DB2 UDB for OS/390 and z/OS Net Search Extender
DB2 Net Search Extender for your e-business

DB2 UDB for OS/390 and z/OS Net Search Extender is a recent addition to the DB2 Extender family. Intended to serve high end e-business scenarios, it provides unique query performance and scalability by combining in-memory database technology with text search technology. However, your application has to be designed in a way that "fits" with Net Search Extender.

Using the in-memory database technology

At index creation time, DB2 UDB for OS/390 and z/OS Net Search Extender allows you to specify that parts of a table or a view should be stored in main memory. This allows you to specify that the text index is sorted by table columns. For example, you can presort a text index on a book abstract column according to a price column.

At runtime - except for calling the Net Search Extender stored procedure - involvement of DB2 can be completely avoided. A query, such as "get the author and price for all books about relational databases and order by price" is handled as follows:

DB2 UDB for OS/390 and z/OS Net Search Extender issues the text query "relational databases" against the text index. The text search engine will preserve the order specified during indexing for the in-memory search and return the cheapest books first. Net Search Extender then looks up the main memory table to get the corresponding author and price values.

DB2 UDB for OS/390 and z/OS Net Search Extender offers a wide variety of search functions dependent on the Ngram index type:

- Fuzzy search. This searches for words that are spelled in a similar way to the search term. Fuzzy search can be used to find names that have been incorrectly entered into a table or if the correct spelling is not known. For example, a search for "Andrew" can find "Andrews", "Andraw" and "Andru".
- Boolean search. This allows for conjunction, disjunction, and exclusion of search terms. Individual search terms may be single words or phrases. Information needs can be specified very accurately.
- Sub-second search response times.
- No decrease in search performance with up to 1000 concurrent queries per second.
- Outstanding response time optimization scenarios. For example, in obtaining the first number of hits from a potentially large list in the shortest time possible.
- Incremental index update
- Base search support for 37 languages, including English, Spanish, French, Japanese and Chinese.
- Support of indexing and search on large objects (LOB) and character data types
- Search on numeric attributes stored in in-memory tables
- Scalable up to terabytes

An example

A company outsources an e-mail archive with several million English e-mails. The archive is growing at a fast rate.

The requirement is to implement an application that allows 1000 concurrent users to search on the data with a sub-second response time, and to provide a high indexing speed to allow the user to search for new e-mails as quickly as possible.

DB2 UDB for OS/390 and z/OS Net Search Extender provides the necessary performance and scalability.

Text document formats supported

- Text (flat ASCII)

Platforms supported

- z/OS and OS/390.