi, MD5, RSA, SHA-1, SHA-224, SHA-256, SHA-384, SHA-512</li> </ul>
<b>Main Memory</b> <ul style="list-style-type: none"> <li>• One hundred twenty eight 32 GB DDR3 ECC Registered DIMMs</li> <li>• Total Memory capacity of 4 TB</li> </ul>
Interfaces
<b>Networking</b> <ul style="list-style-type: none"> <li>• Four 10 GbE (100 Mbps/1 Gbps/10 Gbps) ports on-board</li> <li>• Four QDR (40Gb/s) InfiniBand ports</li> <li>• Four 8Gb Dual-Port Fibre Channel PCI-Express Card</li> </ul>
<b>Standard I/O</b> <ul style="list-style-type: none"> <li>• One TIA/EIA-232-F asynchronous RJ-45 serial port</li> <li>• Five USB 2.0 ports (two front, two rear, one internal)</li> <li>• Two VGA 8 MB Ports; 1024 x 768 @ 60Hz (front and rear)</li> </ul>
<b>Internal Storage</b>

- Eight 2.5" SAS-2 1.2 TB 10,000 RPM SAS-2 HDDs
- RAID-Z through Solaris
- Eight F80 800GB eMLC Flash PCIe

**Remote Management**

- Oracle Integrated Lights Out Manager (ILOM)
- One dedicated 10/100base-T Ethernet management port
- One RJ-45 serial management port
- Support for access via SSH 2.0, HTTPS, RADIUS, LDAP, and Microsoft Active Directory
- Ability to monitor and report system and component status on all FRUs

<b>Software</b>
Operating Systems
<ul style="list-style-type: none"> <li>Oracle Solaris 11</li> </ul>
<b>Analytics Software</b>
<ul style="list-style-type: none"> <li>Oracle Business Intelligence Foundation Suite</li> <li>Oracle TimesTen In-Memory Database for Exalytics</li> </ul>
<b>Environment</b>
<ul style="list-style-type: none"> <li>Operating temperature: 5°C to 35°C (41°F to 95°F) at sea level; 5°C to 31°C (41°F to 88°F) at altitude</li> <li>Non-operating temperature: -40°C to 68°C (-40°F to 154°F)</li> <li>Operating relative humidity: 10%-90% relative humidity, noncondensing</li> <li>Non-operating relative humidity: 93% relative humidity, noncondensing,</li> <li>Acoustic noise: <ul style="list-style-type: none"> <li>Operating at idle: 8.2 B (LwAd 1 B = 10dB), 65.7 dBA (LpAm: bystander positions)</li> <li>Operating at Peak: 10.0 B (LwAd 1 B = 10dB), 83.2 dBA (LpAm: bystander positions)</li> </ul> </li> </ul>
<b>Power &amp; Cooling</b>
<ul style="list-style-type: none"> <li>Rated Line Voltage: 200 - 240 VAC</li> <li>Rated Input Current: 30A at 200-240 VAC (16 A per cord) <i>(Actual amperage draw may exceed rating by no more than 10% at any time)</i></li> <li>Maximum power usage: 6000W <i>(Actual power draw may exceed rating by no more than 10% at any time)</i></li> <li>22,185 BTU/hr/ 730cfm max</li> </ul>
<b>Regulations</b>
<ul style="list-style-type: none"> <li>Safety: IEC 60950-1 (2nd Ed), UL/CSA 60950-1 (2nd Ed), EN60950-1 (2nd Ed), CB Scheme with all country differences</li> <li>EMI/EMC: FCC CFR 47 Part 15B Class A, EN 55022 Class A, VXXI class A, CISPR22 Class A, CNS 13438 Class A, KN 22 Class A, EN 61000-3-2, EN 61000-3-3</li> <li>Immunity: EN 55024 and KN22</li> </ul>
<b>Certifications</b>
<ul style="list-style-type: none"> <li>Regulatory markings: CE, FCC, VCCI, ICES-003, C-Tick, MIC, CCC, GOST-R, BSMI Class A , S-Mark</li> <li>European Union Directive: Restriction of Hazardous Substance (RoHS) Directive (2011/65/EC)</li> </ul>
<b>Dimensions and Weight</b>
<ul style="list-style-type: none"> <li>Height: 350 mm (13.8 in.); 8U</li> <li>Width: 445 mm (17.5 in.)</li> <li>Depth: 800 mm (31.5 in.)</li> <li>Weight: 118.6 kg (261.5 lb.)</li> </ul>
<b>Mounting Accessories and Cables</b>
<ul style="list-style-type: none"> <li>Toolless rackmounting slide rail kit</li> <li>Cable management arm</li> <li>Four 5m InfiniBand copper cables</li> </ul>

## Contact Us

For more information about how your organization can leverage the power of Oracle Exalytics In-Memory Machine T5-8, please visit [www.oracle.com](http://www.oracle.com) or call 1.800.ORACLE1 to speak to an Oracle representative.



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**Hardware and Software, Engineered to Work Together**