Globalscape EFT Logging

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202409240410

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As the EFT log file subsystem writes out the date for the log, it compares the current computer date/time to the value for the log rotation (hourly/daily/weekly/monthly/yearly) period specified on the logs tab of the Server. When a write-to-log operation occurs that is calculated to cross a period (that is, the prior write was within a former period, but the current date/time at write is a new period), EFT rotates the log file name and then writes to that new log.

EFT activities can be logged in various places.

- The EFT<servername>.log file is the root logger and controls all logging items as defined in logging.cfg. Individual loggers can be enabled and increased in verbosity as needed. Some loggers contain sub appenders to log specific aspects.
  - Domain-level EFT server logs
  - SFTP logging
  - SLS/TLS logging
  - Syslog/Appender
- For information about the Audit Database logs, refer to Auditing Database Errors and Logging. (Not to be confused with Audit Database Settings.)
- For event rule logging (such as *cl060312.log*) refer to Event Rules Client Log.
- For installation logs, refer to Installation Logging.
- For DMZ Gateway logging, refer to DMZ Gateway Logging.
- For Windows Event Logs, refer to Windows Event Log (WEL) Action.

EFT Client Activity Log

To monitor EFT client activity, you can reference EFT's log files, including registration state of modules, server/site functions, SFTP, SSL/TLS connections, and of course, errors and warnings.

- The EFT client activity log, also known as "TED6" logs, is used to log client connection information (event rules and outbound transfers), client commands/requests, remote server responses, and status messages.
- EFT client log files are saved in the **C:\ProgramData\Globalscape\EFT Server\Logs\** folder.

EFT Server Activity Logging

The EFT server activity (TED6) logs are available as W3C, Microsoft IIS, and NCSA log file formats. Depending on the log file format selected in administration interface **Server > Logs** tab, a 2-letter abbreviation is prepended to the filename, as described in the table below. The information in the file is the same; it's just in a different file format to accommodate different (external) log readers. Server events are logged to a file named *[log file format]yymmdd.log*, where YY, MM, and DD indicate the numeric year, month, and day respectively.

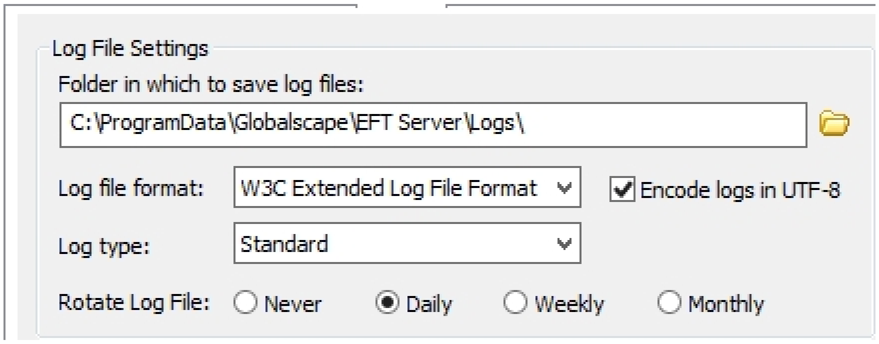
For example, a log file in the Microsoft IIS format created on August 22, 2024 is named `in240822.log`.

Log File Format	Abbreviation
W3C	ex
NCSA	nc
Microsoft IIS	in

When using HA, you need to specify a unique location (local) on each node for the log files. This is for troubleshooting purposes (to know on which node an issue occurred). Also, having two nodes write to the same file causes issues with file locking, which will cause data in the logs to be lost.

To specify EFT activity log settings

1. In the administration interface, connect to EFT and click the **Server** tab.
2. On the **Server** tab, click the Server node.
3. In the right pane, click the **Logs** tab.



Log File Settings

Folder in which to save log files:

C:\ProgramData\Globalscape\EFT Server\Logs\

Log file format: W3C Extended Log File Format ☑ Encode logs in UTF-8

Log type: Standard

Rotate Log File: ○ Never ● Daily ○ Weekly ○ Monthly

4. In the **Log File Settings** area, in the **Folder in which to save log files** box, type the path to the directory in which to save this Server's log files. To browse for a path, click the folder icon 📂.
5. In the **Log file format** list, click **W3C Extended**, **Microsoft IIS**, **NCSA Common**, or **No Logging**. Changing the log file format disconnects all active users. It is recommended to stop all Sites or wait until all users are inactive before changing the log file format. The W3C format records all times in GMT (Greenwich Mean Time).
6. Clear the **Encode logs in UTF-8** check box if you do not want to encode logs in UTF-8 format. When the check box is cleared, the **u_ex*.log** file is named **ex*.log**.

   From Microsoft TechNet:

   When using the UTF-8 logging feature, note the following:

   - A log file logged in UTF-8 does not contain a Byte Order Mark (BOM). File editors use this mark to identify text as UTF-8 text. Therefore, if you attempt to open a log file that is logged in UTF-8 in Notepad by double-clicking the file or by using the Open With option, the file might not display correctly. To open the file in a way that displays it correctly, use the Open command on the File menu and then select UTF-8 in the Encoding box.

   - UTF-8 is a double-byte character-set standard. ASCII is a single-byte character-set standard. Because of this disparity, logging UTF-8 information to an ASCII file causes a ? to be logged for the characters that cannot be converted to the code page of the server.

7. In the **Log type** list, click **Standard** or **Verbose**. (Verbose provides more details, but makes larger files.)
8. In the **Rotate Log File** area, specify **Never**, **Daily**, **Weekly**, or **Monthly**.
9. Click **Apply** to save the changes on EFT.
10. Stop and restart EFT.

Log Example

Below is an example of an **ex**-formatted log:

```
#Version: 1.0
#Software: CuteLogger
#Date: 2010-04-08 20:07:50
#Fields: date time c-ip c-port cs-username cs-method
cs-uri-stem cs-uri-query sc-status sc-bytes cs-bytes s-name s-port
2010-04-08 20:07:07 192.168.241.1 - test [1]user test - 331 - - - 22
2010-04-08 20:07:07 192.168.241.1 - test [1]pass ******* - 230 - - - 22
2010-04-08 20:07:16 192.168.241.1 - test [1]created /Test+File+1.txt -
226 - 54 - 22
2010-04-08 20:08:23 192.168.241.1 - test [1]rnfr /Test+File+1.txt - 350
- - - 22
2010-04-08 20:08:23 192.168.241.1 - test [1]rnto /Test+File+2.txt - 250
- - - 22
2010-04-08 20:08:26 192.168.241.1 - test [1]sent /Test+File+2.txt - 226
- 54 - 22
2010-04-08 20:10:02 192.168.241.1 - test [1]dele /Test+File+2.txt - 250
- - - 22
2010-04-08 20:10:08 192.168.241.1 - test [1]ssh_disconnect timeout -
421 - - - 22
2010-04-08 20:10:09 192.168.241.1 - test [1]ssh_disconnect timeout -
421 - - - 22
```

```
2010-04-08 20:11:57 192.168.241.1 - test [2]user test - 331 - - - 990
2010-04-08 20:11:57 192.168.241.1 - test [2]pass ****** - 230 - - - 990
2010-04-08 20:12:04 192.168.241.1 - test [2]created /Test+File+1.txt -
226 - 54 - 990
2010-04-08 20:12:16 192.168.241.1 - test [2]rnfr /Test+File+1.txt - 350
- - - 990
2010-04-08 20:12:16 192.168.241.1 - test [2]rnto /Test+File+2.txt - 250
- - - 990
2010-04-08 20:12:28 192.168.241.1 - test [2]rnfr /Test+File+2.txt - 350
- - - 990
2010-04-08 20:12:28 192.168.241.1 - test [2]rnto /Test+File+3.txt - 250
- - - 990
2010-04-08 20:12:31 192.168.241.1 - test [2]sent /Test+File+3.txt - 226
122 - - 990
```

The log can be read as described below:

Field	Description	Example
(Each field in the log has either a value (for example, date) or a dash (-) if no value was sent for that field.)		
date	Date log was recorded	2010-04-08
time	Time log was recorded	20:07:16
c-ip	Client IP address	192.168.241.1
c-port	Client port	21
cs-username	Username	test

Field	Description	Example	
cs-method	Method (Command Sent)	ABOR	Abort an active file transfer
		ACCT	Account information
		ALLO	Allocate sufficient disk space to receive a file
		APPE	Append
		AUTH	Authentication/Security Mechanism
		CCC	Clear Command Channel
		CDUP	Change to Parent Directory
		CHANGEPASSWORD	Change the password
		CLIENTCERT	Client SSL certificate was rejected (reason is provided in the log entry).
		COMB	Combines file segments into a single file on EFT.
		CREATED	File was created (uploaded).
		CWD	Change working directory
		DELE	Delete file
		EPRT	Specifies an extended address and port to which the server should connect
		EPSV	Enter extended passive mode
		FEAT	Get the feature list implemented by the server
		HELP	Display a list of all available FTP commands
		KICK	Client connection was closed by administrator.
		LIST	Returns information of a file or directory if specified, else information of the current working directory is returned
		MDTM	Return the last-modified time of a specified file
		MKD	Make directory
		MLSD	Lists the contents of a directory if a directory is named

Field	Description	Example	
		MLST	Provides data about exactly the object named on its command line, and no others
		MODE	Sets the transfer mode (Stream, Block, or Compressed)
		NLIST	Returns a list of file names in a specified directory
		NOOP	No operation (dummy packet; used mostly on keepalives)
		OPTS	Select options for a feature
		PASS	Authentication password
		PASV	Enter passive mode
		PBSZ	Protection Buffer Size
		PORT	Specifies the port to which the server should connect
		PROT	Data Channel Protection Level
		PWD	Print working directory Returns the current directory of the host
		QUIT	Disconnect
		REIN	Re initializes the connection
		REST	Restart transfer from the specified point
		RETR	Transfer a copy of the file
		RMD	Remove a directory
		RNFR	Rename from
		RNTO	Rename to
		SENT	File was sent (downloaded).
		SITE	Sends site specific commands to remote server
		SIZE	Return the size of a file
		SMNT	Mount file structure
		SSCN	Set secured client negotiation

<table>
<tr><th>Field</th><th>Description</th><th>Example</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>SSH_DISCONNECT</td><td>SFTP (SSH) client connection was closed (reason is provided in the log entry).</td></tr>
<tr><td>STAT</td><td>Returns the status</td></tr>
<tr><td>STOR</td><td>Accept the data and to store the data as a file at the server site</td></tr>
<tr><td>STOU</td><td>Store file uniquely</td></tr>
<tr><td>STRU</td><td>Set file transfer structure</td></tr>
<tr><td>SYST</td><td>Return system type</td></tr>
<tr><td>TYPE</td><td>Sets the transfer mode</td></tr>
<tr><td>USER</td><td>Authentication username</td></tr>
<tr><td>WEBSERVICE</td><td>Web Service was invoked.</td></tr>
<tr><td>XCRC</td><td>Compute CRC32 checksum on specified file</td></tr>
</table>
</td></tr>
<tr><td>cs-uri-stem</td><td>Stem portion of URI</td><td>/Test+File+1.txt</td></tr>
<tr><td>cs-uri-query</td><td>Query portion of URI</td><td>-</td></tr>
<tr><td>sc-status</td><td>Status code</td><td>226 (Closing data connection. Requested file action successful.)</td></tr>
<tr><td>sc-bytes</td><td>The number of bytes that the server sent to the client.</td><td>541</td></tr>
<tr><td>cs-bytes</td><td>The number of bytes that the client sent to the server.</td><td>54</td></tr>
<tr><td>s-name</td><td></td><td>-</td></tr>
<tr><td>s-port</td><td>Server port</td><td>22</td></tr>
</table>

File Transfer Status and Error Codes

Refer to the Globalscape Knowledgebase article FTP Status and Error Codes for a list of codes.

EFT Server Log File

The main log for EFT is the **EFT<servername>.log** in the EFT installation folder. (Not affected by the **Server > Logs** tab setting.) If you want to save EFT<servername>.log to a different location, change the reference at the bottom of the **logging.cfg** file to the location [AppDataPath] that you prefer:

```
    log4cplus.appender.R.File=${AppDataPath}\EFT.log
```

The EFT <servername>.log files are configured in the **logging.cfg** file in **C:\ProgramData\Globalscape\EFT Server**. Refer to the **logging.cfg** file itself to see which loggers are available to be enabled.

There are 7 log levels: TRACE, DEBUG, INFO, WARN, ERROR, FATAL, and OFF. The levels are hierarchical in nature, so enabling a level enables all levels # to its right (that is, enabling INFO enables WARN, ERROR, and FATAL). Each logger's level can be set independently. Children inherit their parent's level unless explicitly set.

By default the system log level is set to INFO. This will log all INFO, WARN, ERROR, and FATAL log messages. Optionally, you may want to temporarily increase the verbosity of the logging while diagnosing behavior by changing the INFO level to TRACE or DEBUG. Be aware that enabling the TRACE or DEBUG level may have a significant performance impact on the system and may also cause log files to grow rapidly.

```
log4cplus.rootLogger=INFO, RootFileAppender
```

Domain-Level EFT Server Loggers

The logging.cfg file includes a list of more granular loggers. You may optionally enable a custom log level for a particular logger by removing the comment ('#') marker from the beginning of the line. This may be useful when you want to enable more verbose logging for only a particular area of functionality rather than changing the level for the root logger. Be aware that enabling the TRACE or DEBUG level may have a significant performance impact on the system and may also cause log files to grow rapidly. Be sure to comment out the custom log level when you are finished troubleshooting.

SFTP Logging

In the **logging.cfg** file, you can configure logging for SFTP transfers. In the ARM schema, the table **tbl_NegotiatedCiphersSSH** is associated with **tbl_Authentications** and **tbl_Actions**, which tracks the negotiated cipher set for successful SFTP client/server authentications.

- Setting the following advanced properties to **true** will improve the log performance: **EnableXferLog** (enable transfer logs) and **CloseFinishedItemLog** (false = enabled/default. By default, successful logs are removed.)
- You can see negotiated ciphers in the EFT client log files, for troubleshooting purposes.

To configure logging for SFTP transfers

1. Open logging.cfg in a text editor, such as Notepad.
2. Find this line:

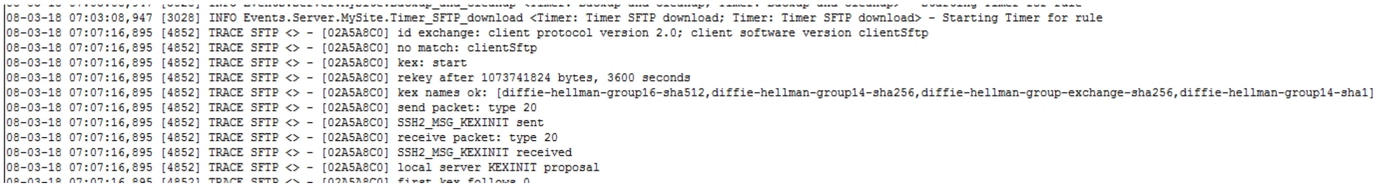
   ```
   #log4cplus.logger.SFTP=TRACE
   ```

3. Delete the # from the front of the line to enable the logger.
4. Leave as TRACE or change to DEBUG for troubleshooting.

If you change it to DEBUG, be sure to change it back to TRACE and/or add the # to the front to comment out (disable) that log to avoid creating unnecessarily large log files.

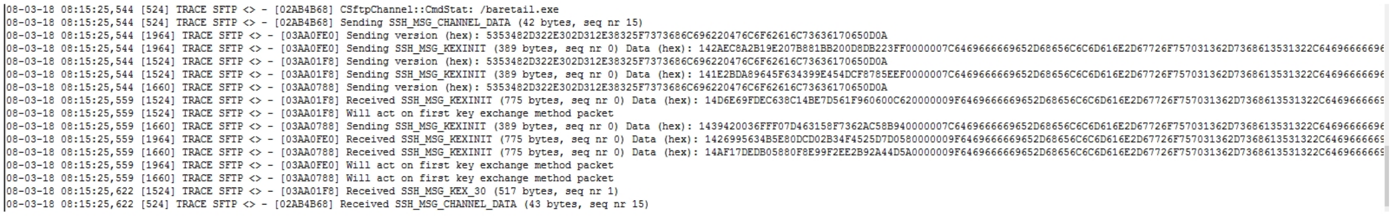
Note that there are differences in how the logs are displayed depending on whether you are using SFTP.DLL or SFTP2.DLL.

When using the SFTP2.dll, the logs at the KEX section are in ASCII format:



```
08-03-18 07:03:08,947 [3028] INFO Events.Server.MySite.Timer_SFTP_download <Timer: Timer SFTP download; Timer: Timer SFTP download> - Starting Timer for rule
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] id exchange: client protocol version 2.0; client software version clientSftp
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] no match: clientSftp
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] kex: start
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] rekey after 1073741824 bytes, 3600 seconds
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] kex names ok: [diffie-hellman-group16-sha512,diffie-hellman-group14-sha256,diffie-hellman-group-exchange-sha256,diffie-hellman-group14-sha1]
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] send packet: type 20
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] SSH2_MSG_KEXINIT sent
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] receive packet: type 20
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] SSH2_MSG_KEXINIT received
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] local server KEXINIT proposal
08-03-18 07:07:16,895 [4852] TRACE SFTP <> - [02A5A8C0] first kex follows 0
```

When using the legacy SFTP.dll, the KEX section is in HEX format:



```
08-03-18 08:15:25,544 [524] TRACE SFTP <> - [02AB4B68] CSftpChannel::CmdStat: /baretail.exe
08-03-18 08:15:25,544 [524] TRACE SFTP <> - [02AB4B68] Sending SSH_MSG_CHANNEL_DATA (42 bytes, seq nr 15)
08-03-18 08:15:25,544 [1964] TRACE SFTP <> - [03AA0FE0] Sending version (hex): 5353482D322E302D312E38325F7373686C696220476C6F62616C73636170650D0A
08-03-18 08:15:25,544 [1964] TRACE SFTP <> - [03AA0FE0] Sending SSH_MSG_KEXINIT (389 bytes, seq nr 0) Data (hex): 142AEC8A2B19E207B881BB200D8DB223FF0000007C6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666696
08-03-18 08:15:25,544 [1524] TRACE SFTP <> - [03AA01F8] Sending version (hex): 5353482D322E302D312E38325F7373686C696220476C6F62616C73636170650D0A
08-03-18 08:15:25,544 [1524] TRACE SFTP <> - [03AA01F8] Sending SSH_MSG_KEXINIT (389 bytes, seq nr 0) Data (hex): 141E2BDA89645F634399E454DCF8785EEF0000007C6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666696
08-03-18 08:15:25,544 [1660] TRACE SFTP <> - [03AA0788] Sending version (hex): 5353482D322E302D312E38325F7373686C696220476C6F62616C73636170650D0A
08-03-18 08:15:25,559 [1524] TRACE SFTP <> - [03AA01F8] Received SSH_MSG_KEXINIT (775 bytes, seq nr 0) Data (hex): 14D6E69FDEC638C14BE7D561F960600C620000009F6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666669
08-03-18 08:15:25,559 [1524] TRACE SFTP <> - [03AA01F8] Will act on first key exchange method packet
08-03-18 08:15:25,559 [1660] TRACE SFTP <> - [03AA0788] Sending SSH_MSG_KEXINIT (389 bytes, seq nr 0) Data (hex): 1439420036FFF07D463158F7362AC58B940000007C6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666696
08-03-18 08:15:25,559 [1964] TRACE SFTP <> - [03AA0FE0] Received SSH_MSG_KEXINIT (775 bytes, seq nr 0) Data (hex): 1426995634B5E80DCD02B34F4525D7D0580000009F6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666669
08-03-18 08:15:25,559 [1660] TRACE SFTP <> - [03AA0788] Received SSH_MSG_KEXINIT (775 bytes, seq nr 0) Data (hex): 14AF17DEDB05880F8E99F2EE2B92A44D5A0000009F6469666669652D68656C6C6D616E2D67726F757031362D736861353132 2C64696666669
08-03-18 08:15:25,559 [1964] TRACE SFTP <> - [03AA0FE0] Will act on first key exchange method packet
08-03-18 08:15:25,559 [1660] TRACE SFTP <> - [03AA0788] Will act on first key exchange method packet
08-03-18 08:15:25,622 [1524] TRACE SFTP <> - [03AA01F8] Received SSH_MSG_KEX_30 (517 bytes, seq nr 1)
08-03-18 08:15:25,622 [524] TRACE SFTP <> - [02AB4B68] Received SSH_MSG_CHANNEL_DATA (43 bytes, seq nr 15)
```

SSL/TLS Logging

You can enable to SSL logging to track the details of successful SSL connections. In the ARM schema, the table **tbl_NegotiatedCiphersSSL** is associated with **tbl_Authentications** and **tbl_Actions**, which tracks the negotiated cipher set for successful SSL/TLS client/server authentications.

To track the details of successful SSL connections.

1. Open the logging.cfg file in a text editor such as Notepad.
2. Remove the comment next to #log4cplus.logger.SSL=TRACE, and change TRACE to DEBUG.
3. Remove the comment next to #log4cplus.logger.IPAccess=TRACE.

Example logs:

```
04-10-17 10:16:09,117 [16424] DEBUG IPAccess <>
- Check IP address against IP Access Rules: IP: 127.0.0.1, access
allowed

04-10-17 10:16:09,117 [7444] DEBUG SSL <> - SSL connection accepted;
protocol version = TLSv1.2, cipher = ECDHE-RSA-AES128-GCM-SHA256, key
length = 128
```

However, this adds more verbosity to the logs. Additionally, this does not track failed connections and puts the onus on the customer/ administrator to pick apart the logs.

For failed connections made via SSL/TLS, the log entry should contain the following:

```
INFO SSL <> - SSL connection failed; ip address= ; connection ID=
```

For successful connections made using insecure ciphers via SSL/TLS, the log entry should contain the following:

```
WARN SSL <> - Insecure SSL connection accepted; protocol version=;
cipher=; key length=; ip address=; connection ID=
```

For successful connections made using weak ciphers via SSL/TLS, the log entry should contain the following:

```
WARN SSL <> - Weak SSL connection accepted; protocol version=; cipher=;
key length=; ip address=; connection ID=
```

SysLogAppender

You can add the SysLogAppender to EFT's logging.cfg file, found in **..\ProgramData\Globalscape\EFT Server** (to send logging information to a security information and event management (SIEM) server, for example).

Add the following code snippet to the bottom of the file. Add comments to inform future users of its purpose.

```
log4cplus.rootLogger=TRACE, syslog
                log4cplus.appender.syslog=log4cplus::SysLogAppender
                log4cplus.appender.syslog.ident=syslog
                log4cplus.appender.syslog.layout=log4cplus::PatternLayout
log4cplus.appender.syslog.layout.
                ConversionPattern=[%T] %-5p %b %x - %m%n
                log4cplus.appender.syslog.host=pdc
                log4cplus.appender.syslog.udp=true
                log4cplus.appender.syslog.port=514
            log4cplus.appender.syslog.facility=user
```

- Refer to https://kb.globalscape.com/KnowledgebaseArticle11033.aspx for details of configuring an advanced property to log all HTTP request headers.

Installation Logging

The installation log file is intended for debugging purposes and contains messages that may help resolve issues that arise during installation.

- During installation and maintenance, the installer creates an **Installer.log** file in the **%TEMP%\<Product Name>** directory. For example:
  - **C:\Users\administrator\AppData\Local\Temp\EFT Server\Installer.log**
  - **C:\Users\administrator\AppData\Local\Temp\EFT Server\Installer.log**
- At the completion of the installation, either due to success or failure, the installer copies the final log to the **<InstallDir>\logs** directory, if it exists. If the installer fails during an initial clean installation, the **<InstallDir>\logs** directory may not exist. In this case, the final log file remains in the **%TEMP%\<Product Name>** directory.
- The installer attempts to append to the existing log file on subsequent runs of the installer (for example, if the user performs a Reinstall). It does this by copying any existing **Installer.log** file from the installation directory into the Temp directory, writing to it during installation, and then copying it back to the **<InstallDir>\logs** directory when the installation is finished.
- You can write out the same log messages to another log file of your choosing using the **/logfile=<Log file>** command line switch to the installer.

Debug Logging

The installer is capable of writing the same messages that go to the Main Installer Log using the Windows debug logging infrastructure. These messages may be viewed using a utility such as SysInternal’s DebugView application. To enable this logging, the installer must be run from the command line with the **/debug** switch.

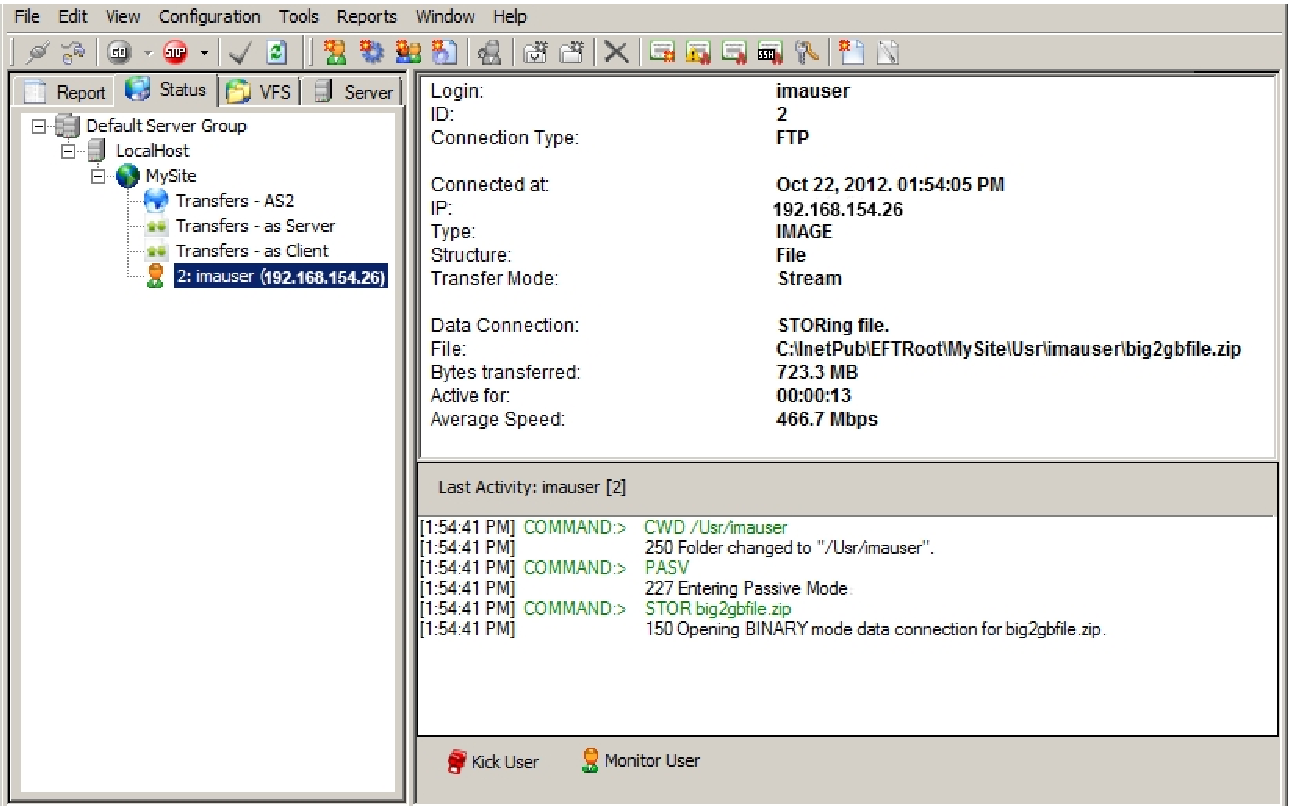
Viewing Connections to a Site

On the Status tab, expand the **Site** node to view connection status for the Site, AS2 transactions, and each connected user account.

For example, if a user is connected to EFT via SFTP, the Site tree displays an ID number, the username, the IP address of the Site, and "SFTP." For example, **4: jbite (192.168.174.235) - SFTP**. The right pane displays the Login (username), ID, Connection Type, date and time connected, IP address, Average Upload Speed, and Average Download Speed. The bottom of the right pane displays the connection log.

You can forcibly disconnect a user by selecting the user in the tree, and then clicking **Kick User** in the right pane.

You can see more details of the user's activity by selecting the user in the tree then clicking **Monitor User** in the right pane.



Login: imauser
ID: 2
Connection Type: FTP

Connected at: Oct 22, 2012. 01:54:05 PM
IP: 192.168.154.26
Type: IMAGE
Structure: File
Transfer Mode: Stream

Data Connection: STORing file.
File: C:\InetPub\EFTRoot\MySite\Usr\imauser\big2gbfile.zip
Bytes transferred: 723.3 MB
Active for: 00:00:13
Average Speed: 466.7 Mbps

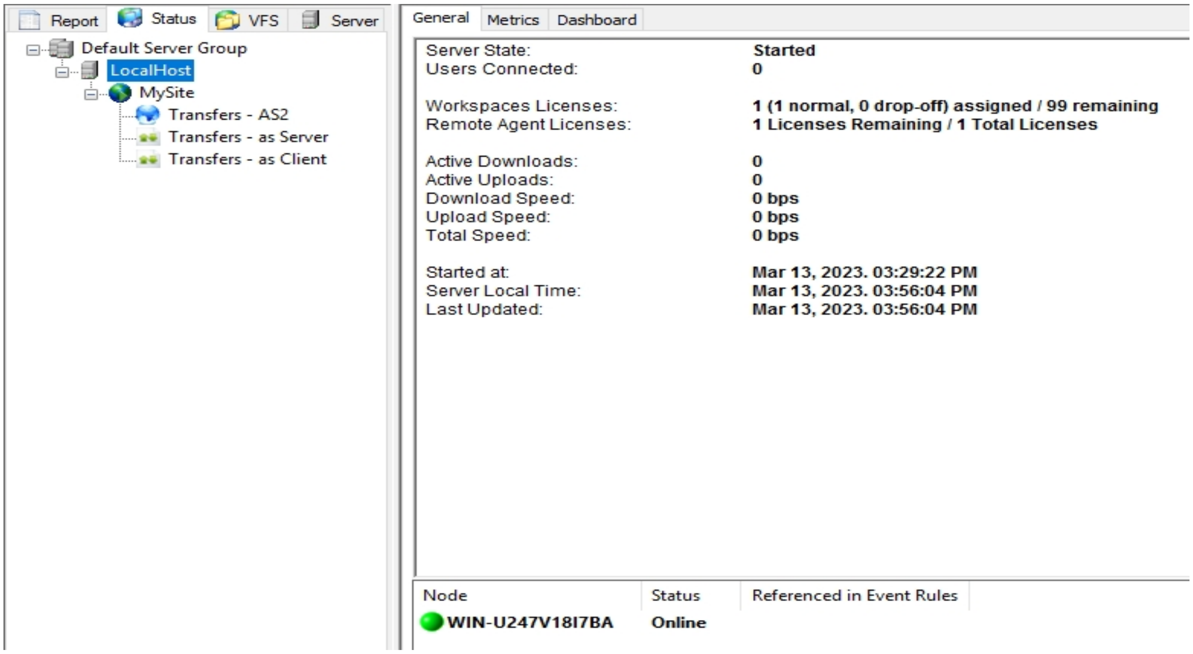
```
[1:54:41 PM] COMMAND:>  CWD /Usr/imauser
[1:54:41 PM]            250 Folder changed to "/Usr/imauser".
[1:54:41 PM] COMMAND:>  PASV
[1:54:41 PM]            227 Entering Passive Mode
[1:54:41 PM] COMMAND:>  STOR big2gbfile.zip
[1:54:41 PM]            150 Opening BINARY mode data connection for big2gbfile.zip.
```

Viewing Server or Node Status

In the administration interface, you can view the status of EFT in real time, such as number of users connected, average speed, and so on. You can view Server status on the **Status** tab or on the Server node's **General** tab.

To view status on the Status tab

1. In the administration interface, connect to EFT and click the **Server** tab.
2. On the **Status** tab, click the **Server** node. EFT's statistics appear in the right pane.



```
Server State:              Started
Users Connected:           0

Workspaces Licenses:       1 (1 normal, 0 drop-off) assigned / 99 remaining
Remote Agent Licenses:     1 Licenses Remaining / 1 Total Licenses

Active Downloads:          0
Active Uploads:            0
Download Speed:            0 bps
Upload Speed:              0 bps
Total Speed:               0 bps

Started at:                Mar 13, 2023. 03:29:22 PM
Server Local Time:         Mar 13, 2023. 03:56:04 PM
Last Updated:              Mar 13, 2023. 03:56:04 PM
```

Node	Status	Referenced in Event Rules
WIN-U247V18I7BA	Online	

3. In an HA cluster, you can see the nodes and their status at the bottom of the **Status** viewer.
    - **Online**: EFT server service is up and communicating via Heartbeat to the rest of the node in the cluster
    - **Master**: Same status as **Online**, however this node is designated as the **Master** node for Event Rules Load balancing.

Only one node can be show as Master in the list of the nodes from the cluster. This status only is displayed if you have at least one Event Rule enabled and configured to run in more than one node from the cluster. If this status exists, the Master node will create an exclusive file lock onto **MasterNodeLock** file in the HA config shared folder.

- **Offline**: EFT server service is down; no communication via Heartbeat is performed
- **Unknown**: A node name is being reference in at least one Event Rule; however, this node name is not part of the cluster.

To view status on the Server tab

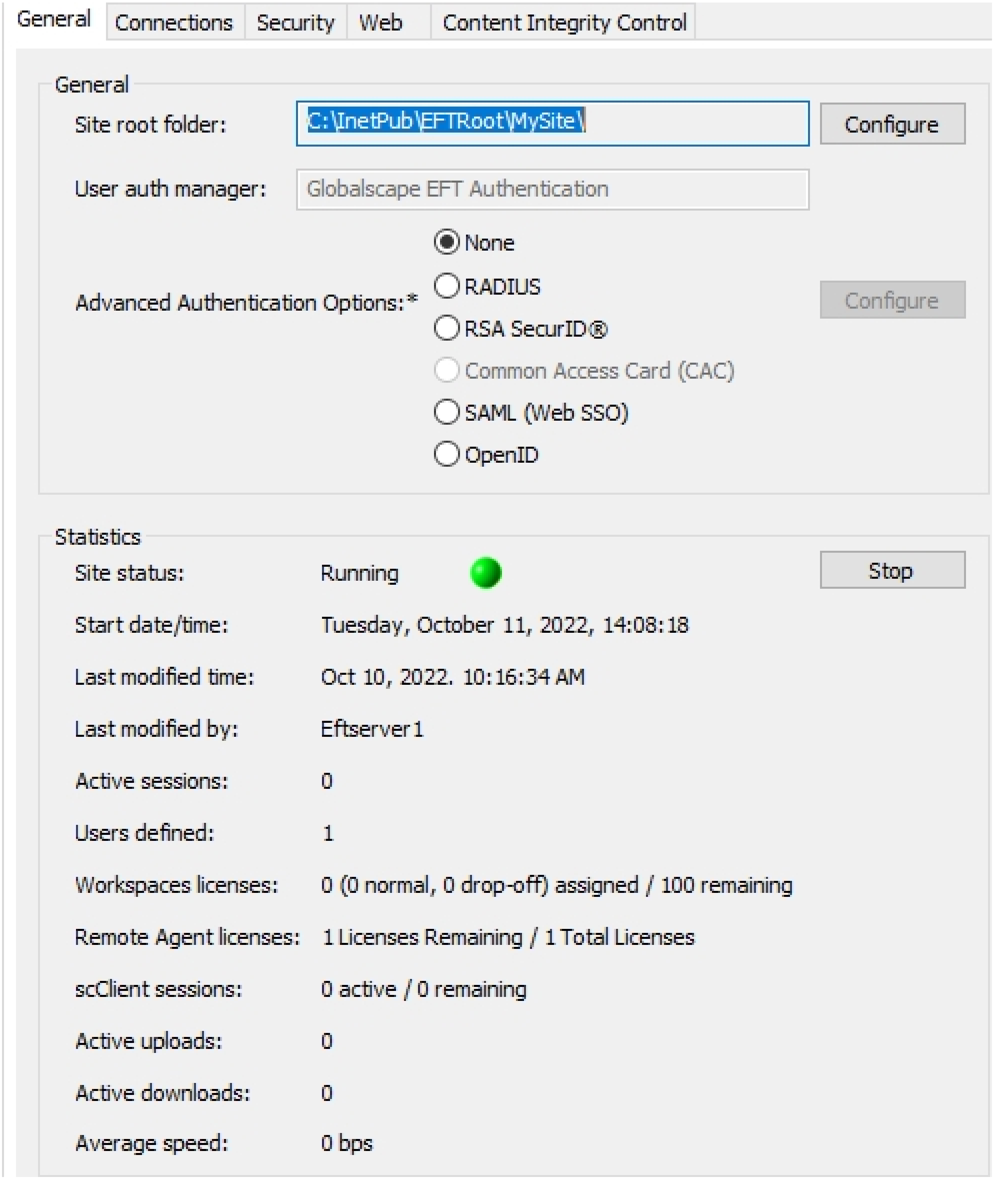
1. In the administration interface, connect to EFT and click the **Server** tab.
2. On the **Server** tab, click the **Server** node.
3. In the right pane, click the **General** tab. EFT's statistics appear in the right pane.
    - **Server status**: Displays "Service is started" or "Service is stopped." You can also stop and start the EFT service on this tab.
    - **Start date/time**: Displays the date and time that the EFT service was last started.
    - **Uptime**: Displays the length of time that the EFT service has been running since it was last started.
    - **Last modified time**: Displays the date and time that EFT was last modified.
    - **Last modified by**: Displays the username of the user who last modified EFT.
    - **Active sessions**: Displays the number of users who are currently logged in to EFT.
    - **Active uploads**: Displays the number of uploads in progress.
    - **Active downloads**: Displays the number downloads in progress.
    - **Average speed**: Displays the average transfer speed.
    - **Workspaces licenses**: Displays the number of licenses used and number licensed (allowed)
    - **Web clients licenses**: Displays the number of licenses used and number licensed (allowed)

Viewing Site Statistics

In the administration interface, you can view the status of the Site in real time, such as number of users connected, average speed, the number of active Web Transfer Clients sessions, and so on.

To monitor current statistics on the Site

1. In the administration interface, connect to EFT and click the **Server** tab.
2. On the **Server** tab, click the **Site** that you want to monitor.
3. In the right pane, click the **General** tab.



General

Site root folder: C:\InetPub\EFTRoot\MySite\

User auth manager: Globalscape EFT Authentication

Advanced Authentication Options:*

● None
○ RADIUS
○ RSA SecurID®
○ Common Access Card (CAC)
○ SAML (Web SSO)
○ OpenID

Statistics

Site status:	Running 🟢
Start date/time:	Tuesday, October 11, 2022, 14:08:18
Last modified time:	Oct 10, 2022. 10:16:34 AM
Last modified by:	Eftserver1
Active sessions:	0
Users defined:	1
Workspaces licenses:	0 (0 normal, 0 drop-off) assigned / 100 remaining
Remote Agent licenses:	1 Licenses Remaining / 1 Total Licenses
scClient sessions:	0 active / 0 remaining
Active uploads:	0
Active downloads:	0
Average speed:	0 bps

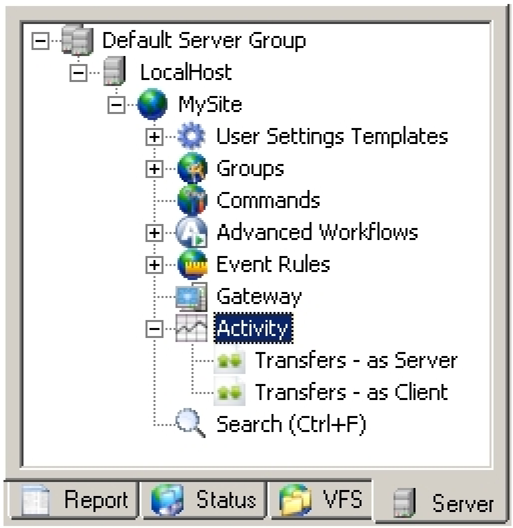
The Site's information appears in the **Statistics** area.

- **Site status**: Displays "Running" or "Stopped"; you can also stop and start the Site.
- **Start date/time**: Displays the date and time that the Site was last started.
- **Last modified time**: Displays the date and time that the Site was last modified.
- **Last modified by**: Displays the username of the user who last modified the Site.
- **Active sessions**: Displays the number of users who are currently logged in to the Site.
- **Users defined**: Displays the number of user accounts defined on the Site.
- **scClient sessions**: Displays the number of sessions in use and available. (scClient is part of the Accelerate module, which is no longer offered for EFT; however, some customers who upgrade still have Accelerate licenses.)
- **Active uploads**: Displays the number of uploads in progress.
- **Active downloads**: Displays the number downloads in progress.
- **Average speed**: Displays the average transfer speed.

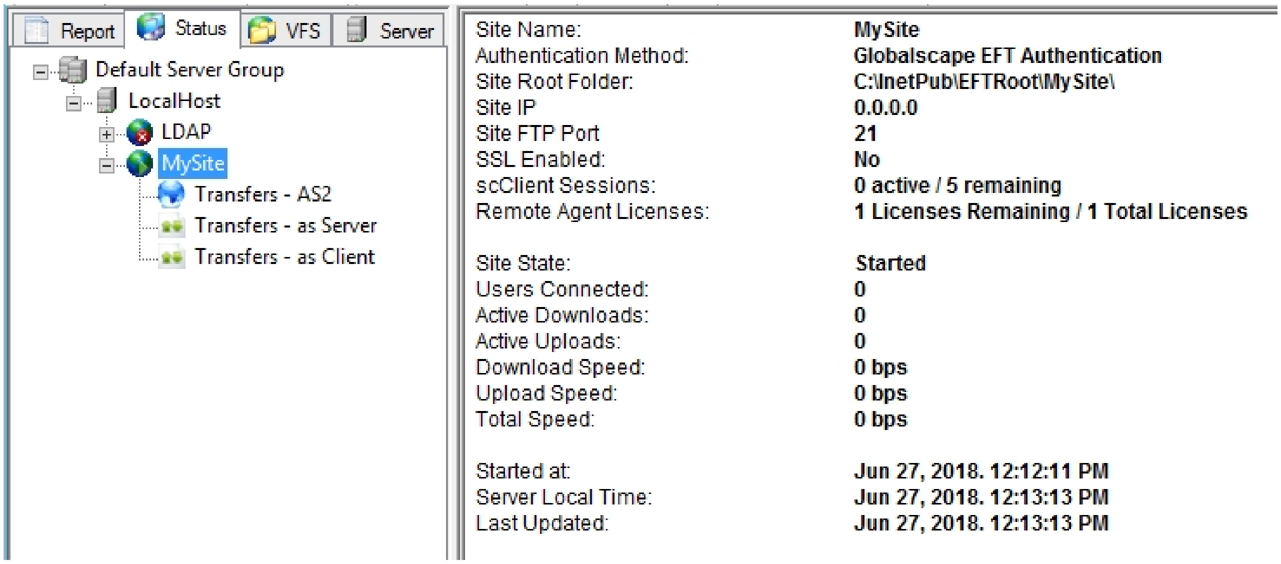
You can view details of transfers to and from EFT on the **Status** tab. Refer to Viewing Transfers To and From a Site for details.

Viewing Transfers To and From a Site

You can view details of transfers to and from EFT on the **Status** tab. On the **Server** tab, a node in the tree labeled **Activity** has two branches: **Transfers - as Server** and **Transfers - as Client**. Click one of the branches to open the **Status** tab to that view.



Or just click the Site's **Status** tab:

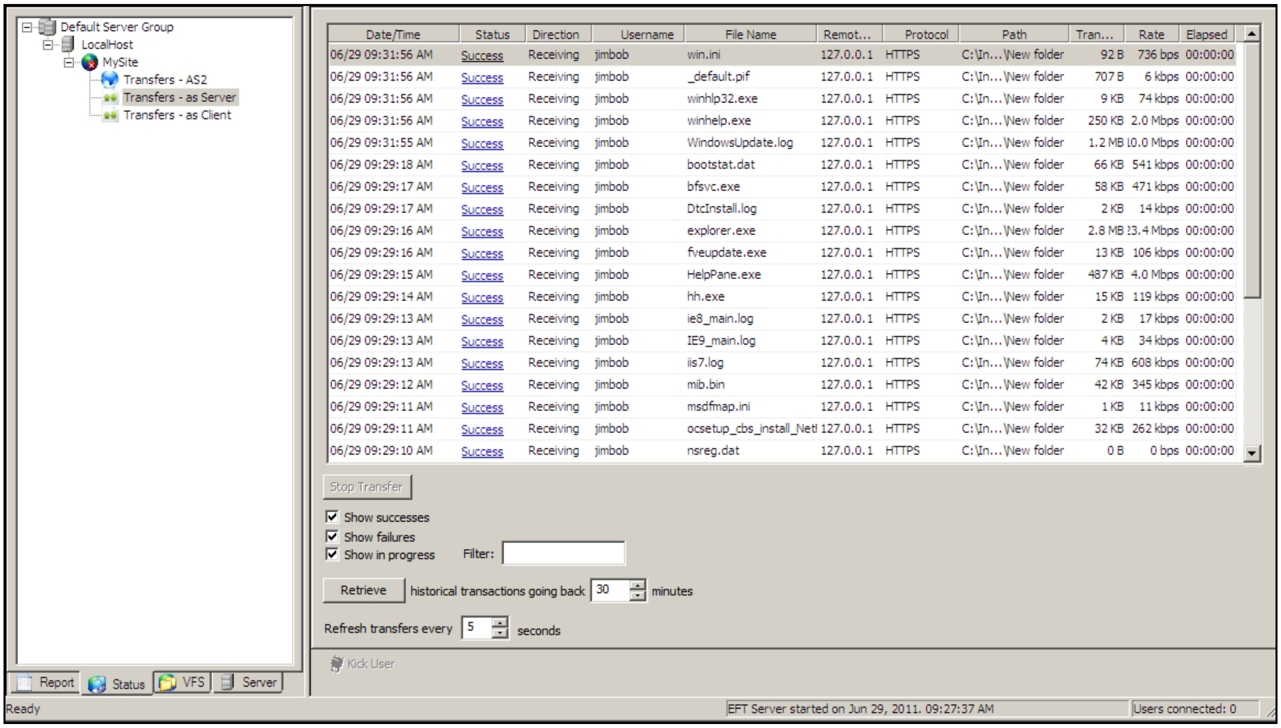


Site Name:	**MySite**
Authentication Method:	**Globalscape EFT Authentication**
Site Root Folder:	**C:\InetPub\EFTRoot\MySite\**
Site IP	**0.0.0.0**
Site FTP Port	**21**
SSL Enabled:	**No**
scClient Sessions:	**0 active / 5 remaining**
Remote Agent Licenses:	**1 Licenses Remaining / 1 Total Licenses**
Site State:	**Started**
Users Connected:	**0**
Active Downloads:	**0**
Active Uploads:	**0**
Download Speed:	**0 bps**
Upload Speed:	**0 bps**
Total Speed:	**0 bps**
Started at:	**Jun 27, 2018. 12:12:11 PM**
Server Local Time:	**Jun 27, 2018. 12:13:13 PM**
Last Updated:	**Jun 27, 2018. 12:13:13 PM**

Then click one of the nodes:

Transfers - as Server - Displays "Receiving" when uploading files to the Web Transfer Client or sharing files via Workspaces.

Transfers - as Client - Displays when you upload files using an FTP client or drag-and-drop into a user folder.



Date/Time	Status	Direction	Username	File Name	Remot...	Protocol	Path	Tran...	Rate	Elapsed
06/29 09:31:56 AM	Success	Receiving	jimbob	win.ini	127.0.0.1	HTTPS	C:\In...\New folder	92 B	736 bps	00:00:00
06/29 09:31:56 AM	Success	Receiving	jimbob	_default.pif	127.0.0.1	HTTPS	C:\In...\New folder	707 B	6 kbps	00:00:00
06/29 09:31:56 AM	Success	Receiving	jimbob	winhlp32.exe	127.0.0.1	HTTPS	C:\In...\New folder	9 KB	74 kbps	00:00:00
06/29 09:31:56 AM	Success	Receiving	jimbob	winhelp.exe	127.0.0.1	HTTPS	C:\In...\New folder	250 KB	2.0 Mbps	00:00:00
06/29 09:31:55 AM	Success	Receiving	jimbob	WindowsUpdate.log	127.0.0.1	HTTPS	C:\In...\New folder	1.2 MB	l0.0 Mbps	00:00:00
06/29 09:29:18 AM	Success	Receiving	jimbob	bootstat.dat	127.0.0.1	HTTPS	C:\In...\New folder	66 KB	541 kbps	00:00:00
06/29 09:29:17 AM	Success	Receiving	jimbob	bfsvc.exe	127.0.0.1	HTTPS	C:\In...\New folder	58 KB	471 kbps	00:00:00
06/29 09:29:17 AM	Success	Receiving	jimbob	DtcInstall.log	127.0.0.1	HTTPS	C:\In...\New folder	2 KB	14 kbps	00:00:00
06/29 09:29:16 AM	Success	Receiving	jimbob	explorer.exe	127.0.0.1	HTTPS	C:\In...\New folder	2.8 MB	:3.4 Mbps	00:00:00
06/29 09:29:16 AM	Success	Receiving	jimbob	fveupdate.exe	127.0.0.1	HTTPS	C:\In...\New folder	13 KB	106 kbps	00:00:00
06/29 09:29:15 AM	Success	Receiving	jimbob	HelpPane.exe	127.0.0.1	HTTPS	C:\In...\New folder	487 KB	4.0 Mbps	00:00:00
06/29 09:29:14 AM	Success	Receiving	jimbob	hh.exe	127.0.0.1	HTTPS	C:\In...\New folder	15 KB	119 kbps	00:00:00
06/29 09:29:13 AM	Success	Receiving	jimbob	ie8_main.log	127.0.0.1	HTTPS	C:\In...\New folder	2 KB	17 kbps	00:00:00
06/29 09:29:13 AM	Success	Receiving	jimbob	IE9_main.log	127.0.0.1	HTTPS	C:\In...\New folder	4 KB	34 kbps	00:00:00
06/29 09:29:13 AM	Success	Receiving	jimbob	iis7.log	127.0.0.1	HTTPS	C:\In...\New folder	74 KB	608 kbps	00:00:00
06/29 09:29:12 AM	Success	Receiving	jimbob	mib.bin	127.0.0.1	HTTPS	C:\In...\New folder	42 KB	345 kbps	00:00:00
06/29 09:29:11 AM	Success	Receiving	jimbob	msdfmap.ini	127.0.0.1	HTTPS	C:\In...\New folder	1 KB	11 kbps	00:00:00
06/29 09:29:11 AM	Success	Receiving	jimbob	ocsetup_cbs_install_Netl	127.0.0.1	HTTPS	C:\In...\New folder	32 KB	262 kbps	00:00:00
06/29 09:29:10 AM	Success	Receiving	jimbob	nsreg.dat	127.0.0.1	HTTPS	C:\In...\New folder	0 B	0 bps	00:00:00

☑ Show successes
☑ Show failures
☑ Show in progress   Filter:

historical transactions going back 30 minutes

Refresh transfers every 5 seconds

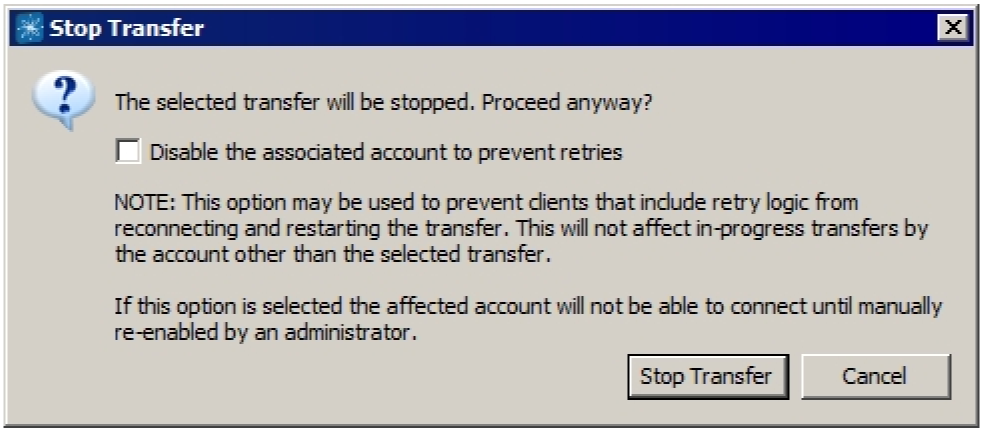
EFT Server started on Jun 29, 2011. 09:27:37 AM   Users connected: 0

Transfers appear at the top of the window. The Transfer list may not be up to date, depending on the size of transfer, network performance, and so on. Transfers that are small and quickly processed may not appear in the list or are quickly overwritten as others files are processed. If you click **Retrieve**, transfers stored in the database and in-progress transfers will appear in the list.

You can:

- Sort data by a column by clicking the column header.
- Filter results by typing characters in the **Filter** box. For example, display only transfers by a particular user or from a specific Remote IP address.
- Display or hide successful, failed, or in progress transfers by selecting or clearing the **Show successes**, **Show failures**, and **Show in progress** check boxes.

- Retrieve historical transactions by specifying the number of minutes (from 1 to 9999) in history that you want to retrieve, then clicking **Retrieve**. The maximum number of records that can be displayed is 10,000.
- Specify which columns to display or hide by right-clicking on the column header, and then clicking the column name to display or hide.
- Click the linked text (Success or Failure) to view the details of the transfer.
- Stop an in-progress transfer by clicking **Stop Transfer**. Stopping the transfer can free up bandwidth when large transfers are occurring and a higher priority transfer needs to get through. You can also select multiple transfers to stop them all at the same time.
  - The administrator Actions report includes transfers stopped by the administrator, as does other relevant file transfer activity reports.
  - Stopped client transfers will ***not*** retry automatically. Other connections from the user are unaffected.
  - Stopped outbound transfers are audited to the CL.log; stopped inbound transfers are audited to the EX.log.
  - When you click **Stop Transfer**, a prompt appears in which you can choose to disable the user account that initiated the transfer to prevent retries. If disabled, the account must be enabled by an administrator. (You will have to refresh the interface to see that the user is disabled.)



Stop Transfer

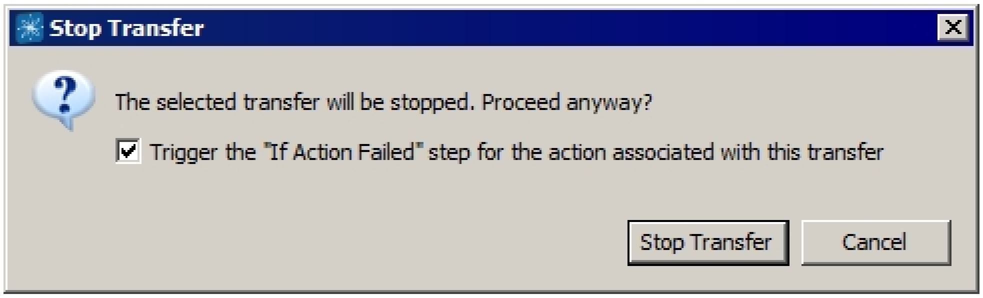
The selected transfer will be stopped. Proceed anyway?

□ Disable the associated account to prevent retries

NOTE: This option may be used to prevent clients that include retry logic from reconnecting and restarting the transfer. This will not affect in-progress transfers by the account other than the selected transfer.

If this option is selected the affected account will not be able to connect until manually re-enabled by an administrator.

- For client offload Event Rule actions (that is, Copy/Move file Actions), a prompt appears in which you can choose whether to consider the stopped transfer a failed transfer. If you do not want any "If Action Failed" Actions to occur when the transfer is stopped, clear the check box, and then click **Stop Transfer**.



The selected transfer will be stopped. Proceed anyway?

☑ Trigger the "If Action Failed" step for the action associated with this transfer

The available columns are listed in the table below.

Column	Description	Transfers as Server	Transfers as Client
Date/Time	Date and time of transfer in the format MM/DD HH:MM:SS AM/PM	x	x
Status	Success or Failed	x	x
Direction	Whether sending or receiving the file	x	x
Username	Username of account initiating the transfer	x	x
File Name	Filename of file being transferred	x	x
Remote IP	IP address of remote computer	x	x
Local IP	Server's IP address	x	n/a
Local Port	Server's port on which the file is transferred	x	n/a
Remote Port	Port of remote computer used for transfer	n/a	x
Protocol	Protocol over which the file is transferred	x	x
Path	Path on EFT to which file is transferred	x	n/a
Remote Path	Remote path of file being transferred	n/a	x
Local Path	Local path of file being transferred	n/a	x
Transferred	Size of file being transferred	x	x

<table>
<tr><th>Column</th><th>Description</th><th>Transfers as Server</th><th>Transfers as Client</th></tr>
<tr><td>% Complete</td><td>Percentage of transfer completed; HTTP/S (both directions), and SFTP, FTP, and FTPS server downloads, and all client (outbound) transfers display % complete; SFTP, FTP, and FTPS inbound cannot display % complete.
<table>
<tr><th rowspan="2">Protocol</th><th colspan="2">EFT as server</th><th colspan="2">EFT as client
(that is, Event Rules)</th></tr>
<tr><th>Inbound (client push to server)</th><th>Outbound (client pull from server)</th><th>Outbound (EFT pushing to client)</th><th>Inbound (EFT pulling from client)</th></tr>
<tr><td>HTTP</td><td>%</td><td>%</td><td>%</td><td>%</td></tr>
<tr><td>HTTPS</td><td>%</td><td>%</td><td>%</td><td>%</td></tr>
<tr><td>FTP</td><td>n/a</td><td>%</td><td>%</td><td>%</td></tr>
<tr><td>FTPS</td><td>n/a</td><td>%</td><td>%</td><td>%</td></tr>
<tr><td>SFTP</td><td>n/a</td><td>n/a</td><td>%</td><td>%</td></tr>
</table>
</td><td>x</td><td>x</td></tr>
<tr><td>Rate</td><td>Rate, in kilobits per second (kbps), at which the file is transferred</td><td>x</td><td>x</td></tr>
<tr><td>Elapsed</td><td>Time in HH:MM:SS that it took to transfer the file</td><td>x</td><td>x</td></tr>
</table>

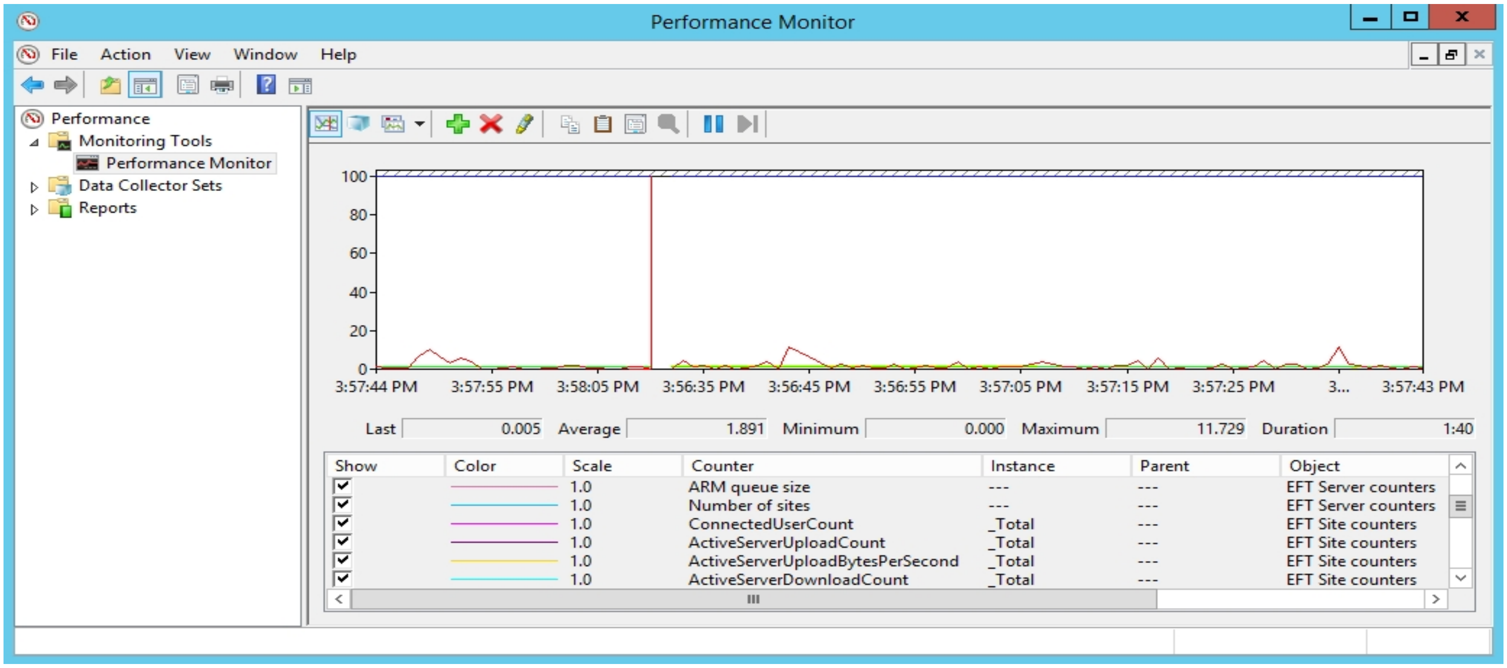
Performance Counters

EFT can publish a series of counters to Window’s Performance Monitor (search Windows for *perfmon*). Counters are used to provide information as to how well a system is performing. This data can help administrators better understand crucial performance metrics and size the requirements of their EFT infrastructure as new requirements are placed on the system.

To view EFT counters

1. In the Windows **Search** box, type `perfmon`, and then click **Performance Monitor**.
2. In the navigation pane, expand **Monitoring Tools**, click **Performance Monitor**.
3. Click anywhere In the right pane, then click **Add Counters**.
4. In the **Add counters** dialog box, scroll through the alphabetized list to find EFT counters.

5. Click the counters, click **Add >>**, then click **OK**.
6. Clear or select the check boxes that you want to hide or show.



Last 0.005 Average 1.891 Minimum 0.000 Maximum 11.729 Duration 1:40

Show	Color	Scale	Counter	Instance	Parent	Object
☑	—	1.0	ARM queue size	---	---	EFT Server counters
☑	—	1.0	Number of sites	---	---	EFT Server counters
☑	—	1.0	ConnectedUserCount	_Total	---	EFT Site counters
☑	—	1.0	ActiveServerUploadCount	_Total	---	EFT Site counters
☑	—	1.0	ActiveServerUploadBytesPerSecond	_Total	---	EFT Site counters
☑	—	1.0	ActiveServerDownloadCount	_Total	---	EFT Site counters

Below is a description of each Counter:

Server-Level Counters	Counter	Description
	Admin Accounts	Number of administrator accounts defined for this server
	Admin Accounts Locked Out	Number of administrator accounts currently and temporarily locked out of the server
	Admin Sessions	Number of authenticated administrators with an active session
	ARM Queue Size	Size of audit queue. Values exceeding ten thousand may indicate problems with your database
	ARM Stalled Audit Events	Number of audit events delayed for longer than ARMLogStalledThreadministratorDuration (The duration is set to 1 second by default.)
Number of sites	Sites	Number of Sites currently defined for this server. Updated infrequently
	Sites Enabled	Number of Sites enabled
	Sites Started	Subset of defined Sites that are actively listening for connections. Updated infrequently

Server-Level Counters	Counter	Description
WorkspacesNormalLicensesUsed	Workspaces Licenses Assigned	Total number of Workspaces in use and not expired. Includes folder shares, file sends, and drop-offs
WorkspacesLicensesAvailable	Workspaces Licenses Available	Total number of Workspaces licenses available for use or assignment

Site-Level Counters	Counter	Description
Number of running event rules	Event Rules	Number of rules defined on the Site
	Event Rules Size of Async Events Queue	Size of asynchronous event queue. Values exceeding a few score should be looked at.
ActiveClientDownloadCount	Event Rules Client Downloads	Active downloads from a remote server originating from EFT as a client
ActiveClientDownloadBytesPerSecond	Event Rules Client Download Bytes /sec	Rate at which EFT-initiated downloads are occurring measured in bytes transferred
ActiveClientUploadCount	Event Rules Client Uploads	Active uploads to a remote server originating from EFT as a client
ActiveClientUploadBytesPerSecond	Event Rules Client Upload Bytes /sec	Rate at which EFT-initiated uploads are occurring measured in bytes transferred
	Event Rules Disabled	Event rules currently disabled. You can configure a script to alert you if this number exceeds a defined threshold
	Event Rules Running Async Events	Number of running asynchronous events. A high number could indicate a need for more nodes or improved rule logic
Number of running Advanced Workflow Actions	Event Rules Running Advanced Workflow Tasks	Number of running Advanced Workflow workflows. A high number could indicate a need for more nodes or improved workflow logic

Site-Level Counters	Counter	Description
Number of running Cloud Upload Actions	Event Rules Running Cloud Upload Actions	Number of event rule actions uploading to a cloud storage provider such as Azure or AWS
Number of running Cloud Download Actions	Event Rules Running Cloud Download Actions	Number of event rule actions download from a cloud storage provider such as Azure or AWS
Number of running Download Actions	Event Rules Running Download Actions	Number of event rule actions where the action is downloading a file from a remote host
Number of running Upload Actions	Event Rules Running Upload Actions	Number of event rule actions where the action is uploading a file to a remote host
	Event Rules Size of Async Events Queue	
Size of Advanced Workflow Actions queue	Event Rules Size of Advanced Workflow Actions Queue	Size of Advanced Workflow queue. Values exceeding a few score should be looked at
	Event Rules Triggered	Number of event rules currently active. A high number could indicate a need for more nodes or improved rule logic
	Folder Monitor Worker Threads	
	Socket Connection /sec	
	Templates	Number of Templates defined for this Site. Updated infrequently. (Note that the is a "hidden" template for Remote Agents.)

Site-Level Counters	Counter	Description
	Timer Rule Worker Threads	
Number of clients	User Accounts	Number of User accounts defined for this Site. Updated infrequently.
	User Accounts Disabled	Subset of this Site's User accounts that are currently in a disabled state. Updated infrequently.
	User Accounts Locked Out	Subset of this Site's User accounts that are currently locked out. Updated infrequently.
ActiveServerDownloadCount	User Downloads	Active downloads from EFT originating from remote clients. Juxtapose with CPU, disk, network, and similar metrics to assess performance impact
ActiveServerDownloadBytesPerSecond	User Downloads Bytes /sec	Rate at which downloads are occurring by connected clients measured in bytes transferred
	User Login Failed Bad Password /sec	Rate at which user are failing to authenticate due to a valid username but invalid password being provided. There are mitigation techniques you can use if frequent attacks on root or administrator
	User Login Failed Non-existent Username /sec	Rate at which user are failing to authenticate due to an invalid or non-existent username being provided.
	User Login Success /sec	Rate at which users are authenticating successfully and turn into an active session. See User Sessions for count of actively connected users.
ConnectedUserCount	User Sessions	Number of authenticated users with an active session. Does not count stateless HTTP/S connections
ActiveServerUploadCount	User Uploads	Active uploads to EFT originating from remote clients. Juxtapose with CPU, disk, network, and similar metrics to assess performance impact
ActiveServerUploadBytesPerSecond	User Upload Bytes /sec	Rate at which uploads are occurring by connected clients measured in bytes transferred
WorkspacesDropoffLicensesUsed	Workspaces Drop-offs	Number of drop-off requests active and not expired
	Workspaces File Sends	Number of file send operations that are active and have not yet expired

Site-Level Counters	Counter	Description
	Workspaces Folders Shared	Number of folder shares that are active and have not yet expired

See also Measuring EFT Performance with Perfmon.

For information about using Performance Monitor, refer to Windows Performance Monitor Overview on the Microsoft Tech Community website.