



Data Transfer Options and Requirements

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Section 1: General Overview

This document is designed to provide data suppliers and data recipients with information about the different data transfer methods supported by Thomson Reuters and their requirements.

Although physical and electronic media submissions are both accepted, Thomson Reuters encourages electronic data transfers (EDT).

Electronic Data Transfer

Multiple methods can be used to submit data to Thomson Reuters over the Internet. See page 5 for details about methods, setup, and requirements for sending data via:

- Interactive Web Submission
- Standard FTP with PGP encryption – Push and Pull
- Standard FTP over VPN (Virtual Private Network) – Pull only
- Secure FTP (SFTP) – Pull only
- HTTPS - Pull Only

Thomson Reuters offers three different setup methods for transmitting data to data recipients. See page 11 for details about methods, setup, and requirements for receiving data from Thomson Reuters via:

- FTP Push and Pull
- HTTPS Push and Pull
- SFTP Push and Pull

Physical Media Options

Thomson Reuters accepts data submission in a variety of physical media options. See page 13 for details about format options and requirements for:

- Data Tapes
- Data Diskettes
- CDs and DVDs
- Zip Disks
- External Hard Drives

Section 2: Electronic Data Transfers

Electronic data transfers (EDT) rely on standard Internet protocols to transfer data to and from Thomson Reuters for processing. This service has five options you can use to submit data *to* Thomson Reuters and six options by which you can receive data transmissions *from* Thomson Reuters.

Thomson Reuters adheres to HIPAA (Health Insurance Portability and Accountability Act) standards regarding the transmission of medical data, including authenticating users and encrypting transmissions.

Note: All electronic data submission methods require the submission of control information in specified formats, and may require files to be named according to Thomson Reuters file naming convention. **Data will not be processed without control information.** For more information about control information requirements, contact your Thomson Reuters Account Team Representative. Please see page 8 for more information about file names and page 9 for more information about control totals.

Section 2a: Methods for Submitting Electronic Data to Thomson Reuters

The methods listed below can be used to send data to Thomson Reuters

- **Interactive Web Submission**

The Medstat Data Submission System (MDSS) is a Web-based software application that allows a data supplier to validate the structure of a file and send it electronically to Thomson Reuters over the Internet. A small Java applet guides the user through the data submission process. In this process, data is validated against the agreed-upon data format. This method cannot be automated. Zipped files may not be sent using this method.

- **Standard FTP with PGP encryption – Push and Pull**

Since the FTP standard does not inherently provide encryption, data suppliers must encrypt files with PGP encryption before transmission. Compression is automatic when using PGP encryption. Zipped files may be transmitted using this method. Please see page 15 for more information about Zipped files.

- **Standard FTP over VPN (Virtual Private Network) – Pull only**

The VPN connection provides a secure transfer; therefore, encryption of the data is not required. This option is for suppliers who do not support PGP encryption, but who can use standard FTP over the Internet. This option is only available for suppliers hosting the VPN connection with Thomson Reuters logging in and pulling data. FTP push transmissions are not supported with a VPN tunnel. Zipped files may be transmitted using this method. Please see page 15 for more information about Zipped files.

- **Secure FTP (SFTP) – Pull only**

This option uses an encrypted SSH (Secure Shell) channel to pull data from supplier sites. It also uses Secure FTP on port 22 to accomplish the data transfer. Zipped files may be transmitted using this method. Please see page 15 for more information about Zipped files.

Note: SSL on port 21 (FTPS) is not supported by Thomson Reuters.

- **HTTPS - Pull Only**

This option uses an encrypted SSL channel to pull data from supplier sites. Currently this method is only available to suppliers using the Tumbleweed server software. It utilizes Internet standard port 443 to accomplish the data transfer. Zipped files may be transmitted using this method. Please see page 15 for more information about Zipped files.

Note: HTTPS pushes of data to Thomson Reuters are not supported.

Electronic Data Submission Method Features

Feature	Interactive Web	FTP with PGP	FTP over VPN	HTTPS	SFTP
Data Validation - record length, record count, field validation	✓				
Compression	✓	✓			
File encryption		✓			
Transfer method encryption	✓		✓	✓	✓
User Authentication	✓	✓	✓	✓	✓
Media Logging	✓				
Data pushed to Thomson Reuters	✓	✓			
Data pulled by Thomson Reuters		✓	✓	✓	✓
Can be automated		✓	✓	✓	✓

Electronic Data Submission Method Requirements

Requirement	Submitting data via Interactive Web	Submitting data via FTP w/PGP	Submitting data via FTP over VPN	Submitting data via HTTPS	Submitting data via SFTP
Software	Java Run-time 1.5 or greater (installed during first MDSS login, if not present)	* File Transfer Protocol (FTP) as defined in RFC959 and RFC1123 Sec. 4 * PGP version 6.5 or greater	File Transfer Protocol (FTP) as defined in RFC 959 [RFC959] and RFC 1123 Section 4 [RFC1123]	Tumbleweed server software	SSH Server responding on port 22
Hardware	*PC with Windows 2000 or Windows XP workstation, with latest Windows updates * 56Kb modem or better (broadband Internet connection preferred) * 128MB RAM or better * Pentium 200Mh processor or better	N/A	N/A	N/A	N/A
Web Browser	Internet Explorer 6 or greater	N/A	N/A	N/A	N/A
File Size Limit	2 GB	15GB	2GB	15GB	2GB
Control Information	Entered on Web Interface	Header/Trailer or Tag File	Header/Trailer or Tag File	Header/Trailer or Tag File	Header/Trailer or Tag File
File Names	N/A	Thomson Reuters File Names	Supplier-selected file names that are consistent from submission to submission	Thomson Reuters File Names	Supplier-selected file names that are consistent from submission to submission
Permissions	Administrator access on workstation to install Java Run-time	Permission to delete files from remote server (FTP Pull)	N/A	N/A	N/A

File Naming Conventions for Submitting Electronic Data to Thomson Reuters

With the exception of files pushed through the interactive Web, all files pushed or pulled to or from Thomson Reuters must uniformly follow Thomson Reuters naming conventions. FTP with PGP and HTTPS files must follow a specific Thomson Reuters file naming requirement. Files pulled by Thomson Reuters may use Supplier- selected names; however, the supplier selected names must remain the same for subsequent submissions.

Thomson Reuters File Naming Requirements

FTP Push with PGP files and HTTPS Pull files

Required format

Client ID (4 bytes) + Supplier ID (4 bytes) + Header/Trailer-Tag identifier (1 byte) + Layout Group Key (5 bytes) + .TXT (File Extension) + PGP Extension

Example: 77050770E10356.TXT.PGP

The Header/Trailer tag identifier character (E or T) indicates the location of the control information. (See page 9 for additional details.)

- **E** indicates a separate tag file with an .MMS extension
- **T** indicates an embedded header/trailer record

Example: 77050770E10356.TXT.PGP and 77050770E10356.MMS.PGP

77050770T10356.TXT.PGP

To push multiple files at one time, a unique identifier can be inserted into the file name after the 14th character and before the .txt extension.

Example: 77050770E10356_1Q04.TXT.PGP and 77050770E10356_1Q04.MMS.PGP

77050770E10356_2Q04.TXT.PGP and 77050770E10356_2Q04.MMS.PGP

Supplier-selected File Naming Requirements

FTP Pull with PGP encryption files, FTP over VPN files, and SFTP Pulls

Data files pulled by Thomson Reuters via FTP with PGP encryption, FTP over VPN, or SFTP can be named according to supplier requirements. However, the file names must contain a static component from submission to submission.

Example: Customer_medclaims_Jun2006.txt

Customer_medclaims_ must remain the same for each submission, but the time period may be updated with each submission.

Note: Do not use any of the following in file names:

- any periods (.) except immediately before the txt and pgp extensions (if applicable)
 - spaces
 - special characters: !, #, or @
-

Control Information for Submitting Electronic Data to Thomson Reuters

Files submitted electronically to Thomson Reuters must **contain information about the data contents**. This information can be provided in one of two ways:

- Embedded header or trailer record
- Tag file

Embedded Header or Trailer Record

If the data format contains layouts for a header or trailer record that contain control total information about the file, these records can be appended to the data detail.

Note: If you are adding headers and/or trailers that have not been previously discussed, contact your Thomson Reuters Account Team Representative first.

The header/trailer record must be the same length as other layout(s) in the group when using fixed-width formats.

At a minimum, the header/trailer record must contain the following information:

- Total file record count including header and/or trailer
- Dollar totals (e.g. net payments), if applicable
- Start time period (dates must be in the same format as dates in the data detail)
- End time period (dates must be in the same format as dates in the data detail)

Tag File

A tag file, in the context of Thomson Reuters automated EDT process, is a small text file that contains information about a specific data file. A tag file must accompany each data file transmitted to Thomson Reuters. If a header/trailer is not used, a tag file is required with each file submitted in order for Thomson Reuters to properly catalogue and process the data content included in the submission.

Thomson Reuters only processes data files and tag files in pairs. Orphaned data files or tag files will not be processed.

The first 25 bytes of each required line (or record) will be comprised of the literal label used in the example below. The data corresponding to the label will begin in column 26 and end in column 80 for that respective line (or record).

The data supplier should provide the following content in the tag files:

Tag File Fields

Label	Format	Description
Number of Records	Numeric, left justified, no commas	Identifies the number of records included in the data content file.
Record Length	Numeric, In bytes at source, left justified, no commas	Identifies the number of bytes per record (excluding the record terminator).
Start Paid Date	Date, mm/dd/ccyy with "/" delimiter and leading zero(s) as needed for single-digit months and days	Identifies the starting date for the period included in the data submission.
End Paid Date	Date; mm/dd/ccyy with "/" delimiter and leading zero(s) as needed for single-digit months and days	Identifies the ending date for the period included in the data submission.
Dollar Totals	Numeric, left justified, no commas or dollar sign (\$), negatives should be signed on the far left, 2 explicit decimal places to the right of the included decimal point	Provides a control total for dollar amounts for files that include dollar amounts in the record layout.
Contact Name and Phone	Text, First (space " ") Last ###.###.#### (X##### for extension)	Provides contact information that can be used for follow up in the event of problems reading or interpreting the data content file.
Comments	Text, columns 26 through 80, one (1) comment per line with a maximum of four (4) lines.	Provides space for comments regarding the data content, such as data type, or special instructions, etc.

Example Tag File:

```

1-----26-----40-----60-----80
Number of Records:      105623
Record Length:         450
Start Paid Date:       06/01/2001
End Paid Date:         06/30/2001
Dollar Totals:         2356497.88
Contact Name and Phone: Joyce Welch-Smith 734.555.9876X4321
Comments:               Eligibility Data
Comments:               Replacement file

```

Note: The dashed line with numbers in the example above indicates the relative positions in the record layout – it is not actually included within the text of the tag file.

Supported Encryption Methods for Submitting Electronic Data to Thomson Reuters

Encrypted EDT files sent to Thomson Reuters must be encrypted using PGP. Files sent to Thomson Reuters using the PGP encryption method should be encrypted using the Medstat Public Key (EDTFTP-PUBLIC.asc). The public key will be provided during the data transmission setup process.

Section 2b: Methods for Electronic Data Transmissions from Thomson Reuters

The methods listed below are used by Thomson Reuters to transmit data to a data recipient:

- **FTP Pull**

The FTP Pull option allows data recipients to pull PGP Encrypted data from an external Thomson Reuters server. Data recipients can retrieve files non-interactively through automated scripts via FTP, FTPS, and FTP/SSL. This process requires a data recipient user name and password to access ftp2.medstat.com.

- **FTP Push**

The FTP Push option transmits PGP encrypted data from an internal Thomson Reuters server to the data recipient server. FTP Push transfers use Rebex on port 21 to accomplish the data transfer (data recipient specific ports can also be specified). This process may require the altering of the data recipient's firewall.

- **HTTPS Push**

The HTTPS Push option transmits data from an internal Thomson Reuters server to a data recipient server. HTTPS push transfers use Secure Transport® on port 443 to accomplish the data transfer (data recipient specific ports can also be specified).

- **HTTPS Pull**

The HTTPS Pull option transmits data to a TH External Server. This process requires a data recipient user name and password to access ftp2.medstat.com to retrieve the data via HTTPS through a web browser. Thomson Reuters can supply MOVEit® Xfer to complete non-interactive HTTPS transfers.

- **SFTP Push**

The SFTP Push option transmits data from an internal Thomson Reuters server to the data recipient server. SFTP Push transfers use Rebex on port 22 to accomplish the data transfer (data recipient specific ports can also be specified). This process requires access to the recipient server for Thomson Reuters internal FTP server.

- **SFTP Pull**

The SFTP Pull option allows data recipients to pull data from an external Thomson Reuters server. Data recipients can retrieve files non-interactively through automated scripts. This process requires a data recipient user name and password to access ftp2.medstat.com.

Electronic Data Transmission Method Features

Feature	FTP Pull	FTP Push	HTTPS Push	HTTPS Pull	SFTP Push	SFTP Pull
File encryption	✓	✓				
Transfer method encryption	✓	✓	✓	✓	✓	✓
User Authentication	✓	✓	✓	✓		✓
Firewall access	✓					
Can be automated	✓			✓		✓

Electronic Data Transmission Requirements

Requirement	Receiving data via FTP Pull	Receiving data via FTP Push	Receiving data via HTTPS Push	Receiving data via HTTPS Pull	Receiving data via SFTP Push	Receiving Data via SFTP Pull
Software	Standard FTP Client or Web Browser	Standard FTP Server	Standard HTTPS Server Complete with Secure Transport	Web Browser or MOVEit® Xfer*	Standard SFTP Server	Standard SFTP Client
Hardware	N/A	N/A	N/A		N/A	N/A
Web Browser	Internet Explorer 6 or greater	N/A	Internet Explorer 6 or greater	Internet Explorer 6 or greater	N/A	N/A
File Size Limit	40 GB	40 GB	40 GB	40 GB	40 GB	40 GB
Permissions	Firewall Access	Thomson Reuters write permissions on recipient server	Thomson Reuters write permissions on recipient server	Thomson Reuters user account	Thomson Reuters write permissions on recipient server	Thomson Reuters user account

* Thomson Reuters can supply MOVEit® Xfer to complete non-interactive HTTPS transfers.

Section 3: Physical Media Submission

While Thomson Reuters encourages the use of electronic data submission, physical media submission is also available. Thomson Reuters accepts Data Tapes, Data Diskettes, CDs and DVDs, Zip Disks, and External Hard Drives. Each type requires labeling and documentation requirements.

Section 3a: Physical Media Format Options

Data Tapes

- 3480 or 3490 or 3490e Cartridge, compressed or uncompressed
- DDS-4 20/40 GB 4MM Data Cartridge 120 meter maximum
- 8MM Helical Scan 7/14 GB Data Cartridge
- DLT 7000 35/70 GB Data Cartridge
- SDLT 110/220 GB Data Cartridge
- LTO Ultrium1 or Ultrium2 Data Cartridge
- External Hard Drive with USB 2.0 connection formatted for Windows
- Windows Backup
- TAR
- DD

Standard IBM labels preferred where applicable; unlabeled or ANSI labels also accepted.

Data Diskettes, CDs, DVDs, and Zip Disks

- CD-ROM – 700MB
- DVD – 4.3GB single layer or 8.5GB dual layer
- 1.44MB Floppy Diskette
- 250MB Zip Disk

Compression

Winzip if applicable or PGP (using Thomson Reuters public key, EDTFTP <edtftp@medstat.com>, or Self-Decrypting Archive format)

Parsing Data Prohibited

Data files should not span multiple CD, DVD, Floppy, or Zip disks. Please choose a media that will accommodate the entire data volume, or limit file size appropriately.

Disk Contents

Disks should only contain data files, and when appropriate, layout information. No other files should be present on the disk, including third party software (e.g. applications that can be used to view/edit the data).

Section 3b: Physical Media Labeling and Documentation Requirements

External media label and documentation requirements apply to all physical media types, including any type of tape, CD-ROM, DVD, Floppy, or Zip disk.

Physical Media Identification

Thomson Reuters will provide Data Submission Forms that contain self-adhesive labels to data suppliers that submit data via physical media. These forms provide data security and privacy while expediting processing upon receipt at Thomson Reuters data center. Appendix A contains a sample of the Data Submission Form and label. Please notify your contact at Thomson Reuters if you require Data Submission Forms.

To properly identify the media:

1. Complete the label and affix to the media or CD-ROM case.
2. Package and ship the media separately from the Media Submission Form. (See Appendix A: Sample Media Submission Form)
3. Complete the rest of the form, and ship, fax, or e-mail to the Data Center
Send the Data Submission Form to Thomson Reuters as follows:
 - a. Fax to Thomson Reuters at (651) 687-6943 or
 - b. Email to Thomson Reuters at Medstat-ops.expeditor@thomsonreuters.com
4. If placing multiple files on the same media, list the files on the Media Submission Form by file name or volume serial number. For each file, indicate the record count, net payments (if applicable), and time period.

Note: Never combine files for multiple customers on one media. Use one media per customer.

Section 3c: Unidentified Physical Media Retention Policy

Physical media sent to Thomson Reuters for processing without supporting documentation (ie. passwords, unidentifiable customer or supplier, etc.) will be retained for a period of two weeks while we work to obtain the necessary information needed to process the media. If, after two weeks, we are still unable to identify or process the media, it will be destroyed unless specifically requested to return the physical media.

Section 4: Zipped Files

Thomson Reuters can accept zipped files via most electronic transmission methods. However, specific naming conventions must be followed:

- Files may be zipped using Winzip, pkzip, or gzip.
- Files may have either a .zip or a .gz extension.
- Files with .tar or .tgz extensions will not be processed.
- When zipping files, the zipped file must be a self-decrypting archive (SDA).
- If files are to be PGP encrypted, zipping should be done before encryption.
- All zipped files must be named according to the transmission method's file naming requirements, with the .txt or .mms extension replaced by the .zip or .gz extension.
- All files within archives must follow Thomson Reuters file naming convention, regardless of transmission method. See page 8 for file naming requirements for each data transfer method.


Examples:

10550770E12345.ZIP (Contains 10550770E12345.TXT and 10550770E12345.MMS)

Customer_claims.zip (Contains 10550770T12345.TXT)

Note: Zipped files are not supported for Interactive Web Submission.

Appendix A: Sample Media Submission Form


THOMSON REUTERS

No. []
 ID1 (Customer) []
 ID2 (Data Supplier) []
 Date Created []
 Tape # [] of []
 Ship Media to:
 Thomson Reuters
 Attention: Medstat Tape Expeditor
 E1-Tape Vault, Dock D1 or D2
 610 Opperman Drive
 Bagley, MN 55123

Media Submission Form

No. []
 Type of Media (select one or specify)
 Selection [] Specify []

Please ship media separate from submission form. The form can be faxed or e-mailed. Instructions follow!

Senders Name: [] Senders Phone: [] Senders Email: [] Thomson Reuters Contact: []	Customer Name: [] Data Supplier Name: [] Date: [] Contact: [] Fax: []
---	--

File #1	File #2	File #3
Character Set (Selection) []	[]	[]
Job ID, if applicable []	[]	[]
Database Name []	[]	[]
VO L-SER. Num. []	[]	[]
*Data Type (Selection, or specify) []	[]	[]
Other []	Other []	Other []
Record Format (Selection) []	[]	[]
LRBCL []	[]	[]
Total Record Count []	[]	[]
Total Ref Payments []	[]	[]
*Time Period []	[]	[]
Encryption (Selection) []	[]	[]
Method: Selection []	Method: Selection []	Method: Selection []
Other []	Other []	Other []
*Password []	[]	[]

Instructions:

- Use one form per media (Only one customer's data per media)
- Use additional forms if media contains more than three files
- Fill in information inside dotted line, cut out, and affix to media.
- Address packaging and ship separate from media submission form
- Complete remainder of media submission form
- Ship, fax or e-mail media submission form to: Fax: 651-687-6948
Email: media@com.secdtr@thomsonreuters.com

Ship Media to:
 Thomson Reuters
 Attention: Medstat Tape Expeditor
 E1-Tape Vault, Dock D1 or D2
 610 Opperman Drive
 Bagley, MN 55123