

Obvius HTTP protocol uploader.

Terms:

- **Upload Channel:** This is the specification of where to send the data. Each channel may have one target for the data such as a website (BMO). Older firmware prior to v2.10.xxxx has only upload channel, later firmware allows up to 4 channels to be configured.
- **Upload Transaction:** Each file is sent to the webserver in a single http session, or http/post message to the server. The transaction must also include an HTTP response code, and a SUCCESS or FAILURE message in the body of the html response.
- **Upload Session:** An upload session attempts to upload all log files to all configured upload channel.
- **Upload Cycle:** This is the cycle that the AcquiSuite goes through including the retry count. If the retry count is set to 2, the Upload Cycle will include a total of 3 upload sessions.

HTTP response codes:

This section details how the AcquiSuite will interpret the HTTP response code.

- In firmware v2.09.xxxx, only errors 401 and 404 were handled as an upload session failures, all other non-200 were handled as transient comm errors causing an Upload Transaction failure. (the file will be retried on the next upload session)
- In firmware v2.10.xxxx, now handles errors 4XX and 5XX class errors as detailed below. Most of the additional errors do not change the behavior of the AcquiSuite uploader, however the error messages are provided for additional diagnostic purposes in the last upload log on the AcquiSuite. These additional error codes should be backwards compatible with older AcquiSuite firmware versions if implemented on the server.

Failure messages:

- The AcquiSuite will look for the word "FAILURE" at the start of any text line in the body of the response, and will include the word failure, plus any additional text following that word in the AcquiSuite upload log for debugging purposes.
- For example: "FAILURE: The md5 checksum does not match the log file"
- The failure message is not required, however it is very helpful for diagnostic reasons when trying to determine why an AcquiSuite is not uploading data to your server. It is highly recommended that the failure message be included in all server responses that are not successful in receiving data from the AcquiSuite.

200 = OK.

- The AcquiSuite will look for the word SUCCESS on a single text line in the body of the HTML response, and if found, the AcquiSuite will delete the log data from the AcquiSuite. Note: this is the only condition where the log files are deleted from the AcquiSuite.
- If the success message is not found, the transaction is determined to be a failure, and the log file is retained.

400 = Bad Request

- The server may reject the data because the md5 checksum does not match the data file. This file upload will be retried, and it will continue with the upload and try all other log files for this meter and all other meters.
- The AcquiSuite treat this as transient comm err.

401 = Unauthorized.

402 = Payment Required

403 = Forbidden

404 = Not found.

407 = Proxy Authentication Required

- The AcquiSuite will skip all further uploads to this upload channel (server) until the next upload session.

406 = Not Acceptable.

- The log file received can not be used for some reason, however the meter information is valid. For example, the data file has fewer columns of data than the server expected
- The server may reject the data because the gz file is corrupt or unreadable.
- When the AcquiSuite receives this error, it will continue with the upload and try all other log files for this meter and all other meters.

409 = Conflict

- The server can return this error to indicate that the meter parameters are incorrect. For example, meter class type is different from the device class information saved in the server database. This usually comes up when an AcquiSuite was configured with one kind of meter, and later that meter was changed out for a different kind of meter. The server already has data stored for the first meter type, and will refuse data from the new meter type. The server may also reject data for the meter if the meter has not been named.
- When the AcquiSuite receives this error it will skip all other files for this one meter, but try log files for all other meters on the AcquiSuite.

4XX = Server thinks Client has made an error.

- The AcquiSuite treats this as an intermittent problem for this one log file.
- When the AcquiSuite receives this error, it will continue with the upload and try all other log files for this meter and all other meters.

5XX = Server thinks _Server_ has made an error.

- This will most likely be 501 internal error.
- The AcquiSuite treat this as transient comm err.
- When the AcquiSuite receives this error, it will continue with the upload and try all other log files for this meter and all other meters.