

SAP SQL Anywhere

Database Solutions for Remote Office, Embedded, and Mobile Environments

Robust Tools for Managing and Moving Data in
Server, Desktop, Remote, or Mobile Applications





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Businesses looking for new ways to fuel competitive advantage and growth increasingly see critical business processes happen on the front lines where:

- Sales staff meet clients
- Customers purchase merchandise and receive service
- Goods are shipped and delivered
- Products are manufactured
- Field workers collect samples
- Maintenance crews inspect infrastructure

Smart organizations use data management solutions to collect, distribute, and analyze information that can optimize these key processes.

Bring Mission-Critical Data Where You Need It Most

Award-winning data management solutions from SAP are built from inception to make server, desktop, embedded, and mobile applications as reliable, secure, and available as the applications that run the data centers of traditional enterprises. The SAP® SQL Anywhere® suite provides high-performance support for relational database management and enables rapid development and deployment of database-powered applications. SAP SQL Anywhere and related data management software are designed to run in environments where there is no on-site IT support.

Data-movement technologies extend information in corporate applications and enterprise systems to SAP SQL Anywhere databases that run in mission-critical front-line environments. Design and management tools within the software help developers implement and deploy front-line applications and make it easier for administrators to manage and support those applications.

Technologies that can handle the complexities of front-line environments help developers construct functionality for data management, synchronization, security, and remote support. Because they spend less time designing and administering databases, developers have more time for building applications that suit users' specific needs.

ENTERPRISE-CALIBER DATA MANAGEMENT

Enterprise-caliber databases in the software scale from 32-bit and 64-bit servers with thousands of users down to desktop and mobile applications used in widely deployed zero-administration environments. Easily embedded into your applications, the databases have small footprints but are packed with features found in databases that require significantly more resources and administrative support. These features include transaction processing, referential integrity, stored procedures and triggers, materialized views, spatial data, hot failover, and automatic backup and recovery.

Ideal for Zero-Administration Environments

Features for self-administering, self-tuning, self-healing, and remote support make SAP SQL Anywhere ideal for zero-administration environments. Sophisticated tools for event handling and scheduling can set maintenance activities to occur at predefined times or conditions.

Strong Performance and Scalability

SAP SQL Anywhere can scale from high-end Unix, Linux, and Windows machines with multiple processors to Windows Mobile devices and Windows tablets – using as little as 4 MB of available memory. High performance is achieved through a self-tuning query optimizer and innovative query-processing algorithms.

SAP SQL Anywhere offers many other features found in data-center databases, such as query parallelism, snapshot isolation, materialized views, online analytical processing (OLAP) functionality, and 2D and 3D spatial data support. The high-performance software can scale across multiple database servers.

Data Security

SAP SQL Anywhere includes strong 128- and 256-bit encryption, providing comprehensive security that is particularly useful for government agencies and privacy-conscious industries such as healthcare and financial services. Database file encryption protects stored data from unauthorized access. Communications encryption protects the confidentiality and integrity of packets as they pass between the client machine and the database server.

SAP SQL Anywhere supports Federal Information Processing Standards. It is Common Criteria certified and uses industry-standard encryption algorithms and protocols – including AES, ECC, RSA, and SSL.

MOBILE DATA MANAGEMENT WITH A SMALL FOOTPRINT

Within SAP SQL Anywhere is UltraLite®, a database management system designed for a range of handheld device operating systems, including Android, Apple iOS, BlackBerry, and Windows Mobile. UltraLite provides full transaction-processing support and referential integrity, as well as strong encryption. Built-in synchronization is available with enterprise data stores through the MobiLink™ synchronization solution in SAP SQL Anywhere (see below). And you get a choice of development models.



UltraLite provides several object-based programming interfaces for straightforward access to data from different programming environments. Integration with popular tools makes it easier for programmers to create dynamic data-driven applications.

Optimized Integrity and Security of Data for Small Devices

UltraLite brings the transaction processing, referential integrity, and security of enterprise databases to small devices to optimize the integrity and security of data captured in the field. With UltraLite you can leverage a single database and synchronize data across the most widely used mobile platforms, greatly simplifying the implementation.

ENTERPRISE DATA MOVEMENT

MobiLink facilitates session-based, heterogeneous synchronization for exchanging data among the primary database in SAP SQL Anywhere, UltraLite databases, and other relational databases and nonrelational enterprise data sources. These sources include SAP Adaptive Server® Enterprise, SAP IQ software, Oracle, Microsoft Server, MySQL, and IBM DB2. You can also synchronize with sources other than databases – such as enterprise applications, application servers, enterprise resource planning systems, Web services, XML files, and other third-party relational databases.

The advanced synchronization logic safeguards the transactional integrity of the databases if a network connection is lost and offers sophisticated strategies for resolving data change conflicts. MobiLink is highly scalable. You can synchronize as many as 150,000 mobile databases with a single consolidated database.

Scalable and Robust Performance

A single MobiLink synchronization server can handle hundreds of thousands of synchronization users. You can run multiple MobiLink servers simultaneously to support load balancing and extremely large systems.

Reliable and Secure

Data delivery is highly reliable. If a network connection is lost or a message becomes corrupted during transmission, the missing data is resent automatically.

Strong 128-bit encryption ensures that your data is fully protected during transmission. The MobiLink server has built-in user authentication. You can add Java and Microsoft .NET logic to the MobiLink server for external authentication, when required. A relay server provides secure and load-balanced communication between mobile devices and back-end servers through a Web-based server.

“SAP SQL Anywhere provides a mobile platform and supports a very large database. We can provide this state-of-the-art technology to large agencies as well as small agencies that have no IT staff.”

Michael Kramer, CEO and President, HealthWyse LLC

Implement and Manage Large Deployments

Both database administrators and end users will find MobiLink synchronization simple to use. MobiLink provides a set of integrated tools to automate development of synchronization applications using synchronization scripts, conflict resolution rules, and shadow tables. It can register and manage a large number of remote users. A central management point automates and streamlines administration and monitoring of the entire synchronization ecosystem, giving you greater control over the data-exchange environment.

Handheld and Wireless Integration

MobiLink supports wired and wireless synchronization. Data transfer is extremely efficient. Synchronization picks up where it left off after a lost network connection. You can broadcast data changes to large groups of users and use server-initiated synchronization to push important information, such as a route change or a change in inventory, to a mobile database.

Subsetting of Data

MobiLink lets you create data subsets – with horizontal and vertical partitions or more complex user-programmed schemes – to ensure that remote systems get only customized data relevant to their job functions. This lets you put data where it is most needed, without overloading a remote user's database with unused information. It also reduces communication time and costs.

File Transfer and Remote Tasks

Support for downloading files and executing tasks in remote devices helps you deploy a new remote database application when a software upgrade is required or when you publish nonrelational static data.

Priority Synchronization

Priority synchronization gives you independent control when synchronizing different data subsets. Developers can also maximize available communications bandwidth, which is particularly important for wireless or low-bandwidth environments.

MOBILE MESSAGING

Additional features in SAP SQL Anywhere facilitate the development of robust and secure store-and-forward messaging applications optimized for mobile environments. They make it possible to use MobiLink as a messaging server, either independently or in conjunction with traditional database-synchronization configurations. By extending the Web-services functionality of SAP SQL Anywhere, these features provide mobile Web services for secure and reliable delivery of data to mobile devices.

The software provides secure message storage and transmission and ensures message delivery. It handles the challenges of wireless networks such as slow speed, spotty coverage, and dropped network connections. By setting transmission rules, it lets messaging applications send and receive data at optimum performance, cost, and bandwidth.

FIND OUT MORE

To learn more about SAP SQL Anywhere, please visit us online at www.sap.com/pc/tech/database/software/sybase-sql-anywhere/index.html.

“SAP SQL Anywhere is flexible, reliable, backward and forward compatible, and handles large numbers of data exchanges. Our field workers can focus on their jobs without worrying about the technology.”

Greg Begg, AMR Program Manager, Sargent Electric Company Inc.



The Best-Run Businesses Run SAP™

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