

DATA SHEET

NFS (BS2000/OSD)

Version 3.0

Network File System (NFS) for BS2000/OSD

Issue June 2009

Pages 2

NFS is a protocol which allows files to be accessed via a network.

With NFS in BS2000/OSD, local files and directories of a BS2000/OSD server can be made available for processing on a remote system in the LAN.

Equally, files and directories that have been made available on the BS2000/OSD server can be processed as if they were local files.

The disk peripherals of a BS2000 system thus become the central file store for other (smaller) IT systems, making the BS2000 system into a central data server.

In addition to the server functions, NFS also offers the client function for BS2000 users. This client function provides access to other NFS server systems.

NFS as central data server

With NFS, the disk peripherals of a BS2000 system are turned into the central file store for other, mainly smaller IT systems, as well as for third-party systems with an NFS client function and connected to a LAN. This makes the BS2000 system the central data server.

BS2000 users work with NFS files via the program and command interfaces of the POSIX file system and can access files in the same way as in local (POSIX) file access, even if the files are physically stored on a remote system.

NFS runs on top of the POSIX subsystem.

NFS as client

NFS is available as a server or as a client. NFS (BS2000/OSD) and NFS (Solaris) and the NFS client function of other IT systems can interwork with the UNIX file system in BS2000 via the NFS (BS2000) server.

In addition to the server functions, NFS (BS2000/OSD) also offers the client function for BS2000 users. This client function provides access to other NFS server systems, e.g. NFS (Solaris).

Deploying NFS in LAN environments is particularly attractive in conjunction with Solaris systems from Fujitsu, since NFS is included as standard as part of the Solaris operating system.

NFS components: commands and daemons

The use of NFS is made possible by the POSIX file system. The file system required is exported from the remote computer using the *share* command and then mounted on the local computer's file system using the *mount* command. NFS daemons are mostly system processes that run in the background and coordinate network processes, such as I/O activities for supporting PCs. NFS daemons are started automatically when NFS is started.

Data protection

In a local network, all partner computers with NFS (client function) can access POSIX file systems in BS2000/OSD systems. As the data resources can be shared, special precautions must be taken to prevent unauthorized access. To provide data protection, several protection mechanisms can be used:

- File access rights
- Authorization service
- Protection against access by other system administrators on the network
- Port monitoring

Protocol version 3

NFS protocol versions 2 and 3 can be used simultaneously in product version NFS V3.0. During the connection setup between client and server, the computers negotiate which NFS protocol version can be used.

Better performance is achieved with NFS protocol version 3 than protocol version 2, mainly because of the saving on calls to determine file attributes. On the NFS protocol side, V3.0 supports access to large files. This means that remote file systems containing files larger than 2 GB can also be mounted.

BS2000/OSD-BC V4.0 with POSIX V4.0A33 supports large local file systems and files: > 2 GB, max. 32 GB.

BS2000/OSD-BC V5.0 with POSIX V5.0A33 supports large local file systems and files: > 2 GB, max. 1 TB.

TECHNICAL DETAILS

NFS (BS2000/OSD)

Hardware

BS2000/OSD business server

Software

BS2000/OSD-BC V3.0 or higher with
POSIX-BC V3.0A31 or higher
openNet Server (BS2000/OSD) V1.0 or higher
Optionally for access to large files
C/C++ (BS2000) V3.0C or higher
and CRTE (BS2000) V2.3C or higher

Implementation language

C

User interface

English

Installation

By the user, on the basis of the release notice or the installation guide in the POSIX basics user manual

Documentation

NFS V3.0 / NFS V1.2C
User guide

Training

See training courses offered at:

<http://ts.fujitsu.com/training>

Conditions

This software product can be purchased by the customer against a single payment or leased in accordance with our conditions for the use of software products.

Ordering and delivery

This software product may be obtained from your local Fujitsu regional office.

Information about environmental care, policies, programs and our Environmental Guideline FSC03230:

ts.fujitsu.com/aboutus

Take back and Recycling information: ts.fujitsu.com/recycling
