



# InterBase® XE7

Multi-Device embeddable database

## Feature Matrix

InterBase Features by Edition	DEVELOPER	EMBEDDED AND SERVER			
	Edition	IBLite	ToGo	Desktop	Server
Available for deployment		x	x	x	x
Zero-install, database as a library, just link to get database connectivity		x	x		
Concurrent applications/client access to the database	x			x	x
Setup Subscriptions and subscribe to Change Views	x			x	x
Remote secure over the wire communication via SSL and remote TCP/IP connections	x				x
Database and column level encryption – AES (strong) and DES (weak)	DES		AES and DES	AES and DES	AES and DES
Allows encryption of the database backup file	x		x	x	x
Allows journaling with Write Ahead Logging (WAL) for better VLDB management and OLTP performance	x				x
Allows Journal Archiving which provides disaster recovery	x				x
Allows point-in-time-recovery recovery based on timestamp for greater recovery flexibility	x				x
SQL based connection monitoring support allows monitoring of various runtime artifacts such as connections, transactions, terminate problem statements)	x				x
Maximum simultaneous users available	20	1	1	1	1 to unlimited
Maximum number of CPU Cores	8	1	4	4	32
Maximum number of connections per user	4	1	8	8	4
Simultaneous transactions per connection	Unlimited	1	Unlimited	Unlimited	Unlimited
Supported platforms for server/embedded editions	Windows, Linux InterBase XE: Mac OS X, Solaris	Windows, Mac OS X, iOS, Android	Windows, Mac OS X, iOS, Android	Windows	Windows, Linux InterBase XE: Mac OS X, Solaris
Supported client platforms for server editions	Windows, Mac OS X, Linux, Solaris				Windows, Mac OS X, Linux, Solaris
Available connectivity drivers	FireDAC, dbExpress, IBX, ODBC, JDBC, ADO.NET, PHP, Ruby	FireDAC, dbExpress, IBX	FireDAC, dbExpress, IBX, ODBC, ADO.NET, PHP, Ruby	FireDAC, dbExpress, IBX, ODBC, ADO.NET, PHP, Ruby	FireDAC, dbExpress, IBX, ODBC, JDBC, ADO.NET, PHP, Ruby

## SCALABILITY

**New!** Define Subscriptions/Change Views to multiple tables for subscribers

**New!** Subscribe and fetch changed data from multiple destination devices/applications

**New!** Distinguished Data Dump for superfast Incremental Dump

**New!** Faster database I/O

**New!** New Index managers starting with ODS 16 for faster traversal performance

**New!** Avoid need to backup/restore database due to transaction limit; 64-bit Transaction ID supported from ODS version 16.

**New!** Performance Monitoring scaled to 64-bit Integer support for long-term monitoring

**New!** Restore database backup to current and older supported ODS versions for migration testing

**New!** InterBase 64-bit Edition on Linux OS

**Enhanced!** New Services API support for Journal Archive and Database Dump Management

**Enhanced!** Faster Read Committed transaction performance for databases with large OIT – OAT gap

## NEW FEATURES INTRODUCED IN INTERBASE XE3

**New!** Concurrent index creation for faster database restores.

**New!** Compact database pages for better VLDB performance

**New!** 64-bit ODBC driver

**New!** Direct copying of databases files between XE3 platforms.

Stronger password protection with cryptographic hash function and passwords up to 32 bytes long

Support for Dynamic SQL in Stored Procedures

Support for increased buffer caches improving performance, especially for the 64 bit edition.

Optimized performance of large objects with Stream methods

Improved scalability with the ability to handle a larger data set.

## HIGH-PERFORMANCE DURABLE ARCHITECTURE

Full-featured ANSI-SQL RDBMS

Support for ACID-compliant transactions, Referential Integrity, Triggers, Cursors, Stored Procedures, Functions (including user-defined functions), and Data Domains

Extended support for international character sets including Unicode (UCS-2) and UTF-8 for internationalized applications

Support for large and complex objects and External files for multi-media applications

Small footprint (Less than 50 MB), yet highly scalable

Batch Updates allow sending a group of SQL statements to reduce network traffic and improve performance, especially in LAN and WAN environments

Thread-safe client library provides enhanced stability and improved performance for InterBase® clients

Multigenerational architecture (MVCC) enables unparalleled concurrency between readers and writers

Native multi-threaded server with background garbage collection and multi-user page-buffer management

Garbage collector thread improves response and throughput (not available in ToGo and IBLite)

Optimized memory management allocation algorithms

Stored procedure and trigger cache management

Sort buffer cache management

Thread-private Latch Cache for enhanced SMP scalability

Database and Column-level encryption to encrypt a database and/or individual columns in a database (not available in IBLite)

Strong network (SSL) encryption for remote client access (not available in IBLite)

Metadata security allows protection of intellectual property

Online Incremental physical backup

Immediate automatic recovery from system failures

Scales to handle VLDB databases; tested up to a Terabyte of data

Scales to take advantage of today's multi-core and SMP machine architectures

Scales from embedded devices and applications to single-user applications to multi-user/multi-tier enterprise demands

## BUILT FOR DEVELOPERS

Build software applications with InterBase for Android, iOS, Windows and OS X using Embarcadero RAD Studio, Delphi®, C++Builder® and Appmethod™

Free InterBase Developer Edition included with Embarcadero developer tools – RAD Studio, Delphi, C++Builder and Appmethod

Blob/Text SQL syntax enhancements allows use of BLOBs and VARCHAR data interchangeably, even in stored procedures

64 bit ADO.NET driver for Windows clients

Support by Embarcadero database management tools including DB Change Manager™, RapidSQL® and ER/Studio®

Support for multiple development tools, including RAD Studio, Delphi, and C++Builder

Support for InterBase Express (IBX), dbExpress, and FireDAC native drivers in RAD Studio (Delphi, C++) and Appmethod

Can be installed on multiple machines for testing purposes

Stored procedures encapsulate business logic on server for reduced network traffic

Dependency tracking of UDFs and generators in metadata to simplify development and reduce costs

User-defined functions for extensible query support (not available on the Android and iOS platforms)

Modular triggers and event alerts (push based)

Delimited identifiers for flexible naming conventions

BLOBs, subtypes, and filters to capture arbitrarily large, unstructured data

Cascading referential integrity constraints help maintain the validity of data

SQL-compliant DATE, TIME, and TIMESTAMP support

Large, exact numeric support

Programmable services to administer and monitor databases

Very Large Data Base (VLDB: 64 bit) I/O support allows databases in a single file to grow up to a Terabyte in length

SQL ROWS feature gives better control of the result set

Support for the SQL99 SAVEPOINT function

ODBC support for applications accessing data in a heterogeneous environments

## EASY TO EMBED AND DEPLOY

Multiple instances of InterBase on the same machine (licensed separately)

Embedded database user authentication

Self-tuning features minimize database administration

Asynchronous statement cancel gives you the ability to cancel queries

Regulate your application's usage by leveraging built-in licensing components

Cross-platform installer with unified look and feel

Easier installation and small footprint simplify deployment requirements

Silently embed InterBase into your applications with customizable install components

Windows native installer for faster install experience

Deploy databases on CD-ROM, DVD, and other read-only media

Transparent interoperability allows seamless database portability across different version of InterBase and different platforms.