For many organizations, the importance of Oracle Databases and the information they contain cannot be overstated. In nearly every instance, an Oracle Database holds the most mission-critical and business-driving information. As a result, there is a substantial demand on the infrastructure that supports this essential software.

Yet, as the use of Oracle Databases spreads through an organization, there are often situations that require more efficiency, speed, or lower operating costs. These could include a demand for high availability (HA) without having to build an attendant staff to support it, the requirement to physically locate Oracle database infrastructure in sites that have limited local IT staff, or a need to simplify the environment and licensing requirements in a specific situation. These scenarios are driving a new approach to Oracle Database infrastructure that improves upon traditional IT infrastructure.

Oracle has delivered this new approach with Oracle Database Appliance. This self-contained solution provides a highly resilient and available platform for the Oracle Database without the need for the traditional level of local IT staff required for this kind of high-availability infrastructure. Oracle Database Appliance is an “engineered system,” a term Oracle uses to describe systems that are engineered together and pre-integrated to reduce the cost and complexity of IT infrastructure, while improving performance and service levels.

**IT BENEFITS OF AN ORACLE DATABASE APPLIANCE**

This complete system provides important and valuable benefits to both the IT and business processes that drive the organization’s operations. In addition, Oracle Database Appliance supports usage scenarios that are smaller in scale or IT resource constrained, enabling businesses to gain the benefits of Oracle Database that would not have been possible before.
Starting with the benefits to IT, the appliance is designed to bring a level of efficiency and ease of deployment to Oracle infrastructure that has not been available in the past. Among the first benefits for an IT organization is the simplicity of getting the appliance up and running, without requiring lots of time and resources. By integrating software, server, storage, and networking resources, along with a fully loaded Oracle Database, the time from physical system delivery to operational status is cut from weeks to days.

Oracle Database Appliance integrates a fully tested and installed software stack that mitigates much of the IT staff workload for deploying an Oracle Database infrastructure, which is a very important issue for remote locations that may have limited IT staffing or capabilities.

The second benefit from an IT standpoint is the ability to deploy local Oracle Database resources without the need for a local Oracle DBA for most of the regular daily activities. This is important as it reduces the costs associated with a local instance of Oracle Database. Oracle Database Appliance also leverages the work that an Oracle DBA is doing for database workloads in other geographic locations, improving the ROI from this very important function.

Oracle Database Appliance can be the answer for IT where staff resources are scarce or not physically on-site at remote locations. The daily administration and management activities for HA database systems don’t come cheap, and require significant staff with a high level of specific skills. Using Oracle Database Appliance with its innate reliability and focus on availability provides a platform that offers the uptime needed, without attendant costs.

Another IT benefit is the simplified support scenario that helps make Oracle Database Appliance an ideal choice for remote or smaller-scale Oracle Database environments. Unlike more traditional approaches that build infrastructure based on the products of multiple vendors, Oracle Database Appliance is a single-source solution, with all support and remediation coming from a single vendor, Oracle. This simplifies any tech support that is required and makes for faster issue resolution, as there are fewer variables for the support staff to troubleshoot. In addition, all Oracle Database Appliances are the same, which allows any issue discovered in one instance to be remediated in all others. Further, the standard and consistent configuration of the Oracle Database Appliance simplifies support. Oracle Support has the same

By integrating software, server, storage, and networking resources, along with a fully loaded Oracle Database, the time from physical system delivery to operational status is cut from weeks to days.

ADDITIONAL BUSINESS BENEFITS

In addition to IT-specific features and benefits, there are a number of ways that Oracle Database Appliance offers overall savings and benefits to the organization. Among the most attractive is the licensing structure for the Oracle Database. Oracle Database Appliance offers a Capacity-on-Demand license fee structure that maximizes value by tying the license fee to actual usage levels. This often results in a lower overall expenditure, and therefore cost savings, as compared with traditional infrastructure.

A similar benefit to Oracle Database license cost savings is the lower overall cost of IT infrastructure that is possible when using Oracle Database Appliance. The cost savings allows the organization to deploy enterprise-grade infrastructure and software capabilities for the Oracle Database at a lower price point, reducing ongoing operating expenses. This will empower more business units with the power of the Oracle Database.

One of the most attractive business benefits of Oracle Database Appliance is the ability to "stand up" Oracle Database infrastructure more quickly to support changing or emerging business needs in real time. Because the appliance is self-
contained—with all necessary hardware and software to support the needs of the organization for Oracle Database solutions—rapidly changing business processes, or new activities necessitated by competitive dynamics or opportunities, can be met within a time frame that is substantially faster than traditional approaches. Oracle Database Appliance also allows for businesses to move forward without the delay needed for building traditional IT infrastructure.

**ORACLE DATABASE APPLIANCE COMMON USE CASES**

The three use cases that follow illustrate the unique capabilities Oracle Database Appliance and the benefits it can bring to your organization. These use cases only represent the starting point for where the appliance can add value, however. Any scenario where speed, availability, limited resources, or compliance demands require the fast deployment of low-operating-cost Oracle Database infrastructure can benefit from Oracle Database Appliance.

**Small to Midsize Enterprises**

One of the most common use cases is in small to midsize enterprises that have a need for the capabilities and solutions provided by the Oracle Database, but don’t have the depth of staffing and expertise necessary to manage and support all of the hardware, software, and networking infrastructure for a traditional “scratch built” environment. Many small to midsize enterprises need the same industrial-strength solution as larger enterprises, but also need a lower expense base due to their smaller IT budgets.

The fully integrated nature of Oracle Database Appliance, coupled with its reliability and the elimination of some of the daily operational tasks, make it an excellent alternative to traditional approaches. Reducing the demand for staff resources; cost savings on Oracle Database licensing with “Capacity on Demand” license model available for Oracle Database Appliance users; and the integration of server, storage, and networking in a single box, make it a real value for the small to midsize enterprise. A good example of this use case is iRacing.com, and is discussed in this podcast:

**Remote site with local database instance**

A second common use case for Oracle Database Appliance is the remote site that requires a local instance of the Oracle Database, but does not have the necessary IT resources at that location to manage and administer a one-off custom solution of hardware and software from multiple vendors. This use case is similar to the small or midsize enterprise. There is one important element of this use case that should be noted as unique, however, and that is the use of Oracle Database Appliance to provide “database as a service” solutions to these smaller or remote sites. This is very common where customers are focused on their need for rapid, low-cost deployment and highly reliable solutions that put business value first and foremost. Oracle Database Appliance is an excellent platform for meeting these demands.

There may be a number of reasons why a local resource is required, such as transaction latency or demanding service levels. Also, workloads that have unusual spikes or peaks require the ability to support local workloads with local hardware. Finally, a specific geography may restrict bandwidth or service levels due to WAN bandwidth limitations. Oracle Database Appliance also provides Integrated Lights Out Management (ILOM) that reduces the need for specialized IT staff at remote locations, and lowers the local management and administrative load for hardware.

**Regulations governing data’s physical location**

The third common use case for Oracle Database Appliance is in situations where data location statutes or requirements demand that information be kept within a specific geographic area. Transborder data flow regulations are a common example of this. The U.K. Data Protection Act, for instance, requires that financial information from U.K. residents be kept within the country. For an organization that doesn’t have a data center running Oracle Database within the country, there is a need to put a local instance in place to meet the compliance demands of these types of statutes.

In cases like these, Oracle Database Appliance is very a low-cost, fast time-to-value solution that allows the organization to meet country or regional data location restrictions. While this is most common in financial services, there are some statutes in healthcare as well. As governments start to put more attention on protecting personal information, this scenario will become more common. A good example of this is AON’s need for local data centers to meet information location statutes: [www.oracle.com/us/products/database/database-appliance/resources/index.html](http://www.oracle.com/us/products/database/database-appliance/resources/index.html).
USING ORACLE DATABASE APPLIANCE FOR APPLICATION DELIVERY

One of the other benefits of the appliance is its ability to act as a self-contained infrastructure for separate applications from Oracle and other ISVs. Some of the more notable software products now being distributed via Oracle Database Appliance include JD Edwards, Yodlee, and WebLogic, with others to follow. The appliance can also be used as a “plug and play” platform for IT’s internally developed Oracle Database applications that are needed for the three use cases above. In the AON case study, the use of Oracle Database Appliance for delivering its internal software is a critical part of the solution.

CONCLUSIONS

Oracle Database Appliance enables any organization to leverage the capabilities and value of the Oracle Database in a single, easy to deploy and install system that is fully operational as soon as it is connected to the network. It contains all the necessary server, storage, and network hardware coupled with preinstalled Oracle software. Oracle Database Appliance provides a low-cost approach that minimizes the cost of hardware, staff, and supporting infrastructure for high availability and reliable Oracle Database installation.

CASE STUDY

Yodlee

Yodlee is a software platform provider for financial services with a focus on using data and information to create scalable financial management solutions for banks, entrepreneurs, and their customers. Customers range from large multinationals to small start-ups.

Yodlee faced regulatory requirements mandating that its international customers keep financial data “in country,” but buying servers and SANs and building infrastructure was not cost-effective for its customers. Yodlee needed a low-cost, rapidly deployable infrastructure solution to allow those customers to operate locally. The Oracle Database Appliance (ODA) was the perfect solution.

The Oracle Database Appliance is cost-effective, with a relatively low-entry-price point, and is also easy to manage. Of particular value to Yodlee’s customers is the Capacity-on-Demand licensing for the Oracle Database. For Yodlee, the ease and speed of deployment with Oracle Database Appliance is an essential benefit, as there are often very short deadlines to get its customer solutions up and running. Yodlee has also found that it provides excellent performance and reliability.

Oracle Database Appliance meets the combination of hardware and operational requirements necessary to help Yodlee expand its business. The company notes that it is a “perfect solution” for the requirement of smaller, localized instances of the Oracle Database platform required by new financial regulations.

For more information, visit www.oracle.com