TeamDrive Host-Server Reference Guide

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CHAPTER

ONE

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CHAPTER

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CHAPTER

THREE

INTRODUCTION

This Reference Guide describes some of the TeamDrive Host Server internals, e.g. a description of the available configration settings, the XML-RPC-based Host Server API and possible API Error Codes.

CHAPTER

FOUR

HOST SERVER SETTINGS

This chapter lists and describes the available configuration options for the TeamDrive Host Server.

You can review and modify most of these via the TeamDrive Host Server Administration Console by clicking **Settings**. Some settings are marked as read-only ("R/O"), they can not be changed.

The settings are grouped in these sections:

4.1 Admin Console

4.1.1 AllowedLoginIPList

This is a comma separated list of IP addresses of the users that are allowed to login to the Admin Console.

If the list is empty, then there is no login restriction based on IP.

4.1.2 HttpsUsedByAdmin

Set to `True` if the Host Server Admin Console must be accessed using HTTPS.

4.1.3 MaxRecordsDisplayed

This setting determines the maximum number of records that may be retrieved from the database at any a time (e.g. when displaying user or space information on the Administration Console. This parameter may only be changed by a Superuser.

4.1.4 ServiceDisplayName

This name is displayed in the Host Admin Console. Initial is is set to the domain name of the Host Server. The name is used for display purposes only, and may be set to any value.

4.1.5 SessionTimeout

This is the idle time in seconds after which you are required to login to the Host Server Admin Console again.

4.1.6 ShowDeletedObjects

Set to `True` to display Spaces and other objects in the Administration Console that have the Deleted status.

4.2 API Settings

4.2.1 APIAccessList

A white list of IP addresses (separated by commas or spaces) of machines that are permitted to access the Host Server API. For example, the IP address of the host running the TeamDrive Registration Server Administration Console should be added here.

4.2.2 APILogEntryTimeout

API Log entries older than this value, in days, will be removed. If set to zero the API Log entries will never be removed.

4.2.3 APILogging

Set to `True` if API logging should be enabled. Every API access will be logged in the database table `hostapilog.TD2APIRequests`.

4.2.4 APIReturnSpaceNames

Set to `True` if Space names should be returned through the API. This requires the setting `StoreSpaceNames` to be set to `True` as well, otherwise this option has no effect.

4.2.5 APISalt

This is a unique character sequence that must be identical to the API Salt of the associated Registration Server.

4.2.6 UseXForwarded

If set to `True` the Host Server will accept the `HTTP_X_FORWARDED_FOR` and `HTTP_X_FORWARDED_PROTO` headers set by a proxy or load balancer.

4.3 Authentication

4.3.1 ExtAuthEnabled

Set to `True` to enable External Authentication. External Authentication allows the administrative users of the Host Server to be mananged in a central location, such as an LDAP server.

4.3.2 ExtAuthURL

This is the URL that is used by the Host Server to verify the login of a user, when using External Authentication. The Host Server adds two arguments when the URL is requested: username and password. The URL should reference a page that performs verification, and returns information about the user required by the Host Server. A generic example, and an LDAP example for performing External Authentication are provided with the Host Server distribution.

4.3.3 UseTwoFactorAuth

Set to `True` to enable 2-Factor Authentication via email for Superusers.

4.4 Client Settings

4.4.1 ClientPollFrequency

The interval in which Clients poll their Spaces for updates, in seconds. 0 or empty means the Clients will use their default.

4.4.2 EnableProxyCaching

When this value is set to `True`, the server will allow "getblob" calls without a timestamp. This means that calls from the TeamDrive Client to the Host Server will be cacheable because the URL will not constantly change.

In this case, the Host Server check whether the request has been sent via a downstream proxy. This is determined by checking the "Via" HTTP header. The setting `NonCachingProxies` is used to determine if the downstream proxies may be caching proxies.

If a caching proxy is found, then the Host Server will not redirect the request to an Object Store. The redirect must be avoided because Object Store URLs are authenticated in a way that makes them not cacheable. On the other hand, redirection is an optimisation. Requests that are not redirected must be served via the Host Server, which requires additional bandwidth and capacities on the Host Server. It is therefore important if there are downstream proxies such as a load balancer which do not perform caching then the should be listed in the `NonCachingProxies` setting in order to ensure a redirect is done whenever possible.

Note that if the timestamp is excluded from a call to the Host Server, then the URL can be used to repeat the call. As a result, the data can always be retrieved by anyone who has stored the URL, and as long as this setting is set to `True`. However, then security of the Space is not comprised by this as long as the caller does not posses the key with which data in the Space is encrypted.

This is not a problem when using HTTPS for the calls to the Host Server.

By default this value is `False`. This setting is new in version 3.7.1.

4.4.3 HttpsUsedByClients

Set to `True` if the TeanDrive Clients should use HTTPS to access the data stored in Spaces. By default this value is `False` because TLS (Transport Layer Security) is generally not required by TeamDrive as the data is end-to-end encrypted.

4.4.4 NonCachingProxies

This is a comma separated list of host names or pseudonyms of proxies that are downstream from the Host Server but do not cache any data. For example, this may be the name of the local load balancer.

Note that additional spaces in the list (for example, before or after a comma) will **not** be ignored. The server performs a "contains", case-insensitive comparison to determine of a proxy is non-caching. For example, if an HTTP header contains the following proxies:

```
Via: HTTP/1.1 AWS;branch=z9hG4bKc3efe2ccb5263af2"
Via: HTTP/1.1 my.example.com:18386"
```

Setting `NonCachingProxies` to "EXAMPLE.COM,z9hG4bK", will identify both proxies as non-caching.

If `EnableProxyCaching` is set to `true`, then setting this variable helps the Host Server to determine if a request may be cached or not. See *EnableProxyCaching* (page 9) above.

4.4.5 SnapshotThreshold

The log threshold, in bytes, after which the Client will create a new snapshot of a Space, 0 or empty means the Client will use its default.

4.4.6 StatisticPollFactor

Multiple the `ClientPollFrequency` by this amount to determine the how often the client retrieves the statistics, 0 or empty means the client will use its default value of 5

4.4.7 StoreSpaceNames

Set to `True` if the Host Server should store the names of Spaces defined by the user.

Storage of names can also be specified on the depot level. The depot level setting overrides the `StoreSpaceNames` global value.

4.4.8 TimeDiffTolerance

This is the maximum allowed difference in time between the Client and the Host Server. The value is given in seconds. Currently this setting only affects Clients using version 3 of the TeamDrive Protocol. Since the Client automatically synchronises its time with the server, the time difference should only be due to the time required to send a request from the Client to the Server.

4.4.9 UploadCheckProgressFreq

After a file is uploaded to the Host Server, the server creates a hash of the uploaded file in order to verify the contents of the upload. With large files this can take several minutes. To prevent the expiry of connection timeouts, the Host Server sends progress information during the creation of the hash.

This setting determines how frequently progress information is sent. It is a value in seconds. The default is 55 seconds.

4.4.10 UseDBLocksOnProtoLogs

When set to `True`, reading and writing the Space protocol log will set a lock in the database in addition to the File lock. This is an additional security feature that detects if the regular file locking is working correcly.

By default this feature is disabled.

4.5 Download Logging

Download logging allows you to track the downloads of all types of files from the Host Server.

By setting a limit you can prevent clients from downloading the same file, too often, within a certain period of time.

4.5.1 DownloadLimit

This is the maximum number of files that can be downloaded, per file, per end-user client device, in the specified `DownloadRatePeriod`. Published files are not effected by this limit. By default this value is set to zero, which means no limit.

If, for example, `DownloadLimit` is set to 10 and `DownloadRatePeriod` is set to 1 hour, then a particular file can only be downloaded 10 time per hour by a particular client device.

This value can be overridden by setting the download limit on a Depot to a value greater than zero.

If a client device exceeds the limit specified here, the Host Server returns a HTTP_TOO_MANY_REQUESTS (429) error.

4.5.2 DownloadLogGrouping

The download log does not store the time of each individual download. Instead it groups downloads together that occurred with the same time period. The length of the time period is specified by this setting (in seconds).

By default `DownloadLogGrouping` is set to 300 which is 5 minutes.

So by default the logging system creates one database entry per file per device for each 5 minute period, and sums the number of downloads that occur within this time period.

A large `DownloadLogGrouping` decreases the number of database entries required for the download log, but at the same time decreases the granularity of the statistics gathered. A reasonable value of this setting is about 1/10 of the value specified for the `DownloadRatePeriod`.

4.5.3 DownloadLogRetention

This is the period (in seconds) of time in which the download log entries are maintained. Download log entries older then this time specified here are deleted by the "Process Download Log" task (see process_download_log).

By default this value is set to 604800 seconds, which is 7 days.

4.5.4 DownloadRatePeriod

This setting, together with `DownloadLimit` specifies the number of downloads per unit of time. `DownloadRatePeriod` specifies the unit of time (in seconds). The value is 1 hour by default.

You can use this setting to control the rate of file downloads: whether high bursts of downloads are allowed, or if downloads are more even over time. If the unit i small it imposes a more even rate of download, and if the value is large, it will allow high bursts of downloads.

This is due to the fact that the higher this setting the longer clients must wait to attempt download again, after the quota (specified by `DownloadLimit`) has been exceeded.

4.5.5 EnableDownloadLogging

Enable download logging for all spaces. If enabled, the host server will update the download log in the database, every time a file download is initiated. This is done, even if `DownloadLimit` is set to zero, which means that clients are not limited by the number of times they may download a file.

This allows the administrator to monitor the download counts without imposing a limit on users.

This setting may be overridden on the Depot level. If the download limit is set to value greater than zero on a Depot, then download logging is enabled for all spaces in that depot, even if `EnableDownloadLogging` is set to `False`.

4.6 Email Settings

4.6.1 EmailOriginHost

This is the host name of the system that will send the email.

4.6.2 EmailReplyToAddress

This is the email address that user will see as sender of the e-mail. And it is the email address that will be used if the user replies to the email. Normally a "no-reply" type email address is used, since the user is not intended to reply to email sent by the Hosting System.

4.6.3 EmailSenderAddress

This is the email address that will appear as sender in email envelope. If an email bounces, this address will be notified.

4.6.4 EmailSendTimeout

This is the timeout in seconds used when sending emails.

4.6.5 SMTPPassword (R/O)

The password for SMTP authentication.

4.6.6 SMTPServerHost (R/O)

This is the host (and port) of the SMTP server used to send emails. To use secure SMTPS add the protocol explicitly as follows:

```
smtps://<host-name-and-port>.
```

4.6.7 SMTPUsername (R/O)

The username for SMTP authentication.

4.7 General Settings

4.7.1 DownloadContentType

This setting determined the HTTP content type downloaded encrypted Space data. This includes the log and file data that belongs to Spaces. It does not include downloaded public files, which use a content type that depends on the file type.

By default, this setting is empty. In this case, the content type used depends on the TeamDrive protocol version. The original TeamDrive protocol set the content to "text/plain" for encrypted log file data, and set no content type for encrypted file data.

The new TeamDrive protocol returns "application/octet-stream" by default. Whether the new protocol is used, defends on the client software. Please check the Client release notes in this regard.

There is normally no need to change this setting, unless a proxy or firewall is preventing the download of data. In this case, the following alternative values are recommended: "text/html", "text/plain", "application/x-binary" or "application/x-teamdrive".

Note: Do not set this value to "application/json". This content type is reserved for internal use.

4.7.2 EnforceTrafficLimit

When set to `False`, the traffic quota for all Depots will be considered unlimited. The value is `True` by default.

4.7.3 NotifyVolumeCriticalLevel

This is a percentage value, by default 90. When the disk usage of a Volume exceeds this level a critical notification email is sent.

4.7.4 NotifyVolumeEmail

The Hosting Service offers a notification service that will send an email when the disk usage of a volume exceeds predefined thresholds. In order to receive notifications, set this setting to the email address of the Administrator.

When email are sent depends in the settings `NotifyVolumeWarningLevel` and `NotifyVolumeCriticalLevel`.

4.7.5 NotifyVolumeWarningLevel

This is a percentage value, by default 75. When the disk usage of a Volume exceeds this level a warning notification email is sent.

4.7.6 ProviderCode

This is the 4-digit code of provider (distributor/tenant) under which this this Host Server is registered. This is a read-only setting that cannot be modified after the initial server setup.

4.7.7 RegistrationDeviceID

This is the ID returned by the Registration Server upon registration. It is the ID of the user under which the Host Server is registered. This setting cannot be changed.

4.7.8 RegServerName

The name of the Registration Server associated with this host. This value cannot be altered after registration.

4.7.9 RegServerURL

This is the URL used to access the Registration Server. This value may not be altered after registration.

4.7.10 RegServerRoot

The path to the Registration Server source code files.

4.7.11 ServerVersion

The current server version. This value cannot be changed.

4.7.12 ServiceHostURL

This is the Host URL used by the clients to create and access Space data. It can not be changed.

4.7.13 ServiceUniqueName

This is a unique name of the Hosting Service, consisting of the Host Server's domain name and the associated Registration Server. This value can not be changed.

4.7.14 SpaceStatisticEnabled

Set to `True` if Space Statistics should be exported.

4.7.15 SpaceStatisticExportPath

This is the path for the files containing the exported Space Statistics, default is: `../docs/p1a/statistic/`.

4.8 Logging

4.8.1 ModuleLogFile

The path and name of the Apache module (`mod_pspace`) log file. This file must be owned and writable by the system user the Apache HTTP Server runs under (e.g. `apache`).

4.8.2 ModuleLogLevel

This is the maximum level of logging of messages logged by the Apache module (`mod_pspace`). A higher number results in more verbose logging. Possible values are: 1 = Protocol, 2 = Error, 3 = Warning, 4 = Trace, 5 = Debug.

4.8.3 ModuleTraceOn

Write the current trace stack to the CallTrace table, and output a log entry at the Verbose level.

4.9 Object Store

4.9.1 HostServerBucketID

A unique character sequence used to ensure that multiple Host Servers cannot use the same bucket. This is a read-only setting that cannot be modified.

The ID is only generated when an Object Store is enabled (see `S3SyncActive`). By default this value is set to `[-]`, which means no ID has been set.

4.9.2 LastUploadCleanup

This is the last time the "Cleanup Uploads" autotask was scheduled.

4.9.3 MaxFileAge

This is the maximum age, in days, that a file normally transferred to the Object Store by the s3d daemon can be before it is automatically transferred. Normally files are transferred just after they have been written, but if for some reason the file is not transferred this will trigger the transfer. This setting should be long enough to guarantee that no file will be transferred that is still in the process of being uploaded.

4.9.4 S3AccessKey

The access (public) key, used to access the specified bucket on an compatible object store.

If you have a running installation, and you need to change `S3AccessKey` as well as other setting such as `S3SecretKey` or `S3Server` at the same time, then follow this procedure:

1. Stop the Apache HTTP service.
2. Set `S3SyncActive` to `False`.
3. Update all settings: `S3AccessKey`, `S3SecretKey` and `S3Server` as required.
4. Set `S3SyncActive` to `True`.

   Note that when you do this, the Host Server will check the credentials you entered and only allow S3 to be activated if the credentials are correct.
5. Start the Apache HTTP service.

4.9.5 S3ArchiveLogs

Set this value to `True` if the object store access logs used for calculating traffic are to be archived instead of deleted.

4.9.6 S3AuthTimeout

The number of seconds an authenticated query string is valid. Keeping this value high will improve the possibility for caching files in proxies. Reducing the value might cause traffic-limit problems if a proxy isn't able to cache the file within the timeout period.

4.9.7 S3Brand

This setting specifies the type of object storage. Possible options are: *Amazon*, *OpenStack* or *Azure*.

4.9.8 S3BucketCheckFrequency

Determines how often the Host Server will check the Object Store Bucket on Apache process startup. The default is once every 3 hours.

4.9.9 S3DataBucketName

The name of the Bucket on the compatible object store that will contain the Space data

4.9.10 S3EnableRedirect

When S3 redirect is enabled, the Host Server will redirect the Client to download objects directly from the compatible object store, when appropriate. The alternative is that all downloads are performed via the Host Server (the Host Server acts like a Proxy that fetches data from the object store and forwards it to the Client).

4.9.11 S3ExecAWSUploadLimit

When a file size exceeds the given limit, the `/usr/bin/aws` binary is used to upload the file to the Object Store rather than the S3D Service internal functions.

4.9.12 S3ExecUploadTimeout

If a file upload takes longer then the time specified here, then all file handles in use will be closed, which will cause the upload to terminate. The purpose is to remove locks that may cause other functions of a Space to be suspended.

4.9.13 S3LogBucketName

The bucket that contains the object store access log files. These log files are used to analyse and calculate traffic.

4.9.14 S3MetaCacheTime

This is the time the meta data of files uploaded to the Object Store is cached. The default is 30 days. Set this value to 0 to turn off caching.

The Object Store meta data cache reduces the number of "HEAD" calls to the Object Store, when uploading and downloading data. The HEAD call is used to check if a file exists and retrieve meta data such as file size and modification date.

Note that if this value is less than `MaxFileAge` then a HEAD call will always be done on upload. This is because it is assumed that uploaded files older than `MaxFileAge` have been abandoned by the client, and the upload will not be completed.

4.9.15 S3Options

S3 options control the way the compatible object store is accessed. For example, the number of parallel threads during upload, whether to use multipart uploads, etc.

In order to enable the Amazon Signature Version 4 add the options: `UseSignatureV4=True`.

Options must be separated using a semi-colon (";").

4.9.16 S3ProcessedPath

If `S3ArchiveLogs` is set to `True`, then the logs stored in `S3ToProcessPath` are moved to this path, after they have been used to calculate traffic.

4.9.17 S3RedirectProtocol

This setting determines the protocol to be used for redirects to S3, permitted values are: `client`, `http` or `https`. Setting the value to `client` means that the protocol used will depending on the protocol of the TeamDrive Client request.

Note that if the `S3Server` setting specifies a full URL, with a protocol (e.g. "http://..." or "https://..."), then the value specified by `S3RedirectProtocol` is ignored. Redirects will always use protocol specified by the URL in `S3Server` setting.

4.9.18 S3Region

This is the region used by the Amazon Signature Version 4 signing process. This value must be set correctly if you have enabled Version 4 signing by adding the `UseSignatureV4=True` option to the `S3Options` setting. If not specified the value "eu-west-1" will be used. Otherwise the value must be set according to the following mapping: Amazon Regions and Endpoints

4.9.19 S3SecretKey

The secret (private) key used to acces the specified bucket on the compatible object store. This value is stored in encrypted form.

If you have a running installation, and you need to change `S3SecretKey` as well as other setting such as `S3AccessKey` or `S3Server` at the same time, you need to first disable S3 synchronisation. Follow the procedure described here: *S3AccessKey* (page 15).

4.9.20 S3Server

This is the domain name of the compatible object store, e.g. `s3.amazonaws.com` or `youraccount.blob.core.cloudapi.de`. By default the HTTPS protocol will be used. To change this, specify a full URL, including port if necessary, for eaxmple: `http://youraccount.blob.core.cloudapi.de`.

If `S3Server` is set to `s3.amazonaws.com` then the region specified by `S3Region` will be used to generate the URL.

If you have a running installation, and you need to change `S3Server` as well as other setting such as `S3AccessKey` or `S3SecretKey` at the same time, you need to first disable S3 synchronisation. Follow the procedure described here: *S3AccessKey* (page 15).

4.9.21 S3SyncActive

Set to `True` when data stored by the Host Server (Space data) should be transferred to an compatible cloud storage.

4.9.22 S3ToProcessPath

The path in which the object store access logs are stored. The access logs are used to calculate traffic caused by direct downloads from object storage.

4.9.23 TransferConnection

This is the MySQL connection details to the database of the S3 transfer process, which copies the Object Store of the Host Server to another bucket. The purpose of the S3 transfer process is to move the Host Server to a different service.

If this setting value is empty, then the functionality is disabled. When enabled, the S3 daemon notifies the transfer process whenever data in the Object Store is changed. The notification is done by making an update to the MySQL database belonging to the transfer process.

The S3 transfer process uses this information to duplicate the Host Server's Object Store in another bucket, which may belong to a different Object Store service provider. This makes it possible to move a Host Server with minimual down time, by first transferring the Object Store and then shutting down the Host Server and copying over the Host Server database to the new server.

4.9.24 UploadCleanupTimeout

This is the maximum time (in minutes) that the "Cleanup Uploads" task should spend on cleaning up unused partial uploads. The default is 40 minutes.

4.9.25 UseIPWorks

Set this to `True` in order to use the IPWorks-based cloud access implementation. By default this setting is `False`. However, the default will be changed to `True` when the implementation is out of Beta.

4.10 Outgoing Connections

4.10.1 ConnectionTimeout

The timeout in milliseconds when making outbound connections. The default is 5 seconds.

This setting should be set to a value less than `NetworkTimeout`.

4.10.2 DisableAuthTokenCheck

Set to `True` to disable verification of user Authentication Tokens. In this case the username sent by the TeamDrive client is assumed to be correct. Disabling verification is a security risk.

4.10.3 DisableIPv4

Set to `True` to disable the use of IP (Internet Protocol) version 4 for outgoing connections.

4.10.4 DisableIPv6

Set to `True` to disable the use of IP (Internet Protocol) version 6 for outgoing connections.

4.10.5 EnableCurlTrace

Set to `True` to enable tracing of outgoing network calls (which use libcurl). Output is at the lowest log level enabled.

4.10.6 ProxyHost

This is the domain name (or IP address) and port number of the proxy to be used for outgoing connections. If not set, the `UseProxy` setting will be ignored.

Note that this setting is used for both HTTP and HTTPS connections.

4.10.7 NetworkTimeout

The timeout in milliseconds for an entire network operation, which includes the connection time, and the time to transfer all data. The default is 3 minutes.

This setting should be set to a value greater than `ConnectionTimeout`.

4.10.8 NoProxyList

This is a comma separated list of domains and IP addresses that are to be contacted without the use of a proxy.

4.10.9 TraceCurlContent

Set to `True` to include the contents of the outgoing network calls (using libcurl) in the trace.

4.10.10 UseProxy

Set this value to `True` in order to enable the use of a proxy for all outgoing connections of the Host Server.

4.11 Publishing

4.11.1 DefaultLanguage

This is the default language used if the browser specifies an unknown language. This setting is only used when the user requests public files from the Hosting Service. The value is used to select the correct language template for interaction with the user. See htmlpublishtemplates for further details.

4.11.2 EnableDirectLink

Normally, access to published (public) files us provided via an intermediate page which is specified "public-redirect.html" template file (see htmlpublishtemplates).

The "direct link" functionality allows a published URL to bypass this page, allowing files to be directly downloaded by a browser. This can be enabled by adding the "dl=1" argument to the public URL.

The `EnableDirectLink` setting determines whether the direct link functionality is enabled or not. By default this setting is set to `True`.

Note that allowed direct links can be a security risk because it allows user to publish complete web-site link content.

4.11.3 ForceDownloadList

This is a comma separated list of content types and file suffixes that cause the Host Server to force a download of the file when it is published. This means file that files of this type are never displayed in the browser. Instead the user will be required to save the file to local storage.

By default, files containing HTML and XHTML content must be downloaded, rather then displayed in the browser. In addition, files with an unrecognised content type (that is, files with an unrecognised suffix) will also require downloaded.

Set this value to "*" in order to force the download of all files.

4.11.4 HttpsUsedByPublish

Set to `True` if published files must be uploaded and downloaded using HTTPS. This ensures that the file content cannot be intercepted in transit from the TeamDrive Client to the Host Server, and from the Host Server to the web client downloading the file.

The Host Server will generate an error if `HttpsUsedByPublish` is set to `True`, and a user attempts to download a published file using HTTP (instead of HTTPS).

4.11.5 IncorrectPasswordLimit

When downloading a published file, this is the number of times a password may be entered incorrectly. This value is 10 by default.

4.11.6 IncorrectPasswordDelay

When downloading a published file, this is the "cool down" time (in minutes) after the password has been entered incorrectly a number of times.

This value is set to 10 minutes by default.

4.11.7 PublishRedirectTimeout

The number of seconds a redirect URLs for published documents is valid.

4.11.8 PublicRewritesInstalled

Set this to `True` if the following rewrite rules for published files have been installed on apache:

```
RewriteRule ^/[a-z]*/public/(.*)$ /primespace/public/$1 [PT]
RewriteRule ^/[a-z]*/getpub/(.*)$ /primespace/getpub/$1 [PT]
```

Add these rules to the `/etc/httpd/conf.d/td-hostserver.httpd.conf.ssl` and `/etc/httpd/conf.d/td-hostserver.httpd.conf` files if they are not already included.

The rules are automatically installed on new installations of the Host Server.

When installed, the rules allow the TeamDrive client to generate published file URLs that differ in the first path component depending on the space. This helps to prevent disruption between spaces when published content undergoes restrictions.

By default this value is `False`.

4.12 Resource Management Settings

The Host Server manages certain resources on behalf of the TeamDrive clients. This includes the automatic deletion of Read Notifications and Soft Locks when there expiry time is reached.

Note that the paths and names of the documents involved in resource management are encrypted and therefore unknown to the Host Server.

4.12.1 AllowAutoDeleteSpaces

This setting controls the automatic deletion of spaces if the disk space usage of a depot exceeds the limit. This value is `False` by default.

Spaces are automatically deleted after the process of sending warning emails has completed (see space_reduction).

4.12.2 DefaultReadNotificationtMaxAge

Read Notifications inform users of a Space which documents have been opened, by which users, and what time the document was first opened.

This setting is the default maximum age for Read Notifications. it can be overridden by setting this value at the Space level. This can be done using the Admin Console or the TeamDrive Client. When this value is set to 0 (zero) at the Space level, the `DefaultReadNotificationtMaxAge` is used.

The default for this setting is 30 days.

Read Notification that exceed this age are automatically deleted.

4.12.3 DefaultSoftLockMaxAge

A "soft lock" is a warning to a user that a document may be in use by another user. Soft locks are automatically set by the TeamDrive client when a document is opened. And removed when the document is closed.

However, it is possible that TeamDrive is shutdown, before a document is closed. In the case the soft lock will be automatically removed by the Host Server

This setting is the maximum age for soft Locks, after the TeamDrive client that set the soft lock has been shutdown.

The default value is 2 hours, and should never be set to less than 1 hour, or locks may be removed incorrectly.

4.12.4 DefaultTemplateFooter

If not empty, this text will replace the `[[FOOTER]]` place holder in HTML templates used by the Host Server. This value is overwritten by the Depot specific tempalte footer.

4.12.5 DefaultTemplateHeader

If not empty, this text will replace the `[[HEADER]]` place holder in HTML templates used by the Host Server. This value is overwritten by the Depot specific tempalte header.

4.12.6 EnableSpaceReductionProcess

This setting enables the process described in ref:*space_reduction*. The setting is `False` by default.

`EnableSpaceReductionProcess` applies to the entire space reduction process, including the automatical deletion of spaces. As a result if this setting is `False` then spaces will not be deleted, even if `AllowAutoDeleteSpaces` is set to `True`.

When the process is disabled, the process of sending warning emails will continue for the depots for which the process has already started. In other words, if the 60 day warning has already been sent, then the rest of the warning will also be sent, however the final deletion of spaces will be suspended.

4.12.7 IPAddressStoreTime

IP Addresses stored by the Host Server will be removed after this time. The default is 7 days. If you change this value, please ensure that that it conforms to the local legislation for the storage ofIP addresses.

4.12.8 LogFileThreshold

This is the threshold (in bytes) after which a the Client `last.log` is renamed to a number log.

4.12.9 MaxFileUploadSize

This is the maximum size of files that may be uploaded to the Host Server. The default is zero, which means unlimited.

Enforcing this limit is done by the TeamDrive client, and therefore only works with clients that implement the setting.

4.12.10 SpaceDeletionDelay

This is a delay in minutes (default: 48 hours) which is enforced when a space is deleted before it is actually removed from disk. This allows a space to be undeleted, if done within this time frame.

4.12.11 VolumeCriticalCheck

The value determines with the "volume critical check" feature is enabled or mot. The value is set to `False` by default.

The volume critical check prevents a single large upload from consuming all free disk space and thereby disrupting the operation of spaces that share the same disk volume on the Host Server.

Note that this also effects Host Services that use an Object Store because all uploaded files are first stored complete on a local disk volume before being uploaded to the Object Store.

A volume is considered to be in the "Free Space Critical" state when the amount of free disk space is less than the value specified by the `VolumeCriticalFreeSize` setting.

If a file with size larger than `VolumeCriticalFileSize` is uploaded to when the n the "Free Space Critical" state then the upload is blocked and the Space automatically disabled. In this case, an notification email is sent to the administrators of the Host Server.

The Space is automatically enabled as soon the volume is no longer in the "Free Space Critical" state.

4.12.12 VolumeCriticalFileSize

When the volume is in the "Free Space Critical" state then uploaded file size may not exceed this threshold. When this happens the Space will be disabled, and a message sent to the Host Server administrators (see `VolumeCriticalCheck` for details).

4.12.13 VolumeCriticalFreeSize

When the free volume space is less than the amount specified by this setting then the volume is considered to be in the "Free Space Critical" state (see `VolumeCriticalCheck` for details).

4.13 Snapshot Settings

4.13.1 ConsolidatePerDayAfter

This is the time in days before all Snapshots for one day are consolidated into a single Snapshot. This is done to reduce the number of Snapshots per Space. The default value is 30 days.

See snapshot_consolidation for details.

4.13.2 ConsolidatePerMonthAfter

This is the time in days before all Snapshots for a month are consolidated into a single Snapshot. This is done to reduce the number of Snapshots per Space. The default value is 365 days.

See snapshot_consolidation for details.

4.13.3 DefaultSnapshotFrequency

This is the default frequency of Snapshot Backups in minutes. By default this value is 240, which is 4 hours. This means that a Snapshot Backup is performed every 4 hours.

This value may be set at the Space level using the TeamDrive Client or the Host Server Admin Console. If set, then the global `DefaultSnapshotFrequency` is ignored and the Space level value is used instead.

The minimum Snapshot Frequency is 30 minutes.

4.13.4 DefaultSnapshotMaximumAge

This is the default maximum age of Snapshots in days. By default this value is 30 days. This means that Snapshot Backups older than 30 days are automatically deleted.

This value may be set at the Space level using the TeamDrive Client or the Host Server Admin Console. If set, then the global `DefaultSnapshotMaximumAge` is ignored and the Space level value is used instead.

The minimum value for this setting is 2 days.

4.13.5 EnableSnapshotsByDefault

This setting determines whether Snapshot Backups are enabled on Spaces by default or not. When a Space is created the TeamDrive Client may specify whether Snapshot Backups are enabled for the Space or not. If this information is not specified, then the `EnableSnapshotsByDefault` value is used, and Snapshots enabled at the Space level accordingly.

After an upgrade to version 3.7, the value of this setting will determine whether Snapshot Backups is enabled for existing Spaces or not.

Note: Ensure that you set this value as required **before** setting `SnapshotsEnabled` to `True` for the first time after upgrade (see *SnapshotsEnabled* (page 23) below).

4.13.6 SnapshotsEnabled

Set to `True` to enable the Snapshot Backups for the server, in general. This setting is `True` by default in a new installation of the Host Server. On upgrade to version 3.7 of an existing Host Server installation, this value is set to `False`. This is to avoid enabling Snapshot backups on a system that previously did not perform Snapshot Backups.

Note: Ensure that you set `EnableSnapshotsByDefault` as required **before** setting `SnapshotsEnabled` to `True` for the first time after an upgrade to version 3.7. When `SnapshotsEnabled` is set to `True` for the first time, the `EnableSnapshotsByDefault` value is applied to every existing Space.

If `False`, the server will not create new Snapshot Backups. In this case the fact that Snapshots are enabled for certain Spaces is ignored.

Setting `SnapshotsEnabled` to `False` does not cause any existing Snapshots to be deleted. This still depends on whether Snapshots are enabled for a Space and the maximum allowed age of Snapshots for a Space.

CHAPTER

FIVE

HOSTING SERVICE API

5.1 API Basics

The TeamDrive Enterprise Server architecture provides an extensive application programming interface (API) that can be used to:

- Script/automate processes that would otherwise require use of the web-based administration console
- Obtain information about various entities and parameters (e.g. user names, licenses, storage).

The API is based on XML Remote Procedure Calls (see http://en.wikipedia.org/wiki/XML-RPC for a detailed description). Only HTTP POST-Requests will be accepted. Each request must include a checksum in the URL appended as a parameter. This checksum is created by calculating a MD5 checksum over the request body appended with a server-specific salt value.

The MD5 checksum value must be provided in lower case characters (e.g. by passing it through the `tolower()` function of the respective programming language).

On the TeamDrive Registration Server Administration Console, this salt value can be obtained from the `APIChecksumSalt` system setting (*"Edit Settings -> RegServer"*). On a TeamDrive Hosting Service, this value is stored in the configuration setting `APISalt` and must match the value of the Registration Server this Hosting Service has been associated with.

Each request also needs to include a `<requesttime>` which is the current timestamp converted to integer.

The URL to access the TeamDrive Hosting Service API looks as follows:

`https://<domain>/yvva/api/api.xml?checksum=<md5>`

Please replace `<domain>` with the host name of the Host or Registration Server you want to connect to. `<md5>` needs to be replaced with the checksum of the current API request.

If you are accessing the API over a local network or a VPN, you can use plain HTTP. However, when sending the data over an insecure network, you must use HTTPS for security reasons.

Note: API access is verified by the IP address the request originated from. On the Registration Server, check the setting `API_IP_ACCESS` (*"Edit Distributor Settings" -> "API" -> "API_IP_ACCESS"* via the Administration Console) and make sure that the external IP address of the system performing the API call is included in the list.

On the Hosting Service, the IP address must be added to the configuration setting `APIAccessList`.

5.2 Example API Call

The following shell script example outlines how an API call is generated and how the required MD5 checksum is calculated. In this example `curl` is used to perform the actual API call. The result is printed to the console:

```
#!/bin/sh

URL="https://hostserver.local/yvva/api/api.xml"
CHECKSUM="d3b07384d113edec49eaa6238ad5ff00"
TIMESTAMP=`date "+%s"`
REQUEST="<?xml version='1.0' encoding='UTF-8' ?>\
<teamdrive><apiversion>3.0.003</apiversion>\
<command>getdepotdata</command>\
<requesttime>$TIMESTAMP</requesttime>\
<username>YourUserName</username>\
</teamdrive>"
MD5=`echo -n "$REQUEST$CHECKSUM" | md5sum | cut -f1 -d" "`
curl -d "$REQUEST" "$URL?checksum=$MD5"
```

5.3 API Usage Recommendations

On your side of the (web-) application, you must ensure that only successfully logged in users can view or change their own data. Users should never be allowed to view data from other TeamDrive Users. Only users associated with your distributor code can be managed with API calls coming from your IP. For users with a foreign distributor code you will receive a URL which must be displayed to the user so that they can login to the website of their distributor.

5.4 Error Handling

The following errors can occur due to misconfiguration or service failures, they may not return valid XML. Your application should handle these failures appropriately.

5.4.1 Wrong Apache configuration

Request:

`https://<domain>/yvva/api/api.xml`

Answer:

```
<html><head>
<title>404 Not Found</title>
</head><body>
<h1>Not Found</h1>
<p>The requested URL /yvva/api/api.xml was not found on this server.</p>
<hr>
<address>Apache/2.2.9 (Fedora) Server Port 80</address>
</body></html>
```

5.4.2 Application errors

Application errors will return error messages in an XML format like this:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.003</apiversion>
        <exception>
                <primarycode></primarycode>
                <secondarycode></secondarycode>
                <message></message>
```

```
        </exception>
</teamdrive>
```

<primarycode> and <secondarycode> (optional) are integer values. <message> is a text.

Error codes regarding the API will start at -30100 (see *API Error Codes* (page 47)).

General errors with the PrimeBase Virtual Machine or database connection are in the range between 0 and -23000.

5.4.3 Programming errors

If a program error occurs, the server will return an error similar to the following one:

```
<HTML><HEAD><TITLE>Execution Error</TITLE></HEAD><BODY>
<H2>Execution Error</H2><FONT SIZE = +1>An error occurred while processing
your request: <BR>Primary error code: <B>-10005</B>, Secondary error code:
<B>0</B><BR><FONT SIZE = 0><H3>"api_init.sys"@client line 7: ';' token
expected in place of 'execute'.</H3></BODY></HTML>
```

5.4.4 Invalid Requests

Invalid requests will return one of the following errors:

Unknown IP Address

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30000</primarycode>
                <secondarycode></secondarycode>
                <message>Access denied</message>
        </exception>
</teamdrive>
```

Invalid Command

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30001</primarycode>
                <secondarycode></secondarycode>
                <message>Invalid Command</message>
        </exception>
</teamdrive>
```

Invalid Request

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30002</primarycode>
                <secondarycode></secondarycode>
                <message>Invalid Request</message>
        </exception>
</teamdrive>
```

Invalid XML

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30003</primarycode>
                <secondarycode></secondarycode>
                <message>Invalid XML</message>
        </exception>
</teamdrive>
```

5.5 Requirements

A TeamDrive user can have different Depots on different Hosting Services. A record of which user has which depot can be stored on the Registration Server using "setdepotforuser" or in your own system by storing the username, the Hosting Service URL and the depot id.

5.6 Retrieve Depot Information

Note: This request must be sent to each Hosting Service where the user has a Depot.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>getdepotdata</command>
        <requesttime></requesttime>
        <username></username>
        <depotid></depotid>
        <spaceid></spaceid>
        <includechanges>true/false</includechanges>
</teamdrive>
```

Reply:

`<depotid>` and `<spaceid>` are optional and can be used to retrieve only one depot for a user or a depot a space belongs to.

`<username>` is optional, if not specified then `<depotid>` and `<spaceid>` is required.

Storage and transfer quantities are in Bytes: `1 KB = 1024 Bytes`. `<userlist>` is a list of usernames which can access the depot to create spaces. This list is empty for a default depot.

The `<flags>` tag is new in version 3.7.4. It contains the `restrict-access` value if the access to the Depot is restricted to the users specified in the `<userlist>`, even if the list is empty. If this flag is not set, then an empty `<userlist>` indicates that all users have access to the Depot.

When the `<includechanges>` tag is set to `true`, the server will return a list of changes that have affected the Depot. The default for this tag is `false`. This tag is supported by Host Server version 3.6.0 or later.

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <depotdata>
                <etl>true|false<etl>
                <depot>
                        <depotid></depotid>
                        <name></name>
                        <username></username>
                        <status></status>
                        <flags></flags>
                        <accountnumber></accountnumber>
                        <created></created>
                        <storagelimit></storagelimit>
                        <storageused></storageused>
                        <transferlimit></transferlimit>
                        <transferused></transferused>
                        <pageheader></pageheader>
                        <pagefooter></pagefooter>
                        <userlist></userlist>
                        <changelist>
                                <change>
                                <whatchanged></whatchanged>
                                <changedate></changedate>
                                <changehostuser></changehostuser>
                                <changeuser></changeuser>
                                <changeemail></changeemail>
                                <changeid></changeid>
                                <owneruser></owneruser>
                                <owneremail></owneremail>
                                <changedetails></changedetails>
                                </change>
                                <change>...</change>
                                <change>...</change>
                        </changelist>
                </depot>
                <depot>...</depot>
                <depot>...</depot>
        </depotdata>
</teamdrive>
```

The `<etl>` tag is set to the value of the `EnforceTrafficLimit` setting on the server (Host Server 3.5.0 and later).

`<changelist>` which specifies a list of changes to the depot, is only provided by Host Server 3.6.0 or later.

The `<changehostuser>` tag (Host Server 3.7.4 or later), if included, specifies the username of a the local Admin User that made the change.

The `<changeuser>` and `<changeemail>` tags (Host Server 3.7.4 or later), if included, specify the TeamDrive user that made the change.

The `<owneruser>` and `<owneremail>` tags (Host Server 3.7.4 or later), if included, specify the TeamDrive user that was made owner of the Depot.

5.6.1 Error Cases

No Depot on the Server for the User

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30301</primarycode>
                <secondarycode></secondarycode>
                <message>Username not specified/User depot not found</message>
        </exception>
</teamdrive>
```

5.7 Retrieve Space Information

Note: This request must be sent to each Hosting Service where the user has a Depot.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>getspacedata</command>
        <requesttime></requesttime>
        <username></username>
        <depotid></depotid>
        <includedeleted>true|false</includedeleted>
        <resultoffset></resultoffset>
        <resultlimit></resultlimit>
</teamdrive>
```

Set `<includedeleted>` to `true` or `false`, depending on whether deleted spaces should be returned or not. The default is `false`.

The `<resultoffset>` and `<resultlimit>` tags can be used to retrieve a "page" of the result. These tags are optional. If provided, they will also be returned as part of the reply. If `<resultlimit>` is provided the response will also include the tag `<totalresults>`.

Reply:

Note: Storage and transfer quantities are in Bytes: `1 KB = 1024 Bytes`.

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <spacedata>
                <etl>true|false<etl>
                <resultoffset></resultoffset>
                <resultlimit></resultlimit>
                <totalresults></totalresults>
                <space>
                        <spaceid></spaceid>
                        <name></name>
                        <created></created>
```

```
                        <owner></owner>
                        <status></status>
                        <lastaccess></lastaccess>
                        <storageused></storageused>
                        <transferused></transferused>
                </space>
                <space>...</space>
                <space>...</space>
        </spacedata>
</teamdrive>
```

Note: The space name field is empty by default for security reasons. You can enable the returning of space names by setting the configuration options `StoreSpaceNames` and `APIReturnSpaceNames` to `True` via the TeamDrive Hosting Service Administration Console.

The `<etl>` tag is set to the value of the `EnforceTrafficLimit` setting on the server (Host Server 3.5.3 and later).

5.7.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30302</primarycode>
                <secondarycode></secondarycode>
                <message>Depot not specified/found</message>
        </exception>
</teamdrive>
```

5.8 Delete Depot

Important: This call will also delete all of the user's spaces

The `<musername>`, `<memail>` and `<mlang>` tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

The `<changeinfo>` tag is used as a free text field for the change history.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>deletedepot</command>
        <requesttime></requesttime>
```

```
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.8.1 Error Cases

Possible errors include:

- **-30313**: Depot contains spaces with a data retention period

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

5.9 Activate Depot (added in 3.0.004)

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>activatedepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.9.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

5.10 Deactivate Depot (added in 3.0.002)

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

The <changeinfo> tag is used as a free text field for the change history

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>deactivatedepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.10.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

5.11 Delete a Space

Note: <spaceidlist> is a comma separated list of space-id's.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>deletespace</command>
        <requesttime></requesttime>
        <username></username>
        <depotid></depotid>
        <spaceidlist></spaceidlist>
</teamdrive>
```

The API call will no longer returns an error when deleting a Space that has already been deleted. However, the API also does not return an error if the Space does not exist at all, or if the Space is in another Depot. In these cases, the delete call is just ignored

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.11.1 Error Cases

Possible errors include:

- **-30313**: Space has a data retention period

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

Space not found or does not belong to the specified user

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30303</primarycode>
                <secondarycode></secondarycode>
                <message>Space not specified/found</message>
        </exception>
</teamdrive>
```

5.12 Set Depot Limits (added in 3.0.003)

The `<musername>`, `<memail>` and `<mlang>` tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

Note: The values of `<disclimit>` and `<trafficlimit>` is in Bytes: `1 KB = 1024 Bytes`.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>setdepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <disclimit></disclimit>
        <trafficlimit></trafficlimit>
        <changeinfo></changeinfo>
</teamdrive>
```

The tags `<disclimit>` and `<trafficlimit>` are optional, as of version 3.5.3. If not specified, the value will not be changed. If both are omitted, this call will have no effect.

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.12.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

Increasing Depot Failed due to Invalid or Wrong Disclimit or Trafficlimit

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30304</primarycode>
                <secondarycode></secondarycode>
                <message>Increasing Depot failed</message>
        </exception>
</teamdrive>
```

5.13 Increase Depot Limits

Note: The value of `<increaselimit>` is in Bytes: `1 KB = 1024 Bytes`.

The `<musername>`, `<memail>` and `<mlang>` tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

The `<changeinfo>` tag is used as a free text field for the change history.

`<increasetraffic>` tag value is optional; if empty, the storage limit * 10 will be used for the traffic limit

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>increasedepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <increaselimit></increaselimit>
        <increasetraffic></increasetraffic>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.13.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

Increasing Depot Failed due to Invalid or Wrong increaselimit

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30304</primarycode>
                <secondarycode></secondarycode>
                <message>Increasing Depot failed</message>
```

```
        </exception>
</teamdrive>
```

5.14 Decrease Depot Limits

Note: The value of <decreaselimit> is in Bytes: 1 KB = 1024 Bytes.

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

The <changeinfo> tag is used as a free text field for the change history.

The <decreasetraffic> tag is optional; if empty, the storage limit * 10 will be used for the traffic limit.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>decreasedepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <decreaselimit></decreaselimit>
        <decreasetraffic></decreasetraffic>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.14.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

Decreasing Depot Failed due to Invalid or Wrong Decreaselimit

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30305</primarycode>
                <secondarycode></secondarycode>
                <message>Decreasing Depot failed</message>
        </exception>
</teamdrive>
```

5.15 Authorize Users to Create Spaces in other Depots

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

<userlist> is a comma seperated list of usernames.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>addusertodepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <userlist></userlist>
</teamdrive>
```

Reply:

Note: The reply will return a base64 encoded text in the <depotdocument> tag.

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
        <depotdocument></depotdocument>
</teamdrive>
```

5.15.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

5.16 Remove Authorization from Users to Create Spaces in Other depots

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

<userlist> is a comma separated list of usernames.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>deleteuserfromdepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <depotid></depotid>
        <userlist></userlist>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.16.1 Error Cases

No Depot on the Server for the User

See above.

Depot not found or does not below to the specified user

See above.

5.17 Update Contract (added in 3.0.002)

Note: <username> is optional

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>updatecontract</command>
        <requesttime></requesttime>
        <username></username>
        <depotid></depotid>
```

```
        <accountnumber></accountnumber>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.17.1 Error Cases

Depot not found or does not below to the specified user

See Above

5.18 Create and Deploy a Depot

Note: Creating a new depot and deploying the depot file to a list of users must be done by executing a few requests to different servers. It depends on whether you want to use your own Host Server or the TeamDrive Cloud Host Server.

If you are using the TeamDrive Cloud Host Servers, you have to send a *gethostfordepot* (page 40) request to the TeamDrive Registration Server. The reply will return a Hosting Service-URL dependant on your distributor code.

Send the *createdepot* (page 41)-request to the returned URL or directly to your own Host Server, if you are using one. The reply will return a depot-document. Send this document, together with a list of usernames, to the TeamDrive Registration Server using the "sendinvitation" request as described above.

5.18.1 Requesting a Hosting Service-URL

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>gethostfordepot</command>
        <requesttime></requesttime>
        <distributor></distributor>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <hosturl></hosturl>
</teamdrive>
```

5.18.2 Error Cases

User Unknown

See above

Account not Activated

See above

Invalid Location

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30112</primarycode>
                <secondarycode></secondarycode>
                <message>Invalid location</message>
        </exception>
</teamdrive>
```

5.18.3 Create Depot

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

<userlist> is a comma separated list of usernames (this parameter is optional).

The <changeinfo> tag is used as a free text field for the change history.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>createdepot</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <username></username>
        <storagelimit></storagelimit>
        <trafficlimit></trafficlimit>
        <userlist></userlist>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

Note: The reply will return a base64 encoded text in the <depotdocument> tag, which must be send as an sendinvitation request, with the list of users, to the Registration Server (see Registration Server API "send invitation" using the command "sendinvitation").

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <depotdocument>...</depotdocument>
</teamdrive>
```

5.18.4 Error Cases

Creating depot failed due to invalid Depot-ID

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30302</primarycode>
                <secondarycode></secondarycode>
                <message>Depot not found</message>
        </exception>
</teamdrive>
```

Creating Depot Failed due to Invalid Storage Limit

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <exception>
                <primarycode>-30306</primarycode>
                <secondarycode></secondarycode>
                <message>Invalid storage limit</message>
        </exception>
</teamdrive>
```

5.19 Create Depot Without User (added in 3.0.002)

This request is similar to *createdepot* (page 41), but owner of the depot is not specified.

The <musername>, <memail> and <mlang> tags, new in Host Server version 3.7.4, are used to specify the user that made the modification.

The <changeinfo> tag is used as a free text field for the change history.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>createdepotwithoutuser</command>
        <requesttime></requesttime>
        <musername></musername>
        <memail></memail>
        <mlang></mlang>
        <accountnumber></accountnumber>
        <depotname></depotname>
```

```
        <storagelimit></storagelimit>
        <trafficlimit></trafficlimit>
        <pageheader></pageheader>
        <pagefooter></pagefooter>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

Note: The reply will include the depot id.

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult></intresult>
</teamdrive>
```

5.20 Assign User to Depot (added in 3.0.002)

Note: This request should be used if the depot was created using the *createdepotwithoutuser* (page 42) call. If the user does not exist yet, they will be created.

The `<changeinfo>` tag is used as a free text field for the change history.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>assignusertodepot</command>
        <requesttime></requesttime>
        <depotid></depotid>
        <username></username>
        <email></email>
        <language></language>
        <gender></gender>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.20.1 Error Cases

No Depot on the Server for the User

See above

Depot not found or does not below to the specified user

See above

5.21 Get Depot Document

Get a Depot document. The `<username>` tag is options in Host Server 3.7.3.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>getdepotdocument</command>
        <requesttime></requesttime>
        <username></username>
        <depotid></depotid>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <depotdocument>...</depotdocument>
</teamdrive>
```

5.21.1 Error Cases

No Depot on the Server for the User

See above

Depot not found or does not below to the specified user

See above

5.22 Move Depot Spaces (added in 3.5.2)

Move all the Spaces of a Depot to another Depot.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <command>movedepotspaces</command>
        <requesttime></requesttime>
        <depotid></depotid>
        <newdepotid></newdepotid>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.22.1 Error Cases

No Depot specified

Required input not specified.

Failed to move spaces to Depot n, source Depot m does not exist

`<depotid>` is unknown.

Failed to move spaces from Depot n, destination Depot m does not exist

`<newdepotid>` is unknown.

5.23 Move Space (added in 3.6)

Move Spaces to another Depot. If a Space is already in the specified Depot, the move is ignored.

if an error occurs, none of the spaces in the list will be moved.

Request:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <command>movespace</command>
        <requesttime></requesttime>
        <depotid></depotid>
        <spaceidlist></spaceidlist>
        <newdepotid></newdepotid>
        <changeinfo></changeinfo>
</teamdrive>
```

Reply:

```
<?xml version='1.0' encoding='UTF-8' ?>
<teamdrive>
        <apiversion>3.0.004</apiversion>
        <intresult>0</intresult>
</teamdrive>
```

5.23.1 Error Cases

No source Depot specified

`<depotid>` is missing.

No Space specified

<spaceidlist> is missing.

No destination Depot specified

<newdepotid> is missing.

Space n does not exist

A Space in <spaceidlist> is unknown.

Space n does not exist in Depot m

A Space in <spaceidlist> does not belong to <depotid>.

Failed to move Space n, destination Depot m unknown

<newdepotid> is unknown.

CHAPTER

SIX

API ERROR CODES

The following table lists all API-Error-Codes that might be returned. Some of these errors might also occur when using the TeamDrive Registration Server Admin Console, as it performs Host Server API calls as well.

Registration-Server-Error-Codes:

Table 6.1: API Error Codes

Primary	Message	Comment
-30000	Access denied	
-30001	Invalid Command	
-30002	Invalid Request	
-30003	Invalid XML	
-30004	URL	This user will be handled using the webinterface of the distributor
-30005	Maintenance work	A 503 from the API-Server should be displayed as
		Maintenance work for the user. 503 will be mapped to -30005.
-30100	Username does not exist	
-30101	Wrong password	
-30102	Account not activated by activation mail	
-30103	Username already exists	
-30104	Email already exists	No longer used in API 1.0.003
-30105	Temporary password does not match	
-30106	Wrong activation code	
-30107	No Default Depot	
-30108	Username invalid	
-30109	Password invalid	
-30110	Email invalid	
-30111	Invitation type unknown	
-30112	Invalid location	
-30113	Temporary password expired	
-30114	Distributor of the user	
	does not match in the database	
-30115	Invalid language	Currently not in use
-30116	Search string to short	
-30117	Activation code not found	
-30118	Account already activated	Currently not in use
-30119	Account disabled	
-30120	Account will be deleted	
-30121	Device not found	
-30122	Invalid date	
-30201	Unknown License	
-30202	License Upgrade failed	
-30203	Productname unknown	

Continued on next page

Table 6.1 – continued from previous page

Primary	Message	Comment
-30204	Type unknown	
-30205	Feature unknown	
-30206	Limit unknown	
-30207	Cancel license failed	
-30208	Downgrade license failed	
-30209	Empty list	Currently not in use
-30210	License change failed	
-30211	License in use	Currently not in use
-30301	No Depot for User	
-30302	Depot-ID does not match	
-30303	Space-ID does not match	
-30304	Increasing Depot failed	
-30305	Decreasing Depot failed	
-30306	Invalid storage limit	
-30307	Depot already exists	

CHAPTER

SEVEN

APPENDIX

7.1 Abbreviations

PBT **P**rime**B**ase **T**alk is an object oriented language specifically designed for the programming of "server-side" functionality common to intra- and internet Web sites. A large share of the TeamDrive Host and Registration Server functionality is implemented in PBT. The code is parsed and executed by the Yvva application server components.

SAKH **S**erver **A**ccess **K**ey **H**TTP for TeamDrive 2.0 Clients

TDNS **T**eam**D**rive **N**ame **S**ervice

TDRS **T**eam**D**rive **R**egistration **S**erver

TDSV Same as **SAKH**, but for TeamDrive 3.0 Clients: **T**eam**D**rive **S**er**v**er