A Multi-Channel Team Inbox what?[a]
If Clover’s got a heart, it's the Conversations module. The Conversations Module is where, well, it’s where your conversations happen! The Conversations module is actually a multi-channel team inbox collaboration system - a rather imposing way to describe its ability to treat email, and in the future, virtually any communication channel (think Email, Twitter, SMS, Slack, Intercom, etc), as a source of messages that collectively define the interactions between trading partners in the Clover network. That’s the “multi-channel” part. The team inbox part - think of that as adding the missing features of assigning emails (like tickets) and an email being either open or closed (again, kinda like tickets), and we can turn any inbox into a collaborative, team-based workspace!
The Relationship Timeline
The relationship timeline is a conceptual timeline of all events and communications that occur within a relationship between two companies on the Clover network. This timeline can be thought of as the continuous stream of information that is used to train Clover’s AI.
Messages and Conversations
If Conversations are Clover’s heart then Messages are the chlorophyll running through its tiny little veins. For most people, the idea of having a conversation by exchanging a series of messages is the most natural thing in the world. It’s relatable to everyone. And it follows that we can frame most of the activities that we engage in as either having happened within or as the result of a message in a conversation. So, they end up being the perfect thread, along which we can weave the arc of the story of a relationship between two businesses.

Messages
* A message is what we call an Email on a Gmail Channel. It’s also how we will refer to a Task - as a “message” sent on the Clover Task Channel[b]
* A message will have 0 or more labels associated with it
* Each message in a conversation should be addressable directly via a “perma-link”. This will be used in future functionality like sharing a previous message in a conversation, with the other conversation participants.
Conversations
* A conversation is composed of at least one message, from a given channel.
* A conversation may contain multiple messages, though all messages in any conversation will always come from the same channel.
* A conversation may contain Private Notes, Private Team Comments, as well as messages about important events in the lifecycle of the conversation.
* A conversation (msg or task TBD) can be Assigned to a User, or it can be 'Unassigned'
* A conversation can be "Followed" by Users. This causes changes made to existing conversation to “bump” to the top of any view it is shown in, and the conversation is marked UNREAD (and possibly 'un-ARCHIVED'*)
* A conversation has a Status that can be set to any of the following values:[OPEN (default), CLOSED]
* A User can create a New conversation to start a new email message and along with it, a new conversation.
* A User can create a New conversation to start a new Private Team Comment or a chat-only conversation with your team

* A User can create a New “Private Note” on T1

Address Books and Contacts
The address book allows Users to view and manage their contacts.
Address Book
* All Users will have access to an Address Book, but the contents of that address book will vary based on their license tier, team membership, channel connections
Contacts
* Contacts are synced from each connected gmail account’s contacts, in addition to those created during platform Signup and Invitation, and through administrative tools like Company Import.

* Contacts from all of these sources are grouped for display into the following categories.

Shared Contacts
* Default for contacts in a team inbox
* Administered at a User Level
* Available to everyone at your company
* Listed in Company Profile Contacts section[c] for their associated company (we’d need to associate them to headquarters?)
* Available for use in all channels/messages in a team Inbox

Private Contacts
* Default for Contacts in a private inbox (My Inbox)
* Administered at a User Level
* Available to only the User who created them
* Available for use in all channels/messages in a personal Inbox

Auto-Created
* Administered at a User Level
* These are partial contact records, often containing minimal information (email, name, and possibly a profile photo), that are created by Clover automatically when you receive an email from an email address that is not in your contacts
Having access to these contacts allows Users to quickly add contacts they want to retain to their address book as shared or
By default, automatically-created contacts are only accessible to Users that are involved in conversations with that contact. We should allow a User to add an automatically-created contact to:

* Add to Shared contacts - add this contact to the shared contacts list in the Address book, and cause the contact to be shared with their company.
* Add to Private contacts - create a private copy of the contact and add it to the User’s private contacts list in their Address Book[d]. This new private contact copy

will only be visible to the User that created it.
Search
* Global search will be modified to use a third-party search solution called Algolia
   * Search will be federated to return matching results across multiple entities like Conversations, Companies, Products, etc. (UX is TBD)[e]
   * Exact text matching - Search results will only display entries that contain the exact text you enter. For instance, searching for "Pete" will yield results containing only "Pete" and not "Peter" or "Peters."
   * Prefix search - To find an email from Sarah McDonald, enter "sar*" or "coll*" without quotes.
   * Exact phrase search: To search for a precise phrase, enclose the text in quotation marks, e.g., "Weekly Team Update."
   * Combining search filters: You can use multiple search filters simultaneously to refine your search results.
   * Result ranking: The ranking of suggested search results depends on the frequency and location of the search term within key fields, such as recipient, subject, body, comments, etc. Each field carries a different weight. More recent results are assigned higher weights, as they are more likely to be relevant.
   * Excluding Trash and Spam: By default, the Trash and Spam folders should not be included in keyword searches.
* Context Related Search - we will implement using a vector db like Pinecone and an embeddings model from OpenAI. This will require near real time indexing of new data in the Relationship Timeline, so we will use something like langchain. [f]

Clover Bot
A “slash command” of “/Clover” followed by a natural language query[g]. When executed, returns an answer from an AI agent with access to and that has been trained on the authenticated User’s company’s data. Aka “Relationship Timeline”[h]

* Available within private team comments at T2 and T3

Labels
Labels allow entities in Clover to be “tagged” with a text string of your creation, providing for easier organization and retrieval of your information. Labels are User managed for Private Workspaces, and Team Workspaces, separately.

Team Labels
* Available for use in all channels/conversations in a team Inbox
* Sync’d with ALL connected gmail accounts
* Available for use by all team members on the given team
* Administered at a team-level by company-admin

Private Labels

* Available for use in all channels/conversations in a personal Inbox
* Sync'd with the connected gmail account when available
* Available for use only by the User who created them
* Administered at a User Level by the given User

* Labels may be associated with conversations, and in the future, companies, workflows, campaigns and Tasks, and possibly more.
* Gmail also has the concept of Labels. Because Gmail uses labels internally for controlling where and how emails are displayed/categorized. Every email that is synchronized to an inbox in Clover, will have one or more System Labels associated with it [INBOX, SPAM, TRASH, UNREAD, STARRED, IMPORTANT, SENT, DRAFT] (*Note that "ARCHIVE" is not a label. A message is archived when it does not have any of the following tags on it [INBOX, SPAM, TRASH, UNREAD, SENT, DRAFT] according to the way Gmail operates.
* We can choose to extend this Gmail approach and also use these system labels to control how our various views are filtered.
* Note - We sync labels from gmail only if we have at least one message labeled. Nylas doesn't support webhooks for labels, so we can only track them at messages level.
* There is a limitation on the nylas side that prevents us from being able to associate more than one label to a contact. There is a ticket with them to resolve this, but we will not target this contact label support for initial release.

Views
Views are pre-configured filters that allow for easy categorization of conversations. Views make use of conversation labels, statuses and other properties to work their magic. The following views will be supported:

* Inbox
   * My Inbox - all conversations with the INBOX label and an OPEN status
   * Team Inbox - all conversations with the INBOX label and an OPEN status
      * When archiving, snoozing, or unfollowing a conversation in a User's view of a team inbox, it should not impact other teammates in the conversation. For example, this allows a User in a team mailbox to clear out their inbox view without archiving or snoozing, or unfollowing the conversation for other teammates.
* Assigned to me - All Conversations that have been assigned to the current User, and are OPEN[i]
* Shared with me - All Conversations where you have been @mentioned, and are OPEN[j]
* Starred - All Conversations with the "STARRED" label
* Sent - All Conversations with the "SENT" label
* Drafts - All Conversations with the "DRAFT" label
* Snoozed - All Conversations with the "SNOOZE" label
* All - all conversations with none of the following labels [INBOX, SPAM, TRASH, UNREAD, SENT, DRAFT]
* Spam - All Conversations with the "SPAM" label
* Trash - All Conversations with the "TRASH" label
* Open - conversations with an OPEN status.

* Closed - conversations with a CLOSED status.

* Custom views will also be supported in the future.
* Custom views will be defined at both a User and a Team level

Message Templates

Message Templates are preformatted templates that can be used to quickly create a message or reply.

* Message Templates are available at T2 and T3[k] for both Private and Team workspaces

* Team message templates allow Admin Users to create templates that can be used by everyone in a Team Workspace to increase productivity

Signatures

Signatures allow you to predefine signature blocks that are automatically inserted for messages created in channels like email (and in the future, others).

* Signatures are available at all pricing tiers

* Team-level signatures are available at T2 and T3

* Team Signatures will need to use dynamic variables to customize them based on the teammate using them.

Administration

Configuration of any personal and/or team workspaces is required for all but the most basic Conversations functionality. We will need to collect this configuration information during user onboarding, and allow it to be administered separately, via system Settings.

Private Workspace Administration

Private Workspace Administration is available on all pricing tiers. All User roles will be able to administer their own Private Workspace settings.[l]

1..1 Private Workspace
1..1 Inboxes[m] Add/Remove/Configure Inbox

0..n Channels (currently only Gmail) - Add/Remove/Configure Channels
* Programmatically prevent more than one Clover User account from connecting to the same gmail account. This would prohibit the workaround of using a shared email address, as a linked gmail account that each clover user just connects their My Inbox to. We want to restrict this capability in the lowest price tier (no access to teams)
* In both a private and team workspace, once you remove a channel, you can no longer send or receive with that channel, but you can still see conversations that took plac[n]e on that channel prior to it being disconnected.
0..n Message templates -Add/Remove/Edit Custom Views

0..n Signatures - Add/Remove/Edit Custom Views

0..n Labels - Add/Remove/Edit Labels

0..n Custom Views - Add/Remove/Edit Custom Views

Teams Administration
Teams Administration is available only on T2 and T3 pricing tiers, to Users with the Company-Admin role.

0..n Team Workspaces - Add/Edit/Delete Team Workspace
Each team has a Name
Each team has a Color

0..n Members - Add/Remove members (from User's company)

0..n Inboxes[o] - Add/Remove/Configure Inboxes

0..n Channels (currently only Gmail) - Add/Remove/Configure Channels
* Allows more than one Clover User account to connect to the same gmail account (support for group email addresses like support@acme.com)
* In both a private and team workspace, once you remove a channel, you can no longer send or receive with that channel, but you can still see conversations that took place on that channel prior to it being disconnected.
0..n Message templates -Add/Remove/Edit Message Templates

0..n Signatures - Add/Remove/Edit Team Signatures

0..n Labels - Add/Remove/Edit Labels

0..n Custom Views - Add/Remove/Edit Custom Views

User-level Conversations Preferences Administration

User-level Conversations Preferences Administration is available on all price tiers. All User roles will be able to administer their own User-level Conversations settings.

TBD

Nav Structure - Sections & Subsections

The new Clover main navigation consists of a number of groupings of links and information. The Conversations subsection is the default landing page for new users, replacing the dashboard and broker dashboard views entirely. The configuration of elements of the navigation are controlled by a combination of user roles and pricing tier-specific functionality, thus we will describe the elements of the navigation, and provide examples of possible configurations. First, let’s look at an example of a full conversations sub-nav, representing what we expect to be a common configuration:

[p]

Channels

Channels are how Clover receives messages from the outside world. In the first release of Conversations v2, we will support one channel - Gmail. We will eventually build additional Channels to support multiple communication types like Outlook365, Intercom, SMS, Twitter, Slack, etc.

* In the navigation, A channel will display with an icon representing its type, and a name
* Name will default to the connected email account for a configured gmail channel connection

Private Workspace
Each user has a single Private Workspace that cannot be removed.

My Inbox - Your inbox is a consolidated view of all conversations that need your attention.
A conversation can be in your inbox for a number of reasons — it's assigned to you, you're @mentioned in it, or there's new activity in a conversation you're ‘following”.

* My Inbox is 'already integrated' with Clover Tasks, so there is no setup/admin of this Channel's connection to 'My Inbox'. “Clover Task Channel” (where task is open, task assignee is the current authenticated user, etc.)[q]
* Zero or more linked Gmail Channel Connections (0..1 connected Gmail accounts on T1, and 0..n Gmail accounts in T2 and T3)
  * How should Broker/CAR accounts work here?[r]

Team Workspaces
Team Workspaces allow companies on T2 and T3 to define 0..n teams and then manage those teams individually in terms of their Inboxes, connected Channels, Members, etc.

* Team Inboxes allow the combination of messages from 0..n Channels
  Team Chat Groups
  Team Chat DMs

Example Configurations
Here are some examples of the types of configurations we should expect in the wild.

Tier 1 User
* Company-User

Tier 2 User
* Company-Admin

* Company-User

Tier 3 User
* Company-Admin

* Company-User

1..1 My Inbox
    Linked to up to one email channel
    Typically, the User’s work email (john.doe@work.com)

Rules
LOW PRIORITY - we are discussing rules so that we can anticipate its eventual development, but we will prioritize this functionality towards the bottom of the v2 (Clover v1? Like now its in 0.1?) release.

Rules are Automations that can be setup to run on various events. Think “When an email arrives in INBOX AND the sender’s Company = [COMPANY], apply label ‘VIP ACCOUNT’” or more generically, “When [EVENT] execute [ACTION]”. Where events could be things like a message label being applied or removed, a new message arriving in an inbox, an email assignment, etc.

* Rules can be configured at Team Workspace level on T2 and T3 price tiers
* * Rules can be configured at Private Workspace level at T2 and T3 price tiers

Analytics
LOW PRIORITY - we are discussing Analytics so that we can anticipate its eventual development, but we will prioritize this functionality towards the bottom of the release.

New analytics will be developed like

Team Performance Reports
CSAT reporting

SLA Reporting

Glossary
* Channels
* Views
* Teams
* Team Workspace
* Private Workspace
* Team Chat Groups
* Team Chat Direct Messages (DMs)
* Primary and Secondary CAR Accounts
* Messages
* Conversations
* Labels/Tags
* Contacts
* Private Notes
* Private Team Comments
* Relationships
*

[a]Be sure to RECORD GROOMING!
[b]Need to discuss this. Not set on it.
Also, the idea of task emails vs tasks themselves. Can a Task assignment be an email assignment? Do we need to materialize the task any more that the email through which it is assigned? As long as it contains the necessary information and links...right?
[c]- those contacts could be not-associated with some user inside Clover, so I'm not sure that we need to show them in the company profile. If we still need - then need to disable options "Chat, Favorite, Assign task, etc.". Or maybe in the Company Profile COntacts we need to define several tabs, like "Clover Users", "Shared Contacts", "All Contacts", etc

[d]Do we plan to support Address books on the Clover side?
[e]Den to sync with Alex and FEs on components available, UX approach etc.
[f]Team, we are already behind the curve with AI, and it is not slowing down. If you aren't already, please start to familiarize yourself with these!
[g]Den, doesn't have to be implemented in this way, but it feels natural to me. Thoughts?
[h]Need to look at per token markup? The more you get use from it, the more the cost. Talk with Josh.
[i]Assigned to me - all messages assigned to you directly (Departments?), across all inboxes that you have access to (team and private, CAR accounts?)
[j]Shared with me - all messages shared with you via ‘@mention, across all inboxes that you have access to (team and private, CAR accounts?)
[k]Team - Safe to assume that when I start talking about pricing tiers, the best way forward will be to provide a feature flag solution that would allow us to easily experiment with the tiers these features are available on.
[l]- need to have a mockup for the basic view, when the User does not have a connected email
- need to have a way to "Unlink" email account from Clover with description of possible results
[m]Research: https://help.front.com/t/h4njsm/when-to-use-tags-vs-empty-inboxes
[n]those conversations should have all links and functions in "disabled" state?
[o]Research: https://help.front.com/t/h4njsm/when-to-use-tags-vs-empty-inboxes
[p]Need to talk through Team Chat Groups and DMs. Should we separate them like this, from other channels in the inbox? They are presumably more optimized for instant messaging-style conversations. To further explore this, how would we, in the future, build a Slack Channel to integrate with a company's slack instance?
[q]TBD
[r]How to handle Broker CAR accounts vs the Primary account, for a rollup view?