

# IBM Software Demos

## IBM Informix Dynamic Server Enterprise Replication

### IBM\_Informix\_Enterprise\_Replicaton\_D\_Sep08

In this world of Information On Demand (IOD), more and more companies find themselves managing distributed databases that spread corporate information to all corners of the enterprise.

Data replication can be the key to help ensure an effective and consistent delivery of corporate data enterprise-wide.

IBM Informix® Dynamic Server (IDS) provides Enterprise Replication (ER), an embedded high-performance solution for distributing, sharing and maximizing availability of corporate information.

Enterprise Replication provides a **flexible architecture** that allows organizations to define their replication environments based on their specific business and application requirements.

ER can be configured for **Update-Anywhere** replication model where changes made on any location are replicated to all other participating database servers.

For example, Call Centers distributed in various locations around the world would have the ability to locally update records and then replicate them to the other Call Centers allowing them to function autonomously, even when other Centers are not available.

ER can be configured for **Primary-Target** replication model where the flow of information is in one direction.

Primary-Target systems support several business models, including Data Dissemination, Data Consolidation and Workload Partitioning.

In **Data Dissemination Model**, data is updated in a central location and replicated to multiple, read-only sites.

For example, a book store chain headquarters that may need to send updated price lists of available books to its stores on a nightly basis.

In **Data Consolidation model**, data is updated at multiple sites and replicated to a central, read-only site.

An example of this model is a retail store chain that throughout the day gathers point-of-sale information that is then transmitted, at the end of the day, to the headquarters, where it is consolidated into the central data warehouse to be used in various business intelligence processes.

In **Workload Partitioning model**, users at different sites can update data only in their own partition but can view data in the entire table.

For example, a Human Resources system where the European and U.S. sites each has ownership of its own respective partition and can modify employee records for personnel in its region.

Any of the database servers in a **ER** system may be part of a **High Availability** (HA) cluster that may include an HDR pair, RSS and SDS servers. Using an HA cluster with ER helps ensure that key nodes in the replication scheme are highly available so the flow of data is not interrupted.

Enterprise Replication provides **High Performance** by not overly burdening the data source and by using **networks and all other resources efficiently**.

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ER is **embedded in IDS** and uses **Log-based Data Capture**, so it does not compete with transactions for access to production tables, and because of IDS multithreaded architecture, ER performs its **operations in parallel** with other database activities, making it a high performance solution.

ER provides mechanisms to allow **easy** set up and **deployment** of replication for systems with large numbers of tables to replicate. Using **only a few commands**, **DBAs** can **set up** replication over a large number of server nodes, or easily **add a new server** into a replication environment.

Enterprise Replication provides **Powerful Commands** or **Mechanisms** of administration.

ER can perform an **online initial synchronization** of data while replication is active.

ER also provides **Consistency Check and Re-synchronization** to correct data mismatches between replicated tables, if for some reason data is no longer synchronized.

Enterprise Replication provides support for **Online Schema Evolution** that allows modifications in replication definitions or tables without interrupting the data replication.

Enterprise Replication allows **Easy Management** of all the distributed components of the ER system from a single point of control, either by using **web-browser-based tools**, or the **command line utility** (CDR).

ER also allows DBAs to **dynamically change the replication configuration** without shutting down the entire system, and any changes in the ER configuration are **automatically propagated to other servers on the ER system**.

Enterprise Replication supports **encrypted data transmissions** and Security can be increased even more by configuring a **dedicated connection for transferring replicated data** between IDS instances.

To Learn more about IBM Informix Enterprise Replication, contact IBM today.