SAP on Exadata Customers' Summary of Performance Results

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Oracle/<Customer> Business Confidential

The purpose of this document is to respond to <customer>'s request for a set of results associated with SAP customers who evaluated and migrated their database tier onto Oracle Exadata. Within this collection of information provided, the customer-specific entries that do not include company names are because their choice for anonymity is being honored. Keeping in mind that Oracle Exadata has been certified for SAP since mid-2011, the timing of each customer's transition to Exadata determines the generation of Exadata deployed. This also means that results recorded below from customer deployments on prior Exadata X[3,4] generations will have seen improved (i.e. faster) results on the latest Exadata X5 generation being positioned for <customer>. Comparative results specific to VBlock are included.

SAP on Exadata Customer Outcome Highlights

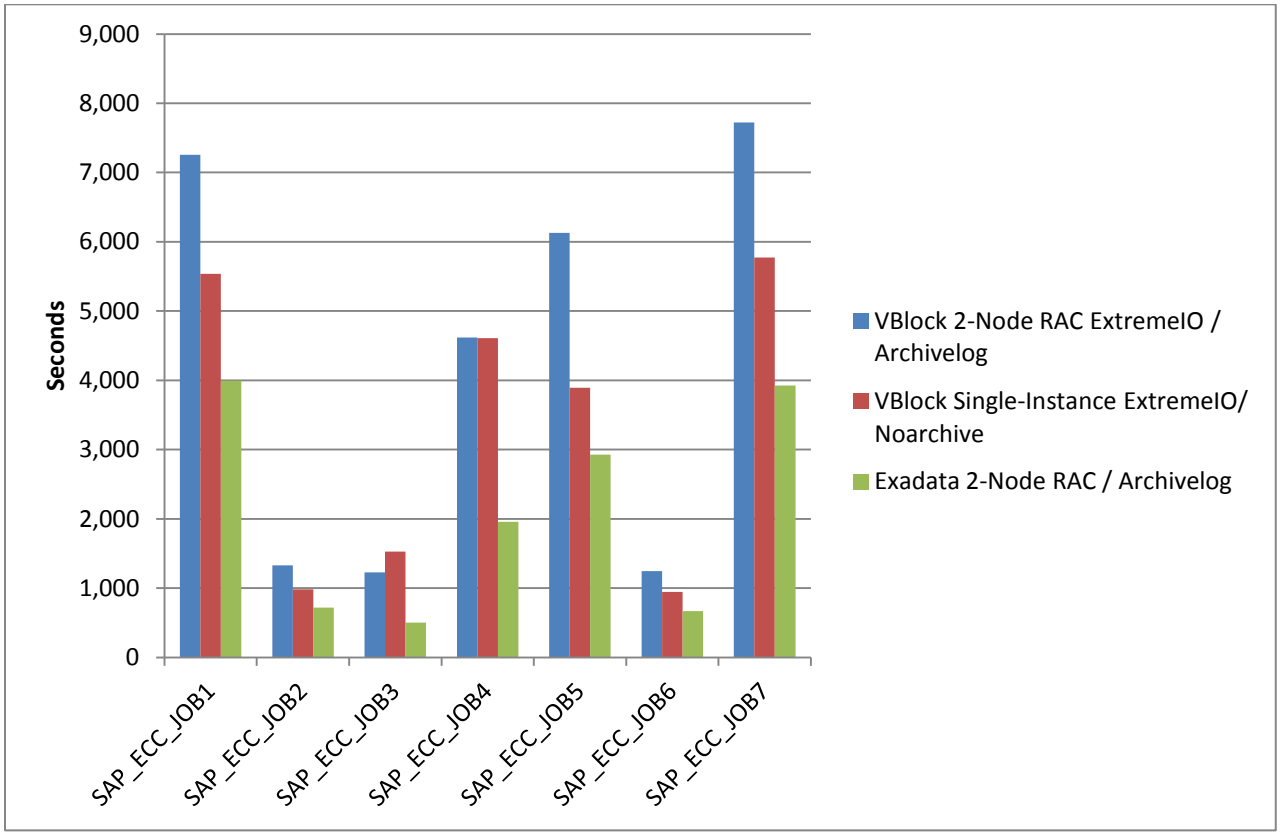
The following set of performance & scaling results captured with our SAP customers have already proven Exadata's capabilities specifically for SAP business workloads:

1) For Lion Corporation, SAP accounting transaction speeds improved by up to 20X including sales distribution, master control, initial cost control, and sales analysis.
2) For Glencore, reports that used to be generated overnight now appear on the user's screen within the hour. In conjunction with the performance benefits, savings results on daily supported resources were substantial by only needing one administration team instead of four previously.
3) Exadata performance & scaling advantages are described by Phoenix Contact Gmbh & Co. in the manufacturing industry as "incredible" overall. This included reducing their month-end-close completion times by an entire day and generating BW reports that were not possible in their pre-Exadata days. This led to a very positive cascading effect with the development teams' satisfaction.
4) Every SAP customer evaluating & deploying Oracle Exadata over the past 4 years (for OLTP, OLAP, or both) revealed 100% consistency with superior performance using Exadata's uniquely engineered technologies for handling their customized transactions. This is compared to all traditional converged and SAN-based server infrastructures.
5) Among many SAP customers that have already proven Exadata's scaling capabilities, AmerisourceBergen deployed their SAP ECC database for doubling their pharmaceutical delivery volumes. These daily volumes exceed 2.5 million line-items. This means their hourly volumes consume over 1 million SAPS.
6) Many SAP customers have evaluated & compared Exadata with the popular converged infrastructure options including VBlock. From prior SAP customer evaluations with VBlock vs Exadata, there are ECC & CRM based results to reveal both a substantial lack of scalability with VBlock along with a supreme performance advantage with Exadata. See the Appendix for more details.

APPENDIX

(1) The following results were captured from a customer's recent evaluation of Exadata specifically compared to a VBlock+ExtremeI/O configuration. A couple of things to realize about these results:

1) All vendors supporting the VBlock+ExtremeIO evaluation used over six months to complete. This means it was far from a simple install & execute to produce these results; lots of hands-on tweaking by the non-Oracle vendors involved.
2) Notice there are two (2) sets of results for the VBlock+ExtremeIO evalutaion. The first set includes the ECC database being RAC-enabled and archivelog mode enabled to reflect what will be expected in the customer's deployment. The second set is showing the runtimes by configuring the database as single-instance and disabling archivelog mode. These indicate some of their own useful results about scalability limits within VBlock.
3) The Exadata based results used less than 2 weeks to complete. The install and buildout of the test environment used the first week. This included coordination with the customer for the SAP App tier getting redirected to the Exadata. There were no (i.e. zero) modifications made to the Exadata test database environment; short & simple. To reflect the deployment, the ECC database loaded onto Exadata was RAC-enabled with archivelog mode also enabled.



(2) A snapshot of before-and-after database runtime results were provided by an SAP CRM customer who migrated to Exadata from their UCS/VBlock infrastructure. Since the information was provided in the form of a screen snapshot, the results have been translated into the table below. All entries are related to SELECT statements that are part of the customer's SAP CRM implementation; focused on their importance to enduser experience. The original screen snapshot is also available upon request.

SQL TEXT	UCS/VBlock Runtime (seconds)	Exadata Runtime (seconds)	Runtime Improvement Factor
SELECT GUID, REF_GUID,APPLICATION,CARD_TYPE….	4980.18	39.08	**1264X**
SELECT OBJECTCLAS, OBJECTID, CHANGENR, …	574.28	212.39	**1.7X**
SELECT PARTNER,BPEXT, ZZORG_MSH_IPK, …	86.58	9.34	**8.2X**
SELECT CLIENT, GUID, MEMS_GUID, MEMB_GUID, …	68.34	4.86	**13X**
SELECT CLIENT, ADDRNUMBER, PERSNUMBER, …	134.78	23.64	**4.7X**
SELECT GUID, REF_GUID, APPLICATION, CARD_TYPE …	5325.44	2.92	**1822X**
SELECT CLIENT, ADDRNUMBER, POST_CODE1, PO_BOX,	355.84	18.62	**18.1X**
SELECT PARTNER, CLIENT, BIRTHDT, INITIALS, …	4061.87	130.69	**30X**
SELECT COUNT(*) FROM BUT000 WHERE CLIENT=:A0 …	614.2	2.66	**229X**
SELECT LOY_PROG_GUID, START_DATE, END_DATE, …	3168.98	2.69	**1177X**
SELECT CLIENT, ADDRNUMBER, PERSNUMBER, ….	380.99	15.2	**24X**
SELECT GUID, REF_GUID, TIER_LEVEL, START_DATE, …	166.55	32.16	**4.1X**
SELECT CLIENT, ADDRNUMBER, PERSNUMBER, …	183.44	8.77	**19.9X**
SELECT CLIENT,ADDRNUMBER,POST_CODE1,PO_BOX ...	453.08	38.84	**10.6X**
SELECT GUID, MEMS_GUID, MEMB_GUID, …	250.77	49.14	**4.1X**
SELECT ACCIPK, AS400_COUNTER, AS400_STATUS, …	157.71	32.36	**3.8X**
SELECT ZZACCNT_IPK, GUID, OBJECT_ID, MEMB_GUID..	1827.11	42.82	**41.6X**
SELECT CLIENT, PARTNER, ADDRNUMBER, …	2550.31	26.12	**96.6X**
SELECT CLENT, PARTNER, TYPE, IDNUMBER, ….	159.36	31.53	**4X**