Oracle Berkeley Database Products

ORACLE®
BERKELEY DB

The Oracle Berkeley DB product family consists of Berkeley DB, Berkeley DB Java Edition and Berkeley DB XML. All three are high performance, self-contained, software libraries which provide data storage services for applications, devices, and appliances. They deliver superior performance, scalability and availability for applications that must run unattended without administration.
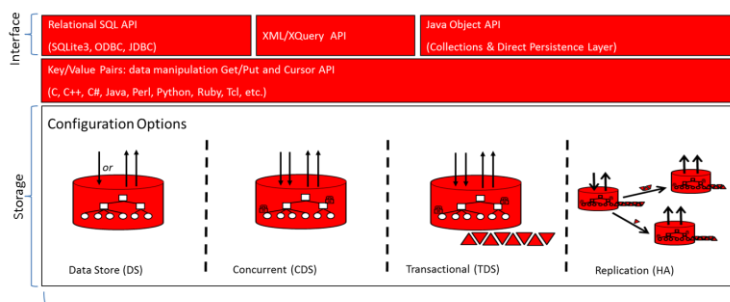
Overview

The Oracle Berkeley DB family of high performance, self-contained databases provides developers with a fast, transactional database solution with a track record of reliability, unmatched scalability and five-nines (99.999%) or better availability. Oracle Berkeley DB is well suited to Independent Software Vendors, device and equipment manufacturers, and enterprises or software companies building solutions which need a data management component. The Oracle Berkeley DB family of products provides fast, local persistence with zero oversight administration.

Customers and end-users will experience an application that simply works, reliably manages data, scales under extreme load, and requires zero oversight in deployment. Your development team can focus on your application and be confident that Berkeley DB will manage your application's data.

Storage Engine Design

The Berkeley DB products are self-contained software components which support your application. This in-process model eliminates the network performance penalty of distributed and client-server architectures. Berkeley DB provides simple function-call interfaces to store and retrieve information quickly and easily. Data can be stored in the application's native format, XML,SQL or as a Java Object.

CONSIDER BERKELEY DB WHEN:

- You need an SQLite API compatible database within mobile, handheld or other hardware devices.
- Performance, scalability, concurrency is important.
- Zero oversight administration in deployment is required
- Flexibility to choose SQL, XQuery, Java Object, or Key/Value data management.
- Mobile data synchronization with Oracle Database is a requirement.
- Failure from recovery must be automatic and reliable
- High availability and fault tolerance are critical.

ORACLE BERKELEY DB PRODUCT FAMILY

- Berkeley DB
- Berkeley DB Java Edition
- Berkeley DB XML

Runs on Java, Android, iOS, Linux, BSD, Windows (device to server), Solaris, VxWorks, QNX, etc.

ORACLE®

- **Interface**   Store and access data using SQL, XQuery, Objects, or Key/Value
- **Storage**   High performance database with ACID transactions, Indexes, Locking, MVCC, Encryption, Recovery and HA/replication
- **Access**   Match requirements to functionality, use only what you require

Java Object Persistence

Berkeley DB products offer the greatest range of Java persistence options of any embedded database so that developers have exactly what they need. Both Berkeley DB and its pure-Java counterpart Berkeley DB Java Edition offer three different APIs for storing data. In addition, Berkeley DB can be used as a SQL database and accessed using JDBC or EJB3.

Features

All products in the Berkeley DB family support ACID transactions and recovery for data integrity, multiple processes and multi-threading for high concurrency, and replication for high scalability and availability. Berkeley DB is very flexible and configurable, giving the application developer control over how resources are allocated, the amount of memory dedicated to caching records, the degree of concurrency, support for recovery and more. It includes full source code for easier porting, integration, debugging and optimization. Berkeley DB supports all modern operating systems including Solaris, Linux, BSD, HP-UX, AIX, Windows, Mac OS X, iPhone, Android, and RTOS such as VxWorks and QNX. It supports most programming languages, including C, C++, Java, C#, Perl, Python, PHP, Tcl, Ruby and many others.

Applications That Use Berkeley DB

Berkeley DB is used within a wide variety of open source and proprietary products for telecommunications, networking, storage, security, enterprise infrastructure, financial services, mobile applications, health care, smart metering and many other markets. Many well respected and open source projects use Berkeley DB including Linux, BSD UNIX, Solaris, Sendmail, OpenLDAP, Apache, MemcacheDB, Voldamort and Heretrix. Proprietary products that use Berkeley DB include directory servers from Sun and Hitachi; messaging servers from Openwave and LogicaCMG; switches, routers and gateways from Cisco, Motorola, Lucent, and Alcatel; storage products from EMC and HP; security products from RSA Security and Symantec; and Web applications at Amazon.com, LinkedIn and AOL.

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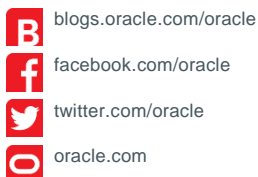
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Integrated Cloud Applications & Platform Services

Oracle is committed to developing practices and products that help protect the environment