

Database Replication

Let geographically dispersed employees access a single set of data



A few years ago, database replication was a high-end capability that few companies considered, let alone implemented. Now, more businesses are interested in database replication for two main reasons: Businesses are becoming more geographically dispersed yet their employees still need access to a single set of coherent data, and many companies work with massive data sets that they can't quickly restore in the event of a system failure.

Database replication is different from file replication, which essentially copies files. Database-replication products log selected database transactions to a set of internal replication-management tables. The software then periodically checks these tables for updated data and moves the data from the source to the target systems while guaranteeing data coherency and consistency.

Database replication helps handle many of the problems you can encounter with distributed systems. Replicating databases to systems in branch offices lets branch-office users access a local copy of the data instead of accessing a central server over WAN links. Database-replication products also let you transfer selected data sets to a reporting server so that you can move your processor-intensive reporting processes off of your main transactional database.

Database replication can also supplement your disaster-recovery plans by duplicating the data from a

local database server to a remote database server. If the primary server fails, your applications can switch to the replicated copy of the data and continue operations. Many database-replication products even have built-in tools to let you update the primary database with any changes that users made to the backup database while the primary database was offline.

If you have just one database management system (DBMS), you probably don't need a database-replication product—databases such as Microsoft SQL Server, Oracle, and DB2 provide internal replication features that copy data to like databases. However, if you have multiple DBMSs, a database-replication product can help because none of the major database products replicate very well to other vendors' databases.

When comparing database-replication products, check which database platforms the product supports, what types of replication the prod-

uct provides (e.g., snapshot, near-realtime, two-way), whether the product supports scheduling replications, what mechanisms trigger replication, whether the replication process is program controlled, and what database object types you can replicate. Also, determine whether you can make schema changes, whether the product supports data transformations, and whether the product supports computing new fields in replicated tables.

Database-replication products can provide a powerful mechanism to distribute your data and maintain backups that you can use if a disaster occurs.

In addition to these basic product features, you should ensure that the database-replication product you choose is compatible with your application environment. Some database-replication products might require system changes that could make your database incompatible with your applications.

Database-replication products can provide a powerful mechanism to distribute your data and maintain backups that you can use if a disaster occurs. However, you must test and evaluate database-replication products in your own environment because each environment is different and might react in ways that you don't expect.

—Michael Hotek

InstantDoc ID 23295

Editor's Note: The Buyer's Guide summarizes vendor-submitted information. To find out about future Buyer's Guide topics or to learn how to include your product in an upcoming Buyer's Guide, go to <http://www.winnetmag.com/buyersguide>. To view previous Buyer's Guides on the Web, go to <http://www.winnetmag.com/articles/index.cfm?action=buyersguides>.

Compiled by Sue Cooper

Contact Information	Product Name	Price	Description
Casahl Technology 925-328-2828 800-324-4284 http://www.casahl.com	ecKnowledge	\$10,000 to \$50,000	Enterprise data-integration platform; supports enterprise resource planning (ERP), messaging systems, databases, groupware systems, and XML
Data Junction 512-452-6105 800-580-4411 http://www.datajunction.com	Data Junction Integration Suite 7.51	\$5000	Automates all aspects of data migration, transformation, and integration between databases, directories, and applications; supports XML, EDI, legacy COBOL data, and SQL Server databases
DataMirror 905-415-0310 800-362-5955 http://www.datamirror.com	DataMirror DB/XML Transform 2.1	Contact vendor for pricing	Provides a Java-based, XML-driven engine for bidirectional data transformation between XML, database, and text formats
	DataMirror Constellar Hub 3.5	Contact vendor for pricing	Oracle-based enterprise application integration tool that enables the movement, transformation, and integration of data between heterogeneous environments from a central point of control
	DataMirror Transformation Server 4.0	Contact vendor for pricing	Captures, transforms, and flows data in realtime between DB2 Universal Database (UDB), SQL Server, Oracle, and Sybase across Windows 2000, Windows NT, UNIX, Linux, OS/400, and OS390 systems
Insession Technologies 402-333-3322 800-755-1596 http://www.insession.com	Extractor/Replicator	Contact vendor for pricing	Provides realtime, bidirectional data sharing between SQL Server, Enscribe, NS-SQL, Oracle, Sybase, Informix, DB2, and other ODBC-compliant databases; is scalable to ensure data integrity and good performance
ITI 610-647-6250 866-852-4567 http://www.itisc.com	Shadowbase3	Contact vendor for pricing	A low-latency, enterprise-class database-replication engine that provides selective or comprehensive replication between many different relational database management systems (RDBMSs) on Windows and UNIX platforms; supports bidirectional replication between two live databases
Lakeview Technology 630-573-0440 800-962-4081 http://www.lakeviewtech.com	OmniEnterprise	Contact vendor for pricing	Facilitates seamless data sharing across heterogeneous or homogeneous platforms; offers a flexible array of data distribution, conversion, and enhancement methodologies; provides change-based data replication and transformation between SQL Server, Oracle, DB2, and Sybase databases
Opalis Software 416-253-9383 888-672-5471 http://www.opalis.com	OpalisRendezVous	Starts at \$495 per license	File- and data-distribution solution that provides a graphical environment to automate transfers and replication of files and database rows; you can initiate data distribution based on date, time, file size, and file modifications
Open Universal Software 800-451-6040 http://www.universal.com	Data Distributor	Starts at \$495 per seat	Provides centralized visual management of PC users' predictable host data needs for queries and reports; seamlessly replicates between DB2 physical and logical files and SQL Server and Oracle tables and views; also replicates to spreadsheets and importable flat files
PeerDirect 416-805-9088 888-805-9088 http://www.peerdirect.com	PeerDirect Replication Engine (PDRE)	Contact vendor for pricing	Lets you deploy relational information on virtually any combination of device and database; provides bidirectional replication in heterogeneous environments to let you select the best device and database engine for every application
Vision Solutions 949-253-6500 800-683-4667 http://www.visionsolutions.com	SYMBIATOR 3.0	Starts at \$10,000	Provides realtime, cross-platform sharing of mission-critical database information; enables bidirectional data sharing between most e-commerce servers, data warehouses and data marts, or application servers across disparate or nondisparate databases