SAP® SYBASE® SQL ANYWHERE 16 FACTS

SAP Sybase SQL Anywhere Developer Edition

The SAP Sybase SQL Anywhere Developer Edition is offered at no charge for development and testing. It includes all of the features of the deployment version of SAP Sybase SQL Anywhere, and will not expire at any time. Download your copy at: **http://fm.sap.com/sa16developer**

New features or significant enhancements with version 16 are listed in orange.

SAP SYBASE SQL ANYWHERE SERVER

System Requirements and Supported Platforms
- Windows x86 and x64
- Windows Mobile
- Linux x86 and x64
- Solaris SPARC and x64
- Apple OS X on Intel
- IBM AIX
- HP-UX Itanium
- Database server requires a minimum of 512 MB RAM
- Database client requires a minimum of
- 8 MB RAM and 4 KB per client connection (8 KB for Unix)

Client/Server Communications Protocols
- TCP/IP
- Shared memory
- IPv6 support for Windows and Linux

Compliance
- Entry-level ANSI 92 + extensions
- With minor exceptions is compliant with -2003 core specifications
- Transact-SQL (TSQL)

Database Features
- Read-only scale-out database configurations
- Web-based monitoring of database servers
- Spatial data
- Sequence generator
- Select from DML statements
- Row-level locking
- High-performance, self-tuning, cost-based query optimizer
- Advanced query execution algorithms
- Dynamic cache sizing
- Materialized views
- Snapshot isolation
- Full text search
- Column compression
- SQL and Java triggers and stored procedures
- External ESQL, ODBC, Java, CLR(.NET), Perl and PHP stored procedures
- Binary Large Object(BLOB) support

- XML import/export and SQLX functionality
- Database mirroring and cluster support
- Online table and index defragmentation
- Online backup
- Event scheduling and handling
- In-memory mode
- Web service production and consumption
- Strong encryption for database files and network communications
- Table encryption, customizable auditing, password rules, SH256 hashing, Kerberos authentication
- FIPS 140-2 conformance
- Integrated HTTP server
- Remote data access to other RDBMSs and file systems
- On Line Analytical Processing (OLAP support)
- Internationalization features including NCHAR datatype, accent sensibility, Unicode Collation Algorithm, and ICU Unicode support
- Windows Performance Monitor integration
- Role-based security

SAP

The Best-Run Businesses Run SAP™

- LDAP user authentication
- Dual control passwords
- Server disk sandboxing
- Event tracing
- Processor affinity
- Non-blocking index and column creation
- JSON in the database

Development Features

- Spatial data
- Application profiling utilities
- Graphical schema design and reverseengineering tools
- Graphical database management and browsing tools
- Graphical query plan viewer, query editor, integrated stored procedure debugger, profiler and synchronization monitoring tool, and spatial data graphical viewer
- Index Consultant
- Native data access through ADO.NET, OLE DB, ODBC3.5/level 2, JDBC 3.0, Embedded SQL and SAP Sybase Open Client
- Broad programming tool support including SAP Sybase PowerBuilder, Microsoft Visual Studio, Borland Delphi, Eclipse and many more
- Support for .NET 2.0 and later
- Broad programming language support including C#, VB.NET, C/C++, ASP, ASP.NET, JSP, Java, PHP and Perl DBD
- Advanced OLAP functionality including rollup, recursive union and index union and intersection
- Accessibility support for people with disabilities in conformance with the US Federal Government Rehabilitation Act Section 508
- ROW and ARRAY data types
- TRY/CATCH error handling
- OData server and producer

Database Statistics

- Databases per server: 255
- Database size: limited only by memory, disk space and platform restrictions
- Characters per database object name: 128

Table Statistics

- Indexes per table: up to 2048
- Table size: limited only by file size
- Tables per database: up to 4 billion
- Columns per table: 45000
- Field size: 2 GB
- Rows per table: limited only by file size
- Row size: limited by file size

Stored Procedure and Trigger Statistics

- Max length of stored procedure: 2 GB
- Stored procedures per database: up to 4 billion
- Triggers per database: up to 4 billion
- Nesting: limited by disk space and server memory

ULTRALITE®

Supported Platforms for Deployment

- Apple iOS
- Windows x86 and x64
- Windows Mobile 5.0 and later
- Apple OS X on Intel
- Linux x64

Database Features

- Spatial data
- Ultra-small database with a fingerprint as small as 300 KB for handheld devices and smartphones
- Built-in synchronization client with background sync
- Strong data and communications stream encryption
- Transaction processing, referential integrity, multi-table joins, and UNION operations
- High-performance updates and retrievals through use of indexes and query plans
- Binary Large Object(BLOB) support
- Event notifications
- Dynamic cache sizing

Ultralite Database Statistics

- Database size: limited by available storage (max 2 GB)
- Row size: 16 KB, with additional space for BLOB data
- Table size: limited by database size
- Tables per database: limited only by device memory
- Rows per table: 16 million
- Columns per table: 65535
- Tables referenced per transaction: no limit

ULTRALITEJ

Supported Platforms for Deployment

- BlackBerry OS 4.2 and later
- J2SE
- Google Android 1.5 or later

Database Features

- External BLOB files
- File transfers
- Internal flash and SD card support
- 400 KB COD file for BlackBerry smartphones
- 600 KB JAR file for J2SE
- Built-in synchronization client
- Background synchronization
- Transaction processing
- Multi-column indexes

SQL Support

- TIMESTAMP WITH TIMEZONE data type
- INSERT,UPDATE,DELETE,SELECT statements
- Multi-table joins
- Subqueries
- A wide range of SQL functions
- Aggregate functions
- GROUP BY clause
- UNION operation

SYNCHRONIZATION

MobiLink® Features

- Central administration of remote databases
- Monitoring of MobiLink server and Relay Server farms
- Dynamic memory caching
- Reliable, bidirectional synchronization between remote and enterprise systems including SAP HANA, SAP Sybase SQL Anywhere, SAP Sybase Adaptive Server Enterprise, Oracle, Microsoft Server, IBM DB2, MySQL, application servers, ERP systems and Web services
- Wizard-based synchronization configurations
- Remote support for both SAP Sybase SQL Anywhere and UltraLite databases
- Multiple synchronization and network server-based protocols including TCP/IP, HTTP, HTTPS, Microsoft ActiveSync
- End to end encryption
- Optional strong 128-bit encryption for synchronization communication, including SSL/TLS using RSA encryption compatible with HTTP server
- Advanced conflict detection and programmable resolution
- High-Availability option for MobiLink server farms
- Relay Server for secure communications through web servers
- Optimized for wireless synchronization
- Scalable to support thousands of remote databases from a single MobiLink server
- Support for horizontal and vertical subsetting of data
- Priority-based synchronization of multiple subsets of data
- File transfer
- Server-initiated synchronization
- and notifications

- Broadcast downloads for bandwidth efficiency
- Embeddable synchronization logic using Java or Microsoft Visual Studio
- Flexible user authentication logic
- API for C++ and .NET applications to launch and monitor synchronization
- LDAP user authentication
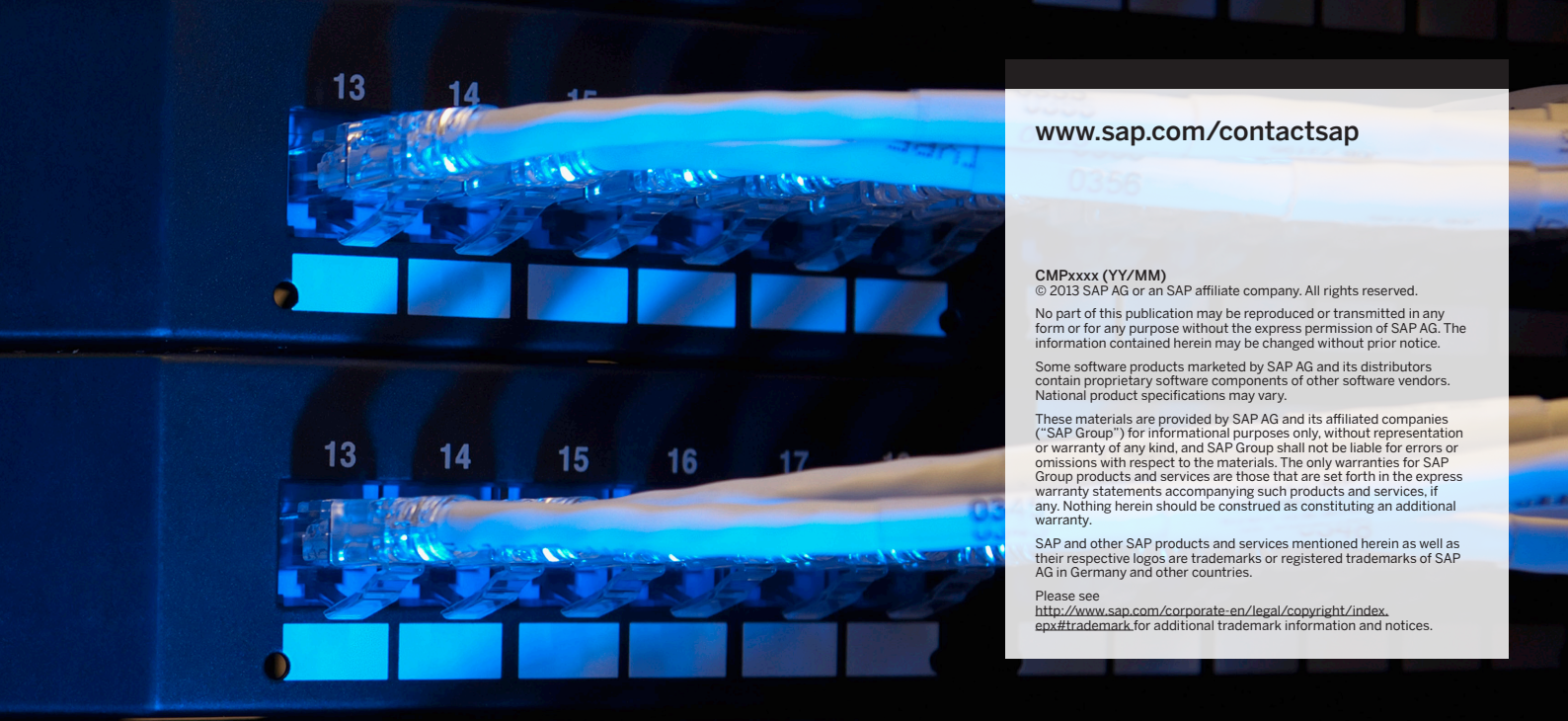- Multi-threaded network processing

SQL REMOTE FEATURES

- Reliable, bidirectional message-based synchronization
- Multiple synchronization and network protocols including FTP, file-based, email (VIM, MAPI, SMTP)
- Advanced conflict detection and programmable resolution
- Support for wireless synchronization
- Scalable to support thousands of remote databases
- Support for horizontal and vertical sub-setting of data
- Support for SAP Sybase SQL

SAP SYBASE SQL ANYWHERE COMMUNITY NETWORK

The SAP Sybase SQL Anywhere Community Network (SCN) provides a place to engage with a community of peers who can provide assistance and advice on projects. It also links to the SAP Sybase SQL Anywhere Developer Center, whitepapers, webcasts, and many other materials that will support your use of SAP Sybase SQL Anywhere technologies.

Anywhere databases

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