

Datasheet

FUJITSU Software BS2000 SESAM/SQL-DCN V8.0

Distributed SESAM/SQL Databases

BS2000 Mainframes

Mainframes are outstandingly suited as central high-performance systems to precisely meet the demand in the server pool of modern data centers.

When it comes to handling large quantities of data, economically supporting numerous end users and at the same time ensuring permanent availability the BS2000 Mainframe technology is an important component in dynamic infrastructures.

BS2000 mainframes are more than just servers: they are a complete and autonomous IT infrastructure for your applications providing the rock-solid heartbeat for your data center.

Database in a Computer Network

SESAM/SQL-DCN (BS2000/OSD) is designed to manage and process SESAM™/SQL databases included in computer networks.

If SESAM/SQL-DCN is used, it is no longer necessary to assign the databases and applications used in a program run to the same server, whose load is thus reduced. The data can be kept in the server where they are most frequently needed. Other servers can retrieve or update this data if required. Different computer networks can thus be processed. In hierarchical networks, for instance, both central departments and the branches of a company or a public authority have access to distributed databases. SESAM/SQL-DCN fully supports distributed transaction processing using network-wide deadlock and longlock recognition and handling.

SESAM/SQL-DCN is a user-friendly software product. Distributed SESAM databases can be managed and processed via an unchanged user interface. Distributed data storage is thus transparent for programmers, i.e. they do not need to know which data is stored on which server.



Topics

Distributed databases

The distributed databases in a computer network form a logical unit. Distribution rules in the form of a database directory define the full range of addressable SESAM/SQL databases present in the computer network. The data model used in these databases will be either linear or relational, depending on the underlying database system. The database distribution pattern within a computer network is purely application-driven, but it should be such that a particular DB configuration is located in the server in which it is most frequently processed on a local basis.

The internal database structure is identical with that of existing databases, so these can be processed unmodified in SESAM/SQL-DCN network. All SESAM's typical features, such as data compression and the separation of user and system data, are retained. There are no dedicated inter-computer access paths: the database directory simply has to be present at the time of processing in every server which is needed.

This reduces synchronization requirements to a minimum, thereby increasing system flexibility. Every database remains operable independently of the network and continues to be functional even in the event of the server interconnections failing, which has the added advantage of simplifying the changeover from centralized database systems to distributed databases.

Transparency (invisibility) of DB distribution at the application interfaces

The fact that a distributed system is being used can safely be ignored in formulating a request to the database system. Consequently it is entirely feasible to continue using existing application programs in the homogeneous BS2000 network, and at any point in that network. It is not necessary to install SESAM/SQL-Server on the server of the application program. SESAM/SQL-DCN is sufficient.

Network-wide transaction security and dead-lock handling

SESAM/SQL-DCN allows a number of distributed database configurations within a network to be accessed in the course of a SESAM transaction. In the process it is possible for changes to be made in each and every one of the databases involved. Deadlocks and longlocks are detected on a network-wide basis, and an optimized technique is applied to resolve them. A transaction which has entailed accesses via a computer network is terminated only when all the databases involved are in a consistent status; if this cannot be achieved, the transaction is reset.

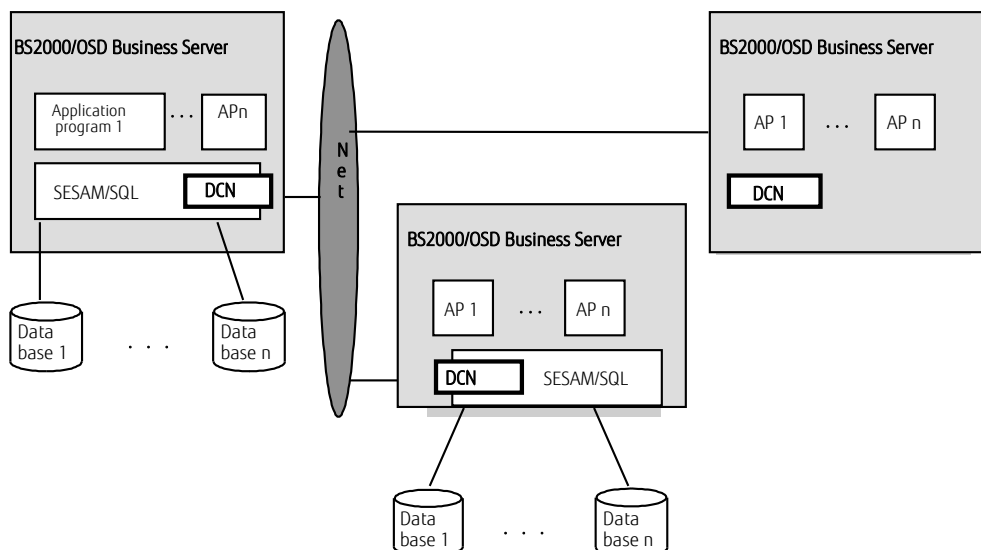
Warm start

If a SESAM transaction is interrupted owing to a session being aborted, special routines operate in conjunction with the warm start procedure to maintain global data consistency in all the servers involved in the transaction.

Centralized/decentralized administration and operation

Administration for the entire system of configurations on the various servers sharing in the network, including all the single systems, can be done centrally from one terminal.

Alternatively, administration and operation for the SESAM configurations which are part of the distributed network can be handled on a local basis.



Technical Details

Requirements	
Technical Requirements Hardware	BS2000 Business Server
Technical Requirements Software	BS2000 OSD-BC as of V8.0 oder OSD-XC as of V4.0 SESAM/SQL Server V8.0
- optional	openUTM as of V5.3
Demands on the user	Knowledge of BS2000
Installation and operation	
Operating mode	Interactive (dialog), transaction and batch mode
Implementation language	Assembler, C
User interface	Commands in English, message texts in German/English
Installation	By the customer according to the release notice
Documentation and training	
Documentation	See documentation for SESAM/SQL Server
Training	See course offer at: https://training.ts.fujitsu.com/de/bs2000-osd.html (German)
Purchasing	
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 may be obtained from your local Fujitsu Technology Solutions GmbH regional office.

More information

Fujitsu products, solutions & services

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<http://www.fujitsu.com/fts/products/>

In addition to BS2000, Fujitsu offers a full portfolio of other computing products:

- Storage systems: ETERNUS
- Server: PRIMERGY, PRIMEQUEST, Fujitsu SPARC M10, BS2000 Mainframe
- Client Computing Devices: LIFEBOOK, STYLISTIC, ESPRIMO, FUTRO, CELSIUS
- Peripherals: Fujitsu Displays, Accessories
- Software
- Network

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Fujitsu green policy innovation

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