

# ORACLE EXALOGIC ELASTIC CLOUD X2-2



## AT A GLANCE

- Each Exalogic X2-2 configuration is comprised of:



- **Specialized performance-enhancing software, firmware and management tools**
- **Compute Nodes:**  
Up to (30x) Intel Xeon x86 compute nodes with fully redundant InfiniBand connectivity, power and solid state disks
- **I/O Backplane:**  
QDR InfiniBand to 10GbE gateways, InfiniBand switches and dedicated internal Ethernet management network provide extremely scalable, reliable and high-performance connectivity between all components
- **Integrated Storage:**  
Fabric-attached ZFS storage appliance for shared storage of application binaries, log files, and other system data with built-in configurable fault tolerance, de-duplication, cloning and cross-site replication

*The Oracle Exalogic Elastic Cloud X2-2 is a standard datacenter building block that provides a fully integrated Private Cloud platform that is ideal for a wide range of mission-critical enterprise application workloads, from middleware and custom applications to packaged applications from Oracle and hundreds of 3rd party application and tool vendors.*

## Building the 21st Century Data Center

The Exalogic X2-2 is Oracle's standard hardware platform for Oracle Fusion Middleware, Oracle Applications and Oracle's Private Cloud technology portfolio.

Oracle Exalogic Elastic Cloud X2-2:

- Pre-integrated, tested and delivered ready to work
- Open, standards-based platform that supports thousands of existing applications
- Designed for extreme reliability, serviceability and application performance
- Balanced and optimized for the widest possible range of typical enterprise application workloads
- Secure multi-tenancy and dynamic resource management
- Linear scalability and upgradeability from the smallest Eighth Rack configuration to the largest multi-rack system with zero downtime
- The new standard platform for Oracle's Fusion Middleware and business applications



## The Exalogic X2-2 Package

The Oracle Exalogic X2-2 model includes

- Compute nodes (servers), a fully integrated ZFS storage appliance, internal I/O backplane and spare parts kit
- Firmware, software and documentation
- Configuration and diagnostic tools

## For More Information

For more information please contact your Oracle sales professional or visit Exalogic on the Web at <http://www.oracle.com/exalogic>.

Exalogic X2-2	Eighth Rack	Quarter Rack	Half Rack	Full Rack
<b>Aggregate Specifications</b>				
• Processor Cores	48	96	192	360
• Memory	384 GB	768 GB	1.5 TB	2.9 TB
• Integrated Disk Storage (Physical)	60 TB	60 TB	60 TB	60 TB
<b>Power</b>				
• Maximum	4.347 kW 4.576 kVA	7.206 kW 7.585 kVA	10.897 kW 11.47 kVA	17.575 kW 18.5 kVA
• Typical	2.385 kW 2.511 kVA	5.258 kW 5.535 kVA	7.952 kW 8.37 kVA	12.825 kW 13.5 kVA
<b>Cooling</b>				
• Maximum	15614 BTU/hour 16457 kJ/hour	25881 BTU/hour 27278 kJ/hour	39137 BTU/hour 41250 kJ/hour	63124 BTU/hour 66533 kJ/hour
• Typical	8568 BTU/hour 9030 kJ/hour	18886 BTU/hour 19906 kJ/hour	28559 BTU/hour 30101 kJ/hour	46063 BTU/hour 48551 kJ/hour
<b>Airflow (front to back)</b>				
• Maximum	723 CFM	1198 CFM	1812 CFM	2922 CFM
• Typical	397 CFM	874 CFM	1322 CFM	2133 CFM
<b>Weight</b>				
• Installed	399.133 kg 880 lbs	491.240 kg 1083 lbs	679.481 kg 1498 lbs	966.605 kg 2131 lbs
• Shipping	400 kg 880 lbs	490 kg 1078 lbs	675.5 kg 1486 lbs	1049.09 kg 2308 lbs
<b>10 GbE Network Drops (Max)</b>	16	16	16	32
<b>Power Distribution Units (PDU)</b>				
• HV 3-Phase 24kVA	Y	Y	Y	Y
• LV 3-Phase 24kVA	Y	Y	Y	Y
• HV 1-Phase 22kVA	Y	Y	Y	Y
• LV 1-Phase 22kVA	Y	Y	Y	Y
• HV 3-Phase 15kVA	Y	Y	Y	N
• LV 3-Phase 15kVA	Y	Y	Y	N
• HV 1-Phase 15kVA	Y	Y	Y	N
• LV 1-Phase 15kVA	Y	Y	Y	N
<b>Management Switch</b>	1	1	1	1
• (48) GbE ports (BASE-T) Cisco 4948				
<b>Storage Subsystem</b>	1	1	1	1
<ul style="list-style-type: none"> <li>• (4) QDR InfiniBand ports (one active and one passive per storage head)</li> <li>• 4 TB solid state disk read cache (in each storage head)</li> <li>• 73 GB solid state disk write cache (in the disk array)</li> <li>• 60 TB Serial Attached SCSI (SAS) disks (20 X 3TB)</li> <li>• (1) GbE management port and (2) disaster recovery/backup ports per storage head</li> </ul>				
<b>InfiniBand Spine Switch(es)**</b>	0	0	1	1
<ul style="list-style-type: none"> <li>• (36) QDR InfiniBand ports (BASE-T)</li> <li>• (1) GbE management ports (BASE-T)</li> </ul>				
<b>InfiniBand Gateway Switch(es)**</b>	2	2	2	4
<ul style="list-style-type: none"> <li>• (32) QDR InfiniBand ports (BASE-T)</li> <li>• (8) 10GbE ports (LC – SFP+)</li> <li>• (1) GbE management port (BASE-T)</li> </ul>				

Exalogic X2-2	Eighth Rack	Quarter Rack	Half Rack	Full Rack
<b>Compute Node(s)</b>	4	8	16	30
<ul style="list-style-type: none"> <li>• (2) Intel 3.06 GHz Xeon (6-core) processors</li> <li>• 96 GB 1333 MHz RAM (12x8GB)</li> <li>• (2) 100GB SSDs (RAID, ~80 GB usable, used only for OS boot image and transient application data)</li> <li>• (1) Dual-port QDR InfiniBand HCA (PCIe)</li> <li>• (1) GbE management port (BASE-T)</li> <li>• Redundant power supplies</li> </ul>				
<b>Operating Temperature</b>				
<ul style="list-style-type: none"> <li>• 5 degrees Celsius to 32 degrees Celsius (59 degrees Fahrenheit to 89.6 degrees Fahrenheit), 10 percent to 90 percent relative humidity, non-condensing</li> <li>• Altitude operating temperature: Up to 3048 m, maximum ambient temperature is de-rated by 1 degree Celsius for every 300 m above 900 m</li> </ul>				
<b>Physical Dimensions (Unpackaged)</b>				
<ul style="list-style-type: none"> <li>• Height: 42U, 78.66" - 1998 mm</li> <li>• Width: 23.62" – 600 mm</li> <li>• Depth: 47.24" – 1200 mm</li> </ul>				
<b>Pre-installed Software</b>				
<ul style="list-style-type: none"> <li>• Oracle Exalogic Compute Node Base Images (pre-installed bootable disk images) for Linux and Solaris</li> <li>• Oracle Exalogic Configuration Utilities</li> </ul>				
<b>Regulations*</b>				
<b>Safety</b>				
<ul style="list-style-type: none"> <li>• 60950-1 2nd Ed, EN60950-1:2006 2nd Ed, CB Scheme with all country differences</li> <li>• RFI/EMI: FCC CFR 47 Part 15 Subpart B Class A, EN 55022:2006+A1:2007 Class A, EN 61000-3-11:2000, EN 61000-3-12:2005, ETSI EN 300 386 V1.4.1 (2008)</li> </ul>				
<b>Immunity</b>				
<ul style="list-style-type: none"> <li>• EN 55024:1998+A1:2001:+A2:2003</li> </ul> <p>* In some cases, as applicable, regulatory and certification compliance were obtained at the component level.</p>				
<b>Certifications*</b>				
<ul style="list-style-type: none"> <li>• Safety: UL/cUL, CE, BSMI, GOST R, S-Mark, CSA C22.2 No. 60950-1-07 2nd Ed, CCC</li> <li>• EMC: CE, FCC, VCCI, ICES, KCC, GOST R, BSMI Class A, AS/NZ 3548, CCC</li> <li>• Other: Complies with WEEE Directive (2002/96/EC) and RoHS Directive (2002/95/EC)</li> </ul> <p>* In some cases, as applicable, regulatory and certification compliance were obtained at the component level.</p>				

\*\*Installation of the Exalogic Elastic Cloud X2-2 configuration requires 10GbE cables and connectors that vary depending on the existing or desired datacenter network design and physical environment. Some required networking components, such as cables and transceivers for external modular switches, are not included as part of the Exalogic configurations and must be ordered separately where required.

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