

TIBCO® Managed File Transfer Internet Server

Security Guide

Version 8.4.4 | March 2024



Contents

Contents	2
Introduction	3
Security Features	4
FTP Connections	4
Platform Server Security	5
OFTP2 Security	6
Miscellaneous Security Features	7
Security Tasks	12
Installation	12
Server Configurations	22
TIBCO Documentation and Support Services	25
Legal and Third-Party Notices	27

Introduction

MFT Internet Server is the TIBCO® Managed File Transfer Internet Server product. MFT Internet Server is the file transfer component. MFT Internet Server supports many open protocols, and it also supports the Platform Server protocol. MFT Internet Server has an administrative component that allows you to configure all of the parameters (users, servers, transfers) to allow file transfers to execute. For additional capabilities, you can install MFT Command Center. MFT Internet Server can be installed in the DMZ or in the internal network; when executing in the DMZ, you must disable the administrative capability because it allows you to configure Internet Server transfers.

This document describes guidelines to ensure security within TIBCO Managed File Transfer (MFT) Internet Server. It provides security-related guidance and recommendations for installation, configuration, and execution of file transfers.

Security Features

TIBCO Managed File Transfer Internet Server provides many features that enhance security. Here is a summary of these features. These features are discussed in more detail later in the document.

- FTP Connections
- Platform Server Security
- OFTP2 Security
- PGP Encryption
- Miscellaneous Security Features
- Note: FTP Connections, Platform Server Security, OFTP2 Security, and PGP Encryption can be configured in Command Center but are typically only used in Internet Server.

FTP Connections

You can secure FTP connections for incoming and outgoing requests.

MFT FTP Service

Parameters in the following admin page can help to lock down the FTP protocol for incoming FTP requests:

Administration > Transfer Servers > FTP Server > Configure FTP Server

Parameter	Description
PORT/EPRT Allowed in	Defines whether incoming PORT or EPRT connections are allowed. You can disable PORT/EPRT by clicking on "No".

Parameter	Description
Incoming Request	
PORT Checking	Defines whether any checking is performed on the IP Address sent by the client in the PORT request. We suggest setting this parameter to "Subnet" or "IP Address".
PASV Checking	Defines whether any checking is performed on the IP Address of the connection created by the PASV command. We suggest setting this parameter to "Subnet" or "IP Address".

Refer to the MFT Admin help pages for more information on these parameters.

MFT Server Definitions with Server Type of FTP

Parameters in the Add/Update Server page can help to lock down the FTP protocol for outgoing FTP requests.

Parameter	Description
PORT Checking	Defines whether any checking is performed on the IP Address of the connection created by the PORT command. We suggest setting this parameter to "Subnet" or "IP Address".
PASV Checking	Defines whether any checking is performed on the IP Address sent by the client in the PASV request. We suggest setting this parameter to "Subnet" or "IP Address".

Platform Server Security

MFT supports the following modes of operation for incoming and outgoing Platform Server requests. This is for both file transfer requests and administrative requests such as audit collection, server status and node and profile updates.

- 1. Clear text mode. The password is encrypted using a proprietary encryption algorithm but the data is not encrypted.
- 2. AES 256 encryption. The password and data are encrypted using AES256. The asymmetric encryption key is generated through an algorithm on both the client and server.
- 3. SSL (or TLS) mode. MFT establishes an SSL connection with the Partner Server. A symmetric AES 256 encryption key is exchanged through the secure TLS connection. MFT uses this AES256 encryption key to encrypt and decrypt all data. MFT also adds a message digest and sequence number to each record to prevent man in the middle attacks.
- 4. Tunnel Mode. All data is sent over a negotiated TLS connection. Each transfer creates a new TLS connection.

Tunnel Mode is the most secure option and is strongly suggested when communicating to partners over the internet. Tunnel Mode requires MFT Internet Server V8.2 and MFT Platform Server V8.0 or higher.

OFTP2 Security

OFTP2 allows you to transfer files in TLS and non-TLS mode. When using non-TLS mode, you can encrypt the data. Nonetheless, we suggest only supporting TLS Mode when performing OFTP Transfers.

To support only OFTP2 in TLS mode, complete the following steps.

Procedure

- 1. Go to Administration > Transfer Servers > OFTP2 Server > Configure OFTP2 Server.
- 2. Enter the TLS Port. All communication over this port is encrypted in a TLS session.



Caution: Do not enter the IP Port. This is the clear text port.

3. In the OFTP2 Options > Outgoing Parameters, set Use TLS to Yes.

Miscellaneous Security Features

Follow these general recommendations to secure TIBCO MFT Command Center.

Java System Security

Use the newest Java JDK that is supported by the product. We suggest using Java 11 since this is a long-term support version.

Do not use GNU Java that is shipped with some Linux instances. Use Oracle Java, OpenJDK, Amazon Corretto or IBM Java that is appropriate for your MFT instance.

Setting Cookies to HTTPOnly

By default, HTTPOnly is not set for MFT server generated cookies. Cookies created by the MFT Application will be set to HTTPOnly when the cookie is not used by client JavaScript code. Cookies that do not specify HTTPOnly contain no security or private information.

Set the usehttponly parameter in the cfcc.xml file which is located in the

MFTIS_Install/server/conf/catalina/localhost directory to true.

Configuring the Session Timeout

The session timeout is set to 30 minutes by default. This is good for most installations. If you need to lower this, you must make the following two changes: :

- The session-timeout parameter in the web.xml file located in the MFTIS_ install/server/conf directory
- The SessionTimeOut parameter in the web.xml file located in the MFTIS_ install/webapps/cfcc/WEB-INF directory

Certificate/Key Authentication

MFT supports certificate authentication for the following protocols:

- Platform Server SSL and Platform Server Tunnel
- SFTP
- FTPS

- HTTPS
- OFTP2

Whenever possible, use certificate authentication. Certificate authentication is relatively simple to set up on SFTP, Platform Server, and FTPS. It is much more complicated on HTTPS, because you need to update the certificate manager and select a certificate for the browser. Because of the difficulty in implementing HTTPS certificate authentication, it is good practice not to use this.

HTTPS can be secured using an SSO (Single SignOn) connection. See the Single SignOn Support section for more detail.

OFTP2 does not perform certificate authentication. However, you can set **Configure OFTP2 Server > Require Client Certificate** to Yes to request the client to send a certificate that is validated by the MFT OFTP2 server.

Two factor Authentication

MFT supports multi-factor authentication in the following ways:

- 1. By requiring users to log in with a password and with a key or a certificate. This is support for multiple incoming protocols, including FTPS, SFTP, Platform Server, and HTTPS.
- 2. When using HTTPS, MFT supports OIDC and SAML. SAML and OIDC are described in more detail in the topic titled "Single SignOn Support".

Restrict IP Addresses

Internet Server and Command Center provides two ways to restrict usage based on IP Address:

- User Definition: You can restrict so that the users can only log in from specific IP Address or IP Address subnets.
- Transfer Definition: You can restrict so that the transfer definitions can only be used when the user logs in from specific IP Address or IP Address subnets.

Note: When a load balancer is used, the following restrictions apply: HTTP/HTTPS: You should use the web.xml LoadBalancerIPAddressList parameter with the IP addresses of all load balancers. This extracts the originating IP Address from the HTTP X-Forwarded-For header. FTP/FTPS, SFTP, and Platform Server: The LoadBalancerIPAddressList parameter does not work since there is no way for the load balancers to specify the originating IP address. Some load balancers can be configured to use the originating IP address when connecting to Internet Server. When the load balancer uses the originating IP address when connecting to Internet Server, these parameters can be used.

Single SignOn Support

MFT Supports two methods of Single SignOn for HTTPS clients: OIDC (OpenID Connect) and SAML (Secure Access Markup Language). OIDC is a newer SSO protocol and is simpler to configure than SAML. When possible, we suggest using OIDC instead of SAML.

OIDC: OIDC is built on the OAUTH2 protocol and allows https clients to verify the identity of users based on the authentication performed by an authorization server. MFT supports multiple OIDC servers in an MFT cluster. For example, you could create an OIDC server for internal users and a separate OIDC server for external users.

SAML: SAML is an open standard for exchanging authentication and authorization data between an identity provider (SAML server) and a service provider (MFT). It allows browser clients to authenticate to the SAML Identity Provider and the security assertions are sent to MFT. Only one SAML server is supported by an MFT cluster.

There are three web.xml parameters that allow you to enforce that the users use OIDC or SAML. See the TIBCO MFT Internet Server User Guide for more information on the following parameters:

- SSOLoginRequired
- SSOExcludedUsers
- SSOAllowRest

Users/Passwords

After the product is installed,

- Change the password for the administrator and for other predefined users.
- Disable any predefined users that you do not use.
- Optional: Configure time of a day and days of the week that users can access the system.
- Optional: Configure an IP address for a user that limits the user to log on to MFT only from that IP address.

Anonymous Access

You must not give anonymous users rights to upload or download sensitive data.

End User Education

- When the browser offers to save MFT password, you should select No.
- After using MFT, you have to log off and close the browser.
- You should not use MFT and browse other websites at the same time.

Security

- For SSH, TIBCO recommends that all partners use SHA-256/384/512 with a key size of 2048 bits or higher.
- For PGP, TIBCO recommends that all partners use SHA-256/384/512 with a key size of 2048 bits or higher.

ReCaptcha Support

MFT can be configured to support ReCaptcha. ReCaptcha is a Captcha service that allows web servers to distinguish between human and automated access to a web site. ReCaptcha can be configured for the following pages:

- Logon
- Forgot User
- Forgot Password
- Self Register

ReCaptcha is configured in the **Configuration > System Configuration > Recaptcha Settings** tab. By default, ReCaptcha is disabled.

SSH Algorithms

MFT allows you to define SSH Algorithm Groups and assign the algorithm groups to individual servers and to the SSH Listener service. Algorithm Groups are defined by the **Management > SSH Algorithm Group** pages.

SSH Algorithm Groups can be assigned in the following ways:

System Configuration > SSH settings: This acts as the default value for the incoming and outgoing MFT SSH requests.

Administration > Transfer Servers > SSH Server > Configure SSH Server: This overrides the system configuration and is used for incoming SSH Connections.

Partners > Servers > Add Server > SSH Properties: This overrides the system configuration and is used for outgoing SSH Connections.

Security Tasks

It is a good practice to perform security-related tasks mentioned in these sections:

- Installation
- Server Configurations

Installation

You can follow the following recommendations to secure TIBCO MFT Internet Server at installation.

Installation User on UNIX

Install as a non-root or an unprivileged user. If you want to use ports below 1025, use the UNIX iptables command to redirect these ports to ports 8443 and 8080. See *Network* section in the *Installation Guide* for more details on redirecting ports.



Note: Some FTP clients fail when connecting to MFT in a non-root environment due to the way that the FTP protocol works. We recommend using the SFTP/SSH protocol in these cases.

Provide only the necessary rights to update the MFT_Install directory and any directories where *LOCAL files are saved.

Installation User on Windows

Install as a normal user, for example: Non Administrator. Normal users can use the ports below 1024.

Provide only the necessary rights to update the MFT_Install directory and any directories where *LOCAL files are saved.

Securing the JDBC connection

If possible, configure the JDBC driver to use SSL/TLS. Contact your database administrator for instructions.

Using Secure Ciphers

During the installation process, you are prompted to select the TLS/SSL ciphers used. There are three options:

- 1. Most secure ciphers (excludes CBC ciphers)
- 2. All secure ciphers (includes CBC ciphers)
- 3. All ciphers

We suggest using the default value of "Most Secure Ciphers (excludes CBC Ciphers)" which ensures that the most secure ciphers are accepted during TLS/SSL negotiation. This applies to all the following TLS/SSL processing:

- HTTPS connections
- FTPS connections
- Platform Server TLS/SSL and Tunnel connections
- OFTP2 TLS connections

The HTTPS ciphers are then set in: <MFT-Install>/server/conf/server.xml

TLS Ciphers used by FTPS, Platform Server, and OFTP2 are defined in:

<MFT-Install>/server/webapps/cfcc/WEB-INF/web.xml



Mote: By default, only TLSv1.2 is enabled.

Perfect Forward Secrecy

Perfect forward secrecy is an encryption feature whereby the keys used to encrypt data are changed on a frequent basis. If a key is compromised, a limited amount of information can be decrypted.

To implement perfect forward secrecy on the HTTPS connection, complete the following steps.

Procedure

1. Edit the server.xml:

<MFT-Install>/server/conf/server.xml

- 2. Locate the ciphers parameter for the HTTPS connector.
- 3. Remove all ciphers starting with "TLS_RSA" and "TLS_ECDH_".
- 4. Restart the MFT server.



Note: Keep the cipher starting with "TLS_ECDHE".

Admin Service

Do not install the MFT Admin service on TIBCO MFT Internet Servers on computers located in the DMZ. Do not install TIBCO MFT Command Center in the DMZ. Only install the MFT Admin service on computers in the internal network. We suggest using the TIBCO MFT Command Center to perform all admin functions and to disable the admin service on all TIBCO MFT Internet Server instances.

HTTPS Certificate

Purchase an HTTPS SSL certificate from a well-known certificate authority. The default certificate is a self-signed certificate, which prompts the browser users a warning that the certificate is not trusted. When creating a keystore, use a strong password instead of the default password.

Use SFTP/SSH instead of FTP

We suggest using the SFTP protocol instead of using FTP or FTPS. While FTPS is a secure protocol, it is difficult to configure firewalls and load balancers due to the FTP requirement for Control and Data connections.

Additionally, it is difficult getting FTP and FTPS working in the cloud. If you are considering moving to the cloud, FTP/FTPS client and server transfers should be migrated to SFTP/SSH.

server.xml Parameters

There are a variety of server.xml parameters that affect the security mentioned in the following sections.

Parameter	Description
allowHostHeaderMismatch	This parameter defines whether the MFT server must reject requests that specify a host in the request line but specify a different host in the host header. This can occur when a customer is using the MFT File Transfer CLI (Command Line Interface) or has created an internal application using the file:
	NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar.
	The problem occurs when an older version of NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar is used. MFT releases before 8.2.1 do not set the header value correctly and transfers fail if the value is set to false. If the following are all true, then you can set this value to false:
	• You do not use the MFT FT File Transfer CLI.
	 You use the MFT FT File Transfer CLI, but are using the FT Command Line distributed with MFT V8.2.1 or above.
	 You have not created any file transfer applications using the NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar files.
	 You have created file transfer applications using file NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar but you are using versions of these files from MFT 8.2.1 or above.
	Valid values are:
	 false: MFT rejects requests where the header host name does not match the host in the request line. This causes problems if older versions of the file transfer jar files (NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar) are used.
	• true: MFT accepts requests where the header host name

Parameter	Description
	does not match the host in the request line. This will allow older versions of the file transfer jar files (NonGUIApplet_0.0.0.1.jar or JavaApplet_0.0.0.1.jar) to be used.
	This is the default value for MFT 8.2.1, but may be changed to false in a future release.
clientAuth	This parameter defines whether the MFT Server supports HTTPS certificate authentication. Valid values are:
	 false: Certificate authentication is not supported. This is the default value.
	 want: Certificates are requested from HTTPS client, but are not required. This is the value that we suggest signing when you want to perform HTTPS Certificate Authentication.
	 true: Certificates are required for HTTPS requests. But MFT can still use certificate or password authentication, based on the System Configuration > HTTPS Client Authentication Method parameter definition. Browser, REST, or Command-Line clients that do not have a certificate cannot log in.
ciphers	This parameter defines the TLS ciphers that are supported. The MFT installation fills in this field with secure ciphers. But you may want to limit the supported ciphers even more. For example, some customers remove CBC ciphers from the supported ciphers.
sslEnabledProtocols	This parameter defines whether TLSV1.0, TLSv1.1, or TLSv1.2 is supported. By default, the MFT Server sets this parameter to TLSv1.2.

web.xml Parameters

There are a variety of web.xml parameters that affect security mentioned in the following sections.

Referer HTTP request header

The Referer HTTP request header contains a complete or partial URL of the page that initiated the HTTP request. The Referer header allows MFT to identify the URL that initiated the MFT request. All MFT web pages are initiated from within the MFT application. This parameter allows you to reject HTTP requests that were initiated from another URL.

MFT has two web.xml parameters that allow you to set the referer header:

- AllowedReferersForXferNavigation: Used by the file transfer browser interface when navigating through a directory structure.
- AllowedReferersAdminJSP: Used by the Admin interface.

See the following table for more information on defining these parameters.

Parameter	Description
admincc-service-enabled	Enables Command Center Admin API REST calls. Default value is True. Only Command Center supports "admincc" calls.
admin-service-enabled	Enables Admin API REST calls. Both Command Center and Internet Server (if Admin server is enabled) support "admin" calls. Default value is True.
ft-service-enabled	Enables File Transfer API REST calls. Only Internet Server supports "ft" calls.
LoadBalancerIPAddressList	When MFT is behind a load balancer and a request is received, MFT allows the X-Forwarded-For HTTP parameter. This allows MFT to extract the initiating HTTP IP address. Otherwise, MFT uses the IP address of the load balancer.
AllowEmailServerDefinition	Defines whether to allow users to transfer files to servers defined with a Server Type of "Email". Setting this parameter to False does not allow servers to be configured as Email servers and rejects transfer requests for Email servers.

Parameter	Description
AllowLocalServerDefinition	Defines whether to allow users to transfer files to servers defined with a Server Type of LOCAL. Setting this parameter to False does not allow servers to be configured as LOCAL servers and rejects transfer requests for LOCAL servers.
AllowMailboxServerDefinition	Defines whether you want to allow users to transfer files to servers defined with a Server Type of "Mailbox". Setting this parameter to False does not allow servers to be configured as Mailbox servers and rejects transfer requests for Mailbox Servers.
MaxConnectionCntFTP	Allows you to set a maximum number of connections for the MFT FTP server. This can help protect against Denial of Service attacks.
MaxConnectionCntSSH	Allows you to set a maximum number of connections for the MFT SSH server. This can help protect against Denial of Service attacks.
MaxConnectionCntCF	Allows you to set a maximum number of connections for the MFT Platform Server. This can help protect against Denial of Service attacks.
MaxConnectionCntOFTP2	Allows you to set a maximum number of connections for the MFT OFTP2 server. This can help protect against Denial of Service attacks.
DenyLoginIds	This parameter allows you to define users that are not authenticated. For example, the default values of "root,administrator" ignores authentication request for users root and administrator. You can define additional users in this list.
SSOLoginRequired	Allows you define whether SSO (OIDC or SAML) is required for all users.

Parameter	Description
SSOExcludedUsers	Allows you to define users that can log in without SSO when SSOLoginRequired is set to True.
SSOAllowRest	When set to True, this allows REST calls to be used without using OIDC.
TLSCipherSuite	Defines the ciphers used by MFT in any SSL/TLS connections.
	If you select the Use Secure Ciphers Only parameter during the installation process, this parameter is filled in with secure ciphers. When the FTP service is started, all secure ciphers supported are displayed. You can select any ciphers from the displayed list to add to this parameter. Multiple ciphers must be delimited with a comma.
	This parameter only applies to FTPS (FTP over SSL) and Platform Server SSL connections. HTTPS connections use the parameters in the server.xml ciphers parameter.
TLSProtocols	Defines TLS protocols that are supported by FTPS and Platform Server SSL. The valid values are: TLSv1, TLSv1.1, and TLSv1.2.
	By default, any TLS protocol is supported.
	Before changing this parameter, ensure that all FTPS and Platform Server clients and servers support the defined TLS protocol.
	This parameter only applies to FTPS (FTP over SSL) and Platform Server SSL connections. HTTPS connections use the parameters in the server.xmlSSLEnabledProtocols parameter.
SSHCipherSuite	Defines the ciphers supported by MFT SFTP client and servers. When the MFT SFTP service is started,

Parameter	Description
	all SSH ciphers supported are displayed. You can select the ciphers that you want to support. Multiple ciphers must be delimited with a comma. We suggest using the SSH Algorithm Group feature instead of using this parameter. This parameter is for compatibility with the older versions.
SSHKeyExchange	Defines SSH key exchange algorithms supported by MFT SFTP client and servers. When the MFT SFTP service is started, all SSH key exchange algorithms supported are displayed. You can select the key exchange algorithms that you want to support. Multiple key exchange algorithms must be delimited with a comma. We suggest using the SSH Algorithm Group feature instead of using this parameter. This parameter is for compatibility with the older versions.
	Note: By default, the diffie-hellman-group1-sha1 protocol is removed by MFT, because it is vulnerable to the logiam attack. Some old SFTP clients and servers require this parameter; therefore, occasionally you need to update this parameter to include this key exchange algorithm. You must include all key exchange algorithms that are supported.
SSHDigestSuite	Defines the digest (hash) suites supported by MFT SFTP client and servers.
	When MFT SFTP service is started, all SSH digests supported are displayed. You can select the digests that you want to support. Multiple digests must be delimited with a comma. We suggest using the SSH Algorithm Group feature instead of using this parameter. This parameter is for compatibility with the older versions.

Parameter	Description
PasswordHashNew	Defines the password digest used by MFT.
	You have to use the defined value of SHA-256.
UnsecuredHTTPSupport	Defines whether HTTP support is allowed.
	The default value is No, which indicates that HTTP support is not allowed and only HTTPS is accepted. If you require HTTP support, set this value to Yes.
	Note: When using HTTP, no encryption of credentials or data is performed.
AllowedReferersForXferNavigation	Adds HTTP referer checking to the JSP pages that are used to navigate the directory tree structure. In addition to the URL, you have to add the loopback address.
	This parameter is defined in the web.xml file. It only needs to be set in Internet Server instances. It is ignored in TIBCO MFT Command Center.
AllowedReferersAdminJSP	Adds HTTP referer checking to the Administrator JSP pages. In addition to the URL, you have to add the loopback address.
	This parameter needs to be set both in TIBCO MFT Command Center instances and Internet Server instances, where the Admin service is installed.
DisplayFTPBanner	Defines whether MFT displays FTP and SFTP banners.
	If this parameter is set to Yes, you can define the banners or welcome message displayed in the Admin Configure SSH Server and Configure FTP Server pages.
Anonymous	Defines whether an anonymous user can be used

Parameter	Description
	without authenticating the password. If you enter the value anonymous in this parameter, you must also create a user called anonymous. Because the password is not validated, you must not give the anonymous user access to any secure file or folders.
Redirect HTTP to HTTPS	Allows you to redirect HTTP requests to HTTPS port. Uncomment the following parameter within the web.xml file in two separate locations. This automatically redirects HTTP requests to the HTTPS port.
	-user-data-constraint <transport- guarantee>CONFIDENTIAL</transport- guarantee>
SecurityFilter	Defines whether a browser can be allowed to render a page in a frame, an iFrame, or an object. This parameter prevents you from framing and clickjacking attacks. By setting this parameter to SAMEORIGIN, the browser can use the page in a frame if the server including it in a frame is the same as the one serving the page. By setting this parameter to DENY, all attempts to load the page in a frame fails. The default value is SAMEORIGIN.
ChangedPasswordEmailEnabled	Defines whether an email is sent to a user when the user changes the password. We suggest setting this parameter to Yes to notify the user that the password has been changed.

Server Configurations

Follow these recommendations to secure TIBCO MFT Internet Server through configurations.

Configuration in Admin Client

- Remove unnecessary default users or unnecessary rights from these users.
- Assign only necessary rights to users.
- Use LDAP for authentication.
- Enable global password rules.
- Enable global lockout.
- Allow users to reset their passwords.
- Use the MFT delegated administration feature if possible.
- AdministratorRight must be limited to a selected few people.
- Assign the minimum right that a user needs to access the system.
- Be cautious running commands or Java class on an alert or scheduled job.

 Commands and java programs run under the rights of the MFT server process.
- Configure the time of a day and days of the week that transfers can be run.

Server Options: Server File Name Prefix

When defining a server, you can expand the **Server Options** section on the **Add Server** page and use the **Server File Name Prefix** parameter.

This parameter defines the directory that is prefixed to the server file name defined on the transfer definition. With this parameter, you can perform the following actions:

- Restrict user access to a particular directory.
- Ensure when a transfer definition is created, the transfer definition cannot access data outside of the defined directory.

This parameter can be used for all server types, but it is particularly important when defining a server of *Local type.

SFTP and FTP banners

Banner pages are displayed by MFT when you log in to the MFT SFTP and FTP servers. It is good practice to create a generic banner page that does not include the name of the

software running or the release.

SMTP TLS communication

MFT supports TLS communication to SMTP servers when sending emails. MFT supports Implicit SSL and StartTLS. We suggest using Implicit SSL since it is more secure than StartTLS. However, this depends on the TLS support of the SMTP server.

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the Product Documentation website, mainly in HTML and PDF formats.

The Product Documentation website is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The documentation for this product is available on the TIBCO® Managed File Transfer Internet Server Documentation page.

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our product Support website.
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the product Support website. If you do not have a username, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature

requests from within the TIBCO Ideas Portal. For a free registration, go to TIBCO Community.

26 | TIBCO Documentation and Support Services

Legal and Third-Party Notices

SOME CLOUD SOFTWARE GROUP, INC. ("CLOUD SG") SOFTWARE AND CLOUD SERVICES EMBED, BUNDLE, OR OTHERWISE INCLUDE OTHER SOFTWARE, INCLUDING OTHER CLOUD SG SOFTWARE (COLLECTIVELY, "INCLUDED SOFTWARE"). USE OF INCLUDED SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED CLOUD SG SOFTWARE AND/OR CLOUD SERVICES. THE INCLUDED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER CLOUD SG SOFTWARE AND/OR CLOUD SERVICES OR FOR ANY OTHER PURPOSE.

USE OF CLOUD SG SOFTWARE AND CLOUD SERVICES IS SUBJECT TO THE TERMS AND CONDITIONS OF AN AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER AGREEMENT WHICH IS DISPLAYED WHEN ACCESSING, DOWNLOADING, OR INSTALLING THE SOFTWARE OR CLOUD SERVICES (AND WHICH IS DUPLICATED IN THE LICENSE FILE) OR IF THERE IS NO SUCH LICENSE AGREEMENT OR CLICKWRAP END USER AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENT IS SUBJECT TO THOSE SAME TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of Cloud Software Group, Inc.

TIBCO, the TIBCO logo, the TIBCO O logo, and Slingshot are either registered trademarks or trademarks of Cloud Software Group, Inc. in the United States and/or other countries.

Java and all Java based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only. You acknowledge that all rights to these third party marks are the exclusive property of their respective owners. Please refer to Cloud SG's Third Party Trademark Notices (https://www.cloud.com/legal) for more information.

This document includes fonts that are licensed under the SIL Open Font License, Version 1.1, which is available at: https://scripts.sil.org/OFL

Copyright (c) Paul D. Hunt, with Reserved Font Name Source Sans Pro and Source Code Pro.

Cloud SG software may be available on multiple operating systems. However, not all operating system platforms for a specific software version are released at the same time. See the "readme" file for the availability of a specific version of Cloud SG software on a specific operating system platform.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENT. CLOUD SG MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S), THE PROGRAM(S), AND/OR THE SERVICES DESCRIBED IN THIS DOCUMENT AT ANY TIME WITHOUT NOTICE.

THE CONTENTS OF THIS DOCUMENT MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "README" FILES.

This and other products of Cloud SG may be covered by registered patents. For details, please refer to the Virtual Patent Marking document located at https://www.tibco.com/patents.

Copyright © 2003-2024. Cloud Software Group, Inc. All Rights Reserved.