



PostgreSQL for Solaris™

The world's most advanced open source database — optimized for Solaris

Highlights

- PostgreSQL for Solaris is a lower cost alternative for mission-critical database deployments
- PostgreSQL for Solaris has been enhanced to take full advantage of Solaris' advanced features
- Sun offers a flexible, comprehensive array of service plans — including 24x7 world-wide support
- PostgreSQL for Solaris is open source, integrated with Solaris as of Solaris 10 6/06, and free to use
- Sun collaborates with the PostgreSQL community and enhancements made to PostgreSQL for Solaris are contributed to the community



PostgreSQL for Solaris delivers great price/performance, advanced features, security, and unmatched reliability. It's optimized to take advantage of Solaris OS proven capabilities as an exceptional enterprise database platform, and like Solaris, it benefits from years of use and development. PostgreSQL for Solaris is backed by Sun's leading global support organization and by one of the largest, most active open source communities in existence.

The No Compromise Database

PostgreSQL for Solaris delivers the advanced capabilities usually associated only with proprietary databases and all of the cost-benefits of open source. It combines the most advanced, stable, reliable, and trusted open source database and operating system to deliver both business assurance and leading price price/performance. PostgreSQL for Solaris is open source, integrated, and included — for free — with the Solaris OS. It has been performance-optimized and enhanced to take advantage of the advanced technologies available in the Solaris 10 OS, such as Solaris Service Manager, Solaris Containers, and Solaris Dynamic Tracing (DTrace). And, PostgreSQL is fully supported by Sun with enterprise-class 24x7 global offerings.

Business Assurance

Legendary Reliability, Stability and Availability

PostgreSQL for Solaris virtually eliminates the risks and costs associated with downtime and lost data with capabilities that can match or even surpass proprietary databases. They include

- **Multi-Version Concurrency Control (MVCC)** — Supports heavy transaction loads in large multi-user environments and allows low-impact hot backup
- **Point-In-Time Recovery** — Supports high-availability/failover configurations as well as protection against administrator error

- **ACID compliant transactions** — Guarantees that all of PostgreSQL database transactions are completed — reliably and correctly
- **Transaction-safe Data Definition Language (DDL)** — Ensures that runtime database design tweaking does not interrupt operations and is recoverable in the event of error
- **Solaris Containers** — Enable the independent management of system resources and access control to multiple PostgreSQL database environments within a single instance of the Solaris OS. For PostgreSQL users, this feature can be used to limit resource usage, improve security and system utilization, among others.
- **Solaris Service Manager integration** — Allows the Solaris Service Manager to use the PostgreSQL manifest to control its database service and restart it automatically if it's terminated abnormally, aborted by software programming errors, or interrupted by an underlying hardware problem.
- **Solaris Cluster support and the PostgreSQL HA Agent** — Ensure that PostgreSQL for Solaris and critical data remain available even in the event of disaster.

High Performance and Scalability Under Heavy Loads

"OmniTI selected PostgreSQL for Solaris to replace a proprietary database on Linux

that was frequently crashing and unable to keep up with the demands of a 1.2 terabyte datawarehouse and a one-half terabyte OLTP database, with peak loads of over 10,000 transactions per second. Now running on PostgreSQL for Solaris, the crashes have been eliminated, performance and reliability significantly increased, and costs significantly decreased.” OmnTI success story

Great Performance Features and Benchmark Results

- **DTrace Support**—DTrace is a powerful diagnostic tool that can be used to observe PostgreSQL even in production. By running some simple scripts, performance bottlenecks can be quickly identified. PostgreSQL is the first database with a set of DTrace probes already in its core code, which allows finer grained analysis of PostgreSQL performance.
- **Multi-Core Scaling**—PostgreSQL scales linearly to 28 cores and is able to make full use of SunFire T2000s, SunFire AMD or Sun Intel multi-core machines for maximum performance from commodity-to-midrange servers.
- **Support for Large Complex Queries:** PostgreSQL can efficiently execute 50-line queries with dozens of joins, subqueries and computed expressions, making it the best open source database for data warehousing.
- **Compelling Benchmarks** Using directly comparable SpecJAppServer2004 results, PostgreSQL for Solaris has been shown to perform at levels competitive with proprietary databases—at dramatically lower cost.

Secure by Default

“By default, PostgreSQL is possibly the most

security-aware database available. . . .”

Database Hacker’s Handbook: Defending Database Servers

- **Multiple Authentication Methods**—For secure user authentication, PostgreSQL supports Kerberos, IDENT, SSL or UNIX® sockets and secures them further by using host-based-authentication.
- **Support for ANSI ROLES and permissions model**—PostgreSQL specifies exact permissions for every table, view, function, trigger and schema in your database.
- **Cryptographic Capabilities**—PostgreSQL supports cryptographic and hash functions and data types, including SHA, Blowfish, 3DES, and PGP.

Broad Standards and Driver Support

PostgreSQL is known for its high levels of standards-compliance and support for most all programming languages and drivers.

- **SQL and Other Standards Support**—PostgreSQL supports most of the ANSI SQL92 specification and many pieces of advanced functionality introduced in SQL99 and SQL03. PostgreSQL supports all join and subquery types, as well as stored procedures, schema, triggers, domains, and interval data.
- **JDBC and ODBC Support**—PostgreSQL is certified for JDBC 3.0 and ODBC 3.0 standards.
- **Driver Support**—PostgreSQL for Solaris includes C and standards-compliant JDBC drivers. Drivers for ODBC, PHP, Perl, C++, Python, Ruby, .NET, and other languages are available from the PostgreSQL community.

Unparalleled Support

PostgreSQL for Solaris has two world-renowned support organizations backing it: Sun’s expert support team and the highly

active and responsive PostgreSQL community.

- Sun not only offers enterprise-class, 24x7, global support for PostgreSQL for Solaris, it also guarantees support for each release for six years. PostgreSQL for Solaris service plans are flexible and easily affordable.
- The PostgreSQL community is known its rapid response to user questions and issues and the PostgreSQL Global Development Group is famous for its fast turnaround on bugs.

Compelling Cost Benefits

PostgreSQL for Solaris on Solaris offers exceptional costs savings over other databases and other platforms.

- **No license fees** Both PostgreSQL for Solaris and Solaris are absolutely free to use.
- **Cheaper than Linux** PostgreSQL on Solaris is up to 25%—30% less expensive than comparable Linux-based offerings.
- **Open source and extensible** By virtue of its open source license and design, PostgreSQL for Solaris is designed to be customized and extended.
- **Great price/performance** SpecJAppServer2004 benchmarks results showed PostgreSQL for Solaris delivered unchallenged price/performance with all-Sun, all open source software and hardware.
- **Ease of Administration** Administration and maintenance requirements for PostgreSQL for Solaris are minimal. It ships with all the tools necessary to install, configure, maintain, backup and update a database system.

Learn more

To learn more, go to sun.com/postgresql

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