Due to the proprietary nature of my previous work, I'm only able to share a small documentation snippet (with permission), so I've provided some background information below to help put this sample document into context.

The following documentation is from a project I worked on at Axoni for the London Stock Exchange Group, who provides financial markets data and infrastructure services. The goal of this project was to improve post-trade processes – including trade affirmation and matching – via automated data replication and reconciliation. This project also established a more streamlined message flow for facilitating trade confirmations between parties, which is outlined in the first section of the document.

Within the confirmation message flow, there are several message types derived from FpML (Financial products Markup Language), an open-source XML standard for sharing information on derivatives processing. These are listed, though not described in detail, in the second section; in the original documentation, there were other sections that built on this information, but they have not been included here.

The final section of the document contains an abridged table of error codes users may encounter during message flow management. Note that the descriptions in the table reflect the actual wording used by the development team in the user notifications (FpML Exception). Ideally, I would have worked with the developers to refine some of the descriptions during a future sprint.

With that, please find my writing sample beginning on the next page.

Confirmation Flow

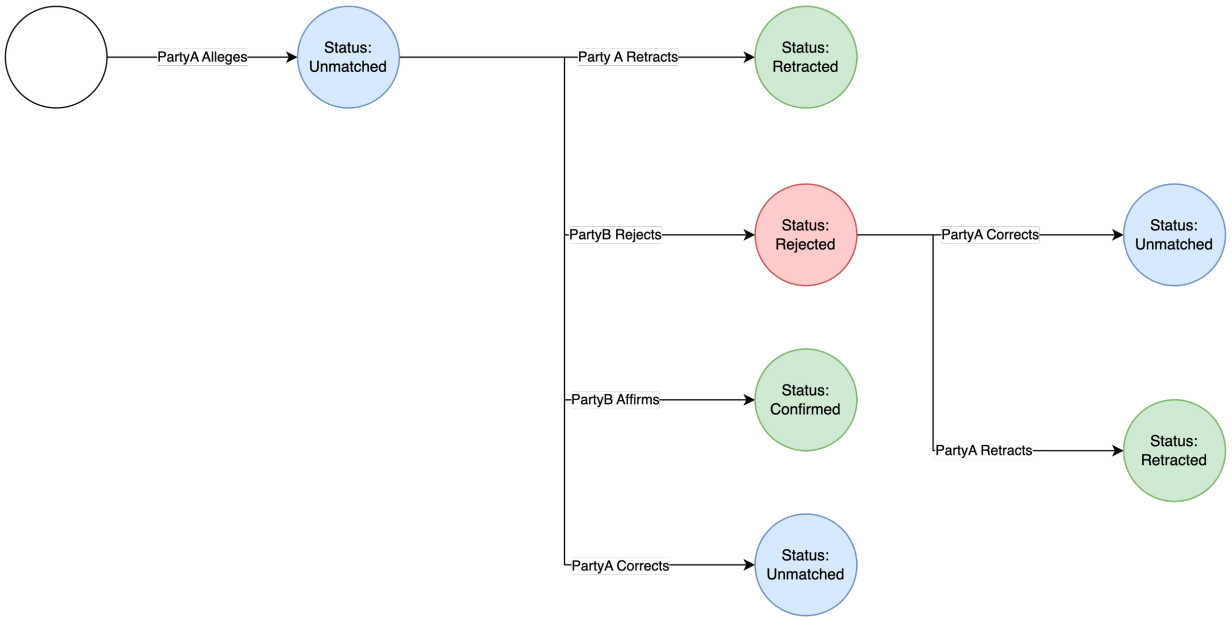
Confirmation of a request begins with a `requestConfirmation` message and ends with either a confirmed request (such as `confirmationAgreed`) or a retraction of the request via a `requestConfirmationRetracted` message. Confirmation can be achieved through one of the following processes:

- **Affirmation** - the counterparty responds by accepting the alleging party's request
- **Matching** - the counterparty responds with a request of their own; confirmation happens only if the terms of the two requests match

Confirmation Flow from Party A's Perspective

The confirmation flow begins with the alleging party submitting a `requestConfirmation`, at which point the request has a status of `Unmatched`. Both parties are notified and can perform certain actions:

- The alleging party, Party A, can retract their request or correct it.
  - If they retract the request, the request lifecycle is complete.
  - If they correct the request, it proceeds in `Unmatched` status.
- Party B can reject or affirm the request.
  - If they reject the request, Party A must decide whether to correct or retract the request.
  - If they affirm the request, it moves into a `Confirmed` status, which completes the confirmation lifecycle.



Message Flow

The following message types are used throughout the confirmation lifecycle:

Instruction Message Type	Produced Client Notifications	Key Attributes
`RequestConfirmation` (new trade or correction)	• `ConfirmationAcknowledgement` • `ConfirmationStatus:Alleged`	`sentBy`, `partyTradeId`, `messageId` - required for identifying the request for

Instruction Message Type	Produced Client Notifications	Key Attributes
	• `ConfirmationStatus:Unmatched`	further processing
`ConfirmationRetracted`	• `ConfirmationAcknowledgement` • `ConfirmationStatus` (both parties)	`sentBy`, `partyTradeId` - used to identify the correct trade to retract (does not require Stellar ID)
`ConfirmationDisputed`	• `ConfirmationAcknowledgement` • `ConfirmationDisputed`	• `sentBy`, `partyTradeId` - used to identify the correct trade to reject (requires Stellar ID to correctly identify the trade in the Ledger) • `messageId` (from `confirmationStatus:Alleged`) - must be in the `inReplyTo` field
`ConfirmationAgreed`	• `ConfirmationAcknowledgement` • `ConfirmationAgreed` (both parties, with the relevant private data)	

Error Codes

Users are notified of errors during message flow management using the Exception FpML message type's `messageRejected` element and the following error codes.

Code series legend:

- `100x` - general errors
- `200x` - errors related to external services
- `400x` - validation errors
  - `401x` - errors where the message is missing an element or a key element cannot be evaluated
  - `402x` - errors resulting from entitlement validation issues
  - `403x` - state validation errors
- `500x` - errors on post-trade lifecycle events
- `600x` - business validation errors

Error Code	Feature	Description	Comments
`1001`	Trade Capture - Affirmation	Unknown Error	Generic error that we default to when we do not know what the error is

Error Code	Feature	Description	Comments
2001	Confirmation	An external service required is not available	Generic error code to indicate an issue with an integration with external components
2010	Member Services API	Member services API is not reachable	Occurs when we try to reach the member services endpoint but get no response
2011	Member Services API	This Executing Unit does not exist	Occurs when the Confirmation Service is able to reach the API endpoint but does not get a response back with data for the submitted executing unit
2012	Member Services API	This Executing Unit is not active	This EU is present in the Member Services API response but is marked not active; this validation will not be necessary, as inactive EUs will be removed from the participant

Error Code	Feature	Description	Comments
			management interface
2021	Member Services API	This Entitlement Value does not match the Executing Unit	The entitlement value was not found in the available entitlement values for the executing unit being looked up
2022	Trade Capture	The Entitlement Value is missing	
2023	Trade Capture	The counterparty Entitlement Value is not valid	
3001	Trade Capture - Affirmation	The `requestConfirmation` message submitted did not pass FPML schema validation	Error code `300x` is an extension of the `300` validation error code suggested in the FpML spec
3002	Trade Capture - Affirmation	The `requestConfirmation` referenced does not exist	Occurs when sending a non-`requestConfirmation` command that references a `requestConfirmation` that does not exist

Error Code	Feature	Description	Comments
3010	Trade Capture - Affirmation	This trade version is not current	
3020	Trade Capture - Affirmation	The requestConfirmationRetracted message could not be processed because the counter-party already responded to the requestConfirmation message	
3021	Trade Capture - Affirmation	The confirmationDisputed message could not be processed because the counter-party already retracted the alleged trade	
4008	Trade Capture	The Stellar ID provided does not match the internal partyTradeIdentifier of the referenced request	