Blade File Transfer System 2.1

Featuring New Web Client

Technology Guide

In This Document

What is Blade File Transfer System?

Blade File Transfer System is a client / server software solution that performs **super- reliable and secure file transfers over the internet** or local networks using standard HTTP or HTTPS protocols.

Blade File Transfer System is designed for uploading and downloading very large files. Users around the world transfer database files, virtual machine images, large multimedia files, CD / DVD images and backup files over the Internet, through satellite links and other unreliable networks.

Unlike previous generation solutions, Blade File Transfer System employs **checkpoint restart** functionality. This allows automatic resume from the point the transfer was interrupted, should the network connection drop temporarily. It also allows the user to **pause** the upload and later **resume** it.

Blade File Transfer System eliminates common transfer problems, for example, the user being required to re-start the transfer from the beginning if the connection drops. Blade File Transfer System is the only enterprise file transfer solution based on XML Web Services. XML Web Services are the next generation communication standard, superior to previous generation transfer technologies like FTP and WebDAV.

Blade File Transfer System Server

Blade File Transfer System Server is the server component of the solution. It listens for HTTP(S) requests, authenticates and authorizes them, receives uploaded files and places them in a local folder or network share (known as the upload directory). It also serves files for download, and contains the deployment for Blade Web Client.

Storage Area Network (SAN) storage is supported.

Blade File Transfer System Full Featured Client

This is the client software that enables users to upload files to and download files from servers running Blade File Transfer System Server. Using Blade File Transfer System Full Featured Client, a user can choose to upload and download files and directories; as well as pause, resume and manage transfers.

BladeTSCmd (Command line client)

BladeTSCmd is the command-line version of the Full Featured Client software. Administrators can upload and download files and directories from the command line, and configure unattended scheduled transfers.

BladeTSCmd also supports switches for synchronizing client and server directories. It can be used to enable disaster recovery sites (upload backup files offsite) and to automate routine administrative tasks.

Blade Web Client

Blade Web Client is the client software accessible over the internet or intranet using ClickOnce deployment method.

This mechanism allows enterprises to receive files from authorized parties and allows users to download files from the corporate server. The corporate server must be running the full version of Blade File Transfer System Enterprise Server.

Blade Web client comprises two separate ClickOnce applications – Web Download and Web Upload. Corporations can provide “Upload” and “Download” links that users click on to launch the Blade Web Client application for single use.

If the corporate administrator updates the Blade Web Client software on the server, the users will automatically receive the latest version next time they launch the application.

Blade Web Client is always locked in to only one Blade File Transfer System Server – users have no choice of server to upload to or download from.

Blade Web Client incorporates most reliability features of the Blade File Transfer System Full Featured Client – it is fault tolerant against network failure and server failure, and provides the ability to pause and resume transfers.

The Blade Web Client supports large size files (tested up to 30GB), and allows users to upload and download multiple files.

Reliable Transfer

Previous generation technologies, like WebDAV, FTP or HTTP PUT are oriented at transferring smaller files and do not have consistency checking or checkpoint restart functionality. This is especially a problem with uploads. With previous generation technologies, common failures result in either a corrupted file being left on the server or the user being forced to re-start the upload.

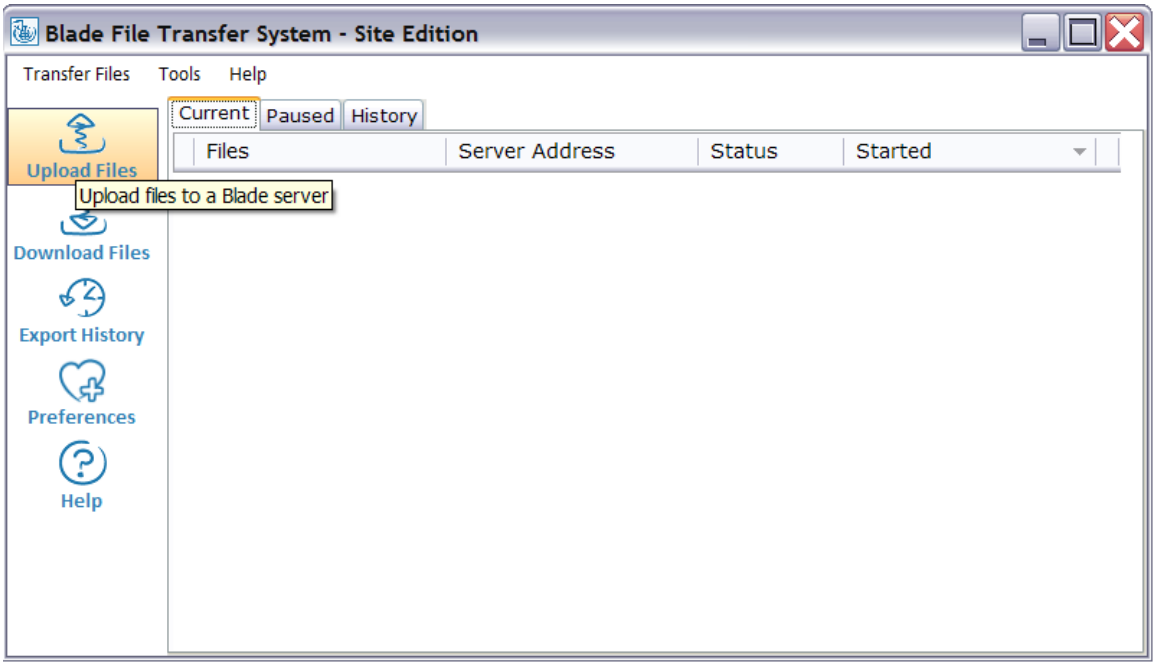
Blade File Transfer System ensures that the file will upload to the server reliably and will remain consistent. See the following comparison of common upload problems and how they are eliminated by using Blade File Transfer System.

Common Upload Problem	Previous Generation Technologies- Result	Blade File Transfer System - Result
Wireless network / ISP / Internet connection drops for a short period of time (even a millisecond).	The upload fails and the user is forced to manually re-start the upload from the beginning. A corrupted, unusable file may be left on the server.	The upload pauses for the time of the outage, then automatically resumes from the point it was interrupted, as soon as the connection is available.
The user needs to shut down his computer when the file is part way through upload.	The user is forced to stop the upload, then start it from the beginning at a later date.	The user can pause the upload, then resume it later from the point it was paused.
The network / ISP goes down while the file is part way through upload.	The upload fails. A corrupted, unusable file may be left on the server.	The upload pauses for the time of the outage, then automatically resumes from the point it was interrupted, as soon as the connection is available. The user can also choose to pause the interrupted upload, and resume it from where it was paused.
The web server goes down while the upload is in progress.	The upload fails. A corrupted, unusable file may be left on the server.	The upload pauses while networks are swapped, then automatically resumes from the point it was interrupted. The user can also choose to pause the interrupted upload, and resume it from where it was interrupted
The user needs to switch networks (for example wireless networks or VPN)	The user is forced to stop the upload, then start it from the beginning at a later date.	The upload interrupts while networks are swapped, then automatically resumes from the point it was interrupted. The user can also choose to pause the interrupted upload, and resume it from where it was paused.

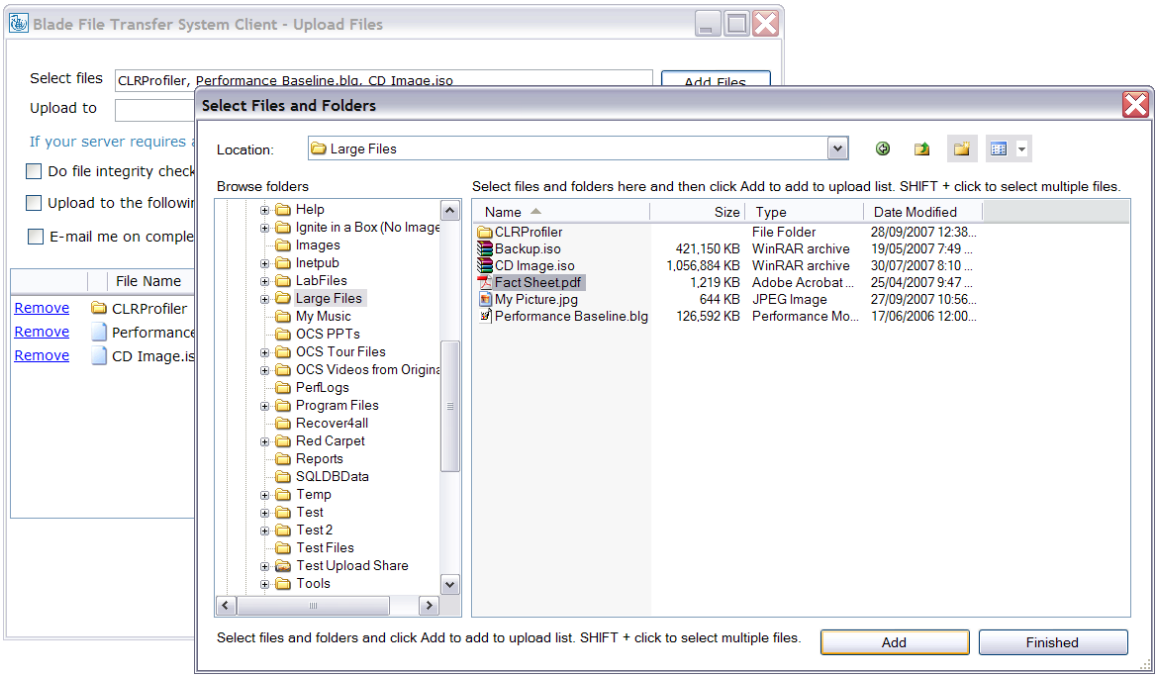
Uploading Files

Blade File Transfer System Client presents an intuitive, user-friendly interface that allows the user to upload any file to a server running Blade File Transfer System Server.

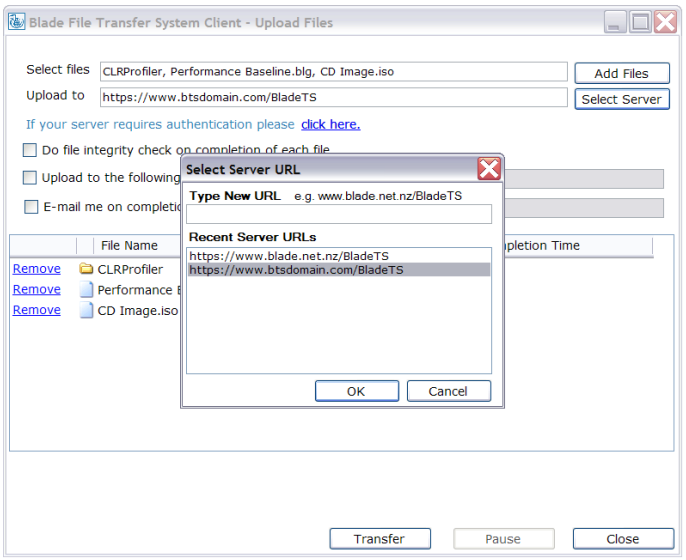
Simply start a new upload:



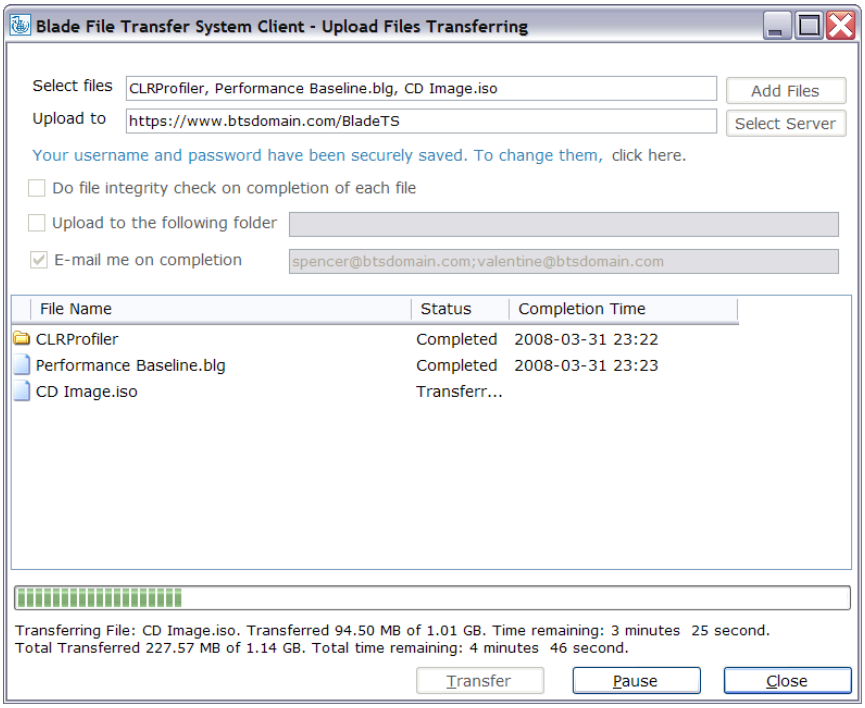
Select files and folders you wish to upload:



Choose the server to upload to:



Click Transfer to start your upload!



If you like, you can choose to **Pause** the upload and **Resume** it any time later.

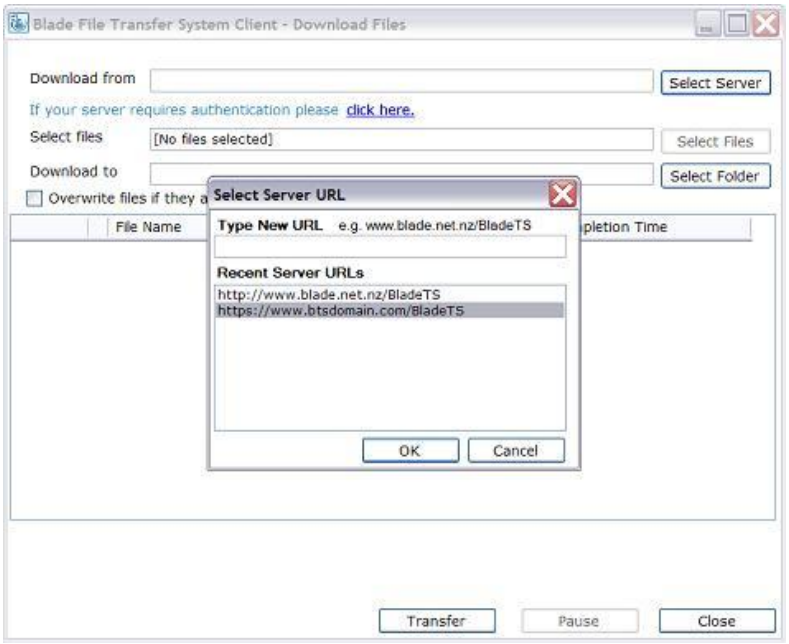
Blade File Transfer System Client also keeps a **history of your transfers** and can **notify you by e-mail when the transfer is complete**. Of course, you can use the same procedure to **download files and folders,** too!

Downloading Files

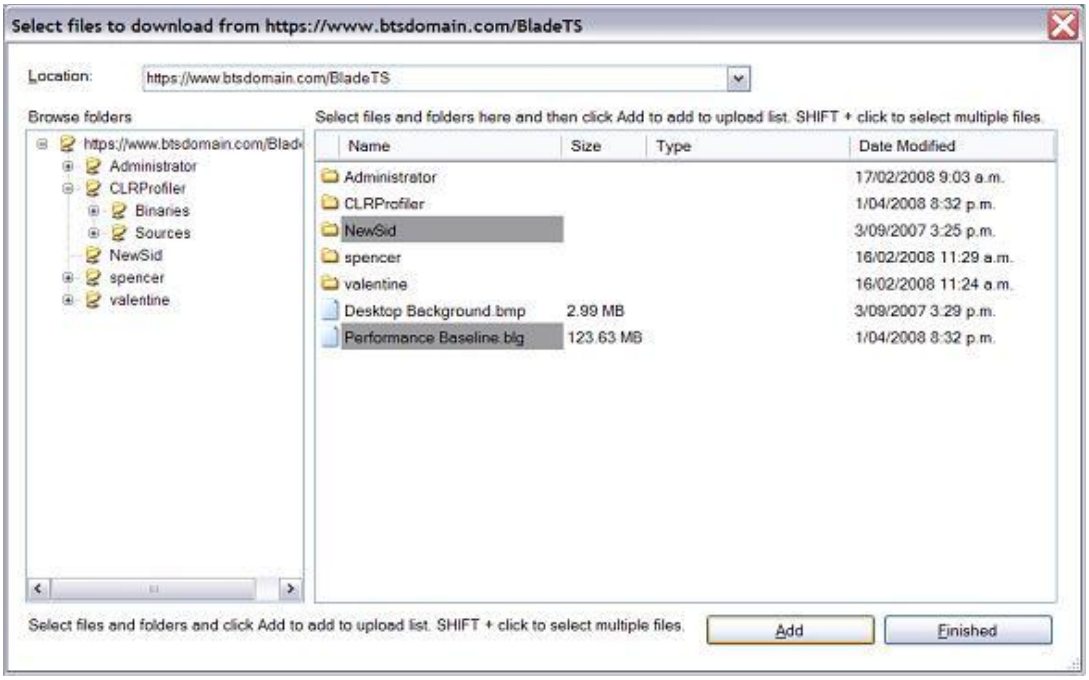
Blade File Transfer System Client allows the user to download any files from a server running Blade File Transfer System Server.

Start a new download:

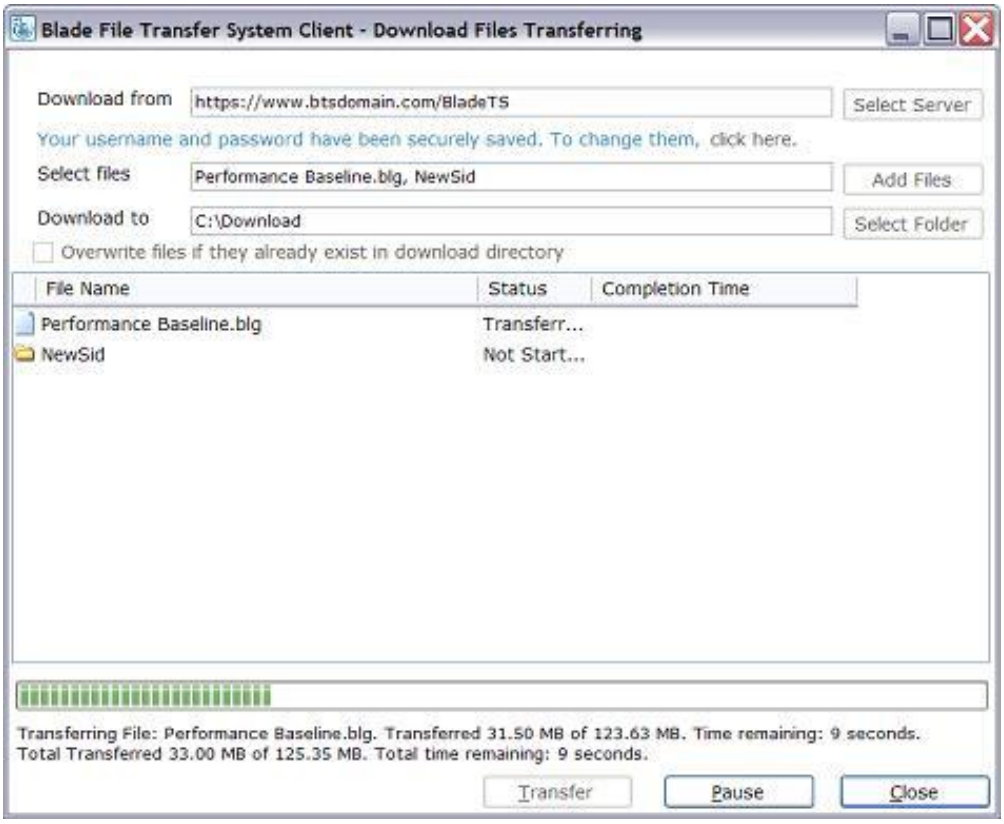
Choose the server to download from:



Authenticate and select files and folders you wish to download (multiple files and folders supported):



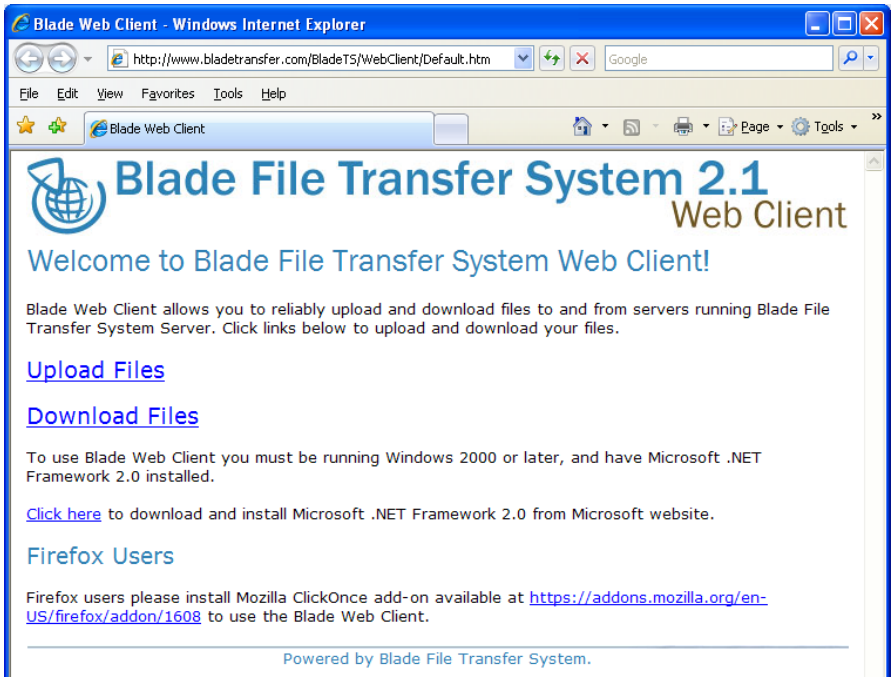
Click Transfer to start your download!



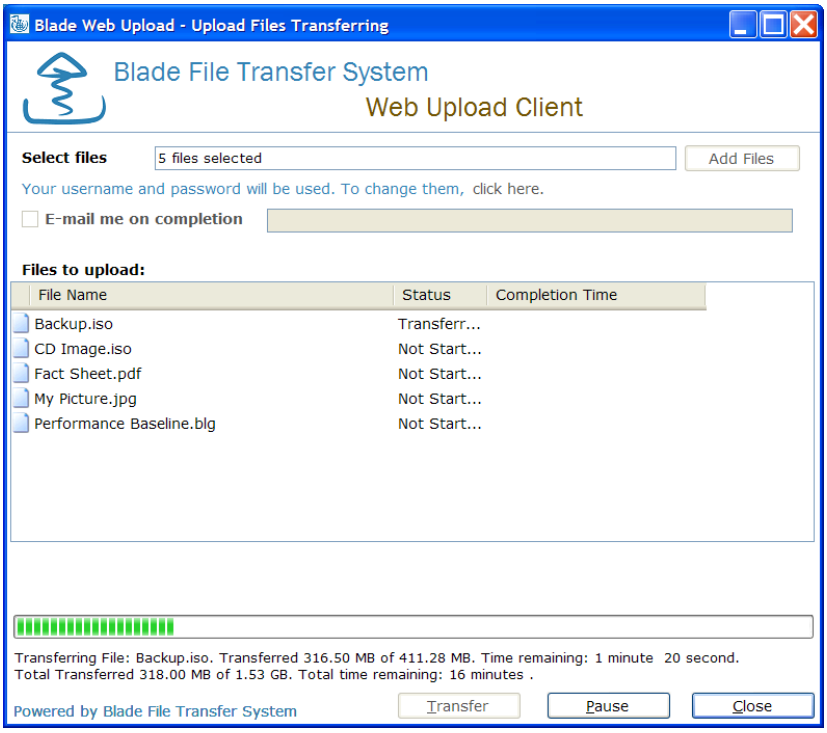
If you like, you can choose to **Pause** the upload and **Resume** it any time later.

Using Web Client

Web Client allows corporations to seamlessly receive files from authorized users and allow them to download files. To launch a Web Client upload or download, ask your administrator for a url. A default URL of http://<your website>/BladeTS/WebClient



Click Upload Files or Download Files… The interface is the same as the full featured client; except the Web Client is always locked in to the server you launched it from.



Using BladeTSCmd

BladeTSCmd allows you to reliably upload files to servers running Blade File Transfer System Server, reliably download files from servers running Blade File Transfer System Server and reliably synchronize contents of client and server directories.

SYNTAX

```
BladeTSCmd.exe -Upload|-Download | -SyncDir -Files:<List of files to upload or
download> -Server:<URL of the server running Blade File Transfer System> [-
Username:<username> -Password:<password>][-DownloadToFolder:<Local folder to
place downloaded files>][-UploadToFolder:<Server folder to place uploaded
files>][-Notify:<E-Mail address to notify once the operation is complete>] [-
DoCRCCheck] [-ChangesOnly:<Absolute or relative time of file modification>][-
IncludeMask:<Wildcard mask of files to include>][-ExcludeMask:<Wildcard mask
of files to exclude>][-KeepTLM][-Up|-Down|-Both][-ClientSyncDir][-
ServerSyncDir][- Report:<Path to report text file>][-?]
```

PARAMETERS

-Upload|-Download | -SyncDir Required. Choose to upload files, download files, or synchronize directories. Each operation has its own set of parameters.

-? Show this help information

UPLOAD PARAMETERS (USED WITH –UPLOAD SWITCH)

-Files:<List of files to upload>. Required. Specify the full path to a local file e.g. "C:\My Files\My File.zip". Enter multiple file names by separating them with a comma e.g. "C:\My Files\My File 1.zip", "C:\My Files\My File 2.zip"

-Server:<URL of the server running Blade File Transfer System>. Required. The URL can start with "http://" or "https://". If neither is specified "http://" will be assumed. Alternative port numbers are supported. e.g. -Server:"https://www.mydomain.com/BladeTS" or "http://www.mydomain.com:8080/BladeTS".

-Username:<username> Optional. Your username for the server e.g. "spencer" or "mydomain\spencer". If the username is not specified, anonymous logon will be used. Note that not all servers have anonymous logons enabled.

-Password:<password> Optional. The password for the username you specified. e.g. "P@ssw0rd".

-UploadToFolder:<Server folder to place uploaded files>. Optional. Only used when upload operation is specified. Specify the folder on the server to upload files to e.g. "Research\" or "Research\Spencer\".

-Notify:<E-Mail address to notify once the operation is complete>. Optional. Specify the e-mail address to be notified when the upload completes. Include multiple e-mail addresses by separating them with a semicolon e.g. "spencer@blade.net.nz" or "spencer@blade.net.nz;alex@blade.net.nz". Note that e-mail notification functionality relies on the Blade File Transfer System Server being configured correctly. If the server is not configured, you will not receive the e-mail notification.

-DoCRCCheck Optional. When specified, a cyclic redundancy check will be performed on the uploaded or downloaded files. Note that the cyclic redundancy check will be time and resource consuming for larger files and may take a long time to complete. Blade File Transfer System includes file checking and this parameter is not required.

-ChangesOnly:<Absolute or relative time of file modification>. Optional. Only those files modified after the absolute or relative time will be uploaded. Specify an absolute time e.g. "2007-09-01 10:30 am" or relative

time in hours and minutes e.g. "48:00".

-**IncludeMask:<Wildcard mask of files to include>. Optional**. Specify to upload only those files that match a particular name or pattern e.g. "*.jpg" or "*.jpg;*.gif;*.ppt" or "Backup*".

-ExcludeMask:<Wildcard mask of files to exclude>. Optional. Specify to skip those files that match a particular name or pattern e.g. "*.tmp" or "*.tmp;*.db;*.docx" or "Temp*". This parameter has no effect when downloading files.

-KeepTLM Optional. Keep original time last modified. Specifying this switch will maintain the file timestamps (date accessed, date modified, date created) on the server the same as the local file timestamps.

-**Report:<Path to report text file>. Optional.** Specify a path to the report file. If specified, this file will contain a list of files successfully transferred, error details, and transfer statistics. Note that if the file with the same name already exists, BladeTSCmd will append to the file.

DOWNLOAD PARAMETERS (USED WITH –DOWNLOAD SWITCH)

-Files:<List of files to download>. Required. Specify the server path relative to the BladeTS download directory e.g. "My File.zip" or "Research\My File.zip". Enter multiple file names by separating them with a comma e.g. "My File 1.zip", "Research\My File 2.zip"

-Server:<URL of the server running Blade File Transfer System>. Required. The URL can start with "http://" or "https://". If neither is specified "http://" will be assumed. Alternative port numbers are supported. e.g. -Server:"https://www.mydomain.com/BladeTS" or "http://www.mydomain.com:8080/BladeTS".

-Username:<username> Optional. Your username for the server e.g. "spencer" or "mydomain\spencer". If the username is not specified, anonymous logon will be used. Note that not all servers have anonymous logons enabled.

-Password:<password> Optional. The password for the username you specified. e.g. "P@ssw0rd".

-**DownloadToFolder:<Local folder to place downloaded files>.Required.** This parameter is required when the Download operation is specified. Specify the local folder to place the downloaded files e.g. "C:\My Files\"

-Report:<Path to report text file>. Optional. Specify a path to the report file. If specified, this file will contain a list of files successfully transferred, error details, and transfer statistics. Note that if the file with the same name already exists, BladeTSCmd will append to the file.

SYNCDIR PARAMETERS (USED WITH –SYNCDIR SWITCH)

-Up |-Down |-Both. Required. Specify the direction of the sync.

When –Up is specified, BladeTSCmd will upload all files from the client directory that are newer or don't exist in the server directory. Note that if files on the server cannot be overwritten for any reason (security, or someone else is downloading the file), a newer version will be created on the server by appending upload date and time to the file name.

When –Down is specified, BladeTSCmd will download all files from the server directory that don't exist in the client directory, or are newer than the files in the client directory. Note that if files on the client cannot be overwritten for any reason (security, or the file is open), a newer version will be created on the client by appending upload date and time to the file name.

When –Both is specified, BladeTSCMD will initialize a two-way sync. First, BladeTSCmd will upload all files from the client directory that are newer or don't exist in the server directory. Then, BladeTSCmd will download all files from the server directory that don't exist in the client directory, or are newer than the files in the client directory. Note that if files cannot be overwritten for any reason (security, or the file is open), a newer version

will be created by appending upload date and time to the file name.

-**Server:<URL of the server running Blade File Transfer System>. Required.** The URL can start with "http://" or "https://". If neither is specified "http://" will be assumed. Alternative port numbers are supported. e.g. -Server:"https://www.mydomain.com/BladeTS" or "http://www.mydomain.com:8080/BladeTS".

-Username:<username> Optional. Your username for the server e.g. "spencer" or "mydomain\spencer". If the username is not specified, anonymous logon will be used. Note that not all servers have anonymous logons enabled.

-Password:<password> Optional. The password for the username you specified. e.g. "P@ssw0rd".

-**ClientSyncDir:<Local directory to synchronize>. Required.** Specify the local folder to synchronize e.g. "C:\Backup\". If -Down or –Both switch is specified, and the directory does not exist, it will be created. If -Up switch is specified, and the directory does not exist, an error message will be shown.

-**ServerSyncDir:<Server directory to synchronize>. Required**. Specify the server folder to synchronize e.g. "Backup" or "Research\Backup". Specify "\" to sync the server root. If -Up or –Both switch is specified, and the directory does not exist, it will be created on the server. If -Down switch is specified, and the directory does not exist, an error message will be shown.

-**Report:<Path to report text file>. Optional.** Specify a path to the report file. If specified, this file will contain a list of files successfully transferred, error details, and transfer statistics. Note that if the file with the same name already exists, BladeTSCmd will append to the file.

Note: the synchronization process will preserve the original file timestamps (date accessed, date modified, date created) on the server and the client.

UPLOAD EXAMPLES

1. Upload 3 files to https://www.mydomain.com/BladeTS. Notify spencer@blade.net.nz and alex@blade.net.nz when the upload completes.

```
BladeTSCmd -Upload -Files:"C:\My Files\My File.zip","C:\Sales\My Sales
Report.zip","C:\Backup\Backup File.zip" -
Server:"https://www.mydomain.com/BladeTS" -
Notify:"spencer@blade.net.nz;alex@blade.net.nz"
```

3. Upload all files in "C:\My Files" folder that changed within the last 72 hours to https://www.mydomain.com/BladeTS.

```
BladeTSCmd -Upload -Files:"C:\My Files" -
Server:"https://www.mydomain.com/BladeTS" -ChangesOnly:"72:00"
```

4. Upload all files in "C:\My Files" folder that changed since midnight September 28th, 2007 to https://www.mydomain.com/BladeTS.

```
BladeTSCmd -Upload -Files:"C:\My Files" -
Server:"https://www.mydomain.com/BladeTS" -ChangesOnly:"2007-09-28 00:00"
```

DOWNLOAD EXAMPLES

1. Download 3 files from https://www.mydomain.com/BladeTS into C:\My Folder folder.

```
BladeTSCmd -Download -Files:"My File.zip","Sales\My Sales
Report.zip","Backup\Database Backups\Backup File.zip" -
Server:"https://www.mydomain.com/BladeTS" -Username:"Spencer" -
Password:"P@ssw0rd"
```

SYNCDIR EXAMPLES

1. Synchronize “C:\Database Backup” local directory with “Research\Database Backup” server directory on “https://www.mydomain.com/BladeTS“ server. Only upload files that don’t exist on the server or are newer than files on the server (up sync).

```
BladeTSCmd -SyncDir –Up -ClientSyncDir:"C:\Database backup" –
ServerSyncDir:”Research\Database Backup”
Server:"https://www.mydomain.com/BladeTS" -Username:"Spencer" –
Password:"P@ssw0rd"
```

2. Synchronize “C:\Database Backup” local directory with “Research\Database Backup” server directory on “https://www.mydomain.com/BladeTS“ server. Only download files that don’t exist locally or are newer than the local files (down sync).

```
BladeTSCmd -SyncDir –Down -ClientSyncDir:"C:\Database backup" –
ServerSyncDir:”Research\Database Backup”
Server:"https://www.mydomain.com/BladeTS" -Username:"Spencer" –
Password:"P@ssw0rd"
```

3. Synchronize “C:\Database Backup” local directory with “Research\Database Backup” server directory on “https://www.mydomain.com/BladeTS“ server. Perform a two-way sync. Create a report “C:\Reports\SyncReport.txt”

```
BladeTSCmd -SyncDir –Both -ClientSyncDir:"C:\Database backup" –
ServerSyncDir:”Research\Database Backup”
Server:"https://www.mydomain.com/BladeTS" -Username:"Spencer" –
Password:"P@ssw0rd" -Report:”C:\Reports\SyncReport.txt"
```

Enabling Disaster Recovery Sites by scheduling synchronization using BladeTSCMD.exe

To schedule uploads of your files to happen on a regular basis (for example, following a backup) perform the following procedure:

1. On your Windows Server 2003/2007 server or a Windows XP or Windows Vista machine log on as a user with local administrator privileges.
2. Navigate to **Control Panel** and open **Scheduled Tasks**.
3. Double-click **Add Scheduled Task**.
4. In the Scheduled Task Wizard click **Next**.
5. In the Application selection page click **Browse** and select **<Program Files>\Blade\Blade Transfer Services Client\BladeTSCmd.EXE**. Click Next.
6. Type a name for the task and select a schedule e.g. Daily. This can be modified later. Click **Next**.
7. Select the Start time and date (usually the start time is after your backup e.g. 2AM) Click **Next**.

8. Enter your credentials in case the machine is unattended. These will be stored securely by Windows. Click **Next**.
9. Select the **Open Advanced Properties** for this task box and then click **Finish**.
10. In **Run** box modify the command line to reflect the true command for your upload e.g.

```
BladeTSCmd -SyncDir –Both -ClientSyncDir:"C:\Database
backup" –ServerSyncDir:”Research\Database Backup”
Server:"https://www.mydomain.com/BladeTS" -
Username:"Spencer" -Password:"P@ssw0rd" -
Report:”C:\Reports\SyncReport.txt"
```

11. On the Schedule tab verify the schedule and click **OK**.
12. All done!

Server Requirements

Blade File Transfer System Server runs as an ASP.NET web service and requires a few simple pre-requisites:

- Microsoft Windows 2000, Windows Server 2003
- Microsoft Internet Information Services
- Microsoft .NET Framework 2.0 (a free download from http://www.microsoft.com/downloads)

Full Featured Client Requirements

Blade File Transfer System Client runs as a local program and requires a few simple pre-requisites:

- Microsoft Windows 2000, Windows XP or Windows Vista
- Microsoft .NET Framework 2.0 (a free download from http://www.microsoft.com/downloads)

Blade Web Client Requirements

Blade Web client requires the user to have:

- Windows XP, Windows Vista, Windows Server 2003
- .NET Framework 2.0 or .NET Framework 3.0
- Internet Explorer 6 or later, or Mozilla FireFox
- Pentium® III 1 GHz or faster or AMD equivalent
- 256 MB or more of RAM

Firefox Users

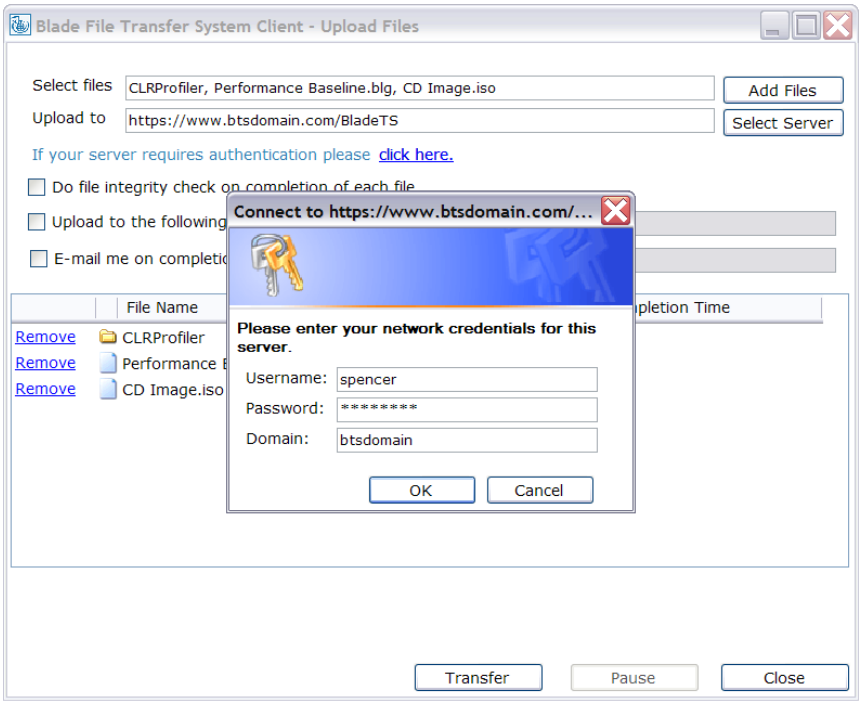
Firefox users must install Mozilla ClickOnce add-on available at https://addons.mozilla.org/en-US/firefox/addon/1608 to use the Blade Web Client.

Security

Blade File Transfer System is based on next generation technology, XML Web Services. This offers security advantages over previous generation technologies, e.g. FTP.

The following industry proven and endorsed security options are provided by Blade File Transfer System Server:

- SSL Encryption – industry standard encryption mechanism to ensure files are uploaded over a secure encrypted channel. Protects against data being compromised while in transfer.
- IIS Authentication, and NTFS permissions – ensure only authorized users can access Blade File Transfer System Server and upload files
- Microsoft Active Directory integration – user accounts and passwords to access Blade File Transfer System Server can be stored in Active Directory
- Supports custom port numbers if configured



Pricing & How to order

For pricing and licensing enquiries please contact our distributor.

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http://www.sofsol.co.nz