DB2® Information Management Software

Why DB2 vs Open Source Databases Sales Guide

How many of you have a dog at home?

How many of you got the dog for free?

How many of you can say the dog is truly free? I know both of my free dogs have cost a great deal (for food, medicine, vet fees, etc...)

How many of you believe that OSDBs will be different from any other free dog?

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Introduction

Because information is so critical to a modern company, one of the most important assets that a business can possess is a functional, scalable and well-supported Relational Database Management System (RDBMS). This is true for the small business just starting to expand as well as for larger businesses. Many of the database systems currently available for Linux are open-source, which to a customer implies low initial purchase price. With all the benefits of open source, it is easy to forget that there are other factors to consider as a business grows in complexity and size. Customers need to plan for future growth such as increasing the number of users, or the amount of data supported by the database. Moving from an open-source database that cannot grow with the customer's needs could entail costly migration and retraining, not to mention infrastructure upgrades, licensing and consulting fees. These costs can be far greater than the initial savings of acquiring an open-source database system, and can more than outweigh the initial purchase costs of DB2 UDB.

Open Source Databases

There are two primary open source database competitors -- MySQL and PostgreSQL. MySQL is the most popular open source database and has the largest number of seats. MySQL can be downloaded for free, or 'commercialized --upgraded' versions may be purchased from companies such as NuSphere and MySQL AB.

MySQL AB is a Swedish company that develops, supports and markets the MySQL database server globally. Their mission "is to make superior data management available and affordable for all, and to contribute to building the mission-critical high-volume systems and products of tomorrow." MySQL AB also claims: "Today MySQL is the most popular open source database server in the world with more than 4 million installations powering websites, datawarehouses, business applications, logging systems and more." MySQL AB's goal is to broaden MySQL's reach across the enterprise. MySQL supports many operating systems including Linux/Itanium Linux/zSeries along with its previous support for all major Linux distributions as well as Unix, Mac OS X and Windows operating systems. The company is privately and it is financed by venture capital since July 2001.

Highlights

GreatBridge LLC had the same grand plan for PostgreSQL – that is to compete directly with DB2 and Oracle. Greatbridge set up a marketing and development website but went out of business about 1.5 years ago. Companies like Red Hat carry PostgreSQL in their portfolio, and various businesses provide support for the database.

Customers are implementing OSDBs for a variety of reasons, usually perceived ease of use and low cost. Both databases are fine for limited-use small-size applications. However, both have their limitations, and if the size of the application is going to grow as business needs dictate, then the customer can quickly hit the scalability limits of these databases. Other items to consider are: Will these companies be around in 5 years and what about the issues of multi-vendor support (i.e. finger pointing etc.)?

Pay Now or Pay Later – A Case Study

VA Software (formally VA Linux) founded the SourceForge.net (sf.net) website. sf.net is the world's largest open source software development website, with the largest repository of open source code and applications available on the Internet. sf.net launched in Nov 1999 and at the time had less than 500 hosted projects. Today, sf.net has over 59,000 hosted projects and over 1/2 million registered users. When sf.net launched, they decided to use PostgreSQL as the database. sf.net enjoyed tremendous growth – and as the number of users and applications increased, Postgres would crash four to five times a day because it couldn't handle the increased number of transactions.

VA Software knew that to keep growing it would have to move to a more scalable database, and VA knew that the database would have to be a commercial variety. VA evaluated DB2 and Oracle and chose DB2 as the database to take them into the future. In fact, the sf.net site has the logo – 'Powered by DB2' to let the world know that DB2 is the database for all the repository of information. To make a point, this is a case where open source can and does intermesh well together. SourceForge.net is our poster child on why a company should consider DB2 upfront vs. OSDBs.

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Highlights

After the database was chosen it was time to evaluate and plan -- cost number one. Once the evaluation phase was over it was time to migrate all the applications and data to DB2. It took them weeks to accomplish this -- with our help -- cost number 2! They also had to send their people to get trained on DB2 to support it - cost number 3! The point is this: Pay now or Pay later! When choosing a database, customers should look beyond initial cost for the technology. Buying a database is an investment in a crucial corporate asset – the customer's data. Running open-source databases on Linux can mean expensive migrations, retraining and hidden support costs down the road as their business grows.

The investment in DB2 is much lower than the customer might think. Customers can download DB2 for Linux and develop applications free of charge. Customers can get into a production level copy of DB2 for as low as $369 list price which includes support and maintenance! And with the DB2 Express offering and additional promotions customers will have even more options. In addition, several white papers have been written that show DB2's overall TCO is the lowest in the industry and those can be found at the DB2 home page.

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When customers are evaluating open source vs. DB2 customers need to look beyond initial cost for the technology, and look for what will give them the most scalable, flexible, and cost-effective data access over the long-term. They also need to consider support for open standards, the ability to grow without training and migration costs and 3rd party applications and tools. Support is a crucial, and often-overlooked, component of a database's total cost of ownership.

IBM offers everything from online tips and forums to downloadable files and support contracts for assistance at all levels. IBM also offers training and certification programs for DB2 ranging from basic skills through 'IBM Certified Advanced Technical Expert'. DB2 can service customers of all sizes and computing requirements. Its upgrade policies mean customers can plan for growth without costly surprises, such as the need to re-license or purchase new licenses when upgrading a CPU or disk array on a server. Because different versions of DB2 share the same code base, there is no need to retrain staff or replace skills as the customer grows. Vendors and third party providers have written thousands of applications and tools to run on DB2, a level of support not available with any open-source database.

Highlights

A number of open source programming languages like Perl, Python and PHP also support DB2. DB2's ability to integrate information clearly differentiates it from open-source databases. Unlike those databases, there is no need to worry about issues of compatibility, inter-application portability of data, extraction of data, and/or running queries over multiple data sources. DB2 spans the spectrum of hardware platforms, running on not only IBM hardware and operating systems but on non-IBM hardware as well. And finally, DB2 is easy to use with its SMART technologies enabling autonomic computing - which reduces the skill level needed and in turn total cost of ownership.

DB2 on Linux gives customers the flexibility of open source standards, with the industry-proven scalability, reliability and support from the world leader in database technology.

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Conclusion

When buying a Relational Database Management System (RDBMS), a customer isn't really buying a database – they are buying the ability to protect their most critical asset – their data -- both now and in the future. While open-source databases may look attractive because of the low initial price, OSDBs can cost more than commercial databases in the long run if they cannot scale to meet the needs of a growing business, are difficult to manage, cannot accommodate the various data types the business needs to access and aren't backed by a reliable, stable vendor. IBM's DB2 UDB for Linux provides the performance, scalability, manageability, and quality of support that provides the maximum business benefit at the lowest long-term total cost of ownership.

IBM offers proven solutions (not just products) with a unique combination of software, services and hardware. In essence, IBM is one-stop shopping. IBM has a proven track record for the design, testing, running and support of mission critical systems. IBM has long term viability as a company and still supports 30 year old mission critical customer applications. IBM is a heavy investor in research and development and leads in number of filed technically advanced patents and IBM is a leader and largest investor and supporter for open standards.

Analysis of Costs

MySQL

Let's look at the costs associated with purchasing a commercialized and supported MySQL version from MySQL AB as compared to DB2 UDB.

MySQL License Type	# of Licenses	Cost USD
MySQL Pro License	1-9	$495
(Server Only)	10-49	$360
Price per copy	50-99	$290
	100-249	$220
	250-499	$175
	500+	Contact Sales
MySQL Classic License	1-9	$249
(Server Only)	10-49	$180
Price per copy	50-99	$145
	100-249	$105
	250-499	$90
	500+	Contact Sales
MySQL Client Licenses		Contact Sales

If customers need the InnoDB storage engine, then they must purchase MySQL Pro. (InnoDB is a transaction-safe, ACID-compliant storage engine with commit, rollback, crash recovery and row-level locking capabilities. This version is for users who want the high-performance MySQL database with full transaction support.) If that is not a requirement then customers can purchase MySQL Classic (includes the standard "classic" MySQL storage engines and does not have transactional capabilities).

Annual Support Packages*	Standard Customer	Advanced Customer
Entry Level Unlimited email dialogue with team for 1 year	$1,500	$2,500 Primary
Primary Email and login by team to your servers	$4,000	$6,000
Enhanced Email, login, and telephone consultation	$9,000	$12,000
Premium Email, login, and 24x7 telephone for emergencies	N/A	$48,000

**An additional $14,400 applies for support for the InnoDB or BDB storage engines (each)*

Highlights

All support customers fall into one of two categories, Standard and Advanced. "Standard" is for new, small, under development, or light usage sites. "Advanced" is for more mature, widely deployed, heavy usage, or large capacity users. For more information click on the hyperlinks above.

MySQL License Information

For circumstances under which a commercial non-GPL MySQL server license is required, you need a license per database server (single installed MySQL binary). There are no restrictions on the number of connections, number of CPUs, memory or disks to that one database server.

For circumstances under which a commercial non-GPL MySQL client license is required, you need a license per each installed application. For circumstances where a MySQL client license is required you must contact MySQL for a quote

DB2 vs. MySQL

DB2 has a much simpler approach to licensing and pricing. The comparisons below will assume customers are running on a 2-way machine, need connection to the Internet and unlimited users with 24x7 support. It is also assumed within the MySQL model that these are 'Advanced Users' running in production. Also, the yearly costs are fixed with no price increases over time.

	Cost per Box	Maintenance Year 1	Maintenance and Upgrade** Year 2	Maintenance and Upgrade** Year 3
DB2 Express Unlimited	$9,748	Included	$1950	$1950
MySQL Pro	$495*	$62,400	$62,400	$62,400

** Does not include client license fees*

*** Unclear if MySQL AB has additional charges for upgrades*

However, in the majority of cases, the customer will realize savings with DB2, not to mention free upgrades and world-class 24x7 support.

If a customer has many MySQL licenses at some point the customer would break even on the support charges as compared to DB2. However, in the majority of cases, the customer will realize savings with DB2, not to mention free upgrades and world-class 24x7 support.

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