

Datasheet

Fujitsu Software BS2000

UDS-D V2.9



Distributed UDS/SQL Databases

UDS™-D supports the management and processing of data using UDS/SQL databases in computer networks comprising several BS2000 business servers.

UDS-D removes the rigid link tying databases and applications to the same server and consequently reduces the load on the server. The data can be held on the server on which it is most often required. Other servers can access or modify this data as necessary. UDS-D fully supports the requirements of distributed transaction processing and guarantees network-wide consistency of the data, as well as providing deadlock detection and handling mechanisms. In conjunction with openUTM, UDS-D also allows the integration of heterogeneous computer networks (e.g., BS2000, Unix-based systems, Windows) and heterogeneous database management systems (e.g., SESAM/SQL-Server, ORACLE, INFORMIX).

UDS-D is easy to integrate into existing IT structures and applications. Distributed data

resources can be managed and processed with UDS/SQL databases without any need to modify the user interface. The distribution of the data is transparent to the programmer, i.e., there is no need-to-know which data is stored on which server. Access to the data is affected via the COBOL-DML or CALL-DML interface.

UDS-D is user-friendly and easy to manage. All the UDS/SQL configurations in the network can be centrally administered from one data terminal or by one program (single point of administration). Alternatively, local administration is also possible.



Functional Description

Distributed databases

With UDS-D, the distribution of databases in a computer network is dependent solely on the requirements of the users. It can therefore be optimized to match the individual needs of customers.

The internal structure of existing databases is preserved when UDS-D is introduced. Consequently, existing databases can be integrated into the distribution scheme without need for conversion. If a server connection fails, databases can continue to be processed on a local basis.

Queries submitted to databases are forwarded by UDS-D in accordance with a distribution list to the server on which the required data is stored. Before the transfer, the data is compressed in order to ensure short transmission and response times. Queries can be issued from within time-sharing or transaction applications.

Transparency of the distribution

When formulating queries to a UDS/SQL database, there is no need to take account of how the data is distributed over different servers. Existing application programs can therefore continue to be used without modification.

Network-wide transaction security and deadlock handling

Within a single UDS transaction, UDS-D allows access to multiple distributed database configurations in a computer network.

The data in each of the databases accessed can also be updated at the same time. A transaction involving accesses to databases via a computer network is completed only when all the databases involved are in a consistent state. Otherwise, the transaction is rolled back (reset).

Deadlocks anywhere in the network are detected and resolved using an optimized mechanism.

If a UDS transaction is interrupted as a result of a session being aborted, special routines are initiated at a warm start to ensure that data consistency is maintained across all the servers involved.

Centralized/decentralized administration and operation

Database configurations distributed across a number of servers can be administered and controlled from a single central administration console. Most administration functions can even be automated using a special program.

The software product OMNIS acts as the central connection handler between all the UDS/SQL configurations and the administration console or program.

Alternatively, distributed UDS/SQL databases can also be administered and controlled locally.

Technical details

Technical Requirements

Hardware	BS2000 Business Server
Software	BS2000 V10.0 or higher or OSD/XC V10.0 or higher UDS/SQL V2.9
Operating mode	Interactive and batch mode
Implementation language	SPL4, Assembler
Installation	By the user in accordance with the release notice
Dokumentation	UDS/SQL Database Operation
Conditions	This software product can be leased by the customer in accordance with the conditions for the use of software products.
Ordering and delivery	This software product can be obtained from your local Fujitsu regional office.

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