

MFT - End user documentation

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Introduction

The Managed File Transfer service - MFT service in short - is provided by FPS BOSA as a means to transfer files between different consumers in a controlled way. For this purpose, each consumer get his own set of accounts (one per finality) and file store on the MFT servers. The transfer of files from the file store of one consumer to the file store of another consumer is handled by the MFT engine, based on strict configuration.

Request for access

Please contact fsb@bosa.fgov.be to get access to the MFT solution and to get flows configured.

Interfaces

To access the MFT solution, both REST and SFTP interfaces are available.

REST interface

Access

The REST interface is available on the following URLs:

- <https://mft.services.pr.belgium.be:8443/> (production environment)
- <https://mft.services.int.belgium.be:8443/> (integration environment)
- <https://mft.services.ta.belgium.be:8443/> (test & acceptance environment)

For security reasons, access to these URLs is controlled by a firewall. Upon the approval of the access request, the firewall is configured to allow the necessary connections.

A password as well as a certificate can be used for authentication purposes.

Examples

Below are examples of how to interact with the MFT solution using the REST interface. 'curl' was used as the client program, but essentially any client or library supporting the HTTP protocol can be used. 'xmlint' was used to filter and format the output where applicable. The examples use the production MFT. The URLs for the other environments are mentioned above.

- Upload binary file 'datafile_to_upload.bin'

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key -X PUT --data-binary @datafile_to_upload.bin  
https://mft.services.pr.belgium.be:8443/datafile_to_upload.bin
```

- List file

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/ | xmllint --xpath 'files/file[name="datafile_to_upload.bin"]' - | xmllint --format -
```

Output:

```
<?xml version="1.0"?>
<file>
<name>datafile_to_upload.bin</name>
<type>regular</type>
<size>1459072</size>
</file>
```

- Download binary file

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/datafile_to_upload.bin > datafile_to_upload.bin
```

- Create directory

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/folder_to_create?mkdir=true
```

- List directory contents (note the request URL ends with a '/' to indicate we are requesting a directory listing)

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/folder_to_create/ | xmllint --format -
```

Output:

```
<?xml version="1.0" encoding="UTF-8"?>
<files xmlns:dpfl="http://www.ibm.com/xmlns/prod/dp/filelist" xmlns:fn="http://www.w3.org/2005/xpath-functions" xmlns:xs="http://www.w3.org/2001/XMLSchema">
<file>
<name>.</name>
<type>directory</type>
<size>4096</size>
</file>
<file>
<name>..</name>
<type>directory</type>
<size>4096</size>
</file>
</files>
```

- Remove directory

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/folder_to_create?rmdir=true
```

- Remove file

Command:

```
curl --silent --cert MFTuser.crt --key MFTuser.key https://mft.services.pr.belgium.be:8443/file_to_remove?delete=true
```

SFTP interface

Access

The SFTP interface is available on the following hosts:

- mft.services.pr.belgium.be, port 8022 (production environment)
- mft.services.int.belgium.be, port 8022 (integration environment)
- mft.services.ta.belgium.be, port 8022 (test & acceptance environment)

For security reasons, access to these services is controlled by a firewall. Upon the approval of the access request, the firewall is configured to allow the necessary connections.

A password as well as a certificate can be used for authentication purposes.

Examples

Below are examples of how to interact with the MFT solution using the SFTP interface. 'sftp' was used as the client program, but essentially any client or library supporting the SFTP protocol can be used. The examples use the production MFT. The connection parameters for the other environments are mentioned above.

- Upload binary file 'datafile_to_upload.bin'

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> put datafile_to_upload.bin
Uploading datafile_to_upload.bin to /datafile_to_upload.bin
datafile_to_upload.bin 100% 1459072 190KB/s 00:00
sftp> bye
```

- List file

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> ls -l datafile_to_upload.bin
-rw-r----- 0 4012 4012 1459072 Feb 20 07:36 datafile_to_upload.bin
sftp> bye
```

- Download binary file

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> get datafile_to_upload.bin
Fetching /datafile_to_upload.bin to datafile_to_upload.bin
/throttling_config.tgz 100% 1459072 190KB/s 00:01
sftp> bye
```

- Create directory

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> mkdir folder_to_create
sftp> bye
```

- List directory contents

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> ls -la folder_to_create
drwxr-x--- 0 4012 4012 6 Feb 20 07:49 .
drwxr-x--- 0 4012 4012 4096 Feb 20 07:49 ..
sftp> bye
```

- Remove directory

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> rmdir folder_to_create
sftp> bye
```

- Remove file

Command:

```
sftp -P 8022 MFTuser@mft.services.pr.belgium.be
MFTuser@mft.services.pr.belgium.be's password:
Connected to mft.services.pr.belgium.be.
sftp> rm file.dat
Removing /file.dat
sftp> bye
```

Rules & guidelines

- Users are expected to remove files once they have been downloaded