

THRU Server API 4.0

Programming Reference

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1.General

THE PURPOSE OF THIS DOCUMENT IS TO DESCRIBE WEB SERVICES API VERSION 4.0 (WS4) WITH HTTP EXTENSIONS WHICH IS IMPLEMENTED IN THE CURRENT RELEASE OF THRU SERVICE AND USED BY OUTLOOK CLIENT 2.X. THRU SERVER IS BUILT ON SERVICE-ORIENTED ARCHITECTURE THAT PROVIDES EXTENSIVE API VIA WEB SERVICES.

THIS PROGRAMMING REFERENCE GUIDE DESCRIBES AND SUMMARIZES THE THRU SERVER API OF THE THRU PLATFORM. THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR INFORMATIONAL PURPOSES AND IS BEING FURNISHED FOR USE BY CUSTOMERS. DISTRIBUTION OF THIS DOCUMENT IS LIMITED TO CUSTOMERS.

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800.871. 9316

2. Thru Server Web Service API

2.1 Web Service API addressing

Build-in .NET documentation on implemented web services is available at URL

<servername>.thruinc.net/ws4/fthservice.asmx on Thru server.

WSDL file for API version 4.0 is located at **<servername>.thruinc.net/ws4/fthservice.asmx?WSDL**

2.2 Retrieve settings for Thru Data Center and Thru Server

2.2.1 Data Structures

FTHServerSettingData

FTHServerSettingData		
Thru site settings for specific site		
Data Type	Field Name	Description
int	SiteID	
int	SettingsExpirationMinutes	How long this configuration should be used before being refreshed.
bool	RetentionEnabled	Is feature enabled
bool	RetentionAdmin	Is user who opened the server is a member of Retention Administrators group
bool	MirroringOutboundEnabled	Is outbound mirroring feature enabled
bool	MirroringInboundEnabled	Is inbound mirroring feature enabled
bool	AuditMgrEnabled	Is Audit Manager feature enabled
bool	AuditUser	Is user who opened the server a member of Auditors group
FTHMsgRequestLoginType	MsgRequestLoginType	Enumeration, policy setting to request login when recipient clicks on the link in the email: Never=1/Always=2/User Choice=3
bool	MsgRequestloginUserChoiceDefault	If Request Login is 'User Choice' this field determines the default value (request login or not).
bool	MsgMaxDownloadsEnabled	Not implemented
int	MsgMaxDownloadsDefault	Not implemented
bool	PublishingEnabled	Is Publishing feature enabled
bool	PublishingUser	Is a user who opened the server a member of Publishing Users group
bool	PublishingAdmin	Is a user who opened the server a member of Publishing Administrators group
bool	PublishingTagDictionaryManaged ByUsers	Indicates whether publishing users can edit the tag dictionary.

2.2.2 Methods

GetDataCenterSettings

GetDataCenterSettings	
Retrieves current settings for Thru Datacenter in a form of Name=Value pairs. Datacenter contains multiple Thru Sites.	
Example of datacenter values:	
LandingURL	sjdev52/FTHLanding75B
MirroringChunkSizeMB	25
MirroringPublishingRoot	C:\Thru\MirroringPublishingRoot
MirroringLandingRoot	C:\Thru\MirroringLandingRoot
MirroringTransferProtocol	HTTPS
MirroringPublishingAreaLimitGB	20
MirroringLandingAreaLimitGB	20
NotificationPrimaryContactEmail	sergey@thruinc.com
NotificationSecondaryContactEmail	arutiunov@yahoo.com
NotificationSMTPServer	10.0.0.148
NotificationSentFromContactEmail	Notifications@thruinc.net
ReportingServerName	sjdev6\FTH75C
MobileSiteUrl	sjdev7.thruinc.com/sergey75c_mobile
MirroringFileChunkMinSizeMB	2
MirroringFileChunkMaxSizeMB	50
MirroringFileChunkCount	20
MirroringFileChunkCountLimitMB	1000
FTHNameValueData[] GetDataCenterSettings(Guid sessionId)	
Parameter Name	Description
sessionId	Current user session token returned by one of Open methods

GetServerSettings

GetServerSettings	
Retrieves settings for Thru site where user is signed in.	
FTHServerSettingData GetServerSettings (Guid sessionId)	

2.3 Open and Close the Server

Thru server can be opened in 3 different ways by Open, OpenImmutable or OpenWithTicket web service calls used by Thru SSO Ticket server or SSO-based applications. Each call returns **FTHSessionData** data structure which contains Session ID and User ID of the user who logged in.

2.3.1 Data Structures

FTHSessionData

FTHSessionData		
User Session data		
Data Type	Field Name	Description
Guid	SessionID	ID of a new session that is created in response to the call. Should be supplied as parameter to all subsequent web service calls.
int	UserID	ID of Thru user account under which the connection is signed in.

2.3.2 Methods

Open

Open	
Open call opens the server using username and password and creates a session for given ApplicationID. The session is alive until the next sign-in is done using Open or OpenWithTicket for the same user and the same ApplicationID, then new session replaces the previous. Different applications are allowed to sign in concurrently under the same user.	
FTHSessionData Open (string userName, string password, int applicationID)	
Name	Description
username	Username for sign-in.
password	Password for sign-in
applicationID	ApplicationID parameter should be picked by client developers and communicated to Thru to be reserved for specific client. New ApplicationID value has to be added to the Thru Database table TBL_APPLICATION by Thru server administrator. ApplicationID >=1000, values below 1000 are reserved for applications developed by Thru.

OpenWithTicket

OpenWithTicket	
<p>Accepts the ticket that contains user identity encrypted by Thru library on the client side. Encrypting party and Thru server should use the same password since encryption is symmetrical. In order for OpenWithTicket call to succeed, Thru SSO product should be deployed on a customer's LAN and a user whose identity is contained in the ticket had to be previously created by Thru SSO Sync server. Thru SSO sync server synchronizes the contents of specified user group in corporate Active Directory with the user list in Thru server.</p>	
FTHSessionData OpenWithTicket (string ticket, int applicationID)	
Parameter Name	Description
ticket	String with the user identity encrypted by Thru libraries in SSO or other products. Encrypting party and Thru server should use the same password for symmetric encryption/decryption.
applicationID	ApplicationID parameter should be picked by client developers and communicated to Thru to be reserved for specific client. New ApplicationID value has to be added to the Thru Database table TBL_APPLICATION by Thru server administrator. ApplicationID >=1000, values below 1000 are reserved for applications developed by Thru.

OpenImmutable

OpenImmutable	
<p>Similar to Open call but the session created as immutable meaning that it will not be deleted when another Open or OpenWithTicket function is called for the same user and the same ApplicationID. Used when session concurrency is required for the same user. Immutable sessions are cleaned automatically every 48 hours from the time they were created.</p>	
FTHSessionData OpenImmutable (string userName, string password, int applicationID)	
Parameter Name	Description
username	Username for sign-in.
password	Password for sign-in
applicationID	ApplicationID parameter should be picked by client developers and communicated to Thru to be reserved for specific client. New ApplicationID value has to be added to the Thru Database table TBL_APPLICATION by Thru server administrator. ApplicationID >=1000, values below 1000 are reserved for applications developed by Thru.

Close

Close	
<p>Close web call deletes existing user session.</p>	
Void Close (Guid sessionID)	
Parameter Name	Description
sessionID	Active user session to be deleted

2.4 File and Folder management in Thru server

2.4.1 Manage Thru folders.

2.4.1.1 Data Structures

FTHFolderData

FTHFolderData		
Folder object data		
Data Type	Field Name	Description
int	FolderID	ID of a newly created folder
int	ParentFolderID	ID of a parent folder
string	Name	Name of new folder
int	EffectivePermission	Effective access permission for new folder for currently signed user Permission enum: None = 0x00, //0 Show = 0x01, //1 Read = 0x02, //2 Create = 0x04, //4 Download = 0x08, //8 Distribute = 0x010, //16 Manage = 0x020, //32 Modify = 0x040, //64 Delete = 0x080, //128 FullControl = Read Create Download Distribute Manage Modify Delete
DateTime	DateCreated	Timestamp when the folder was created
DateTime	DateModified	Timestamp when the folder was modified
int	CreatedByUserID	ID of the user who created the file
int	ModifiedByUserID	ID of the user who modified the file
bool	IsDeleted	Flag shows if the folder is deleted
int	FolderType	One of the following Folder Types: Regular = 0, Root = 1, UserHome = 2, UserDocuments = 3, UserDropBox = 4, FolderRoot = 5, HomeRoot = 6,

2.4.1.2 Methods

CreateFolder

CreateFolder	
Creates a folder in Thru file system	
FTHFolderData CreateFolder (Guid sessionID, int parentFolderID, string name)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
parentFolderID	ID for the parent folder where new folder will be created
name	Name for a new folder

DeleteFolder

DeleteFolder	
Deletes a folder in Thru file system	
FTHFolderData DeleteFolder (Guid sessionID, int folderID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID of the folder to be deleted

GetFolder

GetFolder	
Retrieves folder data from Thru system by folder ID	
FTHFolderData GetFolder (Guid sessionID, int folderID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID of the folder to be retrieved

GetFolders

GetFolders	
Retrieves a list of subfolders in the specified parent folder of Thru file system	
FTHFolderData [] GetFolders (Guid sessionId, int parentFolderID, int index, int length)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
parentFolderID	ID of the parent folder where we look for subfolders
index	Index points to the first subfolder to start retrieval, zero-based
length	Number of subfolders to retrieve.

GetFolderByName

GetFolderByName	
Retrieves a single folder by name in the specified parent folder of Thru file system	
FTHFolderData GetFolderByName (guid SessionID, int parentFolderID, string name)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
parentFolderID	ID of the parent folder where we look for a folder
name	Name string by which a folder will be retrieved. Result is unambiguous since folder/file name is unique in the parent folder

GetRootFolder

GetRootFolder	
Retrieves a Root folder object in Thru file system	
FTHFolderData GetRootFolder (Guid sessionId)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions

MoveFolders

MoveFolders	
Moves a list of folders to a folder specified by destination folder ID	
<pre>void MoveFolders(Guid sessionId, int[] folderIDList, int destinationFolderID)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
folderIDList	List of folder IDs that will be moved to a destination folder
destinationFolderID	ID of destination folder where the folders will be moved

SaveFolder

SaveFolder	
Saves changes to a folder object	
<pre>FTHFolderData SaveFolder(Guid sessionId, FTHFolderData folder)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
folder	Folder object

GetFolderCount

GetFolderCount	
Retrieves the count of subfolders in the specified parent folder.	
<pre>int GetFolderCount (Guid sessionId, int parentFolderID)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
parentFolderID	ID of the parent folder where subfolders are counted

GetFolderPath

GetFolderPath	
The method returns folder path in Thru file system as a string	
<pre>string GetFolderPath (Guid sessionId, int parentFolderID)</pre>	
Name	Description
sessionId	User session returned by one of the Open functions
folderID	ID of the folder for which the path is retrieved

GetFolderSize

GetFolderSize	
Returns total size of files located in specified folder sub-tree in bytes, long value.	
long GetFolderSize (Guid sessionID, int folderID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID of the folder for which the size is retrieved

2.4.2 Manage folder metadata.

2.4.2.1 Data Structures

FolderMetadataResult

FolderMetadataResult		
Folder metadata in a form of name = value pairs		
Data Type	Field Name	Description
int	FolderMetadataID	ID of a newly created metadata item for a folder
int	FolderID	ID of a folder for which metadata is created
string	Name	Metadata item name
int	DataType	Type of the data
string	Data	Value

2.4.2.2 Methods

CreateFolderMetadata

CreateFolderMetadata
Creates metadata for a specific folder in Thru file system.

FolderMetadataResult CreateFolderMetadata (Guid sessionID, int folderID, string name, string data)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID for the folder for which metadata is created
name	Name for a new metadata item
data	String with the data that will populate metadata item

GetFolderMetadata

GetFolderMetadata	
Retrieves metadata for specific Thru folder	
FolderMetadataResult[] GetFolderMetadata (Guid sessionID, int folderID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID for the folder for which metadata is retrieved

2.4.3 Folder permission management

2.4.3.1 Data Structure

FTHPermissionListItemData

FTHPermissionListItemData		
Holds the data on a single item in permission list		
Data Type	Field Name	Description
int	FolderPermissionID	ID of a folder permission item
int	FolderID	ID of a folder for which permission is retrieved
int	Permission	Permission value
int	UserID	ID of a user whose permission is retrieved, equals to (-1) if permission is set for a group
int	UserGroupID	ID of a group whose permission is retrieved, equals to (-1) if permission is set for a user

2.4.3.2 Methods

GetFolderPermissionList

GetFolderPermissionList	
Retrieves a list of permissions for a Thru folder	
<pre>FTHPermissionListItemData [] GetFolderPermissionList (Guid sessionID, int folderID)</pre>	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID of the folder for which the permission is retrieved

SetFolderPermissionList

SetFolderPermissionList	
Set permission list for a Thru folder	
<pre>void SetFolderPermissionList(Guid sessionID, int folderID, FTHPermissionListItemData[] newPermissionList)</pre>	
Parameter Name	Description
SessionID	User session returned by one of the Open functions
FolderID	ID of the folder for which the permission is set
newPermissionList	List of permissions items, see specification of data structure FTHPermissionListItemData

2.4.4 Manage Files and File Metadata.

2.4.4.1 Data Structures

FTHFileMetadataItemData

FTHFileMetadataItemData		
File metadata in a form of name = value pairs		
Data Type	Field Name	Description
int	FileMetadataID	ID of a metadata item
int	FileID	ID of a file for which metadata is created
string	Name	Name of metadata item
int	DataType	Metadata type, extendable
object	Data	Metadata value

FTHFileData

FTHFileData		
Thru File object data		
Data Type	Field Name	Description
int	FileID	ID of a file in Thru server
int	ParentFolderID	ID of a parent folder that contains a file
string	Name	Name of a file
long	Size	File size
int	EffectivePermission	Effective permission of a file (reserved for future use)
DateTime	DateCreated	Date when a file was created
DateTime	DateModified	Date when a file was modified last time
int	CreatedByUserID	ID of the user who created the file
int	ModifiedByUserID	ID of the user who modified the file last time
int	Version	File version (reserved for future use)
bool	IsDeleted	Flag shows if a file is in Deleted state
bool	IsQuarantined	Flag shows if a file is in Quarantined state, means that file body was removed by Anti-virus software.
bool	IsPublished	Flag shows that a file is published into one of Thru collections.

2.4.4.2 Methods

DeleteFile

DeleteFile	
Deletes file object in Thru system. File body will be deleted later after Purge waiting period is over.	
<pre>void DeleteFile(Guid sessionID, int fileID)</pre>	
Parameter Name	Description
SessionID	User session returned by one of the Open functions
fileID	ID of the file to be deleted

GetFile

GetFile	
Retrieves a specific file object in Thru system by file ID. Note: method does not retrieve a file body, it should be downloaded using HTTP GET call to URL <i>servername/download.aspx</i> , see section 2.6	
FTHFileData GetFile (Guid sessionId, int fileId)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
fileID	ID of the file object to be retrieved

GetFileByName

GetFileByName	
Retrieves a specific file object from Thru system by specific file name, which is unique in the parent folder. Note: method does not retrieve a file body, it should be downloaded using HTTP GET call to URL <i>servername/download.aspx</i> , see section 2.6	
FTHFileData GetFileByName(Guid sessionId, int parentFolderID, string name)	
Parameter Name	Description
SessionID	User session returned by one of the Open functions
parentFolderID	ID of the parent folder that contains the file
Name	File name

GetFileCount

GetFileCount	
Returns number of files in the specified parent folder.	
int GetFileCount(Guid sessionId, int parentFolderID)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
parentFolderID	ID of the parent folder that contains the files to be counted

GetFiles

GetFiles	
Retrieves an array of file objects in the specified parent folder. Note: method does not retrieve the file bodies, each file should be downloaded using HTTP GET call to URL <i>servername/download.aspx</i> see section 2.6	
<pre>FTHFileData[] GetFiles(Guid sessionId, int parentFolderID, int index, int length)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
parentFolderID	ID of the parent folder that contains the files to be retrieved
index	Starting index for retrieval
length	Number of elements to retrieve

GetFilePath

GetFilePath	
Retrieves file path in Thru server to specific file.	
<pre>string GetFilePath(Guid sessionId, int fileID)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
fileID	ID of the file for which the path is retrieved

MoveFiles

MoveFiles	
Moves specified files to destination folder.	
<pre>void MoveFiles(Guid sessionId, int[] fileIDList, int destinationFolderID)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
fileIDList	List of file IDs that should be moved to destination folder
destinationFolderID	Destination folder where the files will be moved

SaveFile

SaveFile	
Saves changes to a Thru file object, different from overwriting file body	
<pre>FTHFileData SaveFile(Guid sessionId, FTHFileData file)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
file	File object that should be saved

CreateFileMetadata

CreateFileMetadata	
Creates metadata for a specific file in a form of name = value pair	
<pre>FTHFileMetadataItemData CreateFileMetadata (Guid sessionId, int fileId, string name, object data)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
fileID	ID of the file for which the metadata is created
name	Metadata item name
data	Metadata value

GetFileMetadata

GetFileMetadata	
Retrieves array of metadata items for a specific file.	
<pre>FTHFileMetadataItemData[] GetFileMetadata(Guid sessionId, int fileId)</pre>	
Parameter Name	Description
SessionID	User session returned by one of the Open functions
fileID	ID of the file for which the metadata is retrieved

SaveFileMetadata

SaveFileMetadata	
Saves metadata for a specific file.	
FTHFileMetadataItemData SaveFileMetadata(Guid sessionId, int fileId, string name, object data)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
fileID	ID of the file for which the metadata is saved
name	Metadata item name
data	Metadata value

2.4.5 Retrieve Thru Audit records for files and folders

2.4.5.1 Data Structures

FTHFileSystemLogItemData

FTHFileSystemLogItemData		
Contains data from the log record on the actions performed on files and folders		
Data Type	Field Name	Description
int	FolderID	ID of a Folder for which log info is requested. Equals (-1) if information is requested for a File.
int	FileID	ID of a File for which log info is requested. Equals (-1) if information is requested for a Folder.
int	UserID	ID of a user who performed the action. Equals (-1) if action has been performed by external user who is not a Thru server user (ex. external distribution download). In this case user is identified by email field only.
string	EmailAddress	Email address for the user who performed the action. In case of external user this email is the only identifier of a user.
int	Operation	Code of logged operation: None = 0, Created = 1, Overwritten = 2, InternalDownload = 4, ExternalDownload = 8, DisclaimerDownload = 16, Deleted = 32, Purged = 64, MovedIn = 128, MovedOut = 256, Restored = 512, Versioned = 1024, MetadataEdit = 2048, PermissionEdit = 4096, Distributed = 8192, InternalUpload = 16384, ExternalUpload = 32768, FileRename = 65536, FolderRename = 131072, Quarantine = 262144, DescriptionEdit = 524288, ChangeFileOwner = 1048576, All = 2097151

string	OperationDescription	Description of operation: None Created Overwritten InternalDownload ExternalDownload DisclaimerDownload Deleted Purged MovedIn MovedOut Restored Versioned MetadataEdit PermissionEdit Distributed InternalUpload ExternalUpload FileRename FolderRename Quarantine DescriptionEdit ChangeFileOwner
DateTime	DateLogged	Timestamp of the date/time the log was recorded
string	IPAddress	IP address that performed the operation
FTHUserData	UserInfo	Information on the user who had performed the operation, see data structure FTHUserData

2.4.5.2 Methods

GetFileFilesystemLog

GetFileFilesystemLog	
Retrieve Log records for a file	
FTHFileSystemLogItemData [] GetFileFilesystemLog (Guid SessionID, int FileID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
fileID	ID of the file for which the log data is retrieved

GetFolderFilesystemLog

GetFolderFilesystemLog	
Retrieved Log records for a folder	
FTHFileSystemLogItemData [] GetFolderFilesystemLog (Guid sessionID, int folderID)	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
folderID	ID of the folder for which the log data is retrieved

2.5 User and Group management

2.5.1 Data Structures

FTHUserData

FTHUserData		
Holds the data from user object		
Data Type	Field Name	Description
int	UserID	User ID in Thru
string	Name	User name in Thru, used for sign-in
string	DomainUsername	Username in the LAN Windows domain in the format domain\username
bool	DomainUserFlag	True if user is a domain user created by some Sync server
string	FirstName	User first name
string	LastName	User last name
string	Email	User email
int	Role	User role in Thru: Administrator/Manager/Member
bool	Active	Is user active
bool	Deleted	Is user deleted
string	UserSyncID	Sync ID that is created by synchronization services such as Active Directory integration/SSO Thru product.
string	FullName	Full user name, a string that contains both first and last name
string	SortableName	Name to be used in sorting
int	HomeFolderID	ID of the home folder

FTHUserGroupData

FTHUserGroupData		
Holds the data from User Group object		
Data Type	Field Name	Description
int	UserGroupID	User Group ID in Thru
string	Name	Group name in Thru

2.5.2 Methods

CreateDomainUser

CreateDomainUser	
Creates user on request from services that synchronize user list in corporate Active Directory with Thru user list.	
<pre>FTHUserData CreateDomainUser (Guid sessionId, string domainUsername, string userSyncID, string firstName, string lastName, string email, bool createHomeFolder, int role, bool active)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
domainUsername	Username in the LAN Windows domain in the format "domain\username"
userSyncID	Unique synchronization ID provided by external sync service, in case of Thru SSO service syncing with Active Directory it is equal to user GUID from Active Directory.
firstName	user first name in corporate directory
lastName	User last name in corporate directory
email	User email in corporate directory. Mandatory parameter. This call will fail if email is not provided
createHomeFolder	Flag to create home folder, home folder name is derivative from user email address. '@' sign is replaced by a dot
role	User role in Thru, allowed values: Member = 3 Manager = 4 Administrator = 5
active	Flag: if the user should be created active

GetUserByUserSyncID

GetUserByUserSyncID	
Get user by a user SyncID, used by external synchronization service like Thru integration with Active Directory/SSO service.	
<pre>FTHUserData GetUserByUserSyncID (Guid sessionId, string userSyncID)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
userSyncID	Unique synchronization ID provided by external sync service, in case of Thru SSO service syncing with Active Directory it is equal to user GUID from Active Directory.

CreateUser

CreateUser	
Create a user in a Thru site.	
FTHUserData CreateUser (Guid sessionId, string firstName, string lastName, string email, bool createHomeFolder, int role, bool active)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
firstName	User first name in corporate directory
lastName	User last name in corporate directory
email	User email in corporate directory
createHomeFolder	Flag to create home folder
role	User role in Thru
active	Flag: if the user should be created active

DeleteUser

DeleteUser	
Deletes a user in Thru site by a user ID	
void DeleteUser (Guid sessionId, int userID)	
Parameter Name	Description
SessionID	User session returned by one of the Open functions
UserID	Thru user ID of the user to delete

FindUsers

FindUsers	
Find users by search criteria	
<pre>FTHUserData[] FindUsers (Guid sessionID, string emailSearch, bool emailAll, string nameSearch, bool nameAll, string fullNameSearch, bool fullNameAll, string companyNameSearch, bool companyNameAll, bool includeDeleted)</pre>	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
emailSearch	Search pattern for emails
emailAll	Flag to include all emails
nameSearch	Search pattern for user name
nameAll	Flag to include all user names
fullNameSearch	Search pattern for full name
fullNameAll	Flag to include all full names
companyNameSearch	Search pattern for company name
companyNameAll	Flag to include all company names
includeDeleted	Include deleted users into search results

GetUser

GetUser	
Get user by a user ID	
<pre>FTHUserData GetUser (Guid sessionID, int userID)</pre>	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
userID	Thru user ID of the user to retrieve

GetUserGroup

GetUserGroup	
Get user group data by a group ID, see data structure description	
<pre>FTHUserGroupData GetUserGroup(Guid sessionID, int userGroupID)</pre>	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
userGroupID	ID of the user group to retrieve

SaveUser

SaveUser	
Save user object data to Thru server	

FTHUserData SaveUser(Guid sessionId, FTHUserData user)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
user	User data that should be saved, see data structure description

UndeleteUser

UndeleteUser	
Undelete user is used in order to undelete previously deleted user instead of creating a new user with the same name and therefore preserve audit information. Previously existing home folder cannot be found since it has been unlinked, new home folder can be created.	
FTHUserData UndeleteUser (Guid sessionId, int userID, bool createHomeFolder, string homeFolderName)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
userID	User ID of the user to be undeleted
createHomeFolder	Flag that defines if home folder should be created
homeFolderName	Name for the home folder if flag requires home folder creation

ChangeUserPassword

ChangeUserPassword	
Change password for a user with the known session	
void ChangeUserPassword(Guid sessionId, int userID, string oldPassword, string newPassword)	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
userID	User ID of the user for who the password will be changed
oldPassword	Old password
newPassword	New password

2.6 File and Folder Download workflows

File and folder downloads from Thru server should be implemented via HTTP GET to a URL ***servername/download.aspx***, this URL requires authentication via SessionID

- External application that connects to a Thru server should browse to a Thru folder that contains required files using web services. Once in the right folder, Web call *GetFiles* returns an array of FTHFileData objects, each object contains FileID for the files stored in requested parent folder. WS call *GetFolders* returns an array of FTHFolderData objects, each object contains FolderID for the folders stored in requested parent folder.

- **Single File download:** using HTTP library such as web client library included into .NET framework, external application issue the HTTP GET command to the URL **`servername/download.aspx?fileid=FileID&sessionid=SessionID`**, where FileID is retrieved by previous *GetFiles* WS call and SessionID parameter is returned by one of the Open() web service calls.

In response Thru server starts writing selected file as a binary stream into HTTP client, the stream has to be saved into the local file system.

It is highly recommended to open HTTPS connection to provide secure download.

- **Single Folder Download:** using HTTP library such as web client library included into .NET framework, external application issues the HTTP GET command to the URL **`servername/download.aspx?folderid=FolderID&sessionid=SessionID`**, where FolderID is retrieved by previous *GetFolders* web call and SessionID parameter is returned by one of the Open() web service calls.

In response Thru server creates an archive in a ZIP format that includes all subfolders of a selected folder and starts writing an archive file as a binary stream into HTTP client. The stream has to be saved into the local file. Archive file is named following the pattern **`foldername.zip`**.

When external application has to download a folder, it is generally recommended to navigate down Thru folder tree and download files separately for better control at the file level, as opposed to downloading the whole folder that comes in a zipped form and has to be unzipped by a client application.

- **Downloading of multiple files and folders:** using HTTP library such as web client library included into .NET framework, external application issue the HTTP GET command to the URL **`servername/download.aspx?fileid=FileID1, ...FileIDN& folderid=FolderID1, ...FolderDN&sessionid=SessionID`**, where FileID1, ...FileIDN is a comma-separated list of File IDs returned by a previous call to *GetFiles* and FolderD1, ...FolderDN is a comma separated list of folder IDs returned by a previous call to *GetFolders*. SessionID parameter is returned by one of the Open() web service calls.

In response Thru server packages requested files and folders into ZIP archive named using the pattern **`"THRU-XXXXXXXXXX.zip"`** where XXX represents random combination of hexadecimal letters and digits, and starts writing the ZIP archive as a binary stream into HTTP client. The stream has to be saved into the local file system.

It is highly recommended to open HTTPS connection to provide secure download.

The following values of HTTP headers are returned in all cases:

- Content-Type "application/binary"
- Content-Disposition: attachment; filename=filename.ext (to save the file under original name)
- Content-Length: <file size in bytes>

In case of error the following custom HTTP header is returned that contains an error code and message:

- "X-FTH-Error", error contents is ErrorCode and Error Message separated by pipe character: **`"ErrorCode | ErrorMessage"`**

2.7 File and Folder Upload workflows

2.7.1 Uploading a single file

File upload is implemented by a Thru server via HTTP POST command to a URL ***servername/upload.aspx*** that requires authentication via session ID. It is recommended to use HTTPS connection for security purposes.

HTTP POST command is used to send the parameters and upload files as part of multipart forms of the following type:

```
<FORM ENCTYPE="multipart/form-data" action=" servername/upload.aspx " method=post>
<INPUT NAME="file" TYPE="file">
<INPUT NAME="filename0" TYPE="hidden" value="filename.ext">
<INPUT NAME="Description0" TYPE="hidden" value="description_here">
<INPUT NAME=" SessionID" TYPE="hidden" value=sessionID>
<INPUT NAME=" folderID " TYPE="hidden" value= folderID >
<INPUT NAME=" EntityCount " TYPE="hidden" value = 1>
<INPUT NAME=" overwrite" TYPE="hidden" value=[1 or 0 here]>
<INPUT NAME=" NoRedirect " TYPE="hidden" value="any value here">
```

File/Folder upload process can be implemented using .NET framework web client library or any other file upload library like COM objects from third-party vendors.

Upload via HTTP POST should be used in conjunction with web services to log into the server, browse to the target location and retrieve information on FileIDs and FolderIDs.

Web client library used by external application should issue HTTP POST command to the page ***servername/upload.aspx*** with the following set of fields:

- 'file' contains file body. File size is limited to 2GB due to HTTP POST implementation by the browsers.
- 'filename0' (ends with zero): name that will be given to the file in Thru server.
- 'Description0' (ends with zero): name that will be given to the file in Thru server.
- 'SessionID' should be set to current sessionID, returned by one of the Open() web service calls.
- 'folderID' should be set to id of the target parent folder where a file should be uploaded. The folderID has to be retrieved via prior calls to web services such as GetFolders or GetFolder.
- "EntityCount" should be set to 1 since only one file is uploaded
- "overwrite" flag equals 1 means that existing file with the same name in the same parent folder should be overwritten, if set to 0, the new file name will be versioned to name[i]
- "NoRedirect" parameter has to be defined in the POST request and set to any value for web libraries that call Thru server 3rd party applications. **Please note this is mandatory parameter for external applications.**

The following values of HTTP headers are returned as result of upload:

In case of successful upload:

"X-FileID0" (ends with zero) contains File ID of newly created file in Thru server.

In case of error:

"X-FTH-Error", error contents is ErrorCode and Error Message separated by pipe character:
"ErrorCode | ErrorMessage"

2.7.2 Uploading multiple files

To upload multiple files external application should follow the process specified in 2.7.1

2.7.3 Uploading Folder hierarchies

To upload the folder hierarchies to Thru server, external application should use connect to Thru server using one of Open() web service calls and use call CreateFolder() to create Thru folder. Each file should be uploaded according to the process specified in 2.7.1. There is no size limit on the folder upload except for 2GB upload per each file.

2.7.4 External Java upload API

Overview

Any 3rd party application can use Thru Java upload API for uploading files or folders to the Thru server. For that, 3rd party application should use page at URL like this
<https://thruservername/ExternalJavaUpload.aspx> and provide parameters specified below.

Parameters

- ThruSessionID [mandatory] – Unique identifier of the current session
- ThruFolderID [mandatory] – Unique identifier of a folder on Thru server
- ThruSuccessUrl [mandatory] – Redirect URL that will be used on successful upload
- ThruErrorReportingUrl [mandatory] – Redirect URL that will be used if upload fails.
If upload failed, server will return server error code (see below) using parameter "ThruErrorCode".
If an error occurred and ThruErrorReportingURL is not defined then server will throw an exception.
Note: the value of ThruErrorReportingUrl is not validated. You should make sure that it is a valid URL that does exist when integrating Thru java upload..
- ThruFileFilter [optional] – string for file filtering used in file open dialog.
String format: <Description> : <extension1>, <extension2> ... <extensionN> .
For example: String "Zip files (*.zip, *.7z, *.tar): zip, 7z, tar" will only match files with zip, 7z, tar extensions. Only these files can be uploaded. If parameter is not passed all files are shown. Drag and drop for the other file types is ignored.

Server error codes

These codes are passed as parameters to the ThruErrorReportingUrl in case any error occurs:

- 0 – Unknown error, no more information is available.
- 1 – SessionID is not a valid Guid variable.
- 2 – FolderID is not a valid integer variable.
- 3 – Unknown ThruSessionID. Provided session identifier does not exist on server

- 4 – Folder with specified ID does not exist.
- 5 – Upload failed. This error code is returned for any error on upload.

Sample

Javascript Sample

(Session and folder ID are fictitious)

```
<html>
<head>
  <script language="javascript" src="http://nccdev.thruinc.net/Scripts/jquery-1.3.2.min.js"
type="text/javascript"></script>
  <script language="javascript" type="text/javascript">
    $(function(){
      var session = '289BEE79-F1B6-4DDE-9A6B-DB5461780FCA';
      var url = "https://nccdev.thruinc.net/ExternalJavaUpload.aspx?";
      url += "ThruFolderID=" + "98";
      url += "&ThruSessionID=" + session;
      url += "&ThruSuccessUrl=" + escape("http://someserver/ExtUpload/success.html");
      url += "&ThruErrorReportingUrl=" + escape("http://someserver/ExtUpload/error.html");
      url += "&ThruFileFilter=" + "Zip files (*.zip, *.7z, *.tar): zip, 7z, tar";
      $("#f").attr("src", url);
    });
  </script>
</head>
<body>
  <iframe id="f" width="800px" height="800px" src=""></iframe>
</body>
</html>
```

URL Sample

(session and folderID are fictitious):

```
http://nccdev.thruinc.net/ExternalJavaUpload.aspx?ThruFolderID=1074&ThruSessionID=AF258C14-
4425-4B30-834D-
0EBD8EC55161&ThruSuccessUrl=http://www.thruinc.com"&ThruErrorReportingUrl=http://www.yahoo.
com&ThruFileFilter="Zip files (*.zip, *.7z, *.tar): zip, 7z, tar"
```

2.8 Search

2.8.1 Data Structures

FTHFolderData

FTHFolderData		
Folder object data		
Data Type	Field Name	Description
int	FolderID	ID of a newly created folder

int	ParentFolderID	ID of a parent folder
string	Name	Name of new folder
int	EffectivePermission	Effective access permission for new folder for currently signed user Permission enum: None = 0x00, //0 Show = 0x01, //1 Read = 0x02, //2 Create = 0x04, //4 Download = 0x08, //8 Distribute = 0x010, //16 Manage = 0x020, //32 Modify = 0x040, //64 Delete = 0x080, //128 FullControl = Read Create Download Distribute Manage Modify Delete
DateTime	DateCreated	Timestamp when the folder was created
DateTime	DateModified	Timestamp when the folder was modified
int	CreatedByUserID	ID of the user who created the file
int	ModifiedByUserID	ID of the user who modified the file
bool	IsDeleted	Flag shows if the folder is deleted
int	FolderType	One of the following Folder Types: Regular = 0, Root = 1, UserHome = 2, UserDocuments = 3, UserDropBox = 4, FolderRoot = 5, HomeRoot = 6,

FTHFolderSearchPagingData

FTHFolderSearchPagingData		
Paging data for search results		
Data Type	Field Name	Description
string	SearchString	Search pattern for folders, use asterisk symbol for wildcard
int	RequestedStartIndex	Starting index to return a page of results
int	RequestedLength	Number of results on the page
int	TotalMatchingFolders	Total count of matched folders
FTHFolderData[]	PageFolders	Array of folder descriptors returned by the search

FTHFileData

FTHFileData		
File object data		
Data Type	Field Name	Description
int	FileID	ID of a file in Thru server
int	ParentFolderID	ID of a parent folder that contains a file
string	Name	Name of a file
long	Size	File size
int	EffectivePermission	Effective permission of a file (reserved for future use)
DateTime	DateCreated	Date when a file was created
DateTime	DateModified	Date when a file was modified last time
int	CreatedByUserID	ID of the user who created the file
Int	ModifiedByUserID	ID of the user who modified the file last time
int	Version	File version (reserved for future use)
bool	IsDeleted	Flag shows if a file is in Deleted state
bool	IsQuarantined	Flag shows if a file is in Quarantined state, means that file body was removed by Anti-virus software.
bool	IsPublished	Flag shows that a file is published into one of Thru collections.

FTHFileSearchPagingData

FTHFileSearchPagingData		
Paging data for file searches		
Data Type	Field Name	Description
string	SearchString	Search pattern for folders, use asterisk symbol for wildcard
int	RequestedStartIndex	Starting index to return a page of results
int	RequestedLength	Number of results on the page
int	TotalMatchingFiles	Total count of matched files
FTHFileData []	PageFiles	Array of file descriptors returned by the search

2.8.2 Methods

SearchForFiles

SearchForFiles	
Search for files in Thru server by a file name. Uses asterisk as a wildcard character.	
<pre>FTHFileData[] SearchForFiles(Guid sessionID, string searchString)</pre>	
Parameter Name	Description
sessionID	User session returned by one of the Open functions
searchString	Search string, use asterisk symbol for a wildcard.

SearchForFiles2

SearchForFiles2	
Search for files in Thru server by a file name. Uses asterisk as a wildcard character. Return results in pages.	
<pre>FTHFileSearchPagingData SearchForFiles2(Guid sessionId, string searchString, int index, int length)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
searchString	Search string, use asterisk symbol for a wildcard.
index	Return search results starting with this index
length	Number of returned search results

SearchForFolders

SearchForFolders	
Search for folders in Thru server by a folder name. Uses asterisk as a wildcard character.	
<pre>FTHFileData[] SearchForFolders(Guid sessionId, string searchString)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
searchString	Search string, use asterisk symbol for a wildcard.

SearchForFolders2

SearchForFolders2	
Search for folders in Thru server by a folder name. Uses asterisk as a wildcard character. Return results in pages.	
<pre>FTHFileSearchPagingData SearchForFolders2(Guid sessionId, string searchString, int index, int length)</pre>	
Parameter Name	Description
sessionId	User session returned by one of the Open functions
searchString	Search string, use asterisk symbol for a wildcard.
index	Return search results starting with this index
length	Number of returned search results

AdvancedSearchForFiles

AdvancedSearchForFiles	
Advanced search for files in Thru file system using combination of search parameters.	
<pre>FTHFileData[] AdvancedSearchForFiles(Guid sessionId, string keywordSearch, bool keywordAll, string nameSearch, bool nameAll, string descriptionSearch, bool descriptionAll, string modifiedBySearch, DateTime? startDate, DateTime? endDate, int? folderID, bool recursive, int index, int length)</pre>	
Parameter Name	Description
sessionId	User session returned by one of Open functions
keywordSearch	String contains tags (keywords) separated by space
keywordAll	Set the flag to true if all tags are required, otherwise search returns a union of searches for each tag
nameSearch	String contains tokens to search in file name, separated by space.
nameAll	Set the flag to true if all tokens are required in the name, otherwise search returns a union
descriptionSearch	String contains tokens to search in file description, separated by space.
descriptionAll	Set the flag to true if all tokens are required in a description, otherwise search returns a union
modifiedBySearch	Name of a user who was the last to modify the file
startDate	Search the files with modification date later then <code>startDate</code> , optional
endDate	Search the files with modification date earlier then <code>endDate</code> , optional
folderID	Search only in the folder with this ID, optional
recursive	Flag is set to run recursive search on subfolders
index	Search returns results starting with this index
length	Number of found items to return

AdvancedSearchForFolders

AdvancedSearchForFolders	
Advanced search for files in Thru file system using combination of search parameters.	
<pre>FTHFolderData[] AdvancedSearchForFolders(Guid sessionId, string keywordSearch, bool keywordAll, string nameSearch, bool nameAll, string descriptionSearch, bool descriptionAll, string modifiedBySearch, DateTime? startDate, DateTime? endDate, int? folderID, bool recursive, int index, int length)</pre>	
Parameter Name	Description
sessionId	User session returned by one of Open functions
keywordSearch	String contains tags (keywords) separated by space
keywordAll	Set the flag to true if all tags are required, otherwise search returns a union of searches for each tag
nameSearch	String contains tokens to search in file name, separated by space.
nameAll	Set the flag to true if all tokens are required in the name, otherwise search returns a union
descriptionSearch	String contains tokens to search in file description, separated by space.
descriptionAll	Set the flag to true if all tokens are required in a description, otherwise

	search returns a union
modifiedBySearch	Name of a user who was the last to modify the file
startDate	Search the files with modification date later then <code>startDate</code> , optional
endDate	Search the files with modification date earlier then <code>endDate</code> , optional
folderID	Search only in the folder with this ID, optional
recursive	Flag is set to run recursive search on subfolders
index	Search returns results starting with this index
length	Number of found items to return

2.9 Secure Message

2.9.1 Messaging Data Structures

FTHMsgStorageData

FTHMsgStorageData		
Data location in Thru site to store outgoing messages		
Data Type	Field Name	Description
int	OutboxFolderID	Folder to store local attachments and files from SharePoint (Email Thru action). See more info in review of web method MsgGetStorage()
int	AuxFileSetID	Optional field to store the ID of the set that link all the auxiliary files associated with the message.
FTHAuxFileData	MissingAuxFiles	After checksum check – list of files which do NOT exist on the server and need to be uploaded.

FTHAuxFileData

FTHAuxFileData		
Auxiliary files data: thumbnails and other		
Data Type	Field Name	Description
FTHAuxFileType	FileType	Type of auxiliary file. Currently, the only possible value is "MessageEmbeddedImage".
String	FileName	Auxiliary file name
String	Checksum	SHA1 file checksum.

FTHMsgData

FTHMsgData		
Thru email message data		
Data Type	Field Name	Description
int	MsgID	Message unique identifier.
int	UserID	Sender.
string	Subject	Message subject
DateTime?	DateSent	Timestamp when email was sent to last recipient.
DateTime	DateExpired	Message expiration timestamp.
bool	CollectedFlag	Flag to indicate if any of the recipients read the private message or downloaded files.
bool	NotifyFlag	A flag which can be set by the sender to trigger email notification to the sender when a recipient downloads the file(s).
string	PublicMessage	Public message body
string	PrivateMessage	Private message body
string	TrackingNo	Tracking number assigned by Thru server to any email. Enables search of secure emails and related events in Thru Audit Manager.
bool	SendByClient	True if client application such as Outlook or Lotus Notes add-on is responsible for sending of the

		message. False if the server sends the message.
bool	RequestLogin	Indicates if recipient should go through self-registration process to set the password to access protected emails and files.
Int	MaxDownloads	Reserved for future use.
DateTime	DateCreated	Timestamp of the creation date for the message in Thru server. Could be earlier than Send timestamp since it takes time for the client to create individually trackable messages in Outbox.
int	ApplicationID	ID of the application connector that created the message. Application IDs are stored in the table TBL_APPLICATION
FTHMailPriority	Priority	Message priority. High = 1, Low = 2, Normal = 3
bool	IsExpired	Indicates if the message is still available for external download. Expired messages are visible in Sent Thru folder in native or web clients.
FTHMsgRecipientData[]	ToRecipients	List of message recipient IDs.
FTHMsgRecipientData[]	CcRecipients	List of message recipient IDs.
FTHMsgRecipientData[]	BccRecipients	List of message recipient IDs for hidden recipients.
FTHFolderData[]	FolderData	List of folder IDs.
FTHFileData[]	FileData	List of file IDs.
bool	SeparateEmails	Flag indicates whether to send separate email per recipient or a single email to all recipients.
bool	AttachmentsExist	Flag indicates if any attachments exist.
string	MsgHtmlTemplate	Template used when a message is prepared, HTML format. More info in "Message Templates" section.
string	MsgTextTemplate	Template used when a message is prepared, plain text format. More info in "in "Message Templates" section.
string	UserPassword	For backward compatibility - this is the password created by a sender when a message is created. Thru Clients that support this mode: Outlook 1.x, Lotus Notes 1.x
string	MsgLevelPublicID	If a single email is sent to all recipients, use this field as invitation ID that identifies the message for all recipients.
int	MsgTemplateID	This is the template Id for the message to send an email to recipient. Template with this ID participates in the merge process when original email merges with template in Outlook or other client.

FTHMsgRecipientData

FTHMsgRecipientData		
Message recipient data		
Data Type	Field Name	Description
int	MsgID	Unique identifier of the message.
int	RecipientID	Unique identifier of the recipient for the message.
string	RecipientEmail	Recipient email address.
string	MsgRecipientLevelPublicID	String to be passed with external download URL to identify the message and the recipient.
int	Type	TO, CC, or BCC
bool	Collected	Flag indicates the recipient read the message or downloaded the files.

FTHMsgValidationData

FTHMsgValidationData		
Store message in case of failed validation		
Data Type	Field Name	Description
bool	Valid	Set if the message is considered valid under the current site policy.
string	UserMessage	In case the message is not valid, the field contains the message to display, explaining why the message violates the site policy.

FTHFileData

FTHFileData		
Thru file object data		
Data Type	Field Name	Description
int	FileID	ID of a file in Thru server
int	ParentFolderID	ID of a parent folder that contains a file
string	Name	Name of a file
long	Size	File size
int	EffectivePermission	Effective permission of a file (reserved for future use)
DateTime	DateCreated	Date when a file was created
DateTime	DateModified	Date when a file was modified last time
int	CreatedByUserID	ID of the user who created the file
Int	ModifiedByUserID	ID of the user who modified the file last time
int	Version	File version (reserved for future use)
bool	IsDeleted	Flag shows if a file is in Deleted state
bool	IsQuarantined	Flag shows if a file is in Quarantined state, means that file body was removed by Anti-virus software.
bool	IsPublished	Flag shows that a file is published into one of Thru collections.

FTHFolderData		
Thru folder object data		
Data Type	Field Name	Description
int	FolderID	ID of a newly created folder
int	ParentFolderID	ID of a parent folder
string	Name	Name of new folder
int	EffectivePermission	Effective access permission for new folder for currently signed user Permission enum: None = 0x00, //0 Show = 0x01, //1 Read = 0x02, //2 Create = 0x04, //4 Download = 0x08, //8 Distribute = 0x010, //16 Manage = 0x020, //32 Modify = 0x040, //64 Delete = 0x080, //128 FullControl = Read Create Download Distribute Manage Modify Delete
DateTime	DateCreated	Timestamp when the folder was created
DateTime	DateModified	Timestamp when the folder was modified
int	CreatedByUserID	ID of the user who created the file
int	ModifiedByUserID	ID of the user who modified the file
bool	IsDeleted	Flag shows if the folder is deleted
int	FolderType	One of the following Folder Types: Regular = 0, Root = 1, UserHome = 2, UserDocuments = 3, UserDropBox = 4, FolderRoot = 5, HomeRoot = 6,

2.9.2 Messaging methods

MsgGetStorage

GetMsgStorage	
Returns information on the location where the message should be stored in Thru site.	
FTHMsgStorageData MsgGetStorage (Guid sessionID, string msgSubject, FTHAuxFileData[] auxFiles)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
msgSubject	If a message contains local attachments Thru server creates a subfolder under

	Outbox root. First 50 characters of subject are used and versioning is applied if needed.
auxFiles	List of auxiliary files to be added to the storage. The method will return a subset of these files in the FTHMsgStorageData result, within the MissingAuxFiles property. This subset will contain only the files that are missing in the server and, therefore, need to be uploaded.

MsgCreate

Create Message

Create the message on the server. For thin clients like web browsers email is sent by the server, for thick email clients a link to secure distribution is returned. Link will replace original attachments.

FTHMsgData

MsgCreate (Guid sessionId, bool sendByClient, FTHMailPriority priority, string subject, string publicMessage, publicMessageIsHtml, string privateMessage, bool privateMessageIsHtml, bool requestLogin, DateTime dateExpired, bool notifyFlag, int maxDownloads, string[] toEmailList, string[] ccEmailList, string[] bccEmailList, int[] folderIDList, int[] fileIDList, int? auxFileSetID)

Parameter Name	Description
sessionId	User session returned by one of Open functions
sendByClient	True if the client is responsible to send the mail. False if the server sends it.
priority	Message priority.
subject	Message subject.
publicMessage	Message body.
publicMessageIsHtml	Tells the server if public message body is in HTML format, reserved for future use
privateMessage	Private message body.
privateMessageIsHtml	Tells the server if private message body is in HTML format, reserved for future use
requestLogin	Whether the recipient will have to go through self password process.
dateExpired	Message expiration date.
notifyFlag	Flag that tells the server to send notifications when the files are downloaded or private message is read, ON by default.
maxDownloads	Maximal number of downloads for each file separately or as a package allowed to recipients. Value (-1) means unlimited downloads are allowed.
toEmailList	Array of To recipient list
ccEmailList	Array of Cc recipient list
bccEmailList	Array of Bcc recipient list
folderIDList	Array of attached folders
fileIDList	Array of attached files
auxFileSetID	Optional field linking message embedded images

MsgValidate

Validate Message	
Validate combination of parameters and policies for the email. Will return error and message with explanation if parameters/policies are incompatible.	
FTHMsgValidationData MsgValidate (Guid sessionId, bool sendByClient, FTHMailPriority priority, bool isPrivateMessage, bool requestLogin, DateTime dateExpired, bool notifyFlag, int maxDownloads, int recipientCount, bool isAttachments)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
sendByClient	True if the client is responsible to send the mail. False if the server sends it.
priority	Message priority.
isPrivateMessage	Indicates whether the message has a private message body.
requestLogin	Whether the recipient will have to go through self password process.
dateExpired	Message expiration date.
notifyFlag	Flag that tells the server to send notifications when the files are downloaded or private message is read, ON by default.
maxDownloads	Reserved for future use.
recipientCount	The total number of the message recipients.
isAttachments	Indicates whether the message contains (file or folder) attachments.

Message Discarded

Discard Client Side Msg	
Discard message before it is sent. Discard deletes the message and attachments stored in in Thru site. Method should not be called after the message was sent since it invalidates the link to the files.	
 void MsgDiscard (Guid sessionId, int msgID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message identifier.

MsgComplete

Complete Client Side Msg	
Mark message as complete after the message is discarded	
 void MsgComplete (Guid sessionId, int msgID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message identifier.

MsgGetSentThruList

Get Msg Sent Thru List	
Returns a list of sent Thru messages	
FTHMsgData [] MsgGetSentThruList (Guid sessionId, string searchValue, DateTime? startDate, DateTime? endDate, int? pagingLastMsgID, int pagingMsgLimit)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
searchValue	Filter messages contain either subject or tracking number or private or public message .
startDate	Filter messages sent later than given date.
endDate	Filter messages sent earlier than given date.
pagingLastMsgID	Give null for first page. Give last MsgID to get next page.
pagingMsgLimit	Limit number of returned messages.

MsgGet

Get Msg	
Retrieve the message object from the server	
FTHMsgData [] MsgGet (Guid sessionId, int msgID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message ID.

MsgDelete

Msg Delete	
Delete the message from the server	
MsgDelete (Guid sessionId, int msgID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message ID.

MsgDeleteFile

Msg Delete File	
Detach the file from the message, file is not deleted from Thru file system	
MsgDeleteFile (Guid sessionId, int msgID, int fileID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message ID.
fileID	File ID.

MsgDeleteFolder

Msg Delete Folder	
Detaches the folder from the message, folder is not deleted from Thru file system	
MsgDeleteFolder (Guid sessionId, int msgID, int folderID)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgID	Message ID.
folderID	Folder ID.

MsgExpire

Msg Expire	
Sets message expiration to certain date. Expired message cannot be accessed by any recipients.	
MsgExpire (Guid sessionId, int[] msgIDList, DateTime utcDateExpired)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgIDList	List of Message ID to set expired date.
utcDateExpired	Expired Date to be set.

MsgExpireNow

Msg Expire Now	
Expires message immediately. Expired message cannot be accessed by any recipients.	
MsgExpireNow (Guid sessionId, int[] msgIDList)	
Parameter Name	Description
sessionId	User session returned by one of Open functions
msgIDList	List of Message ID to set expired date.

MsgDeleteRecipient

Msg Delete Recipient	
Delete a specific recipient from a message.	
MsgDeleteRecipient (Guid sessionID, int recipientID)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
recipientID	Recipient ID to delete.

MsgGetCount

Msg Get Count	
Retrieves the count of messages for the current user.	
MsgGetCount (Guid sessionID)	
sessionID	User session returned by one of Open functions

2.10 Publishing

2.10.1 Data Structures

FTHPublishCollectionData

FTHPublishCollectionData		
Collection that contains links to published files, links to other collections and links to external sites.		
Data Type	Field Name	Description
int	PublishCollectionID	Unique ID of collection
int	SiteID	ID of the site that contains the collection
string	CollectionTitle	collection title
string	Description	Text that describes the collection
string	LinksSubtitle	Subtitle of the section that displays links to files
string	RelatedPagesSubtitle	Subtitle of the section that displays links to other web pages.
string	HeaderText	Text of collection web page header
string	FooterText	Text of collection web page footer
bool	Active	Flag is set when collection is active
DateTime	DateCreated	Timestamp of creation
Int	CreatedByUserID	User ID of creator
DateTime	DateModified	Timestamp of modification
int	ModifiedByUserID	ID of the user who modified the collection recently
DateTime	DateDeleted	Timestamp shows when collection was deleted. NULL if collection is not deleted.
bool	RequireRegistration	Flag is set if file links in the collection require registration.
bool	CollectionActive	Flag is set if collection is active, same as Active.
bool	CollectionVisible	Flag set if collection is visible via Thru publishing URL
bool	SearchVisible	Flag set if search field is visible in collection
bool	SearchShowResultAtStart	Flag set if collection shows all links on start when search field is empty.

FTHPublishRequestData

FTHPublishRequestData		
Request to publish the file		
Data Type	Field Name	Description
int	PublishRequestID	Unique ID of request to publish the files
FTHPublishRequestState	PublishRequestState	State of publishing request: Pending = 1, Rejected = 2, Approved = 3

int	SiteID	ID of Thru site that contains the collection.
int	PublishCollectionID	ID of the target collection where file(s) will be published if approved
string	CollectionTitle	Title of the target collection
int	PublishLinkID	ID of the file link object that points to the file
string	RequestText	Text description of the request for publishing
bool	UseDefaultLinkInfo	Flag set if default link text and description for the file link is used. By default link text is set to file name, link description is empty. Once default values are set for link and description can be reused with each next publishing of the file.
string	LinkText	Text of the hyperlink that points to the file
string	LinkDescription	Description of the hyperlink that points to the file, displayed below the link
DateTime	DateCreated	Creation timestamp
int	CreatedByUserID	User ID of request creator
DateTime	DateModified	Timestamp of last modification
int	ModifiedByUserID	ID of s user who modified the request last
string	ProcessingNote	Note for approver

FTHPublishLinkData

FTHPublishLinkData		
Published File Link object		
Data Type	Field Name	Description
int	PublishLinkID	Unique ID of this File Link object. Object is used to store text, URL, description and tags associated with the published file. It is different from Thru File object.
int	SiteID	ID of Thru site that contains the object
int	RelatedFileID	ID of the file published via link object
string	InternetUrl	Url to the object
string	DefaultLinkText	Default text for hyperlink
string	DefaultDescription	Default description for file link
DateTime	DateCreated	Timestamp of date created
int	CreatedByUserID	ID of creator
DateTime	DateModified	Timestamp of last modification
int	ModifiedByUserID	ID of user who modified object last
FTHPublishTagData[]	Tags	List of tags

FTHPublishCollectionLinkData

FTHPublishCollectionLinkData		
Object: link to publishing collection		
Data Type	Field Name	Description
int	PublishCollectionLinkID	ID of this Link object. Object is used to store all information associated with link to an item inside the collection. Item can be link to file, link to another collection or URL of external page.
int	SiteID	ID of Thru site that contains the collection link
int	PublishCollectionID	ID of the collection that contains the item
int	PublishLinkID	ID of the item, applies to files and collections so far
FTHPublishLinkType	PublishLinkType	Supported item types File = 1, Collection = 2, Internet = 3
int	RelatedFileID	If item link pints to a file, this field contains file ID
int	RelatedPublishCollectionID	If item link points to collection, this field contains collection ID
string	InternetUrl	If item link points to external URL, it is stored here.
bool	UseDefaultLinkInfo	Flag is set of default information should be used for the link.
string	LinkText	Default name for the link.
string	LinkDescription	Text that describes the link.
string	CollectionTitle	Title of collection
bool	CollectionVisible	Is collection visible via URL
bool	CollectionActive	Is collection active
bool	CollectionLinkActive	Is the link to collection active
bool	RelatedCollectionActive	Are links to other collections contained in this collection active
bool	RelatedCollectionVisible	Are links to other collections contained in this collection visible
DateTime	DateCreated	Timestamp when link was created in collection
int	CreatedByUserID	User ID who created the link
string	CreatedByUserName	User Name who created the link
int	RequestedByUserID	User ID who created publishing request
string	RequestedByUserName	User Name who created publishing request.
DateTime	DateModified	Timestamp of the last link modification
int	ModifiedByUserID	User ID who last modiciied the link
string	ModifiedByUserName	User name who last modified the link.

FTHPublishTagData

FTHPublishTagData		
Data : text tag attached to published file		
Data Type	Field Name	Description
int	PublishTagID	ID of the tag
string	TagName	Text of the tag

FTHPublishFileData

FTHPublishFileData		
Publishing data for a file		
Data Type	Field Name	Description
FTHFileData	FileInfo	File descriptor
FTHPublishLinkData	FileLink	File link descriptor
FTHPublishCollectionLinkData []	PublishingCollections	Array of published links into different collections
FTHPublishRequestData []	PendingRequests	Array of pending requests

FTHPublishStorageData

FTHPublishStorageData		
Storage for published files in case if publishing occurs from external application like SharePoint		
Data Type	Field Name	Description
int	ApplicationID	ID of external application that requested publishing
int	ExternalMajorLocationID	External ID of external top level location, like SharePoint site
string	ExternalMajorLocationName	Name of external top level location like SharePoint site
int	ExternalMinorLocationID	ID of external low level location like SharePoint library
string	ExternalMinorLocationName	Name of external low level location like Sharepoint library
int	ExternalFileID	ID of the file in external system
int	PublishingFolderID	ID of the folder to store published files uploaded from external system
int	ThruFileID	ID of the file in Thru

2.10.2 Publishing methods

PublishingGetStorage

Get Publishing Storage	
Return the storage location on Thru server where file published from external application will be stored.	
<pre>FTHPublishStorageData PublishingGetStorage(Guid sessionId, string externalMajorLocationID, string externalMajorLocationName, string externalMinorLocationID, string externalMinorLocationName, string externalFileID)</pre>	
<p>This method accepts 3 parameters:</p> <ul style="list-style-type: none">- Location Major: General identification of external system (such as Sharepoint site url).- Location Minor: Detailed identification of file library- External File ID <p>If ExternalFileID is found In Thru file system publishing area, this method will return Thru parent folder ID and Thru file ID. If not then the method will return only parent folder ID for uploading the file and returned Thru file ID will be null.</p>	
Parameter Name	Description
sessionId	User session returned by one of Open functions
externalMajorLocationID	For Sharepoint Integration: Sharepoint site Url
externalMajorLocationName	For Sharepoint Integration: Sharepoint site name
externalMinorLocationID	For Sharepoint Integration: Sharepoint library ID
externalMinorLocationName	For Sharepoint Integration: Sharepoint library name
externalFileID	For Sharepoint Integration: Sharepoint file ID

CreateFileExternalSourceMapping

Create File External Source Mapping	
Binds Id of the file in Thru server with external IDs of 2 levels to identify the target file on Thru site for overwrite operations when the source file in external system is overwritten.	
<pre>void CreateFileExternalSourceMapping (Guid sessionId, int thruFileID, string externalMajorLocationID, string externalMajorLocationName, string externalMinorLocationID, string externalMinorLocationName, string externalFileID, string externalFileName)</pre>	
Parameter Name	Description
sessionId	User session returned by one of Open functions
thruFileID	Thru File
externalMajorLocationID	For Sharepoint Integration: Sharepoint site Url
externalMajorLocationName	Name of Sharepoint Application
externalMinorLocationID	For Sharepoint Integration: Sharepoint library ID
externalMinorLocationName	Name of Document Library

externalFileID	For Sharepoint Integration: Sharepoint file ID
externalFileName	Sharepoint file name

PublishingGetFileInfo

PublishingGetFileInfo	
Retrieve information on the publishing status of the file	
FTHPublishFileData PublishingGetFileInfo (Guid sessionID, int fileID)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
fileID	ID of the file in Thru database

PublishingCreateRequest

PublishingCreateRequest	
Create request to publish the file	
FTHPublishRequestData PublishingCreateRequest (Guid sessionID, int publishLinkID, int publishCollectionID, bool useDefaultLinkInfo, string overWriteLinkText, string overWriteDescription, string requestText)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
publishLinkID	ID of the file in Thru server file system that is requested to be published. In the future could be used for a folder publishing.
publishCollectionID	Collection that should contain the published file
useDefaultLinkInfo	If set, use default information for the published link: Name, Description
overWriteLinkText	Text to overwrite default link name
overWriteDescription	Text to overwrite default Description
requestText	Text of request.

PublishingDeletePendingRequest

Publishing Delete Pending Request	
Delete pending publishing request	
Void PublishingDeletePendingRequest (Guid sessionID, int publishingRequestID)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
publishingRequestID	ID of the pending publishing request

PublishingSavePendingRequest

Save Changes to Pending Publishing Request	
Saves changed information to a pending publishing request.	
void PublishingSavePendingRequest (Guid sessionID, FTHPublishRequestData requestData)	
Parameter Name	Description
sessionID	Session ID for the current user
requestData	Data for the pending request that will be saved

PublishingGetCollections

Publishing Get Collection	
method returns collection list which is used in collection dropdown in new request form	
FTHPublishCollectionData [] PublishingGetCollections (Guid sessionID, int publishLinkID)	
Parameter Name	Description
sessionID	User session returned by one of Open functions
publishLinkID	ID of the collection link object

PublishingTagDictionaryGetItems

Publishing Tag Dictionary Get Items	
Retrieve tags from publishing Tag dictionary	
FTHPublishTagData [] PublishingTagDictionaryGetItems (Guid sessionID)	
Parameter Name	Description
sessionID	Session ID for the current user returned by one of the Open functions.

PublishingTagDictionaryAddItems

Publishing Tag Dictionary Add Items	
Add tags to dictionary	
void PublishingTagDictionaryAddItems (Guid sessionID, string commadDelimitedTagList)	
Parameter Name	Description
sessionID	Session ID for the current user returned by one of the Open functions.
commadDelimitedTagList	New tags (Duplicates and existing tags are silently ignored)

PublishingTagDictionaryRemoveItems

Publishing Tag Dictionary Remove Items	
Remove items from publishing Tag dictionary	
<pre>void PublishingTagDictionaryRemoveItems(Guid sessionId, string commadDelimitedTagList)</pre>	
Parameter Name	Description
sessionId	Session ID for the current user returned by one of the Open functions.
commadDelimitedTagList	Tags to remove (Non existing tags are silently ignored).

PublishingSaveLink

Publishing Save Link	
Use this method to update the default link, description and tags. Link is a virtual entity that holds file metadata and is pointed to by 'Collection Links' which are links to the file that exist in the context of a collection.	
<pre>void PublishingSaveLink(Guid sessionId, FTHPublishLinkData publishLinkData)</pre>	
Parameter Name	Description
sessionId	Session ID for the current user returned by one of the Open functions.
publishLinkData	Data for the publishing file link

PublishingDeleteCollectionLink

Publishing Delete Collection Link	
Use this method to delete the collection link	
<pre>void PublishingDeleteCollectionLink(Guid sessionId, int publishCollectionLinkID)</pre>	
Parameter Name	Description
sessionId	Session ID for the current user returned by one of the Open functions.
publishCollectionLinkID	ID of the publishing collection link

PublishingSaveCollectionLink

Publishing Save Collection Link

Use this method to save the changed data for 'collection link' which is the file link existing in the context of collection

```
void  
PublishingSaveCollectionLink (Guid sessionID, FTHPublishCollectionLinkData  
collectionLinkData)
```

Parameter Name	Description
sessionID	User session
collectionLinkData	Collection data to save

2.11 Mirroring (SyncThru)

2.11.1 Data Structures

FTHMirrFolderSyncInfoData

FTHMirrFolderSyncInfoData		
Data on the file in Outbound folder		
Data Type	Field Name	Description
int	SourceFileID	ID of the file that will be mirrored in a source location
string	FileName	Name of the file
string	Description	Description of the file
long	Size	Size of the file
DateTime	DateModified	Date last modified, UTC
DateTime	LocalDateModified	Date last modified, local time
bool	IsQuarantined	Flag is set if file is quarantined by anti-virus

2.11.2 Methods

GetMirroringTargetFolderSyncInfo

GetMirroringTargetFolderSyncInfo	
Retrieves mirroring target folder information for synchronization process.	
FTHMirrFolderSyncInfoData[] GetMirroringTargetFolderSyncInfo(Guid sessionID, int sourceFolderID)	
Parameter Name	Description
sessionID	Session opened for the current user by one of the Open web calls.
sourceFolderID	ID of the source folder in the source Thru site.

2.12 Audit Manager report for SharePoint

2.12.1 Data structures

FTHAuditMgrPagingStateData

FTHAuditMgrPagingStateData		
Data structure contains the current state of the paging		
Data Type	Field Name	Description
int	KeysToSkip	Key field is assumed to be integer and the first column in result set.
int	RowsOnCurrentPage	Number of rows on the page
int	MatchingKeys	Number of matching keys
Int	PageNumber	Page number
int	TotalPages	Total pages
bool	IsFirstPageEnabled	Is first page available in this report
bool	IsPreviousPageEnabled	Is previous page available
bool	IsNextPageEnabled	Is next page available
bool	IsLastPageEnabled	Is last page available
string	ReportPageResult	Report in XML format

FTHAuditMgrSharePointReportFilterData

FTHAuditMgrSharePointReportFilterData		
filtering data to retrieve report		
Data Type	Field Name	Description
string[]	Operations	Operations to include into report
DateTime	DateLoggedFrom	Start of operation in the log
DateTime	DateLoggedTo	End of operation in the log
string	Operations	File name
string	OperationNotes	Notes on operation
string	MsgTrackingNo	Unique Tracking number of the message
string	MsgSubject	Message subject
string	MsgCoverOrPrivateContent	Public or private content of the message
int	KeysPerPage	Report items per page, default is 20
FTHAuditMgrPagingAction	PagingAction	Enumeration FirstPage, PreviousPage, NextPage, LastPage
FTHAuditMgrSortOrder	SortOrder	Enumeration: Ascending, Descending
FTHAuditMgrPagingStateData	PagingStateData	State of the paging, see data structure above

2.12.2 Methods

AuditMgrSharePointReport

AuditMgrSharePointReport	
The method returns a report in XML format from Thru file system transaction log	
FTHAuditMgrPagingStateData AuditMgrSharePointReport (Guid sessionID, FTHAuditMgrSharePointReportFilterData filterData)	
Parameter Name	Description
ApplicationID	Filter only messages from given application.
filterData	Report filter and state of pagination.

2.13 Miscellaneous methods

GetTime

GetTime
Returns UTC time from the server.
<code>DateTime GetTime()</code>

ProbeSession

ProbeSession	
Checks if the session exists	
<pre>bool ProbeSession(Guid sessionID)</pre>	
Parameter Name	Description
sessionID	Session opened for the current user by one of the Open web calls.

2.14 *Deprecated methods*

FTHServerData

FTHServerData		
Data Type	Field Name	Description
FTHSecureMessageType	SecureMessageType	Type of secure message, enumeration. None=0, Regular = 1
bool	SecureSite	Is the site secure: secure site supports SSL connection.

GetServer

GetServer	
FTHServerData	GetServer ()

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