Ptak / Noel

Evaluating Oracle's latest claims about IBM's PureSystems

Summary:

Oracle tends to be very aggressive in its attacks on competitors. Recently, Oracle made claims detailing why customers should prefer Oracle's Exadata over IBM's PureData and other IBM PureSystems. This paper examines and evaluates the claims Oracle makes that include IBM, IBM PureSystems and IBM PureData Systems. It presents an unbiased evaluation of Oracle claims based on publicly available data.

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Introduction

Oracle tends to be very aggressive in its attacks on competitors. Interested parties can read our earlier comments regarding these attacks at www.ptaknoel.com. Recently, Oracle made claims detailing why customers should prefer Oracle's Exadata over IBM's PureData and other IBM PureSystems. This paper examines and evaluates the claims Oracle makes that include IBM, IBM PureSystems and IBM PureData Systems. It focuses on Oracle claims. It is **not** an evaluation of the IBM PureSystems or PureData versus the Oracle Exadata System. It is not an evaluation of Oracle claims about the Exadata system, nor an evaluation of IBM claims about IBM PureSystems or PureData. Although initiated at IBM's request, we provide an unbiased evaluation of Oracle claims based on publicly available data.

About IBM PureData Systems and Oracle Exadata systems

To avoid confusion, we first describe the systems. PureData Systems are part of IBM's PureSystem family of solutions. PureData Systems come in versions pre-packaged, integrated and optimized to deliver data services. The PureData Systems are: Transaction Processing (optimized for on-line transaction processing, Hadoop (optimized for data services), Analytics (optimized for performing complex analytics) and Operational Analytics (optimized for operational analytics). The PureSystem family includes two additional system solutions. PureFlex Systems to provide maximum customer flexibility in selecting pre-integrated, packaged and tested components. And, PureApp Systems which provide pre-packaged systems integrated and optimized to run specific applications e.g. SAP.

Oracle's Exadata System is designed to provide optimal support for both OLTP and data warehousing. Detailed information on all systems is available on the respective vendors' web sites.

In the review of Oracle claims about IBM, we identify where we find the claim valid. When we find a claim is unfounded, we state why we believe that. Let's examine those claims.

ORACLE Claims:

IBM designs its Systems to maximize its services revenue - False

Oracle claim: implies that IBM designs systems to drive up service revenues. As proof of this statement, Oracle says that "in 2011 Oracle derived only 13% of its revenue from services while IBM 'raked in' over 56% of its revenue from services."[1] Notice the language used - "IBM raked in" while "Oracle derives" revenue. This claim ignores differences in how the companies account and report revenues. Public reports show that some of what Oracle counts as product revenue[2] IBM counts as services revenue. Oracle counts IBM's total service revenues, revenues which originate in different sources, Global **Technology** Services (GTS) and Global **Business** Services (GBS).

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[1] Oracle claims appear at the URL below. Future quotes from Oracle appear from the same location: http://www.oracle.com/us/products/getsmarter/engineeredsystems/index.html

[2] See http://www.oracle.com/us/corporate/investor-relations/sec/index.html for Oracle's information on revenue. Note that Product revenue also includes support. This support is separate from the services line.

Using 2012 figures[3], GTS contributes 37% and GBS 17%[4] of revenues. GBS only delivers business consulting services. GTS delivers a range of technical support services including outsourcing and detailed product consulting for installation, integration, management, performance and optimization tuning, etc. Most outsourcing revenue is counted as part of GTS including that from supporting non-IBM products, e.g. a thriving practice supporting Oracle products. As IBM counts as service revenue things that Oracle counts as product revenue; they cannot be validly compared. Oracle's claim fails to pass a detailed analysis.

Finally, remember PureSystems themselves were designed and developed to lower costs and speed deployment through factory staging, process optimization, automation, integration, and testing.

Proven Performance

Oracle claim: "IBM has yet to demonstrate that its PureSystems can provide anywhere near the level of performance improvement that Oracle Exadata, for example has already delivered." Oracle backs up this claim with a reference to a video from Procter & Gamble which Oracle headlines as "Watch Procter & Gamble drives (sic) 30X Performance with Exadata".[5] The problem with the Oracle claim about Procter & Gamble is that the customer actually says that the performance improvement is from 2 to 20 or 30X. This can be verified by watching the video.[6]

As for Oracle's claim that IBM can't match Oracle's performance, we suggest viewing the video from the Nielsen Company[7]. Nielsen discusses "2-3X faster batch processes" and "3-10X faster concurrency" (online queries). Finally, they state that these improvements are made with "no need for customization"

Size of Installed Base versus Number of Customers with Products - Iffy

Oracle claim: Oracle engineered systems are installed in more than 1,000 customers in over 43 countries across 22 industries. Oracle then claims that IBM PureSystems and IBM PureApplication Systems were announced "a few months ago with only a limited number of customers in production". IBM states shipment of over 4,000 systems in 90 countries giving IBM a significant numerical advantage.

Oracle's statements attempt to compare two different quantities. IBM gives the number of systems shipped. Oracle gives the number of customers. Both are able to claim a sufficiently large installed base to ease concerns of the most skeptical customer. Oracle's claimed advantage doesn't hold up.

Optimization and Deep Integration for Performance - Unproven

Oracle claim: there is no evidence IBM delivers the same level of optimization or deep integration as

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[3] These are not significantly different from 2011.
[4] See the IBM report for the year 2012 in the SEC Edgar database. The "segments" section has the breakdown. http://www.sec.gov/cgi-bin/viewer?action=view&cik=51143&accession_number=0001047469-13-001698&xbrl_type=v#
[5] As quoted on the Oracle website: http://www.oracle.com/us/products/getsmarter/engineeredsystems/index.html
[6] The P& G video is at http://www.oracle.com/us/products/getsmarter/engineeredsystems/index.html
[7] https://www.youtube.com/watch?v=vwOSZixbhiU&list=PLqZTdGs5ywRWmVhfo0m1dpFe_VDGIUaY7

they do. As Oracle provides no evidence to support this, this appears to be simply a marketing claim. An examination of IBM's published performance data and customer information, suggests they have done a very good job building expertise and optimization into PureSystems.

However, in support of their supposed advantage, Oracle lists some features like smart scan, etc. and they conclude by saying "this level of deep integration and optimization is what gives Oracle the ability to perform up to 1.5 million I/O operations per second with the Oracle Exadata Database Machine….." Unfortunately for this Oracle claim, IBM has already been there. Last October when IBM announced IBM PureData systems in Boston, IBM noted that PureData systems were capable of 1.5 million operations per second. Thus, IBM matched the Oracle claim before Oracle made it.[8]

Oracle claim: IBM can't prove that it can deliver the kind of performance increases that Oracle delivers. Even a casual review of the IBM website reveals a customer testimonial with a stellar claim about PureData systems. The customer, XO Communications[9], describes a 6X performance improvement (60 minutes cut to 10) saving millions of dollars in the first 30 days after installation of the IBM system. We find a customer specific statements of a dollar amount saved to be more convincing than just a performance claim.

Both IBM and Oracle include customer performance testimonials on their web sites. We do not doubt that both sets of customers are telling the truth. The problem is that there exists no way to truly assess the meaning of the customers' experiences. The testimonials typically do not provide sufficiently specific details to make valid comparisons. As an example, a customer sees a 10X improvement moving from an old to a new system. Is a comparison of an old, untuned system to a vendor-optimized system tuned to the workload a significant proof to most potential customers? The results are only really valid for a specific environment. They are impossible to generalize.

Another topic is the use of industry standard benchmarks. Several years ago Oracle delivered powerful TPC-C results. A recent[10] Oracle Web site search for "Exadata Benchmarks" and "Exadata industry standard benchmarks"[11] yielded 26 hits—none of which was an industry standard benchmark[12]. Two customers, WeDo and Tenenos Group, were referenced several times, as well as Oracle benchmarks of specific Oracle test cases. A search on 'Industry Standard benchmark' yielded 3,654 hits. But, reviewing[13] the hits revealed items such as an Oracle 10Q submission to the SEC. Only a relatively few were computer measurements. We did find a TPC-H result for the SPARC T4 chip, which is not relevant since Exadata does not use that chip. For a company that boasts about its performance, it is fair to ask the reason for the lack of any industry standard benchmarks for Exadata.

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[8] The authors are in possession of the IBM charts documenting this data.

[9] See http://www.ibm.com/developerworks/puresystems/index.html.They recovered $5 million in revenue in the first 30 days.

[10] March 27, 2013

[11] Search of Oracle's web site for "Exadata benchmarks" and "Exadata industry standard benchmarks" on 3/31/2013.

[12] A search of TPC and the Spec websites did not yield any results for Exadata.

[13] We did NOT do an exhaustive review of the search results.

Lack of Licensing Flexibility in Application Development – Partly True

Oracle claim: "IBM does not allow customers to reuse or migrate their existing licenses of WebSphere Application Server or DB2 to the PureApplication System." IBM does allow clients to move existing IBM or 3rd party licenses to/from the IBM PureFlex System. IBM does not allow license migration or reuse in the PureData Systems as they are prebuilt with integrated software.

Oracle claim: IBM requires applications to be bundled in a virtualized pattern[14] and that IBM charges extra for the bundles. In fact, IBM neither requires applications to be bundled nor do they charge extra for many of patterns. This footnote[15] identifies a few PureApplication System patterns shipped at no charge, as well as others available at an extra charge[16] from IBM and third parties[17].

System predictability and consistency – This is a good thing

Oracle claim: "IBM PureSystems introduce a high degree of variance in terms of functionality, RAS capabilities, and performance depending on which hardware nodes (POWER or x86), operating systems (AIX or Red Hat Linux), and networking elements are deployed". In fact, some of these items depicted by Oracle as weaknesses are actually strengths in the eyes of most observers.

For example, most customers will connect new systems to existing networks. Therefore, flexibility in connecting to the network is a benefit. The ability to select between Linux and AIX, depending on the planned environment, is a strength for PureSystems. If Oracle were to add Solaris support to Exadata, we believe that most customers would consider a choice of operating systems a good thing.

Oracle offers only x86 nodes, while IBM choses either x86 or Power, whichever best meets the requirements of the target environment. For example, PureData systems for OLTP use an Intel platform, while PureData for Operational Analytics use a Power platform. There is some variation in functionality, RAS and performance depending on which is selected.

IBM offers more options than Oracle in other areas. For example, Oracle only supports its own database software. IBM supports not only its own database, DB2, but Oracle as well on PureFlex. We could list more, but the point remains Oracle customers are limited in their platform choices.

Simplified Support and Lower Total Cost - No

Oracle claim: "…IBM PureSystems require customers to switch to a new management paradigm and install not one, but two separate management consoles (FSM and CMM)[18] with additional tools required for deeper management of third party elements. The multiplicity of management tools can significantly impact operational costs and increase the total cost of ownership for customers."

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[14] Many IBM PureSystems provide an integrated hardware and software package. The customer pays for the software in the integrated configuration which is the point of an optimized package.

[15] IBM PowerVM, VMware vSphere Enterprise Plus, RHEL, IBM AIX are some examples of free patterns for PureApplication Systems. Currently, there are no patterns (other than those built-in) for PureData Systems.

[16] URL for patterns available for a fee is. http://tinyurl.com/bls23o6

[17] Here is a list of third party patterns. http://www.ibm.com/ibm/puresystems/us/en/puresystemscentre.html

[18] IBM Flex System Manager and Chassis Management Module

Management tools are available from a wide variety of vendors (IBM, Microsoft, Oracle, BMC, CA, VMware, etc.) Customers may standardize on a single management tool for their datacenter, but many operate with two or more products. IBM PureSystems has open interfaces to their management solutions, making it easier to connect to non-IBM management software. Both FSM and CMM support a unified console[19], eliminating any need for multiple consoles. Oracle's claims are misleading. Connecting a third-party management solution to Exadata may, in fact, be more difficult.

Oracle claim: Oracle Platinum Services is included with all Oracle Engineered Systems at no additional cost[20] and provides 24/7 remote monitoring, industry-leading response and restore times, and update and patch deployment four times per year. They say that most of these services are not even part of IBM's standard support option or are only available through costly custom services bids.

Oracle tells a partial truth. IBM does not offer those specific services in a standard contract. First, because such services are not typically needed as IBM PureData Systems are delivered as fully integrated, tested and ready-to-run systems. Therefore, they do not require on-site **"response and restore services".** They are delivered as database ready without supplementary database set-up services. Secondly, IBM offers the Accelerated Value Program[21] as a standard offering. With this, customers create the service offering that best meet their needs and budget. For an extended discussion of the program visit the IBM Support Portal[22]. There is no Oracle advantage in this area.

Conclusions

In this paper, we have reviewed a number of Oracle claims relative to the IBM PureData Systems and PureSystems. Generally, we would agree that most Oracle points that they try to use against IBM have some basis (sometimes quite minor). We have fairly pointed out the situations where Oracle claims are based on facts.

Unfortunately for Oracle, we have also pointed out the situations where Oracle has used a high level point to claim an advantage that does not really exist when examined in detail. The most obvious example of this maneuver on Oracle's part is in their discussion of IBM service revenues and their attempt to use the high level numbers to prove that IBM designs systems to maximize its services revenue. This claim does not stand up to careful analysis.

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[19] This has been true since December, 2012.

[20] As usual with Oracle their statement is true at a high level. Platinum services do come at no charge, but they do require as a prerequisite purchase of a service contract that is rather expensive.

[21] http://www-01.ibm.com/software/support/acceleratedvalue/

[22] http://tinyurl.com/cpwur8p

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