ORACLE®

Oracle Processor Core Factor Table
Effective Date: March 16, 2009

Vendor and Processor	Core Processor Licensing Factor
Sun and Fujitsu UltraSPARC T1 processor (1.0 or 1.2 GHz) **Only named servers including:** Sun Fire T1000 Server, SPARC Enterprise T1000 Server*, with 6 or 8-core 1.0 GHz UltraSPARC T1 processor Sun Fire T2000 Server, SPARC Enterprise T2000 Server*, with 4, 6, or 8-core 1.0 GHz, or 8 core 1.2 GHz UltraSPARC T1 processor	0.25
Sun Netra T2000, 1.0 or 1.2 GHz UltraSPARC T1 processor	0.25
SPARC T3 processor	0.25
Sun and Fujitsu UltraSPARC T1 1.4 GHz **Only named servers including:** Sun Fire T2000 Server and SPARC Enterprise T2000 Server*, with 8-core, 1.4 GHz UltraSPARC T1 processor	0.5
Sun T6300, 1.4 GHz UltraSPARC T1 processor	0.5
AMD Opteron Models 13XX, 23XX, 24XX, 32XX, 41XX, 42XX, 43XX, 61XX, 62XX, 63XX, 83XX, 84XX or earlier Multicore chips	0.5
Intel Xeon Series 56XX, Series 65XX, Series 75XX, Series E7-28XX, E7-28XX v2, Series E7-48XX, E7-48XX v2, E7-48XX v3, E7-48XX v4, Series E7-88XX, E7-88XX v2, E7-88XX v3, E7-88XX v4, Series E5-24XX, E5-24XX v3, Series E5-26XX, E5-26XX v2, E5–26XX v4, Series E5-46XX, E5-46XX v2, E5-46XX v3, E5-46XX v4, E3-15XX v5, Series E5-16XX, Series E3-12XX, E3-12XX v2, E3-12XX v3, E3-12XX v4, E3–12XX v5, E5-26XX v3, E5-24XX v2, E5-14XX v3, E5-14XX v2, E5-16XX v4, E5-16XX v3 and E5-16XX v2 or earlier Multicore chips	0.5
Intel Itanium Series 93XX or earlier Multicore chips *(For servers purchased prior to Dec 1st, 2010)*	0.5
Intel or AMD Desktop, Laptop/Notebook, or Netbook Multicore chips	0.5
Sun UltraSPARC T2+	0.5
SPARC64 VII+	0.5
SPARC64 X, SPARC64 X+, SPARC64 XII	0.5
SPARC T4 processor	0.5
SPARC T5	0.5
SPARC M5, SPARC M6, SPARC M7	0.5
SPARC S7	0.5
Sun and Fujitsu SPARC64 VI, VII	0.75
Sun UltraSPARC IV, IV+, or earlier Multicore chips	0.75
Sun UltraSPARC T2	0.75
HP PA-RISC	0.75
IBM POWER5+ or earlier Multicore chips	0.75
All Single Core Chips	1.0
Intel Itanium Series 93XX *(For servers purchased on or after Dec 1st, 2010)*	1.0
Intel Itanium Series 95XX	1.0
IBM POWER6	1.0
IBM POWER7, IBM POWER7+	1.0
IBM POWER8	1.0
IBM System z (z10 and earlier)	1.0
All Other Multicore chips	1.0

* SPARC Enterprise T1000 and SPARC Enterprise T2000 Servers may be sold and branded by Oracle, Sun Microsystems, Fujitsu or Fujitsu Siemens.

Please see Statement of Change on the next page

Important Notes
Running Oracle Licenses in the Oracle Cloud
When installing and deploying perpetual or term licenses in the Oracle Cloud, for example, installing and running Oracle SOA Suite for Oracle Middleware licenses on Oracle Java Cloud Service (see list of certified programs in the Oracle Cloud documentation), you must have a sufficient number of licenses to cover your use in the Oracle Cloud.

For this purpose, the following ratios of Processor licenses to Oracle Cloud usage applies: every one (1) Processor license covers use of the program on two (2) OCPUs. For deploying Named User Plus (NUP) licenses in the Oracle Cloud, you must always have a sufficient number of NUP licenses to cover your use of the program in the Cloud. This means you must have the greater of: a) the actual number of users, or b) the minimum number of NUP licenses per Processor. For programs with a license minimum of 25 NUP per Processor, you must have a minimum of 25 NUP licenses for every two (2) OCPUs, and for programs with a license minimum of 10 NUP per Processor, you must have a minimum of 10 NUP licenses for every two (2) OCPUs.

For the purposes of deploying your licenses on Oracle Ravello, every one (1) Processor license covers the use of the program on 4vCPUs (equivalent to two (2) Ravello R1 or R2 compute units). For the purposes of deploying Standard Edition, Standard Edition One or Standard Edition 2 in the program name, each socket is considered equivalent to 4 vCPUs. For deploying Named User Plus (NUP) licenses on Oracle Ravello, you must always have a sufficient number of NUP licenses to cover your use of the program in the Cloud. This means you must have the greater of: a) the actual number of users, or b) the minimum number of NUP licenses per Processor. For programs with a license minimum of 25 NUP per Processor, you must have a minimum of 25 NUP licenses for every four (4) vCPUs, and for programs with a license minimum of 10 NUP per Processor, you must have a minimum of 10 NUP licenses for every four (4) vCPUs.

When licensing Oracle programs with Standard Edition One, Standard Edition 2 or Standard Edition in the product name (with the exception of WebCenter Enterprise Capture Standard Edition, Java SE Support, Java SE Advanced, and Java SE Suite), where a processor license is counted equivalent to an occupied socket, every one (1) Processor license covers the use of the program on four (4) OCPUs.

<u>**Statement of Change:**</u>

On 09/01/2009, clarified that the "AMD Third Generation Opteron or earlier Multicore chips" are "AMD Opteron Models 13XX, 23XX, 24XX, 83XX, 84XX or earlier Multicore chips"

On 09/24/2009, changed the Core Processor Licensing Factor for Sun UltraSPARC T2+ from 0.75 to 0.50

On 02/16/2010, added new Intel Itanium chip 93XX to 0.5 core factor category. Also added IBM POWER7 chip to core factor 1 category

On 04/08/2010, added new Intel Xeon chips (Nehalem EX, Series 75XX and Westmere EP, Series 56XX) and new AMD Opteron chip (Series 61XX) with a core factor of 0.5

On 07/19/2010, added Intel Xeon chip (Nehalem EX, Series 65XX) and AMD Operton chip (Series 41XX) with a core factor of 0.5

On 10/05/2010, added SPARC T3 chip with a core factor of 0.25

On 12/01/2010, changed the Core Processor Licensing Factor for Intel Itanium Series 93XX from 0.5 to 1.0. Also added notes in parenthesis to the affected rows in the table above

On 12/02/2010, added SPARC64 VII+ chip with a core factor of 0.5

On 06/03/2011, added Intel Xeon Series E7-28XX, Series E7-48XX, and Series E7-88XX chips with a core factor of 0.5

On 09/06/2011, added SPARC T4 chip with a core factor of 0.5

On 12/08/2011, added AMD Opteron Chip Models: 32XX, 42XX, and 62XX with a core factor of 0.5

On 04/16/2012, added Intel Xeon Series E5-26XX, Series E5-16XX, and Series E3-12XX chips with a core factor of 0.5

On 07/19/2012, added Intel Xeon Series E5-24XX, and Series E5-46XX chips with a core factor of 0.5

On 11/7/2012, added IBM Power7+ chip with a core factor of 1.0

On 12/14/2012, added Intel Itanium chip 95XX to 1.0 core factor category

On 01/16/2013, added SPARC64 X chip with a core factor of 0.5

On 01/16/2013, added AMD Opteron Chip Models: 43XX, and 63XX with a core factor of 0.5

On 03/26/2013, added SPARC T5 and SPARC M5 Chip Models with a core factor of 0.5

On 09/25/2013, added SPARC M6 Chip Models with a core factor of 0.5

On 04/08/2014, added SPARC64 X+ chip with a core factor of 0.5

On 04/08/2014, added Intel Xeon Series E7-88XX v2, E7-48XX v2, E7-28XX v2, E5-46XX v2, and E5-26XX v2 chips with a core factor of 0.5

On 6/2/2014, added IBM Power8 chip with a core factor of 1.0

On 11/05/2014, added Intel Xeon Series E5-26XX v3, E5-24XX v2, E5-16XX v3 and E5-16XX v2 chips with a core factor of 0.5

On 4/30/2015, added the "Important Notes" section below

On 6/04/2015, added Intel Xeon Series E7-88XX v3 and E7-48XX v3 chips with a core factor of 0.5

On 10/14/2015, added Intel Xeon Series E5-24XX v3, E5-46XX v3, E3-15XX v5, E3-12XX v2, E3-12XX v3, E3-12XX v4, E5-14XX v3, and E5-14XX v2 chips with a core factor of 0.5

On 10/27/2015, added SPARC M7 Chip Model with a core factor of 0.5

On 5/2/2016, added Intel Xeon Series E5–26XX v4 and E3–12XX v5 chips with a core factor of 0.5

On 7/5/2016, added SPARC S7 Chip Model with a core factor of 0.5

On 8/1/2016, added Intel Xeon Series E7-48XX v4, E7-88XX v4, E5-46XX v4, and E5-16XX v4 chips with a core factor of 0.5

On 10/3/2016, revised the Important Notes section to include reference for Ravello and added socket to OCPU mapping for programs with Standard Edition One, Standard Edition 2 or Standard Edition in the product name

On 10/18/2016, revised the socket to OCPU mapping for programs with Standard Edition One, Standard Edition 2 or Standard Edition in the product name, from 1 socket = 2 OCPUs to 1 Socket = 4 OCPUs

On 4/13/2017, added SPARC64 XII chip model with a core factor of 0.5. Also, added mapping for vCPU to Socket for deployment in Ravello of programs with Standard Edition One, Standard Edition 2 or Standard Edition in the product name