



A DATABASE APPLIANCE THAT IS SIMPLE, OPTIMIZED, AND AFFORDABLE

SIX WAYS ORGANIZATIONS CAN MAKE BETTER USE OF DATA THROUGH AN APPLIANCE

Perhaps more than ever, database administrators (DBAs) are under increasing pressure to do more work faster. They face significant issues when it comes to doing their crucial jobs within the organization, which forces them to juggle multiple pressures.

For instance, they must frequently handle complex deployments to which they must commit excessive time and that often throw them off schedule for other projects.

Once database applications are deployed, DBAs must ensure their availability and performance as well as keep up with upgrades and patches.

But there's more, thanks to changing business environments. Business units are demanding that applications be provisioned more quickly, so they can remain competitive. DBAs are also regularly tasked with ensuring compliance with increasing numbers of external

regulations and internal service level agreements. And at the back end of the database lifecycle, DBAs must constantly monitor database sprawl.

THE DBA IMPERATIVE

On top of these commitments to the business, DBAs struggle with other issues. They must constantly keep up to date with system management, user management, end-user support, and data and network management. As the needs for both data and database provisioning change and accelerate, they must constantly deal with the issue of staff expertise. This requires either recruiting or training, both of which take away from time needed to fulfill other responsibilities.

They are also under pressure from senior IT executives to control costs. But as much as DBAs may want to recommend deployment of new technology, it's frequently hard to explain that managing aging and outdated infrastructure—which has its own complexity—has high maintenance costs as well. For all these reasons, DBAs too often spend more time being reactive while wishing they could be proactive and focus on projects that drive the business forward.

DBAs need help with tackling significant issues to do their jobs more efficiently. They need to do more with fewer resources, including saving time and managing upgrades and patches quickly. They must reduce issues (and redundant surprises) that come with new database functionalities as well as decrease the time they spend on cloning databases. They need ways to improve validation of backup and recovery processes and procedures. Finally, they need help eliminating the time they spend integrating, testing, and deploying full-stack cloud solutions. How can DBAs reconcile these competing demands?

A BETTER PATH FOR DBA EFFICIENCY: NEW OPTIONS FOR THE DATABASE APPLIANCE

One clear solution is to take advantage of the expanded offerings in a database appliance, many of which have already been deployed in several vertical segments—such as higher education, finance, and retail—and are delivering numerous advantages. These new configurations have the potential to help IT derive new benefits in its efforts to serve the business.

Simple – By deploying databases and applications in a single appliance, DBAs can reduce the time necessary to put a database into production from days to as little as 30 minutes. An appliance also simplifies administration, especially when DBAs can rely on a single vendor for what might currently be multiple needs.

Optimized – When procuring an appliance, DBAs get a preconfigured, purpose-built device optimized for running the database, so they don't have to take as much time to make multiple elements—the hardware, the operating system, the database, storage, networking, and applications—work together. Those capabilities are already integrated in one device. Add in industry-standard cloud extensions, and the appliance provides backup across several industry-standard components.

Affordable – These new appliance also offer new price points (one-quarter that of previous levels), enabling IT to more easily deploy rightsized systems in remote or branch offices. That gives DBAs the option to connect more databases to the cloud for either hybrid scenarios or economical cloud-based backup. IT also derives operational savings, again thanks to the ability to deal with a single vendor for deployment and maintenance.

KEY USE CASES

Due to new levels of simplicity, enhancements, and affordability, the latest generation of the database appliance can help DBAs in a wide variety of use cases.

1. Remote office/branch office Too often IT hasn't furnished remote offices and branch offices with local databases, because it has been necessary (and expensive) to have DBAs on hand or because there hasn't been room for equipment. However, with a database appliance, IT can now take advantage of a smaller-footprint appliance to run the same applications and databases as the central datacenter. Thus it can take advantage of integrated lights-out management, automatic monitoring, and call-home support while still conforming to local regulations and reducing network latency.

2. Development and test With an appliance, DBAs can now deploy a database in hours instead of days. In this scenario, IT can accelerate revenue by bringing new software features and capabilities to market faster with higher quality. It can also reduce operational expenses by cutting the time it traditionally takes to provision development and test environments while reducing capital expenses by using database snapshots or clones without full provisioning; this decreases the need for storage space, another cost saving. Another benefit: DBAs can improve productivity, because each environment exists exclusively for each developer.

3. Solution-in-a-box An appliance consolidates hardware, software, networking, and storage in a single box for greatest efficiency. With the server, storage, networking, database, and applications hosted on a single, highly

automated appliance, DBAs can now help simplify the datacenter environment and lower costs. For example, they can quickly deploy complete application solutions such as a Java development environment or Oracle's PeopleSoft products. IT can standardize on a single-vendor platform to reduce deployment and maintenance risk and to lower operating costs by having the same application across the network. Another benefit: it can decrease operational expenses by consolidating databases and applications with maximum utilization and reduce capital expenses by using current staff to manage the platform locally and remotely.

4. Hardware refresh If IT is due for a hardware refresh, it can turn to an appliance for the same capabilities with reduced complexity. This means that it can bring remote office capabilities up to par with headquarters while still lowering operating costs due to improved system distribution, power, and cooling of the new devices. It can also eliminate the time it takes to integrate, test, and deploy a full-stack solution, because the appliance is optimized for consolidation. As in the other scenarios, IT can reduce operational expenses by consolidating databases and applications and lower capital expenses, thanks to the compact footprint.

5. Database consolidation With a database appliance, DBAs can run multiple databases on the same infrastructure. This means that DBAs can simplify set up and maintenance as well as move closer to a database-as-a-service model. It can also shorten time-to-value with optimized and automated database deployments; engineered systems can also eliminate the time needed to integrate, test, and deploy multiple databases. On the cost front, IT can reduce capital expenses by consolidating databases and maximizing utilization and can decrease operational expenses through standardized deployments.

6. Backup and recovery A database appliance provides an integrated stack with best practices, which enables database administrators (DBAs) to quickly setup a backup and recovery strategy on-premise and in the cloud to meet business service level agreements. This enables IT to lower operating costs by offloading storage, datacenter, and administrative time to a shared cloud architecture. By having the same backup tools and recovery strategies on-premise and in the cloud, it can eliminate the associated costs of procuring, licensing, and training for new backup tools for migration. This can reduce operational expenses by automating DBA tasks and ensuring data recovery success.

HOW ORACLE HELPS

Oracle Database Appliance supports Oracle Database Enterprise Edition (EE) and Standard Edition (SE), SE1, and SE2. It is engineered to work in situations (test environments, branch offices, or remote offices) where organizations need reliable, low-cost systems to provide local, enterprise-class environments that are easy to manage remotely.

The EE version helps customers make more efficient use of their IT resources while continuing to improve their users' service levels and further reduce IT costs. It allows for tremendous savings through capacity-on-demand licensing—providing the capability to quickly scale processor cores without any hardware upgrades.

WHO'S TAKING ADVANTAGE OF A DATABASE APPLIANCE

Many companies are already reaping the advantages:

- The deployment of a database appliance at LifeLock, an identity theft protection firm, has enabled it to deploy entire database environments in a single appliance—often completing configuration in a single day—and thereby reducing complexity. It has also been able to bring latency down to as little as four milliseconds.
- Epsilon, a multichannel marketing services company, uses the database appliance in midmarket deployments, enabling it to market its product at lower price points and to update release code much faster.
- NEC Australia, a division of the IT services firm, provides a data appliance to its customers as a platform-as-a-service offering for faster development and deployment. It cites three key benefits: it cuts its customers' ownership cost by 40 percent and reduces implementation time by 80 percent while providing a 50 percent boost in performance.

Organizations that have been looking for simplicity and affordability through a highly configured, easy-to-deploy appliance now have new options to consider with the next generation of technology. DBAs can now serve more locations at lower costs and with fewer resource needs.