

## OVUM OPINION

# Oracle applies for database simplicity

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## OVUM VIEW

### Summary

Adding to its family of engineered systems, Oracle has announced the launch of Oracle Database Appliance, a rack-based high-availability appliance which puts the emphasis on simplicity of deployment, and which will be suitable for consolidating small and medium databases onto a single platform that reduces the management overhead. It also includes a flexible combination of technology and licensing options, which will allow customers to adjust the amount of the box's horsepower that they use in line with their business requirements, and pay only for processing capacity used. Ovum believes that this system will suit existing Oracle customers with mid-sized database deployments that are looking for consolidation options that will reduce management complexity.

### Oracle is aiming at the mid-market

Since the Sun acquisition, Oracle has begun emphasizing self-contained hardware for its database and application serving platforms. But until now, with Oracle Exadata and Oracle Exalogic, it has been targeting the high end. Now Oracle is filling in a gap at the low end of its product line with Oracle Database Appliance, targeting mid-market customers and applications.

Oracle Database Appliance is delivered as a four-unit rack-mount server with 12 terabytes of raw storage, translating to 4 terabytes of usable storage capacity once triple disk mirroring is applied, plus four flash disks (292GB total capacity) to boost performance of database redo logs. It uses 1GB networking internally, and has both 10GB (x2) and 1GB (x6) external networking ports, and the usual redundant power and cooling sub-systems. The appliance has two server nodes, each of

which supports 12 CPU cores, but clients can power these cores up or down to vary processing capacity between four and 24 cores in total, and can declare the number of cores they wish to license for use through a web-based self-service tool.

Software-wise the appliance comes with a full Oracle stack, including Oracle Linux, Oracle Clusterware, and Oracle Automatic Service Requests, included in a single list price for the appliance of \$50,000. Customers will then need to license Oracle Database on top of this base price, but can transfer existing Oracle Database licenses if required. The system runs Oracle Database Enterprise Edition 11g Release 2 with Oracle RAC, or Oracle RAC One Node. List prices for Oracle Database start at \$47,500 for the minimum number of cores, and range up to \$846,000 for the largest configuration

Recent trends in appliance design have seen systems becoming optimized or specialized for specific tasks, including Oracle's own Exadata and Exalogic systems, but for this system, while it has perfectly good performance characteristics, the emphasis of adding value over low-cost redundant physical servers, or more commonly virtualized server instances, is on simplicity and cost reduction in deployment and management. Producing database appliances for the mid-market is a direction also taken by vendors such as Microsoft and HP; at the higher end of the market, a similar course has been followed by IBM, EMC, and of course Oracle. However, Oracle's is the only device that can lay claim to having all hardware, middleware, and software elements under the control of a single vendor.

The appliance is literally a plug-and-go deployment, followed by a wizard-driven process to load and configure the database software. From a management perspective, a single quarterly update will patch and upgrade all of the software components, and the system has automatic alerts for performance and availability. The hardware is self-monitoring and will automatically generate a service call if a potential component failure is detected. Remote diagnostics are simplified by the ability to roll up all log files into a single package for a technician to analyze.

## **A standardized stack and a path for upgrade**

The overhead of maintaining and patching an increasingly complex software stack, and particularly of troubleshooting problems when there are many components and many vendors involved, is costly. Ovum believes there are significant benefits in having a standardized stack that is easier to support, and Oracle customers looking to consolidate their smaller transactional databases, which are often highly fragmented across many applications, should evaluate Oracle Database Appliance against their requirements. While it could potentially be used for a small datamart, the system is not optimized for use in data warehousing and is less well suited to these scenarios.

The variable processing capacity and associated licensing flexibility is another welcome feature, enabling users to grow their deployment over time. However, careful planning is still important, as

rampant data growth can overwhelm what may seem sufficient capacity at the outset; furthermore, an appliance of this type has a defined boundary to its expansion. If further capacity is required, there are a number of options available: firstly, additional networked attached storage (NAS) could be added to an existing appliance; secondly, further appliances could be added and run as independent systems.

However, keep in mind that larger databases require more sophisticated management and optimizations. Although a customer could add more NAS or appliance instances, at such point a customer should consider a more sophisticated offering such as Oracle Exadata, where the quarter rack entry-level system comes with 24 database cores, three storage servers, and 72 terabytes of storage capacity. Oracle does not currently plan any hardware upgrade discount in moving from Oracle Database Appliance to an Oracle Exadata system, although the database licenses could be migrated.

Ovum believes that this system will best suit existing Oracle customers using many transactional databases, either at an enterprise or a business-unit level, and looking for paths to consolidate onto a platform that will protect their license investments, increase the robustness of their systems, and reduce the costs of deployment and support. For new mid-market customers there is a wider range of offerings to consider including cloud-based databases and Oracle's own MySQL product. Nonetheless, the appliance should find success with value-added resellers and channel partners, which can use it to provide the database element of a solution without having to worry about additional configuration and management overhead.

## **APPENDIX**

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