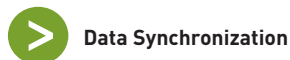




Database Layer Replication



Real-Time Backup



Data Synchronization

## Pervasive DataExchange

Many modern businesses are information-centric – their database-powered applications are key company assets. As competition mounts, your customers demand increased levels of database availability and security, including protection from downtime due to causes ranging from hardware failure to theft of a server. Your customers recognize that the database is often a single point of failure that can affect applications, and overall productivity as well.

### The Challenge You Face

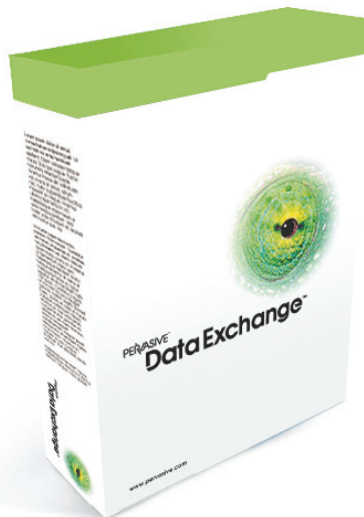
Not long ago, database deployments fell under one of two distinct configurations – centralized databases on one large server accessed by all users, or individual database servers with limited views of the data. While these uses served their purposes, both had certain limitations. A central database is a single point of failure, and remote users with low bandwidth or sporadic connections challenge the configuration. In decentralized structures, maintaining an up-to-date view of the company database for all users is an equal challenge.

Collectively, these trends point to new requirements on data availability: your customers require that mission-critical data must be where users need it when they need it. And, it must be safe and secure at all times.

### Your Solution

Pervasive® DataExchange™, Pervasive's database replication solution, addresses these issues. It reliably moves data between two or more Pervasive.SQL™ databases to maintain warm backup systems, drive data into reporting servers, or synchronize multiple remote databases.

The DataExchange technology works by capturing and sharing changes from one



Pervasive.SQL database to other databases in a DataExchange replication network. Each database is augmented with DataExchange, which adds two software components to a Pervasive.SQL database, the Replication Event Handler and the Replication Engine.

- **The Replication Event Handler (REH)** plugs directly into the Pervasive.SQL database engine. Specifically, the REH is a set of DLLs that operate within the database engine, so if the database is running, the replication event handler is running as well. The database engine activates the REH when there is a change event (insert, update, delete). The REH then makes note of the event in one of its private control tables.
- **The Replication Engine** is a separate process that performs the actual replication task. It reads the control tables to determine what records have changed since the last replication session. It then groups these changes into packets and shares them with the other replication engines participating in a DataExchange network. These other engines then apply the updates to their own databases. The replication process occurs either continuously, at scheduled intervals,

>> continued

### STRENGTHS:

- Disaster recovery solution
- Data synchronization solution
- Offline reporting solution
- Replicates Pervasive.SQL data
- Detects and resolves conflicts
- Supports complex topologies
- DDFs are not required

### SPECIFICATIONS:

#### Supported Platforms

- Windows NT 4.0 (SP3 or higher)
- Windows 2000
- Windows 2003
- Windows XP

#### Supported Databases

- Pervasive.SQL V8 SP1
- Pervasive.SQL V8.5
- Pervasive PSQL v9

#### Network

- TCP/IP between replicating computers

#### Editions

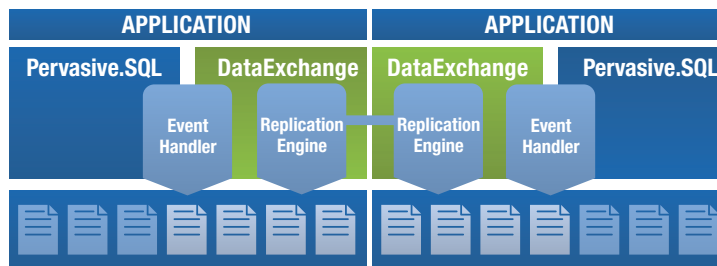
##### • The Real-Time Backup Edition

includes a DataExchange license for two Pervasive.SQL database engines (for the primary and the backup) as well as a one-user count database license (for the backup). The DataExchange engines are restricted to one-way replication and the replication network is restricted to two databases.

##### • The Data Synchronization Edition

includes a DataExchange license for one Pervasive.SQL database engine. Licenses are required for each database participating in a replication network.

or on demand. The replication engine does not require constant network connectivity, so DataExchange is suitable for scenarios with intermittent connectivity, like remote users with dialup connections.



Real-Time Replication with Pervasive DataExchange

The DataExchange engine has the following advanced capabilities:

- **Replication normally occurs at the transactional (Btrieve®) level**, so data definition files (DDFs) are not required.
- **Update packets are encrypted** using a 128-bit key. This enhances security by eliminating the possibility of unauthorized viewing of the database changes.
- **Conflicts are detected and resolved.** Conflicts occur when the same record in two different databases is edited at the same time. In most applications, data conflicts are rare or nonexistent. In cases where data conflicts may occur, there are default and user-definable resolution rules.
- **Network topology is flexible.** While most DataExchange networks include only two databases replicating back and forth, multiple database scenarios and organizations are possible. Supported topologies include ring, hub and spoke, peer to peer, and hierarchical.
- **Fine-grained data segmentation is possible.** This includes vertical (particular columns are treated as a unit), horizontal (groups of records are treated as a unit), and referential (records from different tables that are linked by a referential integrity structure are treated as a unit). This allows tight control over what set of database content is replicated where.

In addition, DataExchange includes a full suite of design, maintenance, and monitoring tools.

DataExchange comes in two editions. The **Real-Time Backup Edition** is optimized for quickly and easily maintaining a backup server. It pairs high performance with minimal installation and maintenance. The **Data Synchronization Edition** is optimized for more complex replication scenarios. It supports multiple participating databases and data flowing in multiple directions.

### DataExchange In Action

Pervasive DataExchange is in use around the world, generating value for customers in different ways. Read what they have to say:

- **Disaster recovery:** DataExchange drives data from a production server to a warm backup at an offsite location. Says Brian Swords, vice president, Corporate Trust, The Bank of New York, *"Pervasive's database replication technology and willingness to provide immediate support have been critical to our disaster recovery efforts following the World Trade Center tragedy."*
- **Data sharing:** DataExchange synchronizes multiple databases, giving a unified view of data across databases and geographies. Says Jan Molenaar, ICT manager, Ubbink Garden, *"We are so satisfied with the Pervasive DataExchange solution that we are planning to extend it to our other locations. This will spread the benefits of our real-time data-sharing network throughout the entire company."*
- **Data reporting:** DataExchange loads the database of a reporting server or Web site with fresh content from a production server. Says Henry White, court IT director, Court System of Gwinnett County, Georgia, *"Pervasive DataExchange will power the link between our justice information system and the Web portal, driving data to the portal and eliminating costly application development tasks."*

### The Value to You

Pervasive DataExchange answers your customers' calls for data availability. Whether it is for disaster recovery, reporting, or data synchronization, the sophisticated database replication technology of DataExchange will meet your needs.

### ABOUT PERSVASIVE SOFTWARE



Pervasive Software is a global value leader in data infrastructure software. The company's award-winning products enable customers to manage, integrate, analyze and secure their critical data, providing the industry's best combination of performance, reliability, and cost. Pervasive's strength is evidenced by the size and diversity of its customer base, serving tens of thousands of customers in nearly every industry market around the world. With headquarters in Austin, Texas, Pervasive was founded in 1994 and sells its products into more than 150 countries.

### FOR MORE INFORMATION

- To learn more about Pervasive Software and our solutions, please visit [www.pervasive.com](http://www.pervasive.com).
- To reach the North American sales office, call **1.800.287.4383, extension 2**.
- For Latin, Central and South America, Australia and New Zealand, call **+1.512.231.6000**.
- In Europe, for Belgium, France, Germany, Italy, Luxembourg, The Netherlands, Spain, Sweden, Switzerland and the United Kingdom, call **+800.12.12.34.34**.
- For any other European, Middle Eastern, African or Asian countries (excluding Japan), call **+32.70.23.37.61**.
- For Japan, please call **+81.3.3293.5300**, or visit [www.pervasive.co.jp](http://www.pervasive.co.jp).