

Empathy Video chat

Designed by

Nick Richards - nick@linux.intel.com

A design constraint is that the video and audio chat window has to be separate from the chat. Ideally they would be brought together but that would require a somewhat deeper redesign.

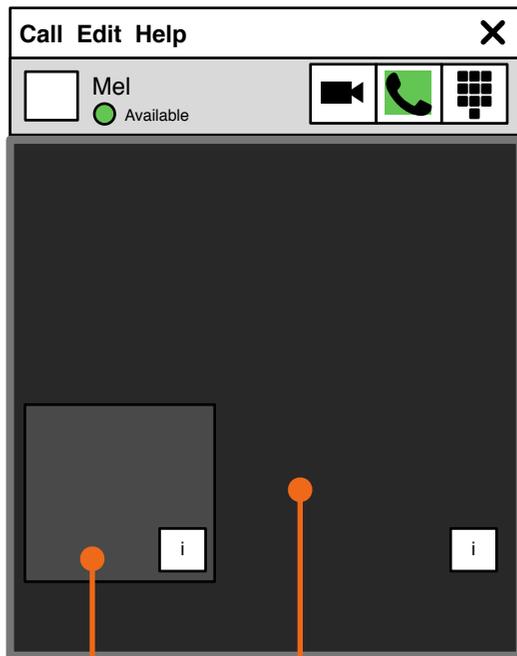
In this design the audio chat window is a special case of a video chat. Throughout the document it will be referred to as the "video chat window" although audio chats can also take place there.

There are a number of entry points to the video chat window:

- * From the contact menu of a text chat, with either audio or audio and video enabled.
- * From the contacts list, with either audio or audio and video enabled.
- * From the File -> New call menu, with either audio or audio and video enabled.

Redesigning these entry points is not within the scope of this document, although they do need a redesign ;-)

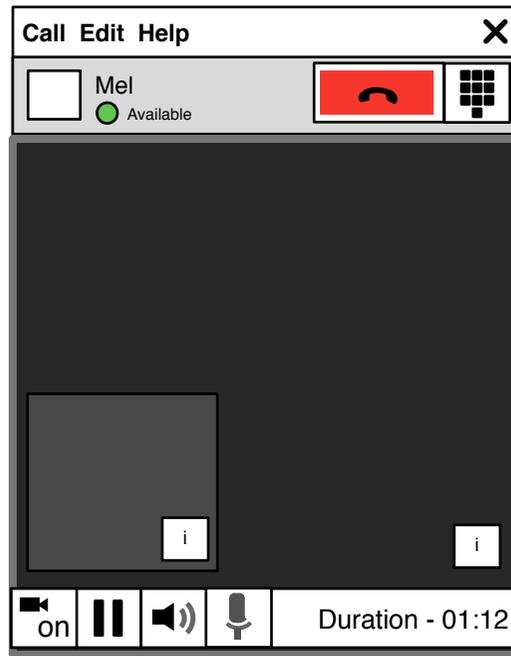
1. Video chat window - not yet in call.



Your video stream

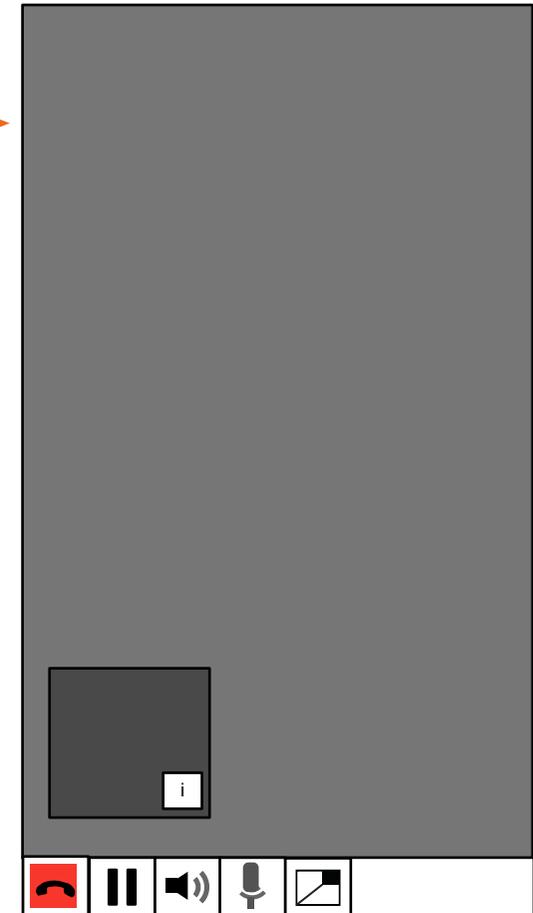
Contacts video stream. Before connection their buddy picture is shown.

2. Video chat window - in call.



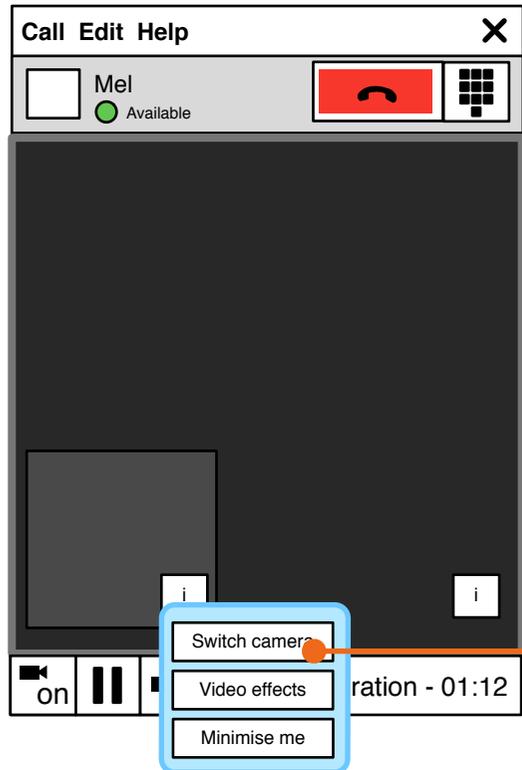
The in video controls should fade in after mouse movement within the call and fade out after 3 seconds, much like video playback controls. They are drawn within the chat window and are fixed width. In the event of a failed call or inactive call window the toolbar is always shown. Fade out only operates when in call.

3. Video chat window - in call.



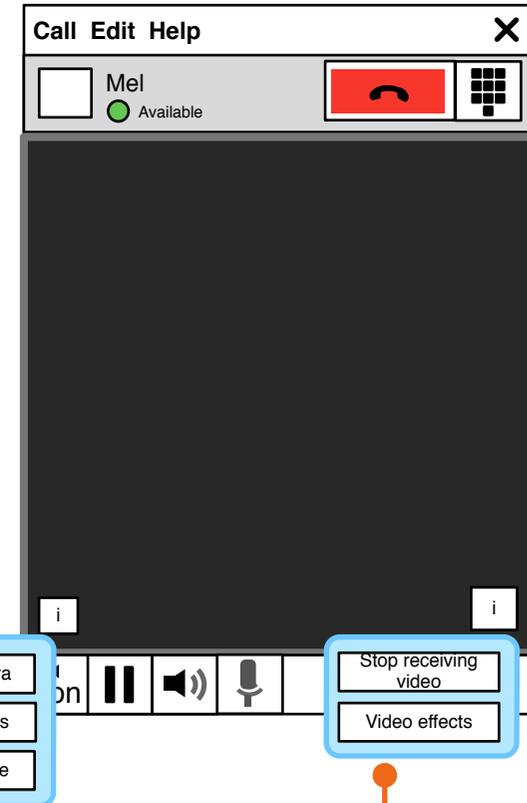
In full screen you don't currently get all the options. This may be changed.

1.0 Video options



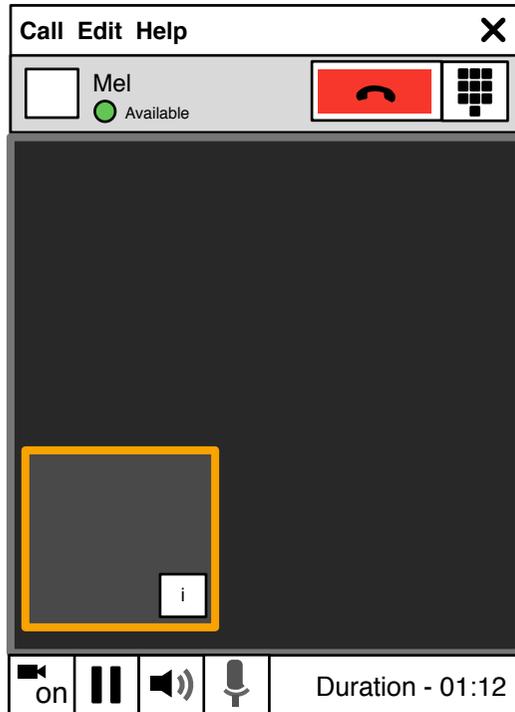
My video options
Rotates through all available cameras.
Should only be shown if there's >1 camera.

2.0 Minimised Video

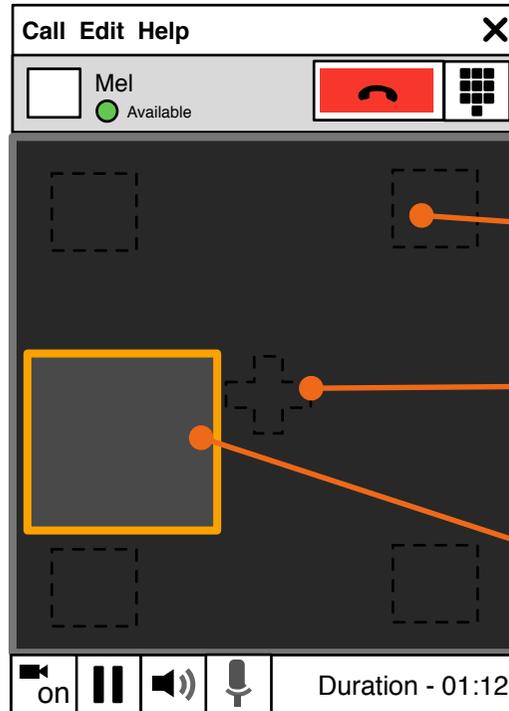


Contacts video options
Rotates through all available cameras.
Should only be shown if there's >1 camera.

1.0 On hover, video is highlighted. On drag, three other drop zones are shown and other controls are hidden.



2.0 On drag, three other drop zones are shown and other controls are hidden.

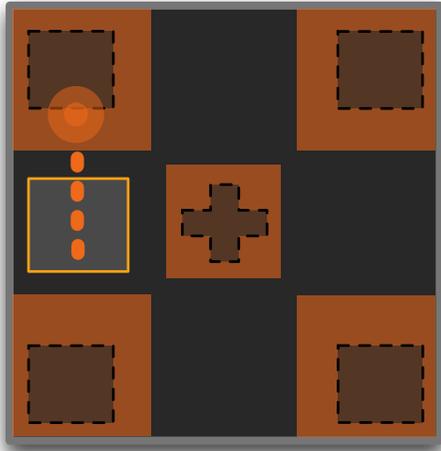


Video locations are highlighted to provide clear indication of new locations.

Swap main screen video. Toggles between users and respondent video feed in the main viewing panel.

As the element is being dragged, the information icon is removed, but replaced once dropped in its new location.

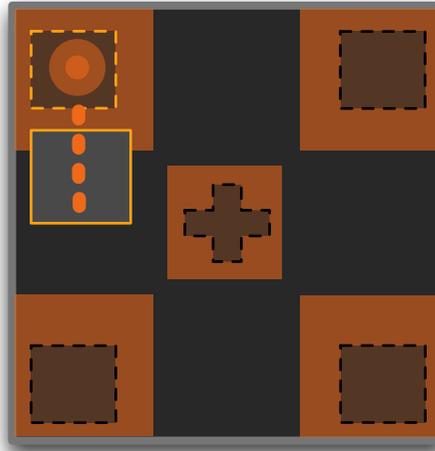
3.0 Video drop zones



Drop zones act as a safety net for capturing the users activity.

If the user releases the element (drops it) before entering a zone, the element is returned to its original position (via a nice transition)

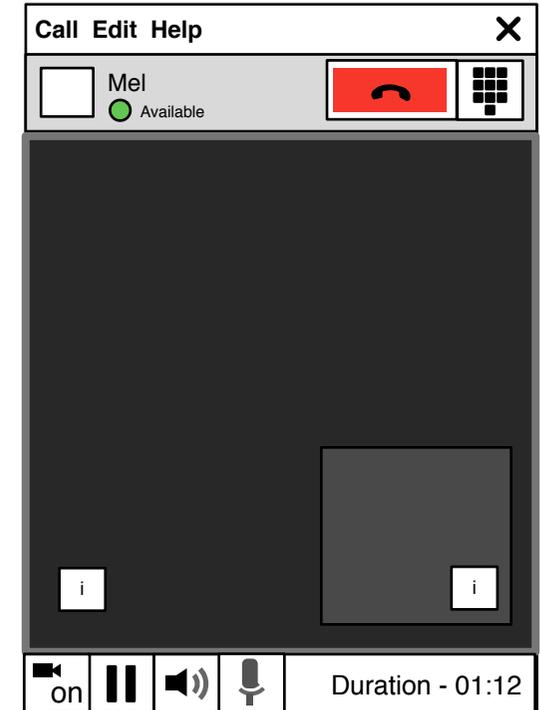
4.0 Zone highlight confirmation



As the dragged element enters a drop zone, the Location is highlighted.

It is now safe to drop the element as it transitions to its new location.

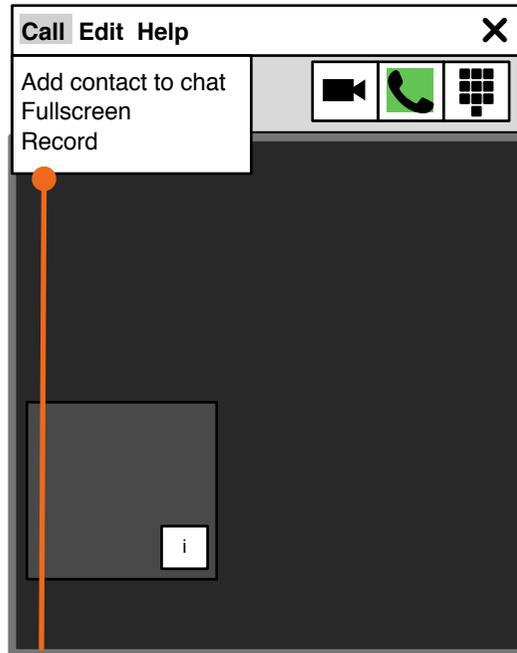
5.0 Video and Fullscreen switch



If the user drops the video on bottom right slot, the main view info button jumps to the left.

Dropping onto an already filled zone swaps the feeds.

1.0 Call menu



Add another contact:

Should work the same way as adding a contact to a group in text chat.

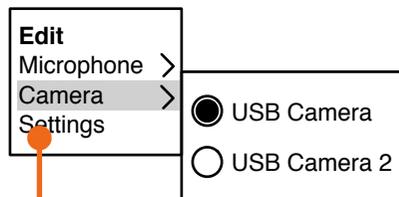
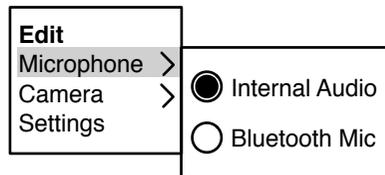
Fullscreen

Enters fullscreen mode (also, press F11)

Record:

Access to call recording functionality described in bug 590048

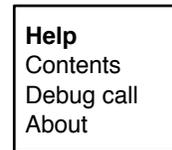
2.0 Edit menu

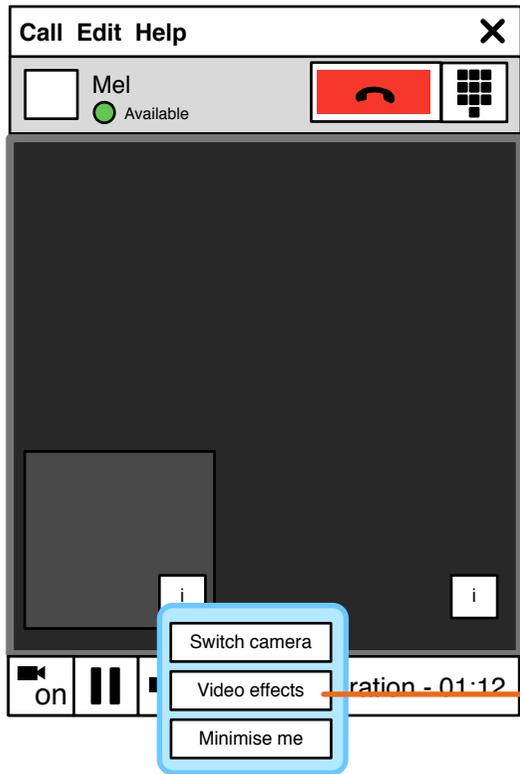


Opens the empathy settings dialogue.

Microphone and camera switching should only be available if there's ≥ 2 camera or microphones detected.

3.0 Help menu





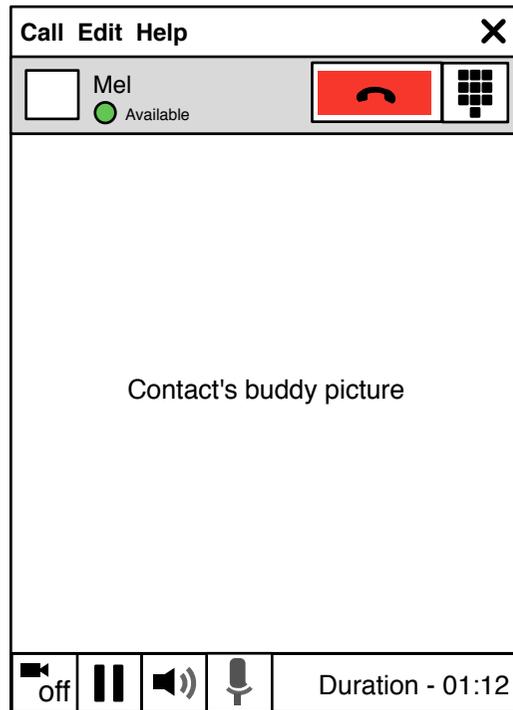
Open info button, then choose video effects from the menu



'No effect' is always the first item in the list. Click to select an effect. Scrollbar should only be shown if there are more effects than can be seen

Currently you can only have one active call at a time. In future we would like to enable multiple calls. This is tracked in:
https://bugzilla.gnome.org/show_bug.cgi?id=623348

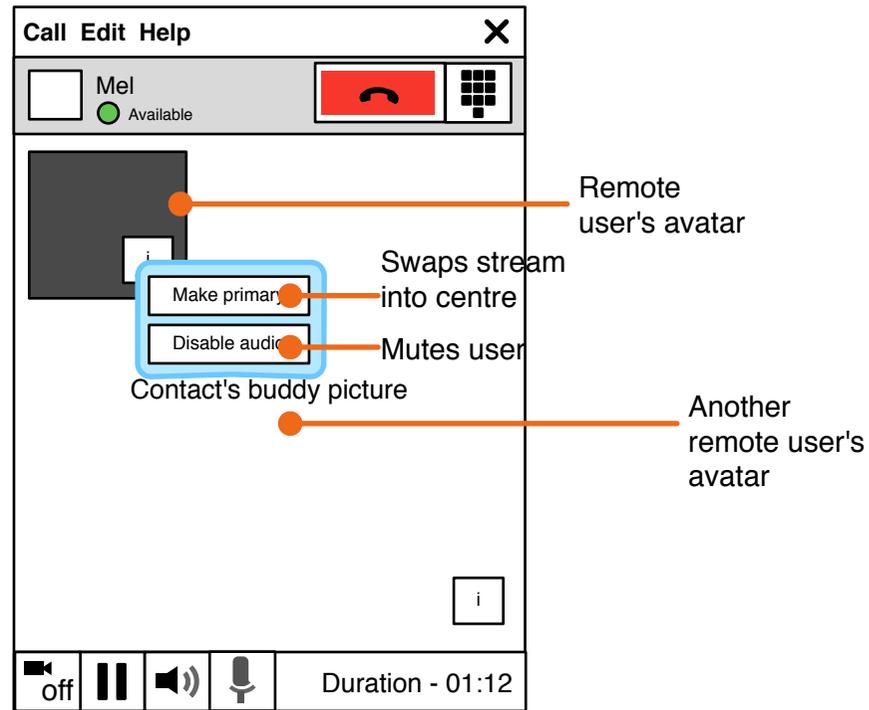
1. Audio call window



There is no way of making an audio only call in full screen.

There is no user preview window in audio calls.

2. Multi-party audio call



The user can manipulate multi party audio calls the same way as video calls.

1. Make a call - Select phone icon for audio call, select video icon for video and audio call. Select keyboard for keyboard popup



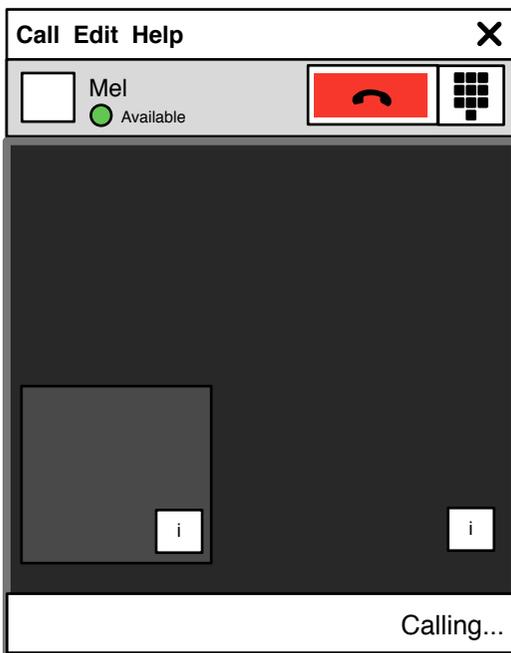
2. Post call (buttons disabled for 2 seconds) before returning to 1.



Once the type of call has been selected, the video and audio icons are merged to provide a single call to action.

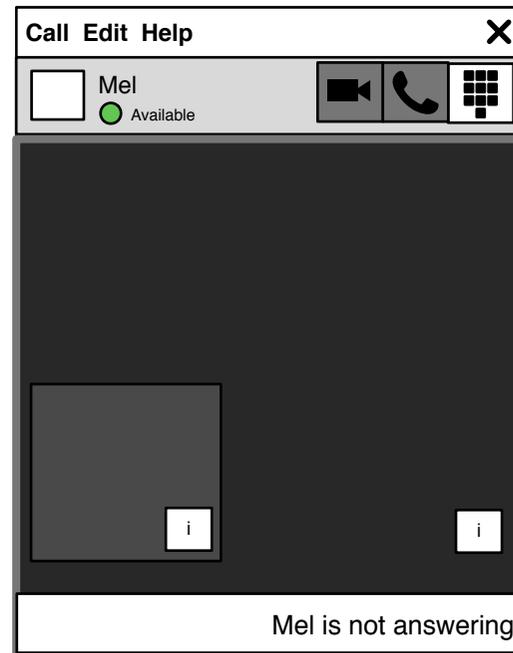
NOTE: there should be a smooth transition between these different states

3. Calling - icon selectable to end the call



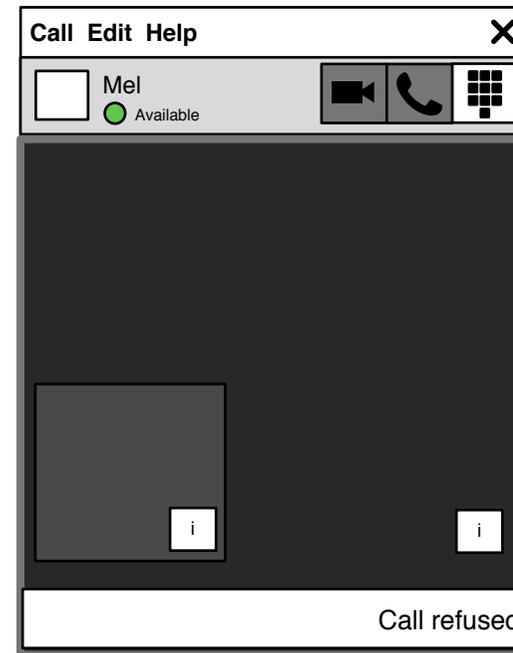
Status is shown in the message area of the toolbar. If the toolbar is hidden then it is shown on a state change, such as making a call.

3a. Call times out or is cancelled by the user

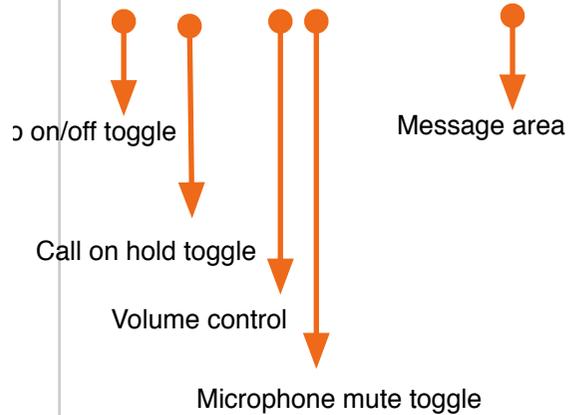
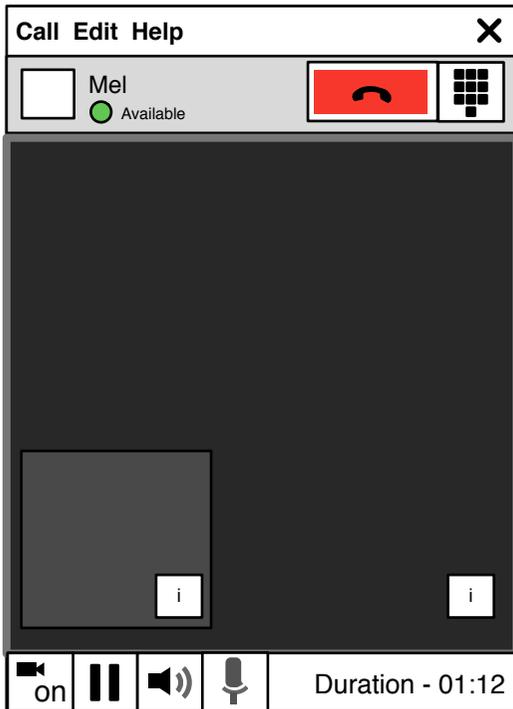


In the event of a failed call or inactive call window the toolbar is always shown. Fade out only operates when in call.

3b. Call refused by contact



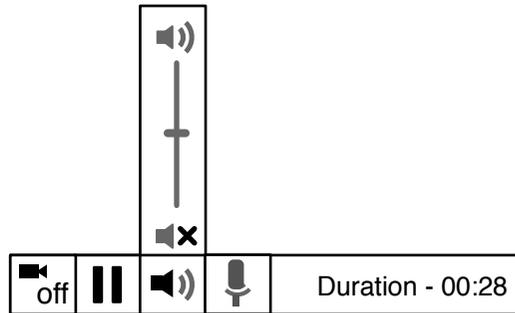
4. In video call



5. Adding video to an audio call). Message disappears again when connected



6. Volume control



7. Call on hold

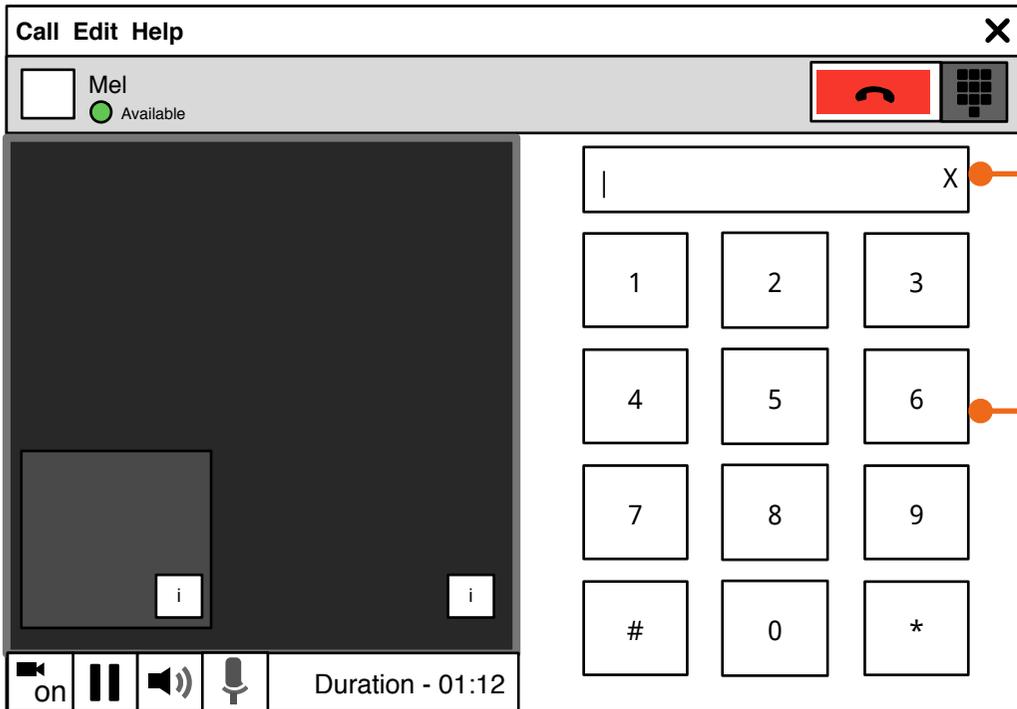


8. Mute toggle



NOT A VISUAL REFERENCE

1. Keyboard toggled on

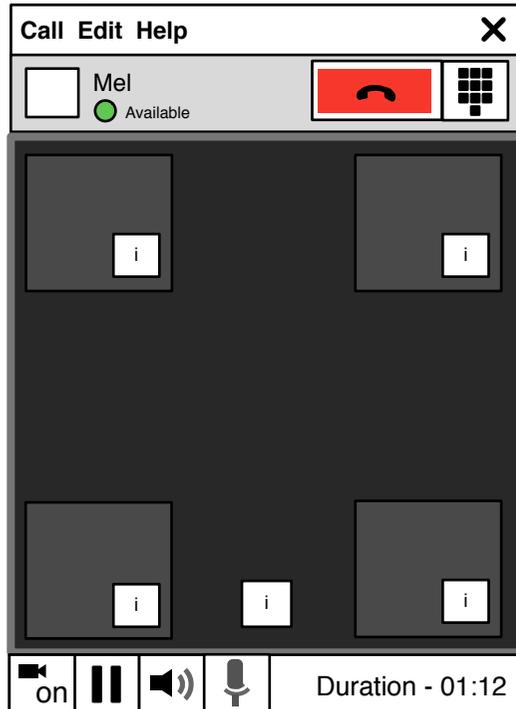


Shows entered numbers, non editable.

Of course the user should be able to just type on the keyboard as well.

If the service doesn't support DTMF and key entry stuff then it'd be really great if we could not show the whole keyboard activation thing.

1. Multi party video call (up to 4 participants)

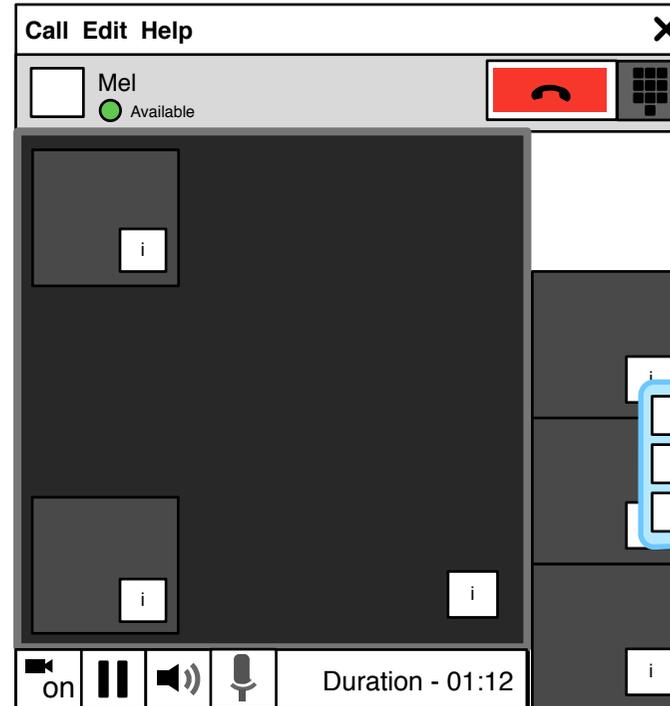


In a multi party call the drop zones around the edge of the video are used to show video streams until they are used up. Only one party can be in the main view at a time.

If all corner slots are taken the primary party's information is shown in the middle at the bottom.

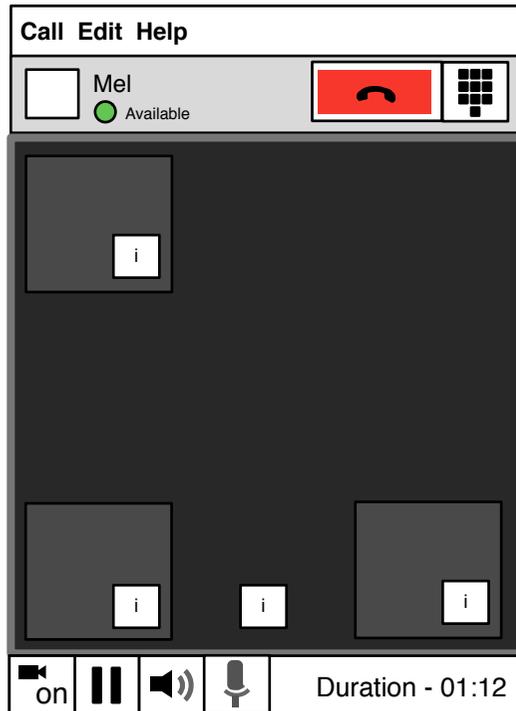
In a multi-party call, the video previews may be slightly smaller.

2. Multi party video call (greater than 4 participants)



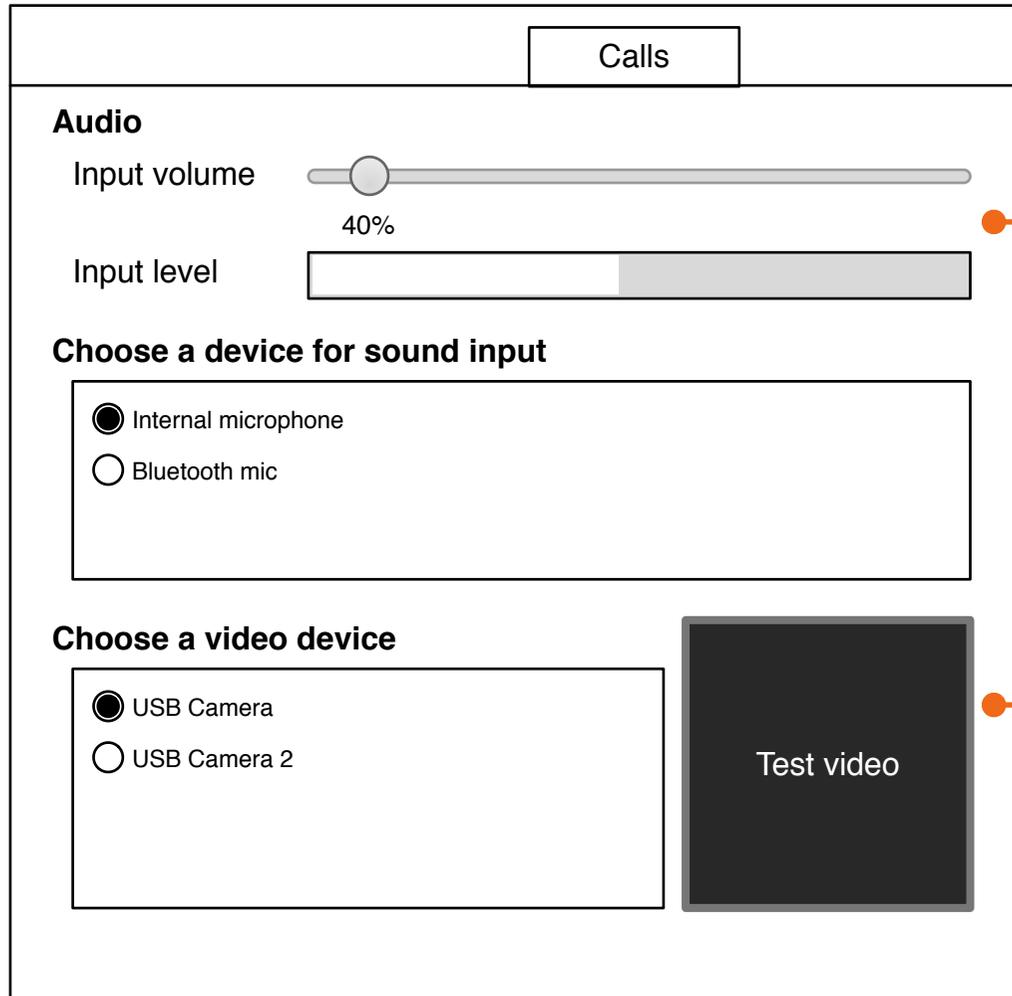
- Make primary — Swaps stream into centre
- Disable video — Stops showing users video
- Disable audio — Mutes user

If there are more than 4 participants then video previews stack along the side of the screen. There are extra dropzones along each stacked column so you are not required to have fill the main area but when the last preview is removed from the extra column it should be hidden.



To setup a multi party call you can drag a contact from the buddy list onto the window. Or use the menu.

Call -> Add contact to chat



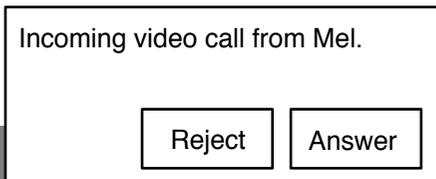
Alternatively, the whole audio section could be replaced with a button saying:

Open audio settings

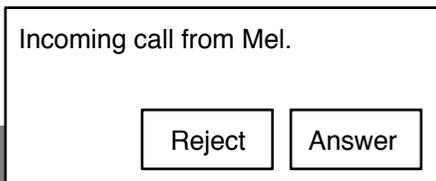
Which opens the sound capplet.

In future it'd be nice to have some preset tunables available for different lighting conditions e.g. Fluorescent lights, Outside etc. This might also be a nice place to bring some of the funky Cheese effects into the fold.

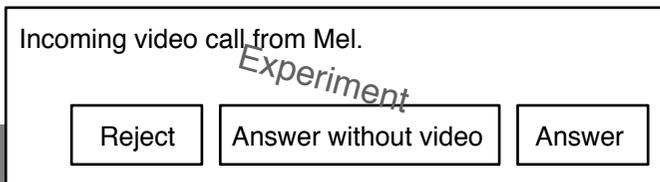
However for now, it's auto-adjust only.



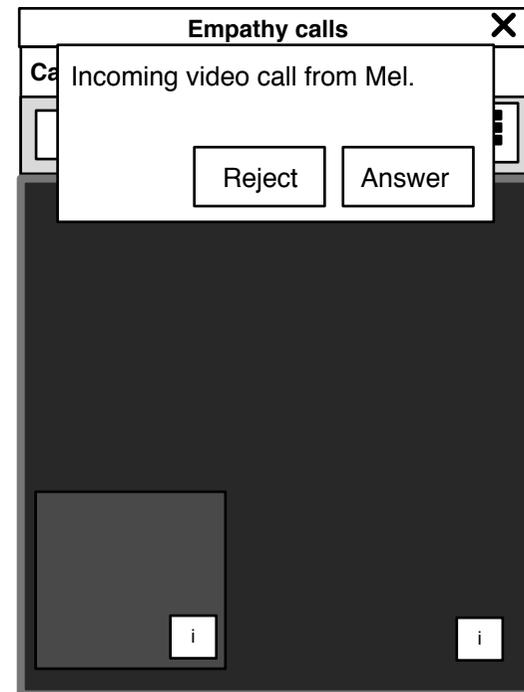
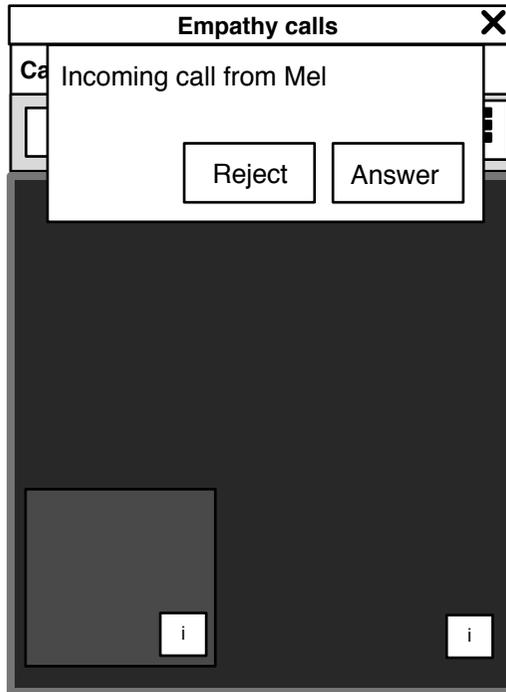
A system modal dialogue is the primary means of receiving a call. This is shown on all workspaces. Accepting will open a video chat window or reuse an existing window



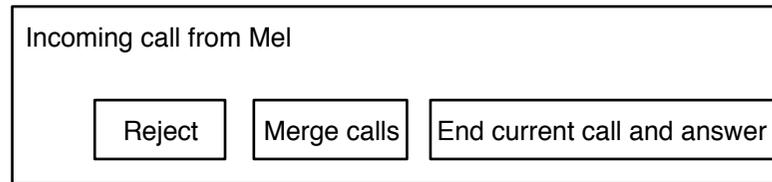
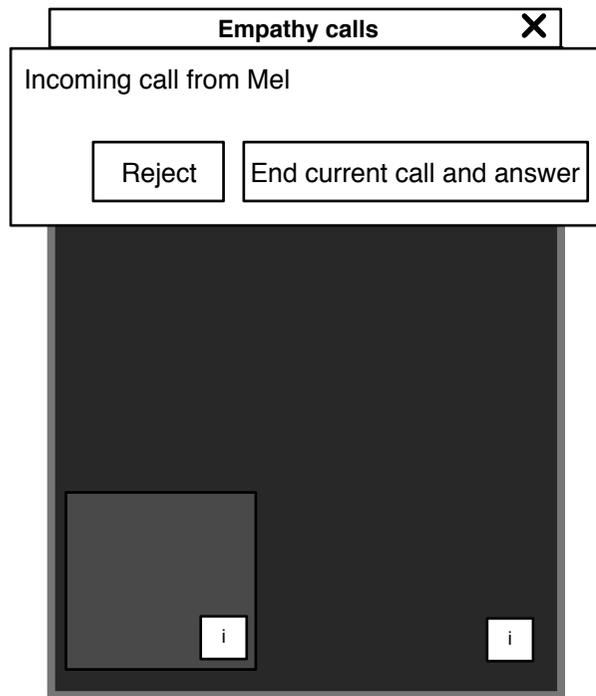
Audio chat version



A video chat only version of the system modal dialogue may be experimented with.



If the empathy call window is already open and on the same workspace, then a modal dialogue is shown for an incoming call. This is in addition to the normal shell dialogues for incoming calls and can be dropped if it's too difficult to implement.



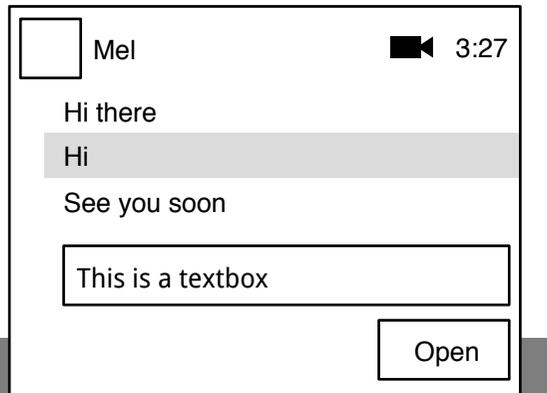
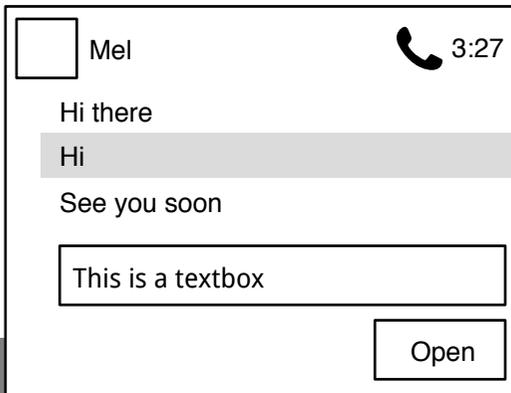
If it is possible to merge the two calls, the option should be offered. This would make it a multi party call as dealt with elsewhere.

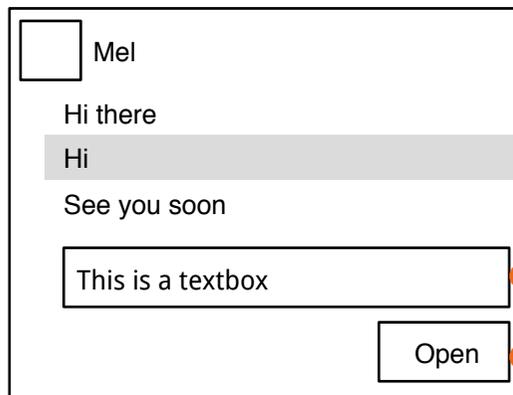
This design and application can only support one simultaneous video session. If you are already in a call when another one comes in then a window modal dialogue is shown. The options within will depend on the networks that both parties are on.



When the call window is not focused an urgent shell notification is shown. The time of call is shown.

Look! A video call.

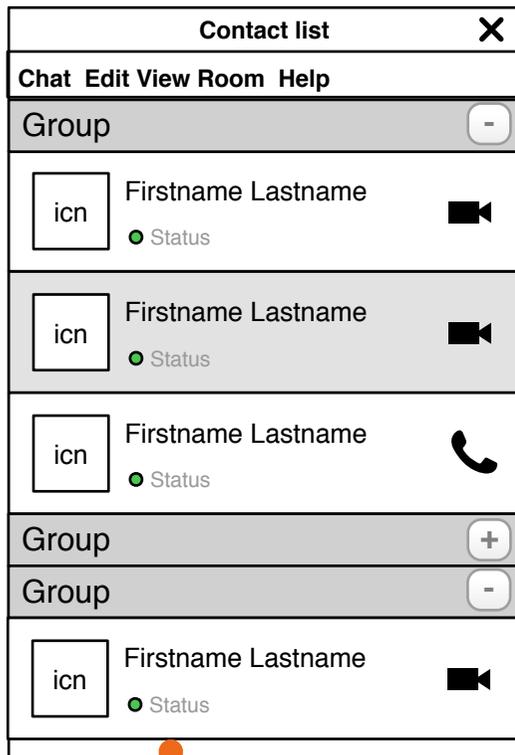




Allows the user to type messages, enter to send.

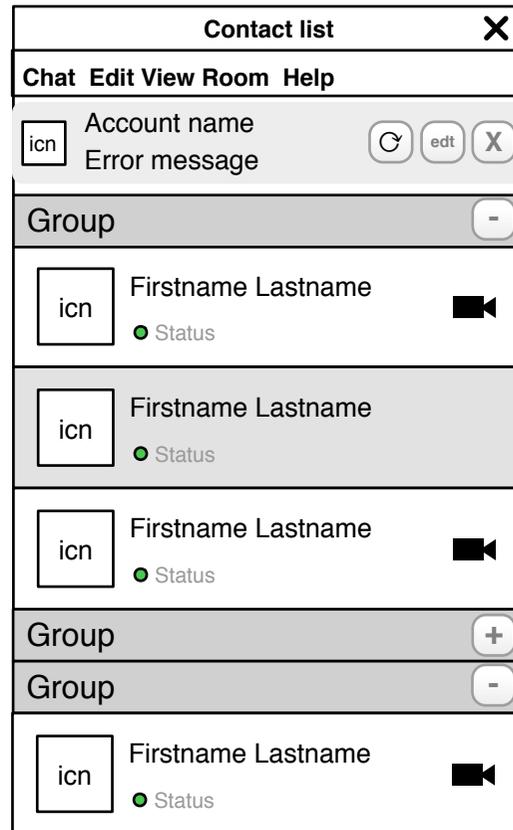
Takes the user to the conversation window and focuses it, on whichever workspace it is.

All accounts connected

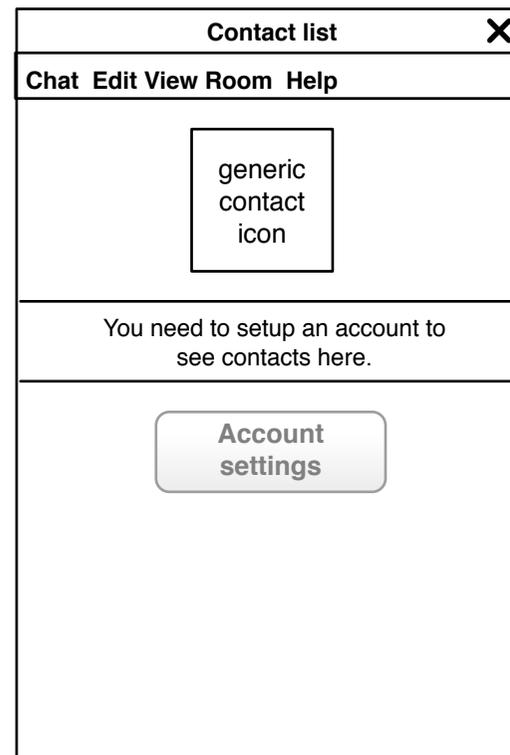


This contact card is more similar to those used elsewhere within GNOME to refer to people. However in the short term it's OK to use the current one.

One account connected, one in error



No accounts configured or enabled.



Accounts configured but not enabled.

The screenshot shows a window titled "Contact list" with a close button (X). Below the title bar is a menu bar with "Chat", "Edit", "View", "Room", and "Help". The main area contains a "generic contact icon" in a box. Below the icon is a message: "You need to enable \$account-name to see contacts here." At the bottom is a button labeled "Account settings". An orange vertical line with a dot at the top points to the "Account settings" button.

For multiple accounts use the string:

"You need to enable one of your accounts to see contacts here."

Online, no online or offline contacts

The screenshot shows a window titled "Contact list" with a close button (X). Below the title bar is a menu bar with "Chat", "Edit", "View", "Room", and "Help". The main area contains a "generic contact icon" in a box. Below the icon is a message: "You haven't added any contacts yet". Below this is a section titled "Add a friend" with a grey background. It contains three input fields: "Account" with a dropdown menu showing "icn" and "\$account name", "Username" with the placeholder "Your contacts username" and a tip "A username looks like an email address", and "Name" with the placeholder "Your contacts real name". An "Add" button is at the bottom right. An orange vertical line with a dot at the top points to the "Add" button.

Terminology, formatting and tip should change depending on the type of account selected.

Online, no online contacts, but offline contacts

The screenshot shows a window titled "Contact list" with a close button (X). Below the title bar is a menu bar with "Chat", "Edit", "View", "Room", and "Help". The main area contains a "generic contact icon" in a box. Below the icon is a message: "You don't have any contacts online to chat to right now." At the bottom is a button labeled "Always show offline contacts".

All accounts in error

Contact list ✕

Chat Edit View Room Help

	Account name			
	Error message			

	Account name			
	Error message			

generic
contact
icon