

Product Brief

Oracle Database Appliance: A Simple, Economical Option for SMBs and Independent Software Vendors

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Abstract: *Oracle recently announced the Oracle Database Appliance, which offers small and mid-sized organizations a rapidly deployable, highly available platform at an affordable cost. With this new offering, Oracle's Engineered Systems family becomes more complete, with Oracle Exadata Database Machine supporting the needs of larger enterprises and Oracle Database Appliance supporting SMBs, departmental applications, and independent software vendors (ISVs).*

Overview

Oracle's first foray into the database appliance market targeted the enterprise customer base with The Oracle Exadata Database Machine. This platform was designed to meet extreme performance and scalability requirements for demanding workload applications. However, Oracle Exadata is not a "be all, end all" solution that addresses the majority of Oracle Database consumers' requirements or budgets. With the announcement of its Oracle Database Appliance, offering a simple and easy-to-configure platform to support small to medium-sized businesses (SMBs) and independent software vendors, Oracle's Engineered Systems family can now better cover the needs of its broader client base, regardless of the size of the organization. With Oracle Exadata already serving larger enterprises, Oracle Database Appliance offers the same high availability, service, and reliability to small and mid-sized markets in an easy-to-consume package.

Oracle's development efforts for small and mid-sized organization are quite sensible, providing customers with cost efficiency, ease of installation, and simplified customer support. While larger enterprises often have commensurately large IT support teams available to create customized solutions for their unique business needs, smaller and mid-size entities often rely on smaller teams—sometimes even a single person—to configure appliances and manage data. An easy-to-configure, easy-to-implement appliance such as Oracle Database Appliance cuts countless hours from the installation/configuration process and enables better utilization of available manpower while delivering the same high availability and reliability users of Oracle Exadata already enjoy.

As an added bonus, Oracle Database Appliance offers substantial cost savings by eliminating the need to pay for more compute power than mid-sized organizations typically need. It comes with a built-in "pay as you grow" option which enables them to turn on additional processors with the flick of a switch as their businesses grow and demands increase. What's more, all this can be done without costly hardware upgrades.

Enterprises vs. SMBs

Different Challenges Demand Different Solutions

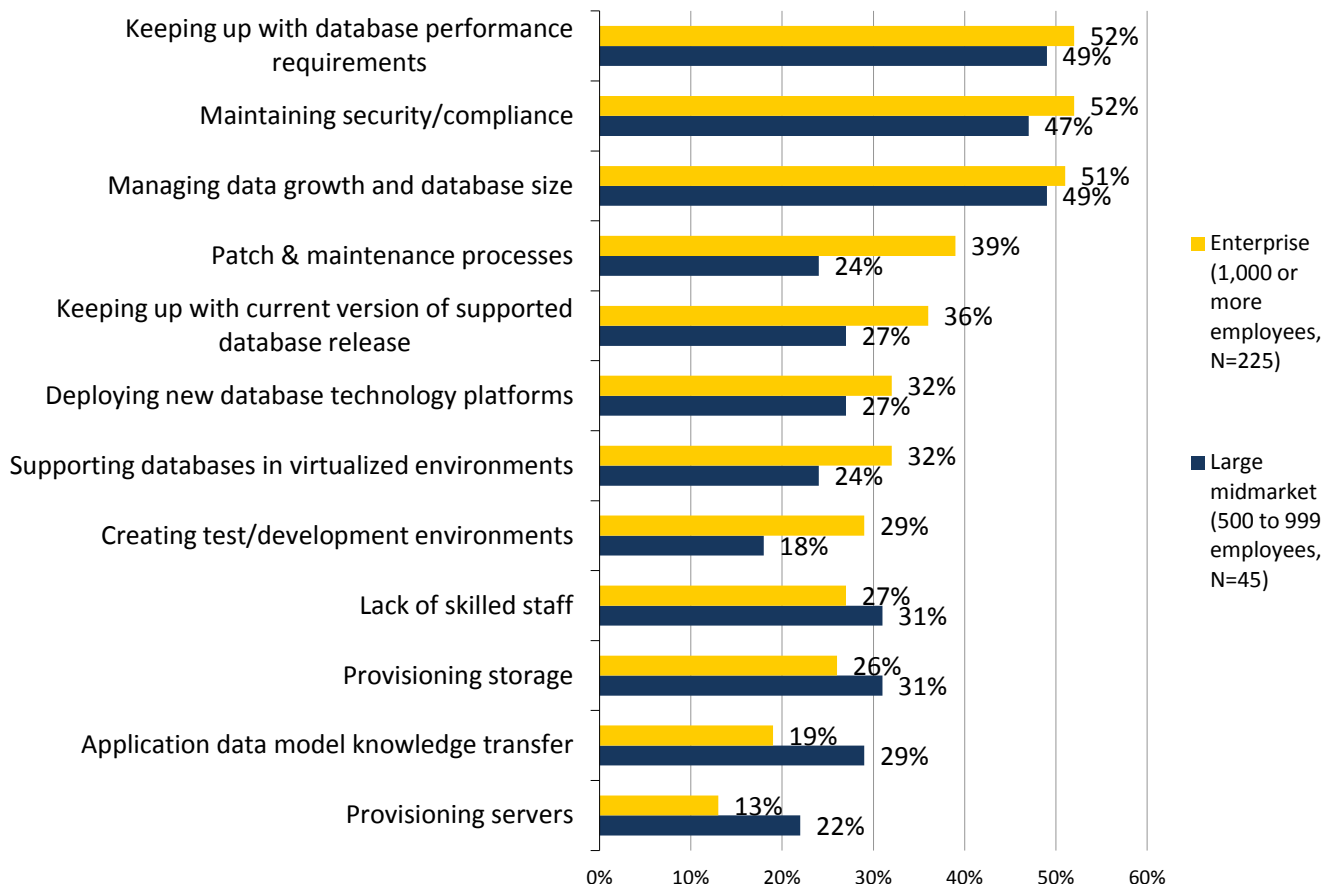
What exactly are the major differences between the challenges faced by enterprise vs. mid-sized companies? ESG recently conducted a survey to answer that question (see Figure 1).¹ While challenges with keeping up with database performance requirements, security/compliance challenges, and managing data growth are consistent among both groups, that is where the similarities end. Basic management challenges, such as lack of skilled staff and storage/server provisioning issues, take the lead in midmarket organizations while enterprises have graduated to challenges related to staying current with patches and database versions. Oracle Database Appliance addresses the needs of SMBs with a solution that requires almost no configuration to get up in running in a few hours. Further, its phone home capability

¹ Source: ESG Research Report, [The Impact of Big Data on Data Analytics](#), September 2011.

helps with ongoing maintenance by automatically calling Oracle if problems arise. Finally, storage and server provisioning are not necessary after the initial installation. The ongoing management of data files is automated by ASM, which automatically spreads data evenly across all available disks—eliminating a tedious and challenging process.

Figure 1. Database Challenges (Midmarket vs. Enterprise)

In general, which of the following challenges does your organization have with its current database environment and supporting infrastructure? (Percent of respondents)



Source: Enterprise Strategy Group, 2011.

Considering all of the components that need to be configured—storage, network, server, and software—it is especially challenging to smaller and mid-size businesses lacking the in-house skill sets that larger organizations typically have on hand. Such organizations need appliances that can be easily tailored to meet their unique needs *without* highly specialized skill sets. Appliances are designed to address management issues, but having options that are tailored to the organization’s size and needs is a practical product strategy that simplifies deployment processes for the customer and support processes for the vendor.

Introducing the Oracle Database Appliance

Enter Oracle, with a new addition to its Engineered Systems family, Oracle Database Appliance. Packed in a 4 RU chassis and containing a shared disk, two server nodes, integrated networking, and RAS features, this new addition to Oracle’s cadre of Engineered Systems offerings is basically a *cluster in a box*. With “touch of a button” configuration and implementation options and ease of maintenance, it offers SMBs, departmental applications, and independent software vendors a straightforward database deployment option. Its price point is also quite enticing, starting at \$50,000 for an entry-level single database instance hardware system with database licenses starting at \$47,500.

Key Features of the Oracle Database Appliance

The simplicity built into Oracle Database Appliance seems to make it the ideal solution for organizations seeking out-of-the-box high availability. It is advertised as being:

- **Easy to deploy.** With its wizard-driven installation mechanisms, Oracle Database Appliance appears to have made deployment straightforward; it is realistic to expect the appliance to be up and running within a matter of hours. With server, storage, and networking devices integrated in one chassis, it offers “one button” deployment, patching, and best practices enforcement. An ISV claimed that ODA took one-fifth of the time to implement as a traditional Oracle RAC cluster.
- **Easy to maintain and manage.** Oracle Database Appliance offers self-managing storage and, again, “one button” patching and upgrade capabilities.
- **Easy to diagnose and support.** Diagnostics and support have been simplified through a diagnostics wizard that can troubleshoot the appliance and recommend corrective action. If necessary to log a service request, it can package all system and software logs into a single archive for easy upload to support. This gives support teams all the necessary information to triage an issue and begin corrective action without repeated requests to the customer for more information. Service requests are automated via a “phone home” approach when a hardware issue occurs.
- **Easy to scale.** Oracle Database Appliance enables an organization to set up the system with as few as two processor core licenses, then scale up to as many as 24 as business needs increase—all without the need for hardware upgrades.
- **Highly available.** Oracle Database Appliance can be implemented with Oracle’s powerful server clustering software, Real Application Clusters (RAC). Previously, RAC was used primarily by larger organizations with the skill sets to implement and maintain RAC. Now, implementation has been automated, bringing the power of RAC to the masses of SMBs, not to mention Oracle’s existing HA features such as triple mirroring and redundant power supplies.

Is it for Everyone?

Like Oracle Exadata, Oracle Database Appliance is purpose-built to meet specific needs. It is ideal for mid-sized organizations, departmental deployments, or ISVs with one or more of the following needs:

- Need to support up to 4 TB of database data and archive logs²
- Desire to consolidate multiple databases onto one platform
- Requirement for increased reliability/high availability of application databases
- Demand for a simplified means of deploying/sharing applications
- Desire for a simple way to run package software applications on top of the Oracle Database

Once their requirements extend beyond these capabilities, organizations should consider migrating to the Exadata platform for more extreme workloads and capacities. For example, Exadata provides Hybrid Columnar Compression, smart query, and smart flash cache.

² The use of Advanced Compression can significantly increase the database data capacity. Oracle reserves 800 MB for archive logs.

The Bigger Truth

While all IT organizations are looking to simplify data management, their specific needs vary dramatically. While large enterprises can easily muster resources with specialized talents and devote time and funds to installation and customization of complex systems, smaller to mid-sized companies need an appliance that offers high availability out of the box. They need an appliance that is easy to configure and that supports a “pay as you grow” approach; that is, an appliance that allows them to turn on features as they are needed and add capability without costly hardware upgrades.³

Independent software vendors also want to build applications on Oracle; they need a simple way to deploy those applications based on an appliance, eliminating the hassle of configuring and testing their own bill of materials. VARs also want to add value by selling solutions to their customers instead of piecemeal commodity hardware and software.

With the introduction of Oracle Data Appliance, Oracle has delivered a viable solution to meet the needs of these previously-underserved segments of the business community.

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³ Oracle does not support turning off processors once turned on and licensed.