FUJITSU

FUJITSU Software openFT (Unix Systems) V12.1

Version 12.1B10
June 2019

Release Notice

1   General

*1   This Release Notice is a summary of the major extensions, dependencies and
*2   operating information with respect to openFT (Unix Systems) V12.1B10,
*2   openFT-FTAM (Unix Systems) V12.1B10, openFT-FTP (Unix Systems) V12.1B10
*2   and openFT-CR (Unix Systems) V12.1 under the operating systems Linux (x86-64),
*2   Oracle Solaris (x86 and SPARC), Linux (x86, s390x), AIX (POWER), HP-UX
            (Itanium) that are not included in the Product Facts and in the manuals.

*2   From now on the release is only for Linux x86_64. Further platforms are available on
*2   request from your Fujitsu sales contact.

*2   The release level is that of: June 2019.

*2   Changes to release level May 2018 are marked with *2.
*1   Changes to release level July 2017 are marked with *1.

This and other current Release Notices 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.

openFT (Unix Systems) V12.1 may only be used on the system (Unix platform)
for which an appropriate license has been purchased. The FTAM and/or FTP
functionality (openFT-FTAM (Unix Systems) V12.1 or openFT-FTP (Unix
Systems) V12.1) may only be activated on the system for which an appropriate
license has been purchased.

For more information on openFT, see http://www.fujitsu.com/fts/openft.

The use of names, trademarks, etc. in this Release Notice does not entitle
readers to assume that these names/designations may be used without restriction
by anyone: often the names/designations are protected by law or contract, even if
this is not indicated here.

openFT V12.1 uses Open Source software components. Information about the
used Open Source software components and the corresponding license
conditions can be found in the directory ThirdPartyLicense on the openFT product
CD. openFT V12.1 is subject to the same license conditions as openFT
V12.0C00.

1.1   Ordering

*2   openFT V12.1B10 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.

*2   A license is required for openFT V12.1B10, openFT-FTAM V12.1B10, openFT-FTP
*2   V12.1B10. Appropriate licenses must be ordered in order to use the product. The
            product may only be used on the system for which a license was purchased. Please
            note that a special license is required for openFT-FTAM and openFT-FTP.

After purchase openFT-CR V12.1 may be used and copied as often as
needed. Please observe the applicable export and re-export regulations.
An export license is required to use the product in other EU countries or
to export the product to a third country.

1.2 Delivery

*2   Delivery of files for openFT V12.1B10, openFT-FTAM V12.1B10 and openFT-FTP
*2   V12.1B10 on CD-ROM with installation instructions:
*2   - openFT V12.1   dated 06.2019
*2   This CD contains only the software for Linux x86_64. Further platforms are available
*2   on request from your Fujitsu sales contact.

*1   Delivery of files for openFT-CR V12.1 on CD-ROM with installation instructions:
*1   - openFT V12.1 - Crypto -   dated 05.2018

1.3 Documentation

The documentation is available in the form of online manuals at
https://bs2manuals.ts.fujitsu.com.

2 Software extensions

Only the extensions and improvements over the previous version openFT 12.0C 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 command interfaces have been extended as follows:
- The new field FNC-MODE in the long output of log records displays the encoding mode for the file name (command *ftshwl*).
- New option *-fnc* in order to set the encoding mode in a file transfer, file management or administration request. This option is available for the commands *ft*, *ftadm*, *ftcredir*, *ftdel*, *ftdeldir*, *ftexec*, *ftmod*, *ftmoddir*, *ftshw* and *nopy*. The encoding mode is displayed in the output of the following commands (in addition to *ftshwl*): *ftshw* and *ftshwr* (FNC-MODE field). The number of not mapped file names is displayed using *ftshw -sif*.
- New attribute *CmdMode* in the configuration of remote administration server to define the (recommended) encoding mode for administered openFT instances. The encoding mode is displayed in the output of the *ftshwc* command (MODE field).
  This function is also available in the configuration editor of the openFT Explorer.
- In Unix systems, it is also possible to set the character set which is to be used for inbound requests in character mode. To do this, the new option *-fnccs* in the *ftmodo* command has been introduced.
  The character set which is currently set for inbound requests in character mode is displayed in *ftshwo*, FN-CCS-NAME field.

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.

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 command has been modified:
– *ftmodo*: New option *-aesmin*

2.4 Transferring directories

- Directories can be transferred between Unix and Windows systems. To permit this, the commands *ft* and *ncopy* have been extended with option *-d*.
- The new field PROGRESS in the output of the *ftshwr* command displays the progress of (asynchronous) directory transfer.
- The new option *ftmodo -ltd* has been introduced to set the logging scope for directory transfer.
- The new value *ftshwl -ff=T* selects log records of directory transfer requests. In addition, the *ftshwl* output has been extended to the field TRANSFILE

(long output) as well as the FT function values TD, SD, SF (short output) and the value FUNCTION=TRANSFER-DIR (long output).

2.5 Transferring multiple files via FTAM

Multiple files can be transferred synchronously between Unix and Windows systems using the FTAM protocol. This is controlled by a specific file name syntax of the *ncopy* command.

2.6 Extensions of the openFT-Script command

- The FT administrator can set limits of openFT requests. To permit this, the command *ftmodsuo* has been extended to the options *-u, -thl* and *-ftl*.
- *ftshwsuo* displays the limits currently set.

2.7 Other changes

- The *ftshwk* command displays the partner name for public keys of partner systems.
- SNMP is no longer supported on Unix platforms.

*1
2.8 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 ftshw, ftcrep, ftmodp and output of ftshwp are extended.

*1   The operating parameter ENC-MAND for outbound requests is now also operative
*1   for file management requests.
*1   The option -c of command ft_mget is extended to encrypt the file(s) attribute list.

*1
2.9 Unicode support in openFT explorer

*1   The new option to select Encoding Mode type (Transparent / Character mode) is
*1   available in the openFT explorer from the openFT V12.1B onwards.

*1
2.10 Filter icon indicator at the Logging window of openFT explorer

*1   As of openFT V12.1B, a filter icon indicator is visible at the toolbar of the logging
*1   window, if openFT logging records have been selected that differ from the default
*1   after the openFT installation.

*1
2.11 Additional option in the help menu of the openFT explorer

*1   In the openFT explorer a new option ("Extension to the manuals") in the drop-
*1   down list of the help menu item has been added.
*1   When the user clicks on "Extension to the manuals" a web help page will open
*1   with a link to a document which describes the extensions.

3   Technical information

3.1   Resource requirements

The required hard disk space is approx. 60-75 Mbytes (including standard instance).
At least approx. 30 Mbytes are required for each further instance (default settings).
Main memory requirements are approx. 2-4 MB per openfts process plus a three-digit
KB value for each current request depending on platform and protocol.
The /var partition should be sufficiently dimensioned to hold management files under
/var and to store logging and trace files. Please ensure therefore that superfluous
logging records and trace files are deleted on a regular basis. If necessary,
/var/openFT can be stored on its own, separate or large partition using a symbolic
link.
If you use the openFT script interface, a Java Virtual Machine is started for every
user currently running openFT script requests. In case of a large number of
parallel external activities the machine needs up to 212 Java threads and a further
4 Java threads per openFT script request.

3.2   Software configuration

The following products are required to use openFT (Unix Systems) V12.1:

Oracle Solaris (SPARC)	as of V10
Oracle Solaris (x86)	as of V10
Linux (x86)	as of SuSE SLES 11or RedHat RHEL 6 with Kernel 2.6.32 or compatible Linux distributions
Oracle Linux 6	as of unbreakable Enterprise kernel 2.6.32
z/Linux (s390x)	as of Kernel 2.6.18
HP-UX (Itanium)	as of V11iv3 (11.31)
AIX (POWER)	as of V7.1

The following PCMX versions are included on the product CD:

*1	Solaris (SPARC)	SMAWpcmx	V6.0B30
	Solaris (x86)	SMAWpcmx	V6.0B
*2	Linux (x86, x86-64)	PCMX	V6.0B30(x86), V6.0B33(X86-64)
*1	HP-UX (Itanium)	CMX	V6.0B30
*1	AIX	CMX.all	6.1.30.0

PCMX is not available on z/Linux.

Note: There is an incompatible change in JAVA 7 handling filenames with blanks.
Use at least JAVA (JRE) 7 Update 25 for the ftscript interface. To allocate a
special Java version to openFT use the command ftsetjava.

You should refer to the installation information in the openFT script manual if you
want to use the openFT script interface.

The support of X.25 on Linux (x86 and x86_64) requires a FarSync card from
FarSite with the following versions:
FarSync software as of V3.2.9

For the operation of XOT the following patch level has to be used at least:
- XOT runtime: 3.2.8 patch01
- X.25: 3.2.9 patch01

Download of software under:
http://www.farsite.com/custsupp/Download_X.25_software.htm
It is recommended to use always the latest driver version.

*2   **Note:** X.25 is supported for the last time.

Further information on the software configuration can be found in the Data Sheet (see also http://www.fujitsu.com/fts/openft).

3.3   Product installation

The openFT (Unix Systems) delivery unit consists of the following packages:
openFT: Basic package with German and English user interface includes

    FT   (File Transfer Unix Systems)
    FTAM   (File Transfer OSI Support)
    FTAC   (File Transfer Access Control)
    FTP   (File Transfer FTP Support)

PCMX: Communication via TCP/IP (optional as of openFT V12; supported and delivered for the last time in V12.1)

The openFT-CR delivery unit for Unix Systems consists of the following package:
openFT-CR: Crypto module for openFT (encryption)

You must perform the installation under root.

3.3.1   Installation of openFT products

Operation without CMX is supported as of openFT V12. If you want to work with CMX, see 3.3.2.

*2   Please note that CMX is supported for the last time in V12.1 - and PCMX is
*2   delivered for the last time. Please change your configuration in time.

For Linux x86 openFT installation packages are available for 32- and 64-bit operating systems.

Linux systems (x86_64) only require the 32-bit versions of the PAM packages if the 32-bit version of openFT is used. Please use the package administration system of your Linux distribution to check the installation of the 32-bit versions of the PAM packages. Alternatively verify the existence of the files /lib/security/pam_chroot.so and /lib/security/pam_unix.so.
The command "rpm –VI pam" or "rpm –qi pam" can be used to check whether the pam32 dependencies are fulfilled.
The various Linux distributions require the following packages:
SUSE: package pam-32bit and pam-modules-32bit
RedHat: pam-0.99.6.2-4.el5.i386.rpm or a newer version of this package

The language is set using the LANG environment variable.
This does not apply for HP. English is always installed there. It can be changed after the installation using the tool /opt/openFT/bin/ftbin/ftlang.

During initial/update installation a suitable JAVA interpreter is found and made known to openFT. If no suitable interpreter is found or if a new JAVA package is installed after openFT has been installed, the 'ftsetjava <JAVA-interpreter>' command must be issued to make the JAVA interpreter known to openFT (only for using ftscript).
If a faulty JAVA interpreter is installed on the system, openFT installation may freeze ('java -version' command generates a dump). In this case, you should terminate the 'java -version' process by means of kill so that installation resumes. You should then clean up your JAVA installation.

openFT-CR requires the installation of openFT.

3.3.2   Initial installation

Note: A separate package is available for Linux x86_64. During an initial installation on a 64-bit Linux the 64-bit package is installed automatically and on a 32-bit Linux the 32-bit package.

Necessary steps to be taken by the system administrator:
1. If an openFT < V11.0 and any add-on products are already installed, you then need to deinstall openFT and the add-on products. Before deinstalling openFT the admission sets and profiles should be saved in a file using ftexpe.
2. Install the product software for openFT V12.1.
3. Import the saved admission sets and admission profiles using ftimpe if required. The standard admission set is not changed.

Automatically performed steps:
During initial installation the following steps are carried out automatically in addition to loading the product software:
-   Operation with CMX is disabled.
-   The use of TNS is disabled. If CMX is installed, standard TNS entries are created for openFT or old TNS entries are modified.
-   Set the processor name; the processor name of the operating system is registered.
-   Enter the DNS name as instance identification; if no DNS name is available, the processor name of the system is registered.
-   Support the automatic start of openFT in the case of system start or end in the case of system shutdown:
    o   The cross-instance startup and shutdown file (e.g. /sbin/init.d/openFT) is installed on HP, AIX and Linux.
    o   The startup and shutdown file of the standard instance (path name /var/openFT/std/etcinit/openFTinst) is installed on HP, AIX and Linux.
    o   SMF support is provided on Oracle Solaris as of openFT V12.
-   Create a key pair set.
-   Start openFT (start of the asynchronous server of openFT, not on HP).
In order to use encryption (Crypto module) it is mandatory to install openFT-CR V12.1.

Activities after the installation:
-   Where applicable, install the saved profiles (ftimpe), options, partner list entries
-   If CMX is to be used, see 3.3.5

3.3.3   Update installation (migration from V11 or V12)

An update installation is carried out if openFT V11 or V12 is already installed.

Note: After an update installation from version 11 on Linux x86_64 the 32-bit version is still installed. To install the 64-bit version, openFT has to be deinstalled first. Afterward an initial installation has to be carried out. Please save your configuration data (FTAC profiles, options and partner list entries) before deinstallation.

The following points should be observed:
-   The admission sets and admission profiles are taken from the previous version.
-   Key pair sets are taken from the previous versions. If a 2048-bit RSA key has until now not existed due to update installations, this cannot be automatically created for technical reasons. In order to use a 2048-bit RSA key it is necessary to create a completely new key pair set using the command ftcrek.

- All running openFT applications should be stopped before starting the installation. Also terminate all running openFT script requests. They are stopped during the installation and are regarded in the new version as not restartable.
- With an update installation the old logging, trace and diagnostic files are deleted, currently running requests are terminated, and open graphical user interfaces are closed.
- The new instance-global rc file is installed; the old file is no longer saved.
- To ensure that all instances are also automatically updated, you should enable all disabled instances with ftcrei before you start the update installation. Otherwise you must update all disabled instances with the ftupdi command after completing the update installation.

Necessary steps of the system administrator:
1. Install openFT V12.1 from the data medium.
2. If you have made any changes in the old startup and shutdown files, you must also make them in the new startup and shutdown files (Linux, HP and AIX) or make appropriate modifications for SMF (Oracle Solaris).

Automatically performed steps for all active instances:
- File transfer will be stopped.
- Unconditionally delete existing requests from the request queue; follow-up processing, if any, is initiated.
- Load the product software.
- Transfer the operating parameters.
  Existing TNS entries for openFT are modified if necessary; operation with CMX remains activated; use of TNS names is not changed.
- Transfer of the FTAM catalog, admissions profiles, admissions sets and configuration data for central administration.
- The old instance-specific startup and shutdown files are saved.

    o The new instance-specific startup and shutdown files are subsequently installed on the AIX, HP and Linux systems.
    o SMF support is provided on Oracle Solaris as of openFT V12; the startup and shutdown files are no longer installed.

- Transfer of the language setting from the previous version. However, the openFT man pages are installed in German and English on the Linux platform, i.e. a user receives the man pages in the language that is set during his login session.
- Start of the file transfer (exception: HP).

3.3.4   Installation of a correction version

Installation of a correction version means that openFT V12.1 already exists on the computer.

Necessary steps of the system administrator:
1. All running applications and openFT script requests of openFT V12.1 must be terminated before starting the installation.
2. Install openFT V12.1 from the data medium.

Automatically performed steps:
- Admission profiles and sets, logging files, startup and shutdown files (Linux, HP and AIX) and the SMF connection (Oracle Solaris), the FTAM catalog, operating parameters, requests, partner list, configuration data for central administration and key pair sets are transferred unchanged for all openFT instances.
- openFT and all active graphical openFT user interfaces are stopped during installation.

- The file openFTinst under /var/openFT/<inst>/etcinit is not overwritten by the update installation. Thus any corrections that are in the file /opt/openFT/etcinit/openFTinst are not inherited.

3.3.5   Installation of CMX

openFT V12.1 supports CMX for the last time. Please change you configuration to operation without CMX.
If you still want to work with CMX and no CMX or an older version is installed in the system, you have to install the CMX that is on the data medium before activating operation with CMX in openFT.

When migrating from SMAWcmx to SMAWpcmx proceed as follows (only relevant for Solaris):
1.   Deinstall SMAWcmx (pkgrm SMAWcmx)
2.   Delete the "DIR1" directory as TNS entries can no longer be used and are not automatically deleted during deinstallation (rm -r /opt/lib/cmx/DIR1)
      If you want to continue using TNS backup files with SMAWpcmx created in tnsxfrm format with CMX V5/V6, you must change the version number in the first line to 4.0.

*2   If the old TNS entries on 64-bit Linux are 32-bit, the import will fail, and the
*2   installation script will print a warning. If that happens, the user can install the 32-bit
*2   compatibility package (stored on CD in directory linuxx64), and perform an update
*2   installation of the main package again:
*2   rpm -i <absolute path of PCMX-32bit-6.0B33-00.x86_64.rpm>
*2   rpm -U --replacepkgs --replacefiles <absolute path of the main package> (or use
*2   procedure sh install.cmx for installation of main PCMX package)

If no CMX is installed during the openFT installation, no TNS entries are created, either. TNS entries can be created or updated using the procedure /opt/openFT/bin/ftbin/ftgentns.
Invoke: /opt/openFT/bin/ftbin/ftgentns

Note: No CMX package is available on z/Linux. Only the operating without CMX is supported.

3.3.6   Deinstallation

Proceed as follows to deinstall:
Solaris: pkgrm <package>
           specify openFT, openFT-CR or SMAWpcmx for package
Linux: rpm -e <package>
           specify openFT, openFT-CR or PCMX for package
HP-UX: swremove <package>
           specify openFT, openFT-CR or CMX for package
AIX: installp -u <fileset>
           specify OPENFT.OPENFT, OPENFT-CR.OPENFT-CR or CMX.all
           for fileset

The instance directories in /var/openFT are automatically deleted during deinstallation. The following order is recommended:
1.   openFT-CR
2.   openFT
3.   CMX

3.3.7   Special considerations on the individual platforms

3.3.8   Oracle Solaris (SPARC/x86)

Insert the CD in the corresponding drive. It is mounted automatically.
Change to the mounted directory (e.g. cd /cdrom/openftv12) and start the
procedure
sh install.ft   to install openFT

sh install.cmx   to install SMAWpcmx
sh install.all   to install SMAWpcmx and openFT

For the Oracle Solaris platform openFT V12 supports the installation into an
alternative root directory. For this purpose, change to the mounted directory and
start the procedure:
sh install.ft –r=<alternative root directory>

Example:
To install openFT in the directory /altroot invoke the following command:
sh install.ft –r=/altroot

As of Oracle Solaris 10 openFT and SMAWpcmx are automatically installed in the
current zone (pkgadd-option -G).

OSI stack on Solaris:
In order to use Solstice OSI for ISO connections via WAN (e.g. X.25) or LAN, you
must remove the corresponding comment character (#) in front of WANSBKA for
WAN or OSITYPE for LAN in the file named cmxti.cfg (see /opt/lib/cmx/) and add
your own address (refer also to the instructions in the file).

3.3.9   Linux

For installation purposes insert the CD in the corresponding drive and mount it
(e.g. mount /dev/cdrom). Change to the mounted directory (here: cd /cdrom) and
start the procedure
sh install.ft   to install openFT

sh install.cmx   to install PCMX
sh install.all   to install PCMX and openFT

The FTAM and FTP functionality is not installed automatically during initial or
update installation (V11/V12 to V12.1). To install this functionality (if the
corresponding license is available), invoke the following commands:
/opt/openFT/bin/ftbin/install.ftam -i and/or
/opt/openFT/bin/ftbin/install.ftp -i.
If you are updating V12.1, any FTAM and FTP functionality already installed is
retained intact.

Note: After an update or installation of a correction version on Linux x86_64 the
32-bit version may be still installed. To install the 64-bit version, openFT has to be
deinstalled first. Afterward an initial installation has to be carried out. Please save
your configuration data (FTAC profiles, options and partner list entries) before
deinstallation.

z/Linux on s390x:
z/Linux runs as a guest system under z/OS on s390x mainframes. However,
guest systems do not have direct access to CD-ROM drives. Therefore you have
to transfer all files of the linux390 directory on the openFT product CD to the
zLinux system (using ftp, for example).

For the installation of openFT on z/Linux mount the openFT CD on a system with
a CD-ROM drive, change to the mounted directory and then to the linux390
directory.
Transfer the following files

- install.ft
- openft.ds

to the z/Linux s390x system and start the procedure

- sh install.ft   to install openFT

3.3.10 HP-UX

Insert the CD in the corresponding drive and mount it using the following command:
mount -o cdcase <device> <mountpoint>
(e.g. mount -o cdcase /dev/dsk/c0d4t0 /cdrom)
Change to the mounted directory (here: cd /cdrom) and start the procedure
sh install.ft   to install openFT

sh install.cmx   to install CMX.
sh install.all   to install CMX and openFT

For technical reasons, file transfer is not started automatically (ftstart) during installation.

The FTAM and FTP functionality is not installed automatically during initial or update installation (V11/V12 to V12.1). To install this functionality (if the corresponding license is available), invoke the command
/opt/openFT/bin/ftbin/install.ftam -i or
/opt/openFT/bin/ftbin/install.ftp -i
If you are updating V12.1, any FTAM and FTP functionality already installed is retained intact.

3.3.11 AIX

Insert the CD in the corresponding drive and mount it using the following command:
mount -v cdrfs -r <device> <mountpoint>
(e.g. mount -v cdrfs -r /dev/cd0 /cdrom)
Change to the mounted directory (here: cd /cdrom) and start the procedure
sh install.ft   to install openFT

sh install.cmx   to install CMX
sh install.all   to install CMX and openFT

The FTAM and FTP functionality is not installed automatically during initial or update installation (V11/V12 to V12.1). To install this functionality (if the corresponding license is available), invoke the command
/opt/openFT/bin/ftbin/install.ftam -i or
/opt/openFT/bin/ftbin/install.ftp -i
If you are updating V12.1, any FTAM and FTP functionality already installed is retained intact.

3.3.12 openFT-CR

If you want to use encryption of user data, you must use the openFT-CR V12.1 delivery unit for Unix Systems because of export regulations.
To install change to the mounted directory and start the procedure
sh install.cr

z/Linux on s390x:

For the installation of openFT-CR on z/Linux mount the openFT - crypto - CD on a system with a CD-ROM drive, change to the mounted directory and then to the linux390 directory.
Transfer the following files
- install.cr
- openftcr.ds

to the z/Linux s390x system and start the procedure
- sh install.cr   to install openFT-CR.

3.4   Product use

Courses for openFT V12.1 are offered by Fujitsu (http://training.ts.fujitsu.com).

openFT (Unix systems) V12.1 implicitly includes the functionality of FTAC, FTAM and FTP. If you want to use the FTAM and FTP functionality additionally, you need only purchase the corresponding license (see 1.).

If you want to use encryption of user data, you must use the openFT-CR V12.1 delivery unit for Unix Systems because of export regulations.

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

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

On Unix platforms (Solaris) with openFT it is strongly recommended to deactivate the host cache of the Name Service Cache demons (nscd see man page nscd(1M)). At high-performance the demon may cause a great loss of performance during resolution of host names. (see http://www.unixguide.net/sun/faq/5.72.shtml).

With a connection FTP / openFT-FTP FTAC transfer admissions must be specified as user name. Password may not be specified (confirm request with enter).

Use of openFT in Solaris zones:
When setting up zones, note that /opt and /var must not be loopback mounted (no inherit-pkg-dir). They must be available separately in each zone in which openFT is to run.
Is /usr loopback mounted in the local zone (inherit-pkg-dir: dir: /usr), openFT must be installed in the global zone.
When using openFT on Solaris zones it is recommended not to use CMX. openFT and, if necessary, SMAWpcmx must be installed separately in each zone. If the graphical user interface is to be started in a zone, an X11 runtime system must be available in that zone.

If problems occur during connection setup to external implementations (RFC1006 of the external implementation does not accept user data), set and export the environment variable NOCONRSUDATA prior to ftstart. This disables connection setup optimization.
Example:
NOCONRSUDATA=1 ; export NOCONRSUDATA
ftstart

3.5   Obsolete functions (and those to be discontinued)

The following functions are no longer supported as of this version:
SNMP subagent ftagt

*2   The following functions are supported and released for the last time as of this
*2   version:
*2   Usage of CMX and X.25
*2   PCMX packages

*2   From this version on, the release will only take place on Linux (x86_64). Further
*2   platforms are available on request from your Fujitsu sales contact.

3.6   Incompatibilities

*1   As of openFT V11 the namespace de.siemens.openft.coreapi is marked as
*1   deprecated. Please use the new namespace com.fujitsu.ts.openft.coreapi. See
*1   also JAVA.DOCS.

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.
    An incident will be opened for Second Level Support.

See also the appropriate information in the manuals:
-   openFT (Unix- und Windows-Systems) V12.1 Command Interface / User
    Guide , section 'What if..'
-   openFT (Unix- und Windows-Systems) V12.1 Installation and Operation /
    System Administrator Guide, section 'Troubleshooting and Diagnosis''

4 Hardware requirements

Refer to the Data Sheet for the hardware supported by the products.
(see also http://www.fujitsu.com/fts/openft).