

# Datasheet

## Fujitsu Software openFT (z/OS) V12.1

### Managed File Transfer

#### openFT (z/OS)

About 80 percent of the total amount of data exchanged within a company or between a company and its customers and business partners is transferred in the form of files. In E-Business the requirements placed on an administered company-wide file transfer solution (Managed File Transfer) become even more important: openness, automation, security, reliability, availability, monitoring, visibility and performance. The Fujitsu openFT product family fulfils these requirements to the utmost and also provides a series of additional useful functions such as file administration for the local and remote system. Furthermore, openFT is very easy to install and administer and can contribute significantly to the reduction of the TCO (Total Cost of Ownership).

openFT is a high-performance solution for complex, heterogeneous IT environments that can be used to fully automate the file transfer process. openFT is especially suited for companies and government agencies that require a totally reliable and secure provision of large quantities of business-critical data.

The use scenarios of openFT extend beyond numerous areas of application in mobility and business critical computing. For many application integration projects, openFT represents a widely used and proven solution with solid benefits. openFT has proven its flexibility and reliability day in day out, even under extreme loads, in over 100,000 server installations.

openFT is part of the comprehensive [openSEAS](#) product offering.



#### openFT (z/OS) V12.1C

The current release V12.1C is enhanced with some features.

- **Security enhancements**  
Mechanisms basing on the exchange of key files are shaped more effective. The minimum length of an AES key can be configured.
- **Globalization**  
The global usage is strengthened by consequent support of international character sets as well in request data as with filenames.
- **Tools**  
The tool `ft_mget` to transfer several files is available on z/OS, too.  
The tool `ftping` to check communication partner is available on z/OS, too.



# Features and Benefits

## MAIN FEATURES

### VISIBILITY

- Fast and easy installation
- Central administration of local and remote partner
- File Management of local and remote partner
- Virtualization and failover-cluster

### MONITORING

- Monitoring of operating states of the openFT instance
- Logging of all requests
- Request storing and management

### SECURITY

- Management of access rights via FTAC (requires openFT-AC(BS2000))
- Encryption of meta data and file contents
- Authentication by cryptographic means
- File consistency

### REPORTING AND AUDITING

- Logging of all Requests
- Central trap server to gather all traps of an openFT network

### ADAPTABILITY

- Support of different system platforms
- Support of different protocols and networks
- Code conversion of text files of different codes
- Continuous scaling

### PROVISIONING

- Dynamic partner list
- Dynamic changes of configuration

### AUTOMATION AND WORKFLOW

- Start of follow up processing in local or remote system
- Prepare and further treatment of transfer data via pre- and post- processing
- Command execution in remote operating system

### CHANGES SINCE PRECEDING VERSION V12.0

- Enhanced security of mechanisms on the basis of the exchange of key files
- Consequent support of international character sets
- Additional tools ft\_mget and ftping

## BENEFITS

- Ready for processing immediate after installation
- Single Point of Administration
- Management of local and remote file systems
- Advanced availability

- Actual retrieving and presentation of metered values to benchmark the openFT processing
- Audit compliant logging
- Granted data delivery

- Independance of access rights of the OS
- Security by transferring encrypted data
- Mutual check with cryptographic means to make sure the connection is with the right partner instance
- Protection from man-in-the-middle-attack

- Audit compliant logging
- Analysis of all traps of an openFT network on a single server

- Connectivity to different operating systems
- Connectivity to different networks and communication via openFT or FTP-protocol possible
- Processing files with different source and encoding
- Assignment from low performance level up to high end server

- Immediate access to partners
- Configuration is immediately effective

- Possible reaction to finished transfer
- Dynamic preparation of data at request time and direct further processing
- Remote control of the partner system is possible

- Partner authentication and data encryption are more efficient
- Filenames and file data can be transferred and stored in national spelling
- More comfort by availability of further tools

# Offering

## Visibility

- **Fast and easy installation**  
openFT is very easy to install and can be used immediate after installation without any further modifications.
- **Central administration of local and remote partner**  
A complete openFT network with the permitted administrators can be managed on a dedicated administration server. An administrator has only to authenticate on the admin server and can manage all openFT instances that are assigned to him. Central Administration is independent of normal transfer processing.
- **File Management of local and remote partner**  
The file systems on the local and the remote partners can be modified via File Management. You can remove, rename files or modify their access rights. File directories can be created, removed and renamed.
- **Virtualization and failover-cluster**  
In openFT you can run several openFT instances on a computer at the same time, and each openFT instance has its own resources. There are interfaces available for creating, managing and deleting instances. This enables you to switch the functionality of openFT to a different computer where openFT is already installed when the original computer fails or when there is a resource bottleneck.

## Monitoring

- **Monitoring of operating states of the openFT instance**  
Thanks to collection and displaying metered values an administrator is able to evaluate critically the operating state of an openFT instance and to control it. Monitoring can be configured for special needs.
- **Logging of all requests**  
The log file contains comprehensive information about all the access checks and file transfers performed so that an audit can be performed as required.
- **Request storage and administration**  
Requests can still be accepted even if a partner system is not available when the request is issued. They are also accepted if openFT is not available locally. These requests are stored and automatically processed once the network or partner system becomes available. Thanks to request storage, the transfer can be initiated at any time desired, for example to reduce transmission costs (time control). It is also possible to specify a time at which the request is to be deleted or the transfer is to be aborted (cancel timer). The sequence in which requests are processed can be altered using priority control.

## Security

In addition to the protection functions of the local system, openFT also offers enhanced access protection for file transfer and hence increased security.

- **File Transfer Access Control (FTAC)**  
With this integrated add-on module, openFT also offers comprehensive and individually adjustable protection functions. Thus, openFT works with an access authorization that is independent of the operating system. The rights associated with this access authorization can be set on a highly differentiated basis. Furthermore, the user can precisely restrict and set the authorizations of the remote partner systems with respect to file transfers. The access rights can be restricted to specified tasks for each individual partner so that particular functions are no longer allowed (e.g. follow-up processing or file management functions).
- **Encryption**  
The description data for file transfer and file management requests are encrypted with the RSA/AES algorithm. This prevents unauthorized reading of sensitive data at network level such as user IDs or passwords. The contents of the files transferred can be encrypted using the same procedure. This functionality is subject to export restrictions. Due to protocol restrictions, it is possible to exchange data encrypted by openFT only with openFT partners or FTP partners if openFT initiates the connection and FTP server supports encryption.
- **File consistency**  
It is possible to specify that the data transferred as a result of a file transfer request be checked for integrity to avoid a man-in-the-middle-attack.
- **Authentication**  
openFT instances can mutually check with cryptographic means that they are connected with the right partner instance. It is thus possible to securely identify both the partner of a request and the own system in the partner system. Prerequisite for the authentication is the exchange of public keys. If the public key of a partner system is available in an openFT instance, then all connections with this partner system are processed with authentication. Due to protocol restrictions FTP partners cannot use authentication.
- **Logging**  
The log file contains comprehensive information on all access checks and file transfers performed so that an audit can be performed as required.

## Reporting and Auditing

- **Logging all requests**  
The log file contains comprehensive information on all access checks and file transfers performed so that an audit can be performed as required.
- **Central trap server to capture all traps of an openFT-network**  
You may configure a dedicated trap server to send to all generated traps. An administrator has to authenticate on this server and can manage all traps related to him.

## Adaptability

openFT supports a wide range of system platforms and protocols while maintaining a uniform interface.

- **System platforms**  
Computers from different manufacturers running different operating systems can be connected with openFT. For example, openFT is available for Windows platforms (Windows 10, Windows Server 2016, Windows Server 2019), Unix platforms (including Solaris and Linux), as well as all BS2000 and z/OS systems.
- **Protocols and Networks**  
openFT can also be used in a network in which computers with different protocols communicate with each other. openFT supports networks and network protocols such as TCP/IP, ISO, NEA, X.21/X.25, and ISDN resp.
- **Data formats**  
openFT can process and transfer files with different characteristics (depending on the file type and operating system in which the files were created).
- **Encoding of character data**  
openFT is able to handle and transfer text files with various encodings. openFT supports the conversion of encoding of standard Unicode variants (UTF-8, UTF-16, UTF-E), standard 8-bit character sets (ISO8859nn, EDF04nn) and any user defined 8-bit character set.
- **FTP support**  
The communications options are extended to practically all major systems by the integration of the ftp protocol by means of the openFT-FTP add-on product. The add-on module openFT-FTP is integrated into the openFT product. It must be licensed separately too. For secure connections to FTP partners SSL/TLS interface is supported on outgoing connections.

## Provisioning

- **Dynamic partner list**  
Thanks to partner list remote instances are accessible immediately. The partners can be configured in different properties in order satisfy security features or set the tracing.
- **Dynamic changes of configuration**  
Any change of configuration will be active immediate. Current working processes are not affected

## Automation and Workflow

openFT offers the following functions and features for integration into business processes or applications:

- **Follow-up processing**  
It is possible to attach a request for follow-up processing in the local or remote system to a file transfer request. If the transferred file is a job, for instance, it can be started by means of the follow-up processing. Further examples of use comprise printing

out transferred files and automatic updating of databases.

- **Pre- and post-processing**  
Operating system commands that process or dynamically create the data before transmission can be started when sending or receiving a file. This means, for instance, that it is easy to access databases and transfer results, perform conversions and integrate customer-specific security tools. With post-processing, the data transferred can be processed further in a similar manner on the receiving end in programs or scripts. In order to perform pre- and post-processing in the partner system, the partner must use an openFT version that supports pre- and post-processing.
- **Remote command execution**  
With openFT for z/OS, it is possible to run z/OS commands or programs from a local Windows, Unix or BS2000 system with openFT for Windows resp. Unix system and thus integrate them in scripts. The SYSLST and SYSOUT output of the commands or programs are mapped onto stdout and stderr resp. and can be easily further processed and put out using Windows or Unix tools. The same functionality is vice versa available initiated in BS2000 for remote command execution in Unix and Windows systems mapping stdout and stderr resp. onto SYSLST and SYSOUT resp. The resulting remote functionality is also completely secured through the FTAC protection functions and the encryption feature.
- **Integration in job scheduling**  
Using pre-, post- and follow-up processing, procedures can be easily realized because all functions can be called from the command line. The command output in OPS variables makes an easy evaluation with SDF in procedures possible. In addition, it is possible to monitor and control requests with job variables.

## Changes since the preceding version V12.0

- **Security enhancements**  
Mechanisms basing on the exchange of key files are shaped more effective. The minimum length of an AES key can be configured.
- **Globalization**  
The global usage is strengthened by consequent support of international character sets as well in request data as with filenames.
- **Tools**  
The availability of further tools (ft\_mget to transfer several files and ftping to check communication partner) increases comfort.

# Technical Details

## Technical Requirements Hardware

<b>z#OS Server</b>	Minimum system configuration
<b>Memory request _static-</b>	<p>The supplied openFT files occupy on an IBM disk of type 3390-2:</p> <p>openFT appr. 1420 Tracks</p> <p>openFT-AC appr. 6 Tracks</p> <p>openFT-CR appr. 6 Tracks</p> <p>openFT-FTP appr. 6 Tracks</p> <p>The disk storage space required for the request description file SYSRQF is 36 MB for default values, the options file SYSOPF requires 8 kB.</p> <p>The size of the logging file and possible trace files is variable</p>
<b>Memory request _dynamic-</b>	<p>openFT V12.1 requires an address space of at least 11 MB at runtime.</p> <p>Additional 265 KB by each request and additional 355 KB by each process/task.</p>

## Technical Requirements Software

<b>openFT for z#OS</b>	<p>z/OS as of version V2.3</p> <p>SMP/E for installing openFT</p> <p>ACF/VTAM for openFT internal function with SNA links</p> <p>As of V12.1C00, data encryption is integrated into openFT. openFT-CR is no longer released</p>
<b>Use of specific functions</b>	<ul style="list-style-type: none"> <li>- openFT-AC V12.1 for the use of the extended access protection FTAC (FT Access Control)</li> <li>- openFT-FTP V12.1 to use the ftp protocol</li> <li>- ACF/NCP for coupling via SNA</li> <li>- TCP/IP for MVS from version 3 Release 2 for coupling via a TCP/IP network</li> <li>- ISPF and ISPF/PDF for the support of the user and/or the Administrator commands through ISPF panels</li> <li>- RACF from version 1.8 or a compatible product for testing the Access and access authorization of openFT users</li> <li>- NetView or compatible network management systems for the Administration via a console</li> <li>- IBM program product SMF for the billing of file transfer jobs</li> </ul>

## User Interface

<b>Language</b>	English
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## Installation

<b>Installation</b>	By the customer based on Release Notice.
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## Documentation

<b>Manuals</b>	Manuals (English and German) for users and system administrators as PDF files; also on the Internet via <a href="https://bs2manuals.ts.fujitsu.com/">https://bs2manuals.ts.fujitsu.com/</a>
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## Demands on the user

**Demands on the user**      z/OS knowledge and if necessary knowledge of the partner system

**Training**

**Training**      [Courses](#) are held in the Fujitsu Academy CE under the currently valid conditions.

**Conditions**

**Conditions**      This software product is supplied to the customer under the conditions for the use of software products against instalments or a single payment.

**Ordering and delivery**

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

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## Fujitsu Platform Solutions

In addition to Fujitsu Software openFT, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Fujitsu Portfolio Built on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offerings. This allows customers to select from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

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## More Information

Learn more about Fujitsu Software openFT, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.

<https://www.fujitsu.com/emeia/openFT>

## Fujitsu Green Policy Innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at

<http://www.fujitsu.com/global/about/environment>



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