

FUJITSU Software openFT (BS2000) V12.0

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Release Notice

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1 General

*1 This Release Notice is a summary of the major extensions, dependencies and
*2 operating information with respect to openFT V12.0C01 as well as the additional
*2 components openFT-AC V12.0C01, openFT-FTAM V12.0C01, openFT-FTP
*2 V12.0C01 and openFT-CR V12.0C01 under the BS2000 operating system that are
*1 not included in the Product Facts and in the manuals.

*2 The release level is that of: June 2016.

*2 Changes to release level November 2015 are marked with *2.
*1 Changes to release level September 2012 are marked with *1.

openFT is the "Managed File Transfer" from Fujitsu and serves to transfer files securely between different systems with different file transfer protocols (openFT, ISO/FTAM and FTP) via different transport systems at selectable points in time. Besides their transfer, openFT also enables the operating system-independent administration of files.

This and other current Release Notices are shipped on the SoftBooks DVD and are available online at <http://manuals.ts.fujitsu.com/>.

If one or more previous versions are skipped when this product version is used, the information from the Release Notices (and README files) of the previous versions must also be noted.

*1 Please note the license information about openSSL in the User Guide. This and
*1 further are also stored in SYSDOC.OPENFT.120.OSS.

1.1 Ordering

*1 openFT V12.0C and the additional components¹ can be ordered from your local distributors.

This software product is made available to the customer subject to the general terms and conditions of the software product use and service agreement in return for a one-off payment / regular payments.

A license is required for openFT, openFT-AC, openFT-FTAM and openFT-FTP. Appropriate licenses must be ordered in order to use the product.

1.2 Delivery

*1 The openFT V12.0C files as well as the additional components are supplied via SOLIS.

The current file and volume characteristics are listed in the SOLIS2 delivery cover letter.

1.3 Documentation

¹ openFT-AC V12.0C01, openFT-FTAM V12.0C01, openFT-FTP V12.0C01, openFT-CR V12.0C01

The BS2000 documentation is available in German and English on DVD with the title BS2000 SoftBooks.

The documentation is also available in the form of online manuals at <http://manuals.ts.fujitsu.com>.

The manuals may be supplemented with README files. These contain changes and extensions to the manual of the product concerned. The README files are available online under <http://manuals.ts.fujitsu.com>.

2 Software extensions

- *1 Only the extensions and improvements over the previous versions openFT V11
- *1 and V12.0A are described in the following section.

2.1 Extended logging functions

- Switching the logging file and offline logging
The FT administrator can change the logging files during ongoing operation. After the switch new logging records can be written into a new logging file. The previous logging file continues to exist as an offline logging file; its logging records can still be viewed using openFT resources.
The command interface has been extended as follows for this purpose:
 - MODIFY-FT-OPTIONS:
New operand value LOGGING=*CHANGE-FILES to switch the logging file.
 - SHOW-FT-LOGGING-RECORDS:
New operands LOGGING-FILE and PREVIOUS-FILES to view logging records from offline logging files.
New operand value INFORMATION=*LOGGING-FILES to output the names of all logging files (including offline logging files).
 - DELETE-FT-LOGGING-RECORDS:
New selection criterion *LOGGING-FILES to delete offline logging files.
- Automatic deletion of logging records
Time intervals can be set via operating parameters for the automatic deletion of logging records. To this end, the command MODIFY-FT-OPTIONS has been extended to include the new operand DELETE-LOGGING. The settings can be displayed via the command SHOW-FT-OPTIONS.
- Polling function for the output of logging records
In the case of SHOW-FT-LOGGING-RECORDS the new operand NUMBER=*POLLING can be used to set the time interval and the number of repeats (polling).
- Wildcards for partner names for the output of logging records
In the case of SHOW-FT-LOGGING-RECORDS the wildcard symbols "*" and "?" can also be specified for the partner names.

2.2 Extended security functions

- Importing of keys
The new command IMPORT-FT-KEY can be used to import both externally created private keys and public keys from partner systems.
- Expiration date and authentication level of RSA keys
 - The new command MODIFY-FT-KEY can be used to set an expiration date and change the authentication level (1 or 2) for keys that are used to authenticate partner systems.
 - The new command SHOW-FT-KEY can be used to output the features of the keys stored in the system.
 - The authentication level is displayed for SHOW-FT-LOGGING-RECORDS (output parameter SEC-OPTS – new values LAUTH2 and RAUTH2).

- Enforce data encryption
The new operand ENCRYPTION-MANDATORY in the command MODIFY-FT-OPTIONS can be used to generally enforce data encryption for file transfer and administration requests. The setting is possible on a separated basis for inbound and outbound requests.
- After initial installation openFT uses an RSA key of length 2048 as standard.

2.3 Extended partner management

- The FT administrator can also explicitly deactivate a partner in the partner list for inbound requests. For this purpose, the syntax of the operand STATE in the commands ADD-FT-PARTNER and MODIFY-FT-PARTNER has been changed and extended to include the parameters INBOUND and OUTBOUND. The current setting is shown in the output parameter INBND for SHOW-FT-PARTNERS.
- Serialization of asynchronous outbound requests for certain partners
The FT administrator can use the new option REQUEST-PROCESSING in the commands ADD-FT-PARTNER and MODIFY-FT-PARTNER to control whether asynchronous outbound requests for a certain partner are always performed serially or whether parallel connections are allowed. This feature is shown in the output parameter REQU-P for SHOW-FT-PARTNERS.

2.4 Extended request management

- Global request identification
In the event of an FT request the initiator's request number is transmitted to the responder, where it is visible as a global request identification. This enables a request to be clearly assigned between initiator and responder.
The commands SHOW-FILE-TRANSFER and SHOW-FT-LOGGING-RECORDS have been extended as follows:
 - The global request identification is in each case shown in the new output parameter GLOB-ID in the responder.
 - The new parameter GLOBAL-REQUEST-ID can be used in both commands to make a selection according to a global request identification.
- Show cancelled requests
In the case of the command SHOW-FILE-TRANSFER you can use the new operand value STATE=*CANCELLED to select cancelled requests that have not yet been completely ended.

2.5 Standard accounting of a user

The standard accounting number of a user is used by specifying ACCOUNT=*NONE. ACCOUNT=*NONE can be specified with the following commands and operands:

- CREATE-FT-PROFILE and MODIFY-FT-PROFILE, operands USER-ADMISSION and PROCESSING-ADMISSION.
- TRANSFER-FILE and TRANSFER-FILE-SYNCHRONOUS, operands TRANSFER-ADMISSION and PROCESSING-ADMISSION

2.6 Other changes

- Transfer time of send file
By specifying the operand LAST-CHANGE-DATE in the commands TRANSFER-FILE and TRANSFER-FILE-SYNCHRONOUS you can control whether the change time of the send file is transferred to the receive file.
- The maximum value for the TRANSFER-ID (request number), which can be specified for various commands, has been changed to 2147483647.
- The description of the OPS variable for SHOW-FT-PARTNERS has been extended to include the output parameters for ADM partners.

*1 The innovations over the previous version openFT V12.0A are described in the
*1 following section. A detailed description of the innovations to openFT V12.0C is
*1 online available under <http://manuals.ts.fujitsu.com> .
*1

*1 2.7 Deactivate restart function

*1 As of openFT V12.0C the restart function can be deactivated partner specific or
*1 global. The commands MODIFY-FT-OPTIONS (parameters RECOVERY-
*1 OUTBOUND, RECOVERY-INBOUND), ADD-FT-PARTNER and MODIFY-FT-
*1 PARTNER (parameters RECOVERY-OUTBOUND) are extended. The output of
*1 the command SHOW-FT-PARTNERS was extended.

*1 2.8 Configuration of minimum key length

*1 For an openFT instance it is possible to require a minimum RSA key length for the
*1 negotiation of the openFT session encryption key.

*1 2.9 Support of Last Byte Pointer (LBP)

*1 As of openFT V12.0C the transfer of Node-Files (containing LBP) is supported.
*1 The File-Lock mechanism is not available during interruption of transfer.

3 Technical information

3.1 Resource requirements

The following memory range in system and user address space is required for operation:

openFT	3.2 MB + 4 MB (dynamic) for each instance started
openFT-AC	420 KB
openFT-FTAM	832 KB
openFT-FTP	194 KB + 2.6 MB per instance

These values represent a minimum requirement that may increase depending on the amount of data and the application used

The openFT request file SYSRQF has a default size of 12690 PAM pages, the option file SYSOPF requires 6 PAM pages and the partner list requires 1824 PAM pages.

The size of the logging file and possible trace files under the SYSFJAM ID is variable. You should therefore regularly delete any superfluous logging records and trace files.

Disk space and memory requirements of openFT-CR are negligible. However, encrypting transmissions places a high load on the CPU. Encryption should therefore only be used when necessary. Use a crypto box for a higher performance of encrypted transfers. Critical data like user IDs, passwords, etc. that is needed to establish a connection is always encrypted - with negligible CPU usage - if the partner is capable of doing so.

3.2 Software configuration

BS2000/OSD-BC as of version 7.0 is required for openFT V 12.0.

In addition, openNET Server as of V3.2 is required. POSIX-BC is required to support POSIX files.

- *1 The following versions are required for using optional supplement components:
- *2 - openFT-AC V12.0C01 for using the enhanced access protection FTAC (FT Access Control)
- *1 - openFT-FTAM V12.0C01 for using the ISO file transfer and file management protocol FTAM
- *1 - openFT-FTP V12.0C01 for using ftp protocol
- *2 - openFT-CR V12.0C01 for data encryption (The component is provided for a minor processing fee. It may be used and copied at random as long as the export and re-export regulations are observed.)
- *1
- *2 openFT-FTAM V12.0C01 requires:
- *2 - openFT V12.0C01
- OSS V4.1C
- *2 openFT-AC V12.0C01, openFT-FTP V12.0C01 and openFT-CR V12.0C01
- *2 require:
- *2 - openFT V12.0C01

3.3 Product installation

3.3.1 openFT

The product openFT must be installed with the installation monitor IMON. The information concerning installation in the delivery cover letter and in the product manual must be followed as well as the information below.

Before calling IMON, perform the activities listed in the delivery cover letter as installation requirements.

If you change version from openFT V11, the following activities should be performed in all existing instances before installing with IMON:

1. Ensure at the time of the change that no requests are entered in the request queue, because requests cannot be taken over when you change from V11 to V12. Such requests would be lost and possibly result in "dead requests" for partners.
2. Save the operating parameters in a procedure file. For this purpose specify the following commands:
/ASSIGN-SYSLST TO=option-file
/SHOW-FT-OPTIONS OUTPUT=*SYSLST(LAYOUT=*BS2-PROC)
/ASSIGN-SYSLST TO=*PRIMARY.

The first column of the file created (in the example the option file) contains print control characters. This is why you have to subsequently delete the first column.

Important: Due to an error of V11 in the above /SHOW-FT-OPTIONS command 'option-file' brackets are possibly missing in the parameter ACTIVE-APPLICATIONS in the created procedure (only required when specifying a list of protocols). Please complete the procedure, where applicable, before executing.

3. Save the partner configuration in a procedure file, unless work is solely done with the automatic process of dynamic partners. For this purpose specify the following command:
/START-OPENFTPART output=partner-file
4. Save the other openFT system files SYSRQF, SYSLOG, SYSKPL, SYSKEY and SYSFSI on the instance ID (for the standard instance \$SYSFJAM) for a possible version rollback.
Instead of saving the file SYSLOG, you can write the contents, e.g. also in CSV format, using the same method as in 2, in a file
(SHOW-FT-LOGGING-RECORDS OUTPUT=*SYSLST(LAYOUT=*CSV) and save it for subsequent evaluation. After the installation, you can continue working with the new SYSLOG.
5. Delete the files SYSOPF, SYSRQF, SYSPTF and possibly also SYSLOG if the old logging records are no longer needed in the new version. If you don't delete the files SYSOPF, SYSRQF and SYSPTF, problems occur at START-SUBSYSTEM.
6. If work is done with authentication, the files SYSKPL and SYSKEY have to be taken over into the new version and should in no way be deleted.

After these actions have been executed you have to install the product with IMON. The necessary inputs and the sequence of the installation are described in the IMON documentation.

After completing the IMON installation of openFT and any necessary additional delivery units (openFT-AC, openFT-FTAM, openFT-FTP and openFT-CR), the new files SYSRQF, SYSOPF and SYSPTF are automatically recreated during first access by openFT.

Now let the procedures created during save run (in the example the option file and partner file). In this way, you can continue working with the old operating parameter settings and the old partner configuration.

Information about openFT-FTP

If you use openFT-FTP, you should note that the FTP server is automatically deactivated after the installation. If work is to be done on an inbound basis with openFT-FTP, you then have to activate the FTP server. The following command activates all transfer protocols:
/MODIFY-FT-OPTIONS ACTIVE-APPLICATIONS=*ALL

3.3.2 openFT-AC, openFT-FTAM, openFT-FTP and openFT-CR

The products openFT-AC, openFT-FTAM, openFT-FTP and openFT-CR must be installed with the installation monitor IMON. The information concerning installation in the delivery cover letter and in the product manual must be followed as well as the information below.

The inputs required and the IMON installation procedure are described in the IMON manual.

The profile file SYSFSA of openFT-AC can be taken over respectively used further. In the event of a possible version rollback the file \$SYSFJAM.SYSFSA should be saved beforehand.

3.4 Product use

All migration activities for openFT V12.0A are described in the openFT V12 for BS2000/OSD System Administrator Guide.

openFT V12 is compatible to openFT versions that still receive maintenance.

Authentication level 2 (AUTHL2) is supported as of openFT V11.0B.

FTAC admissions must be specified as user name for a connection FTP / openFT-FTP. A password must not be specified (confirm password request with enter).

If the POSIX interface is used, no names should begin with @, because e.g. the command `ftdelp @a` deletes all profiles. Profiles, partners, instances and routing-IDs are affected.

Information on everyday problems can be found in the 'Frequently asked questions' section of the User Guide.

Courses for openFT V12 are offered by Fujitsu Technology Solutions (<http://training.ts.fujitsu.com/>). You may also send any questions you have on courses to openFT@ts.fujitsu.com.

3.4.1 openFT-CR

openFT must be stopped and started after installation of openFT-CR. Since the encrypted data must be decrypted by your openFT partner, he must also run openFT-CR in order to use this functionality.

3.5 Obsolete functions (and those to be discontinued)

None.

3.6 Incompatibilities

- Default length of the RSA key is 2048
The standard length of the RSA key in system options as of openFT V12 is no longer 768, but 2048. This applies for initial installation and is output for the command SHOW-FT-OPTIONS.
- Error correction in the command START-FTTRACE
In the batch environment in BS2000 display is not possible by means of SHOW-FILE. The appropriate parameter of the command START-FTTRACE will therefore no longer be permitted in future in the batch; the default in batch operation is SHOW-FILE=*NO.

3.7 Restrictions

None

3.8 Procedure in the event of errors

If an error occurs, the following error documents are needed for diagnostics:

- A detailed description of the error condition, indicating whether and how the error can be reproduced.
- The error must be reported to the appropriate service provider.
A PERLE error report will be opened for Second Level Support.

See also the appropriate information in the manuals:

- User Guide, section 'What to do if..'
- System Administrator Guide, section 'Creating diagnostic documentation '

An AIS Connect access is essential for diagnostics. If this is not available, the service provider is entitled to invoice additional services rendered.

4 Hardware requirements

openFT V12.0 runs on all business servers supported by BS2000/OSD as of V7.