

# The Business Case for PostgreSQL

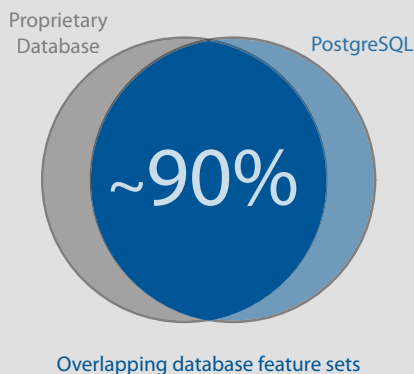


version 1.0

## The world has changed

databases are now  
a commodity purchase

The database market is now at the point where the discernible difference in functionality and feature-set between competing products is insignificant in the case of the majority of purchasers. This trend benefits database consumers giving a greater freedom of choice and flexibility at a lower cost. Open source software has been a major cause of this change.



## PostgreSQL - another open source success just like Linux

The operating system market has been transformed by Linux -- the first open source product to gain widespread acceptance and deliver enormous benefits to business. Following in this tradition, PostgreSQL has emerged as a leading open source force in the reshaped database market.

PostgreSQL is developed in largely the same way as Linux is. Expert programmers world wide contribute features, bug fixes and improvements. They either volunteer their time or are sponsored by software and hardware vendors who support PostgreSQL.

Being open source means that PostgreSQL attracts very experienced and knowledgeable contributors who care about the quality of the product.

### Total business freedom (the BSD Licence)

Unlike most other databases, PostgreSQL's BSD licence has no material usage restrictions whatsoever. None!

### No licencing costs whatsoever

Businesses can integrate or use PostgreSQL with their applications, be they open or closed source, and not incur a licensing fee, for any number of systems, anytime, ever.

## Who should consider switching to PostgreSQL?



### Independent software vendors (ISVs)

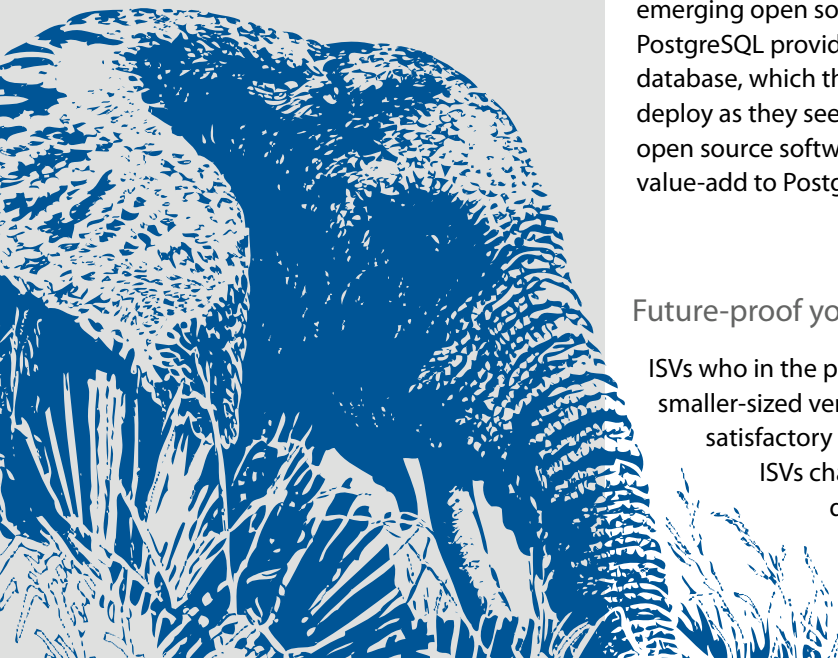
The ISV sector has traditionally been highly responsive in adopting new and emerging open source technologies. PostgreSQL provides ISVs with a reliable database, which they can control and deploy as they see fit. As with other open source software, ISVs can easily value-add to PostgreSQL.

### Better sales margins

ISVs replacing an existing bundled proprietary database with PostgreSQL, can enjoy a healthier margin on every single additional application licence sold. No more leaking of valuable revenue in database vendor licence fees. In the competitive world of software sales, this is the kind of business benefit that can make all the difference to hard-pressed ISVs striving to maintain or increase market share.

### Future-proof your bundled database

ISVs who in the past, for costs reasons, selected a bundled database from a smaller-sized vendor which has not survived or has not been able to provide a satisfactory level of on-going product development in keeping with the ISVs changing needs. Now at last, ISVs can make a vital strategic decision to eliminate dependencies they may have on outdated technology and move to a standards-based big-hitting database with an assured future, such as PostgreSQL.





## Why choose PostgreSQL, the world's most advanced open source database?



PostgreSQL has the features, robust architecture, sound development history and mission-critical capabilities which make it ideal for the full range of business use.

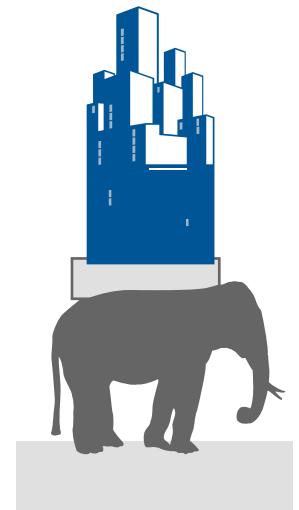
Currently, PostgreSQL is widely used by organisations of all sizes and is renowned for its reliability, stability, high performance, ease of use, rich feature set and ANSI compliance. This alone makes it a serious player in the database market, but combined with its transparent open source development process, PostgreSQL ensures that users can control the future of their database and avoid lock-in to expensive middleware, tools and upgrade paths.

### Complies with industry standard ANSI SQL

PostgreSQL is compliant with the ANSI SQL standard which is the definitive standards classification for databases worldwide. ANSI prescribes a range of features and functionality which compliant databases must conform to. This reduces the risk of deploying on PostgreSQL. Also, it means existing employees with SQL know-how can begin working with PostgreSQL straight away instead of having to learn database specific extensions to the query language.

### Extensive support options from major global IT corporations

PostgreSQL is supported by a large number of organisations globally, ranging from small contractor groups to world leading IT service providers such as Fujitsu and Sun Microsystems. Assistance with everything from system administration and software engineering through to performance optimisation and high-level database-modeling is available.



## PostgreSQL has advantages over other open source database solutions

### The more flexible BSD licensing model

The BSD has no material usage restrictions whatsoever. As stated earlier, this amounts to 'total business freedom' to do with PostgreSQL as you wish.

### The most advanced open source database

From the outset, PostgreSQL was constructed to meet the goals of active businesses which could rely on it as a core element of their mission-critical IT infrastructure. The heritage of PostgreSQL is therefore one of measuring up to the ongoing pressures and operational demands of business, particularly those requiring complex transactional capabilities. Forged in this environment, PostgreSQL has the features, sophistication and reliability that identify it as the heavy-hitter amongst open source databases.

### More features



The range of features available with PostgreSQL is the most comprehensive of all open source databases. Although other databases do add features from time to time, none can match the record of technological innovation and adoption of new standards that PostgreSQL has displayed in recent years. PostgreSQL's superior architecture provides it with a solid base for growth, allowing for a greater expansion of features and functionality than comparable products.





## Advantages of PostgreSQL over branded proprietary databases

### Avoid 'lock-in' and reduce costs

The database market has largely been dominated by a small number of proprietary database systems with high brand recognition. This lack of competition has been detrimental to users and has given vendors too much control over cost, direction, upgrade path and in many cases the application stack running on top of the database.

PostgreSQL does not lock in its users in this way. It runs on all major platforms, with all major languages and middleware. Better yet, because it is open source, the future of PostgreSQL is secure. Any user of PostgreSQL can have direct input upon the design and direction of the software. Technical merit, not marketing jargon, is the guiding force of PostgreSQL.

PostgreSQL has all the features others have, and more

Designed for systems big and small

PostgreSQL is compact in size when installed, and highly memory-efficient, making it ideal for use in smaller size systems and devices. It is also an Enterprise-grade database which can cater to applications requiring many terabytes of data storage.

PostgreSQL supports all major operating systems including most types of UNIX/Linux and Microsoft Windows, as well as all major hardware platforms.

Ease of administration

Administration and maintenance requirements for PostgreSQL are minimal. PostgreSQL ships with all the tools necessary to install, configure, maintain, backup and upgrade a database system.

In fact, PostgreSQL is widely recognised as amongst the most simple databases to get up and running with - regardless of platform.

PostgreSQL works with your operating system: your system administrators' existing expertise with their systems can be leveraged in tuning PostgreSQL. PostgreSQL is developed with an eye to portability and standards compliance: tools that technical staff already know work with PostgreSQL. PostgreSQL features are designed with feedback from the user community, so tunability and ease of operation are tested by real users before final release.



### Architectural soundness and integrity

Software development companies are often pressured into implementing product features and enhancements which can compromise the software's underlying structure, or which make future software changes more difficult. Such modifications satisfy short-term goals, but they also present disadvantages that can far outweigh the benefits. Because PostgreSQL is not controlled and owned by one organisation, the community overseeing its development represent a wider cross-section of viewpoints with regard to shaping the future direction of the product.

A broad, and somewhat conservative development community ensures that PostgreSQL's design integrity remains strong in the face of often erratic market-led software trends.

### Future roadmap

Organisations adopting PostgreSQL are no longer at the mercy of vendors, who may choose to discontinue a particular database product line or feature set. Nor will they run the risk of the vendor ceasing business operations entirely. As PostgreSQL is developed by a mainly volunteer global community, it is not subject to the vagaries of the marketplace to the same extent as commercial organisations responsible for proprietary databases.

Significantly, organisations can directly establish a stake in the future roadmap of PostgreSQL, thanks to the community's unrestricted participation model.

PostgreSQL was designed from the beginning to be flexible. It has a modular architecture that makes adding new datatypes trivial, and adding new features a breeze. Moreover, if you don't need all the features, you don't have to pay the price of having them available: you can turn them off. In the same way, adding features you want, whether ordinary ones like replication or exotic ones such as complex statistics, is easy.



## Organisations seeking lower total cost of ownership (TCO)



...never experienced an occurrence of the database going down,  
“not even once, ever.”



Branded proprietary databases often charge high licence and support costs

When confronted with a limited range of database solution options in the past, organisations may have been influenced by arbitrary factors such as brand recognition more than the suitability of a particular database to best serve their individual business needs. This approach, while understandable, has driven many organisations down a path which has led to high ongoing licence and support costs.

In such cases, the database vendor may enjoy a healthy profit margin on a product which could be easily replaced by a functionally equivalent lower cost product. This situation often results from a lack of awareness of the degree to which more cost-effective products such as PostgreSQL can match and exceed the capabilities of commonly-used proprietary databases.

Be ambitious - grow your business without incurring additional database licence costs

PostgreSQL has no licence cost and therefore delivers zero marginal cost of scalability to those businesses wishing to expand their IT infrastructure. If your IT network consists of 20 or 200 systems utilising PostgreSQL, the total licence costs attributable to the database, remains nil. This represents a significant and direct benefit to organisations seeking to extend their IT capability in keeping with ambitious business growth plans.

Stop paying for software modules you don't need

While a multitude of colourfully-labelled CDs may appear impressive when you open your proprietary database software pack, it's appropriate to consider the actual tangible benefits of having such an array of components and modules. A large percentage of these will likely never be used during the lifetime of operation of the database. If anything, as any software developer will attest, the more superfluous components within a system, the greater the likelihood of an error or problem arising.

PostgreSQL is first and foremost a powerful database solution and its continued development focus is to remain just that. While easily integrated with all commonly available technology components, PostgreSQL is not weighed down by the excessive overhead of having to interface to large numbers of rarely-used niche software modules.

It's no surprise therefore that many long-established PostgreSQL business users commonly report that they have never experienced an occurrence of the database going down, "not even once, ever".

Existing administration costs are too high

A number of proprietary databases are sufficiently complex to operate and run in a business environment that they require dedicated system administration personnel to oversee these tasks on an ongoing basis. This represents an additional and unwanted cost against the IT budget in most organisations. In contrast, PostgreSQL has been designed to minimise administration overheads, and its easy-to-use approach means that many of the IT technical team in your organisation can install, operate and manage multiple instances of the database, saving on the need for specialist administrators.





Has what was once a cheap integrated database solution, now become a technology millstone around your neck?

## Organisations constrained by their current choice

Need a feature in a hurry? Where's the source code?

If there is a business critical requirement that your database currently can't fulfill, it's not much use if your database vendor will not have this feature available to you in a time frame that suits your business. With PostgreSQL, you can organise an in-house or out-sourced enhancement to PostgreSQL by suitably qualified personnel and in this way, meet your own needs.

Furthermore by actively participating in the development of PostgreSQL, you have a stake in its future, and can influence the direction it takes.

### No more costly enforced upgrades

Businesses can expend a lot of effort and resources integrating a particular version of a database into their core IT system or product, only to find that the database vendor makes a decision to stop supporting or increases support fees for that version of the database. Businesses in this situation are often left with no choice but to accede to the vendors demands for a greater slice of your budget. If you make the switch to PostgreSQL, as well as giving your IT spend a healthy boost, no database vendor will ever have this kind of stranglehold on your business ambitions again.

Trapped using a database that has a limited future - or none at all?

Is your database holding you back from moving your business application to a new operating system? Has what was once a cheap integrated database solution, now become a technology millstone around your neck? Perhaps, your database vendor has ceased all future product enhancements, or, the technology itself is outdated and has no future. Switching to PostgreSQL will eliminate all of these concerns, as well as providing all of the benefits of the most advanced open source database available.

### There is only one organisation who supports my database

Perhaps you're dissatisfied with the support arrangements provided by your current database vendor, but there are no other suitable options you can pursue as the vendor or partners have an effective monopoly on support arrangements for the product.

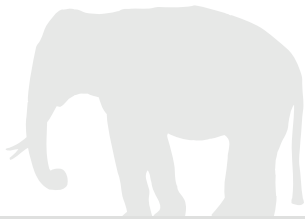
That's a situation that can never exist with PostgreSQL. There are thousands of organisations that can provide PostgreSQL support worldwide. This creates a competitive climate which ensures that not only are support costs kept low due to market pressures, but there is a wider degree of choice of support provider.





## Who's using PostgreSQL?

PostgreSQL is used by organisations in all industries: technology, media, finance, government, medical, and hospitality. The following are just a few of the organisations benefiting from using the world's most advanced open source database.



### Original authors

Liam O'Duibhir

[liamod@fast.fujitsu.com.au](mailto:liamod@fast.fujitsu.com.au),

Gavin Sherry

[gavin@alcove.com.au](mailto:gavin@alcove.com.au)

### Contributors

Omar Kilani,

Charles Duffy,

Andrew Sullivan

### More information

For more information about PostgreSQL, go to: <http://www.postgresql.org>

#### *Afilias*

PostgreSQL powers .org and .info

#### *Apple*

Apple's remote desktop system is powered by PostgreSQL.

#### *BASF*

PostgreSQL is used extensively in the company's biopharmaceutical division.

#### *Cisco*

PostgreSQL is used on Cisco products for content management.

#### *NSW Department of Health*

PostgreSQL is used in the department's emergency department public health surveillance system.

#### *Omniti*

Using PostgreSQL to manage a terabyte range data-warehouse.

#### *Proximity*

The world's leading newsroom and media asset management software, used by Fox, CNN, BBC, and ABC.

#### *Skype*

Runs a global telephony network backed by PostgreSQL.

#### *U.S. National Weather Service*

PostgreSQL is used across hundreds of servers to coordinate weather predictions, analysis and emergency announcements.

#### *Whitepages.com*

PostgreSQL is the database of choice for this site.

### Other successful organisations using PostgreSQL

To learn more about other successful PostgreSQL deployments, visit: <http://www.postgresql.org/about/casestudies/>

## Licence and Disclaimer

This work is licenced under the Creative Commons Attribution 2.5 License. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/2.5/au/> or send a letter to Creative Commons, 559 Nathan Abbott Way, Stanford, California 94305, USA.

The authors of and contributors to this document endeavour to ensure that the information in this document is correct and fairly stated, but do not accept liability for any error or omission.