

# Fujitsu Software openFT (BS2000)

Version 12.1C

November 2025



## Release Notice

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# 1 General

- \*1 This Release Notice is a summary of the major extensions, dependencies and operating information with respect to openFT V12.1C95 as well as the additional components openFT-AC V12.1C95, openFT-FTAM V12.1C95 and openFT-FTP V12.1C95 under the BS2000 operating system that are not included in the Product Facts and in the manuals.
- \*13
- \*13
- \*13
- \*13 The release level is that of November 2025.
- \*13
- \*13 Changes to release level June 2025 are marked with \*13.
- \*12 Changes to release level November 2024 are marked with \*12.
- \*11 Changes to release level June 2024 are marked with \*11.
- \*10 Changes to release level November 2023 are marked with \*10.
- \*9 Changes to release level June 2023 are marked with \*9.
- \*8 Changes to release level November 2022 are marked with \*8.
- \*7 Changes to release level June 2022 are marked with \*7.
- \*6 Changes to release level November 2021 are marked with \*6.
- \*5 Changes to release level June 2021 are marked with \*5.
- \*4 Changes to release level November 2020 are marked with \*4.
- \*3 Changes to release level June 2019 are marked with \*3.
- \*2 Changes to release level May 2018 are marked with \*2.
- \*1 Changes to release level July 2017 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 <https://bs2manuals.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.

Please note the license information about openSSL in the manual openFT V12.1 Concepts and Functions. This and further are also stored in SYSDOC.OPENFT.121.OSS.  
As of V12.1C00 openFT-CR is integrated in openFT.

## 1.1 Ordering

- \*13 openFT V12.1C95 and the additional components<sup>1</sup> can be ordered at your local Fujitsu sales contact. Alternatively, please contact us at [openFT@ts.fujitsu.com](mailto:openFT@ts.fujitsu.com).
- 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 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.

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<sup>1</sup> openFT-AC V12.1C95, openFT-FTAM V12.1C95, openFT-FTP V12.1C95

## 1.2 Delivery

\*13 The openFT V12.1C95 files as well as the additional components are supplied via SOLIS.

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

## 1.3 Documentation

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 <https://bs2manuals.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 <https://bs2manuals.ts.fujitsu.com>.

## 2 Software extensions

Only the extensions and improvements over the previous version openFT V12.0C are described in the following section.

### 2.1 Extended Unicode support

On all Unicode capable systems, file names, FTAC transfer admissions and follow-up processing may consist of Unicode characters. To permit this, the function "Encoding Mode" has been introduced in order to represent the Unicode names correctly on all involved systems.

The new field FNC-MODE in the long output of log records displays the encoding mode for the file name (command SHOW-FT-LOGGING-RECORDS). The OPS variables have been extended by the elements FNC-MODE and FNCCS.

### 2.2 Logging

For inbound requests, the long output and CSV output of log records display the address of the partner system in the new field PTNR-ADDR. The partner address is also displayed in the OPS variable PARTNER-ADDRESS.

### 2.3 Extended security functions

An openFT instance can require a minimum AES key length for the openFT session encryption. The minimum AES key length can be defined in the operating parameters. To permit this, the following commands have been modified:

- MODIFY-FT-OPTIONS: New parameter AES-MINIMUM for the KEY-LENGTH operand.

### 2.4 Tools

- New command GET-REMOTE-FILES for synchronous or asynchronous fetching of multiple files specified by wildcards from a remote system.
- New diagnostics command FTPING on BS2000-POSIX for testing the openFT connection to a remote partner.

### 2.5 Support of SAM Node files

SAM files, which are stored on a network drive for using in systems in the open world (Node-files), are supported.

### \*1 2.6 Encryption of File Management Requests

\*1 As of openFT V12.1B also the encryption of file management requests will be  
 \*1 offered in addition to the already existing encryption of user data. Therefore, the  
 \*1 commands /SHOW-REMOTE-FILE-ATTRIBUTES, CREATE-FT-PROFILE,  
 \*1 MODIFY-FT-PROFILE and output of SH-FT-PROFILE are extended.

\*1 The operating parameter ENC-MAND for outbound requests is now also operative  
 \*1 for file management requests.

- \*1 The option DATA-ENC=\*YES of command GET-REMOTE-FILES is extended to
- \*1 encrypt the file(s) attribute list.

\*3 **2.7 File-Name Encoding support at transfer file interface**

\*3 As of V12.1C00, openFT supports different character coding for the specification  
 \*3 of remote file names, pre, post and follow-up processing for transfer commands. A  
 \*3 distinction is made between the following two modes for these parameters:  
 \*3 FILE-NAME-ENCODING = \*TRANSPARENT / \*CHARACTER

- \*3 This concerns the commands
- \*3 TRANSFER-FILE-SYNCHRONOUS / FTSCOPY
- \*3 TRANSFER-FILE / FTACOPY
- \*3 CREATE-REMOTE-DIR / FTCREDIR
- \*3 DELETE-REMOTE-DIR / FTDELDIR
- \*3 MODIFY-REMOTE-DIR-ATTRIBUTES / FTMODDIR
- \*3 SHOW-REMOTE-FILE-ATTRIBUTES / FTSHW
- \*3 MODIFY-REMOTE-FILE-ATTRIBUTES / FTMOD
- \*3 DELETE-REMOTE-FILE / FTDEL
- \*3 EXECUTE-REMOTE-CMD / FTEXEC
- \*3 EXECUTE-REMOTE-FTADM-CMD / FTADM
- \*3 Unicode support is also available at programming interfaces.

\*3 **2.8 Logging Library Members**

\*3 Previously in case of library member transfer only the name of library has been  
 \*3 shown in log record (in last column titled FILENAME). From now FILENAME  
 \*3 column in log record is being displayed in following format:  
 \*3 <libname>/<type>/<element>(<version>)  
 \*3 or:  
 \*3 <libname>/<type>/<element>  
 \*3 depending on the version was given in transfer command or not, accordingly.

\*4 **2.9 Logging Remote File Names**

\*4 Starting from version 12.1C10 log record is extended by remote file name. New  
 \*4 field REMOTE-FN is displayed in long form output for outbound FT and FTAC  
 \*4 logging records. All output formats support REMOTE-FN (CVS and OPS variable).  
 \*4 Further information see manual.

\*9 **2.10 3K and 4K long RSA key lengths support**

\*9 All RSA keys can be displayed as before with the SHOW-FT-KEY command:

\*9

| CRE-DATE   | EXP-DATE | KEY-LEN | KEY-REF | AUTHL | PARTNER | IDENTIFICATION |
|------------|----------|---------|---------|-------|---------|----------------|
| 2023-09-27 |          | 768     | 1       |       |         | 2              |
| 2023-09-27 |          | 1024    | 1       |       |         | 2              |
| 2023-09-27 |          | 2048    | 1       |       |         | 2              |
| 2023-09-28 |          | 3072    | 1       |       |         | 2              |
| 2023-09-28 |          | 4096    | 1       |       |         | 2              |
| 2023-09-28 |          | 768     | 2       |       |         | 2              |
| 2023-09-28 |          | 1024    | 2       |       |         | 2              |
| 2023-09-28 |          | 2048    | 2       |       |         | 2              |
| 2023-09-28 |          | 3072    | 2       |       |         | 2              |
| 2023-09-28 |          | 4096    | 2       |       |         | 2              |

- \*9 In terms of interface, selecting a 3k or 4k key for encryption is now possible. It can
- \*9 be set by using MODIFY-FT-OPTIONS with the KEY-LENGTH parameter.
  
- \*9 In KEY-LENGTH, RSA-PROPOSED and RSA-MINIMUM parameters were
- \*9 extended with the possibility of setting 3K and 4K keys.
  
- \*9 SHOW-FT-OPTIONS command can be used to verify RSA-PROP and RSA-MIN
- \*9 values.

\*10 **2.11 OpenFT partner-specific configuration encryption properties**

\*10 **RSA-MIN and RSA-PROP**

- \*10 OpenFT partners entry has new properties: RSA-PROP and RSA-MIN which are
- \*10 set by -kl and -klmin flags respectively, or RSA-PROP and RSA-MIN fields in
- \*10 openFT explorer. These properties have priority over those set in the general
- \*10 settings with ftmodo (displayed with ftshwo command). Currently this feature is
- \*10 implement for Linux, Solaris , Windows and BS200 platforms, excluding the z/OS
- \*10 platform. For more details please refer to openFT manual

\*13 **2.12 SHA-2-512 for BS2000**

- \*13 Started from version 12.1C95 on BS 2000 added support for SHA-2-512.
- \*13 Previous openFT versions will be compatible with the newest one. OpenFT will
- \*13 negotiate SHA version and for previous version of openFT, SHA1 will be used.

## 3 Technical information

### 3.1 Resource requirements

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

|             |   |
|-------------|---|
| openFT      | 3.5 MB + 4 MB (dynamic) for each instance started |
| openFT-AC   | 440 KB  |
| openFT-FTAM | 860 KB  |
| openFT-FTP  | 199 KB + 2.8 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 1860 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.

Encrypting transmissions places a high load on the CPU. Encryption should therefore only be used when necessary  
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

- \*6 For openFT V12.1, OS DX as of V1.0.
- \*4 In addition, openNET Server as of V3.6 is required (containing BCAM V23,  
\*4 SOCKETS V2.7).  
POSIX-BC is required to support POSIX files.
- \*3 As of V12.1C00 data encryption is integrated to openFT. openFT-CR is no longer  
\*3 released.

The following versions are required for using optional supplement components:

- \*13 - openFT-AC V12.1C95 for using the enhanced access protection FTAC (FT  
Access Control)
- \*13 - openFT-FTAM V12.1C95 for using the ISO file transfer and file management  
protocol FTAM
- \*13 - openFT-FTP V12.1C95 for using ftp protocol
- \*13 openFT-FTAM V12.1C95 requires:  
\*13 - openFT V12.1C95  
- OSS V4.1D
- \*13 openFT-AC V12.1C95 and openFT-FTP V12.1C95 require:  
\*13 - openFT V12.1C95

### 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 V12, 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 V12 to V12.1. 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.

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`

- \*2 4. Save the other openFT system files SYSRQF, SYSKPL, SYSKEY, SYSFSI  
 \*2 and current SYSLOG on the instance ID (for the standard instance  
 \*2 \$SYSFJAM) for a possible version rollback.  
 \*2 Instead of saving the current file SYSLOG, you can change the logging file  
 \*2 using the command `MODIFY-FT-OPTIONS LOGGING=*CHANGE-FILES` (see  
 \*2 openFT manual Installation and Operation chapter 3.6.1). Another possibility is  
 \*2 to write the data in CSV format (Analog 2.) to a file  
 \*2 (`SHOW-FT-LOGGING-RECORDS OUTPUT=*SYSLST(LAYOUT=*CSV)`) and  
 \*2 save it for subsequent evaluation. After the installation, you can continue  
 \*2 working with the current SYSLOG.  
 \*2 5. Delete the files SYSOPF, SYSRQF, SYSPTF and possibly also the current  
 \*2 SYSLOG if the old logging records are no longer needed in the new version. If  
 \*2 you don't delete the files SYSOPF, SYSRQF and SYSPTF, problems occur at  
 \*2 START-SUBSYSTEM.  
 \*2 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 and openFT-FTP), 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 and openFT-FTP**

The products openFT-AC, openFT-FTAM and openFT-FTP 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 V12.1 are described in the manual FUJITSU Software openFT (BS2000) V12.1 Installation and Operation - System Administrator Guide.

openFT V12.1 is compatible to openFT versions that still receive maintenance.

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 'What to do if ...? / Frequently asked questions' section of the manual FUJITSU Software openFT (BS2000) V12.1 Command Interface – User Guide.

Courses for openFT V12.1 are offered by Fujitsu (<https://fujitsu.docebosaa.com/customer>). You may also send any questions you have on courses to [openFT@ts.fujitsu.com](mailto:openFT@ts.fujitsu.com).

**\*3 3.4.1 Encryption**

\*3 As of V12.1C00 openFT-CR is integrated in openFT.

**3.5 Obsolete functions (and those to be discontinued)**

None.

### 3.6 Incompatibilities

None

### 3.7 Restrictions

During an update installation of the openFT to version 12.1C60, it can take up to 10 minutes on a BS2000 mono processor system if there exists an RSA key pair set with the three lengths 678, 1024 and 2048 bits, which is then extended by two further RSA keys with the lengths 3072 and 4096 bits.

- \*12 CREATE-FT-KEY command on BS2000 will not create RSA keys when Crypt subsystem will be disabled.
- \*12 Following message will be returned: FTR1108 Subsystem crypt not available

### 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.  
An incident will be opened for Second Level Support.

See also the appropriate information in the manuals:

- FUJITSU Software openFT (BS2000) V12.1 Command Interface – User Guide, section 'What to do if..'
- FUJITSU Software openFT (BS2000) V12.1 Installation and Operation System Administrator Guide, section 'Diagnostics / Creating diagnostic records'

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

- \*9 openFT V12.1 can be used on all Fujitsu Server BS2000 supported by BS2000 V11 and OS DX as of V1.0.