

Performance and Resource Usage of Rdb Databases on the OpenVMS System

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CONNX was designed to use the VMS server and PC client most efficiently either as an interactive or network process, depending on your server configuration. The workload of query processing is distributed between the two in a true client/server model. The client consists of the ODBC driver and an OLE server that resides on the PC. The server consists of the CONNX image that runs on the VAX or Alpha system. All decisions about which records match the criteria of a SQL query request are made on the server. This keeps network traffic to an absolute minimum. Additionally, only the fields requested in a query are returned to the PC.

For example, let's say a record contains 70 columns, each 10 characters in length, resulting in a total record length of 700 bytes. Using the ODBC driver, a single column (10 bytes only) or several columns (n columns x 10 bytes) may be requested, resulting in less data being sent back to the client from the server. This increases query performance, and reduces the load on the network.

Data conversion is performed on the client. This frees up the VAX or Alpha server for other tasks, and minimizes the resources required on the server when performing complex SQL statements. As a result, the CONNX Server takes up very little CPU time on the VAX or Alpha server.

A great amount of time has been given to CONNX performance when joining data from multiple tables distributed over several different Rdb (or even non-Rdb) databases. When it is more efficient to pass the SQL query straight through to Rdb, CONNX will do so. CONNX enables transparent access to the DBKEY, which then enables unique keyed access to tables, even those that do not possess a unique index of any kind. Because we do not use SQL*Services, but directly access the database via precompiled SQLMOD, there is no need to run the SQL*Services layer to achieve database access from your workstations.

In summary, CONNX was designed with performance and resource management as its Number One goal. In most cases, VAX or Alpha servers are already taxed with existing applications. CONNX provides immediate access to your Rdb data at reduced maintenance costs and with higher performance rates.

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