

# **USAC Report**

## **Team 7312's Native Slack App for Mac**

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# List of Tables

**Table 1: Are there any main areas you would like to see improvements in Slack for Mac?**

Major improvements to resource usage by being a native app. (also a note about my answer above that it fits poorly with native mac apps, I don't see that as a bad thing, I'm not a big fan of Apple's stock apps and out of all mentioned I mainly only use Messages and it's terrible)
It would be neat if they used machine learning to analyze the conversations and have a bot that attempts to answer previously asked questions.
Switching of teams and logging in. Sometimes messages slow to refresh. Liking a message (adding reaction) takes too many clicks.
it is too colorful and makes it very hard to use. The design also encourages lots of arguing in teams and needs more regulation

**Table 2: What's your biggest frustration in regards to using the Slack web app or the Slack desktop app?**

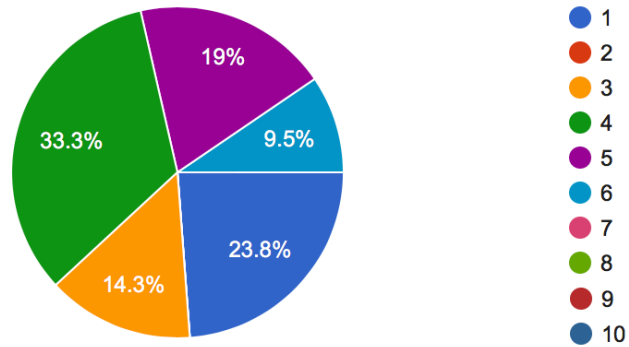
Switching between teams
I do not know how to find my group when I first use slack
Huge resource usage, Slack is idling and currently has 7 processes (6 helpers and one main), is using about 1% of one core total between all processes (so there goes my battery life), and over 1 GIGABYTE of ram. More than a freaking GIGABYTE for a simple chat app... Yay for Electron and Javascript haha...ha...ugh
Notifications are cluttered. User interface could look nicer.
The logging in - have to do by team instead of just doing by a user account
Unwanted notifications
No multi team bar
too many users posting
something features are hard to figure out how to use on the web application
It is extremely slow to load
nothing
slow start up
It doesn't clearly notify me when there's a new message.

# List of Figures

Figure 1:

How many Slack teams have you joined?

21 responses

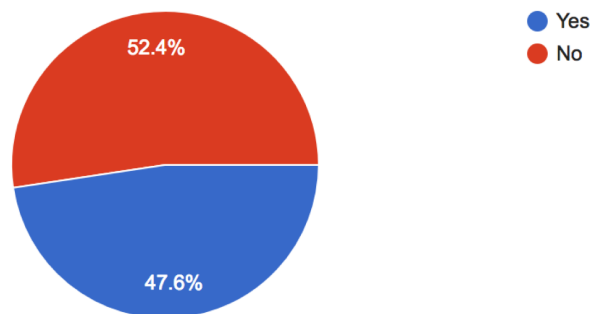


*Survey results of number of Sack teams a user has joined*

Figure 2:

Are you ever frustrated by the Slack web app or the Slack desktop app?

21 responses

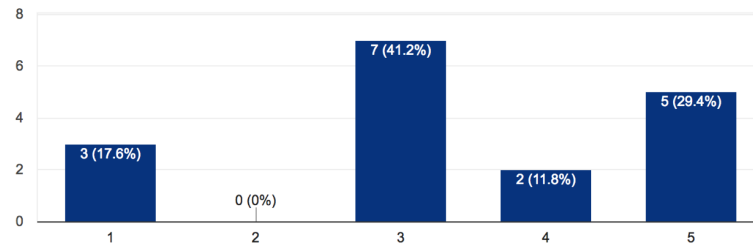


*Survey results of overall satisfaction of either the Slack web app or Slack desktop app*

**Figure 3:**

How satisfied are you with the speed of the switching between teams in Slack for Mac?

17 responses

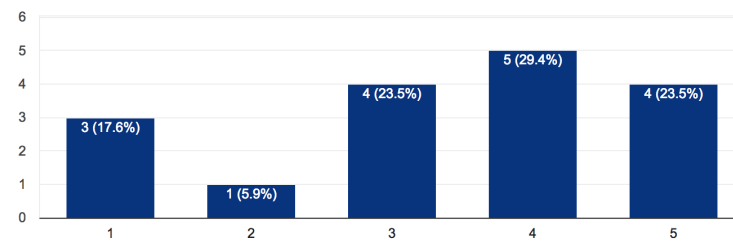


*Satisfaction of switching between teams on a 1(very unsatisfied) to 5(very satisfied) scale*

**Figure 4:**

How satisfied are you with the speed Slack for Mac launches?

17 responses

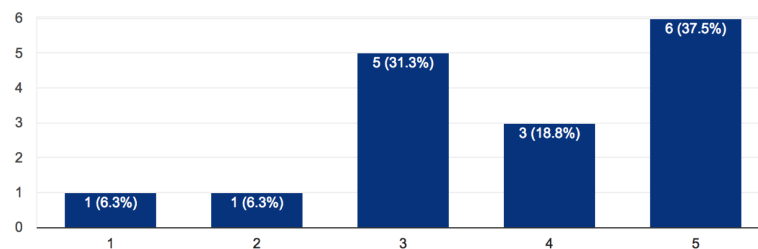


*Satisfaction of launch speed of the Slack for Mac on a 1(very unsatisfied) to 5(very satisfied) scale*

**Figure 5:**

How satisfied are you with the general user interface/interaction responsiveness in Slack for Mac?

16 responses

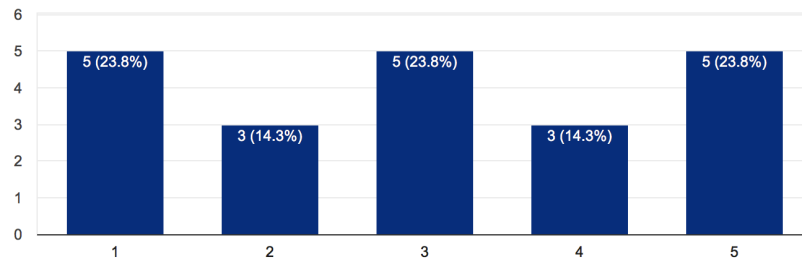


*Satisfaction of the user interface/interaction responsiveness in a Slack for Mac app on a 1-5 scale*

**Figure 6:**

Do you feel switching between teams slow you down?

21 responses

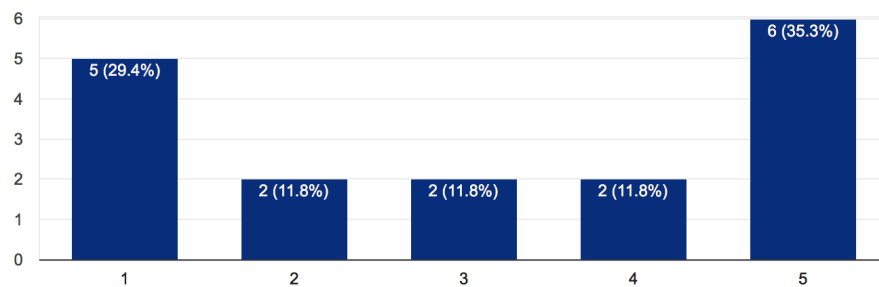


*Indication of whether switching between teams slow down workflow on a 1(not slowing down at all) to 5(slowing down a lot) scale*

**Figure 7:**

Would you be interested in having a unified timeline that combines all messages in every team and channel you've joined?

17 responses

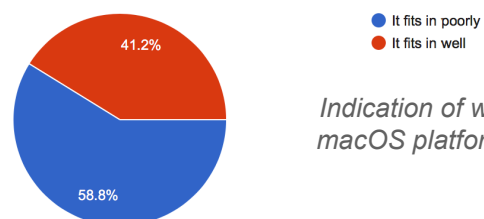


*Indication of interest in accessing unified timeline a 1(no interest at all) to 5(very interested) scale*

**Figure 8:**

How well do you think Slack for Mac fits in native Mac apps (such as Messages, Mail, Calendar, etc.)?

17 responses



*Indication of whether Slack respects macOS platform design conventions*

# Introduction

One of the main draws to Mac is the high-quality software that is a native to the platform. These applications offer a consistent and well-designed user interface as well as speedy performance. However, Slack for Mac offers neither of these. Our team is seeking to change that by creating a new, native version of the Slack for Mac. The official Slack for Mac is built on top of a framework known as Electron, which allows for Mac apps to be written in JavaScript. While this framework makes it easier for developers to create a Mac app, it comes with drawbacks; most notably poor performance and high energy usage. As users of the app, we were frustrated by these limitations and wanted to build an alternative Slack client that improvements to these drawbacks.

In addition, we were motivated by the fact that Slack's user interface is inconsistent with the macOS design language, rendering using both Slack and other Mac apps a jarring and incongruent experience. Switching between channels, teams, and conversations on the official Slack for Mac app is tedious and slow, requiring multiple steps. We plan to address these issues by redesign the app's user interface in ways that both respect the macOS design guidelines and improve the efficiency of power users' workflows. We plan to deliver workflow improvements by creating a single, unified sidebar that encompasses communications from each channel in every team to allow faster channel switching.

# User Research Summary

During the user research, we investigated whether users are satisfied with the performance, resource usage, user interface design and workflow efficiency of the existing Slack for Mac app.

We conducted the research with an online survey by sending it to friends and colleagues who already have used Slack for Mac before. We found this method to be the most effective because it was effortless to send out online surveys to trusted sources.

The research findings suggested that amongst Slack power users who have joined multiple teams, more than half believe Slack for Mac fits in poorly with other native Mac apps (59%) and were not satisfied with the speed of switching between teams (58%), while almost half (47%) of them were not completely with the launch speed and general responsiveness (43.9%). The research also surfaced users' concerns about the way Slack handles notifications, allowing us to add the task of improving the way Slack handles notification as a stretch goal.

## ***Research Objectives***

There were several main areas we wanted to research, listed below:

- i. Whether the user heavily rely on Slack
- ii. Whether the user is a part of multiple teams
- iii. Whether the user is comfortable with the current state of Slack's app
  1. Are they comfortable with speed and responsiveness
  2. Are they comfortable with the UI and UX design

It was important to determine how much time a Slack user spends on the app because that gives us perspective on the differences in opinion between a casual and more frequent user. Whether or not they were a part of multiple teams is important because our project is built for power users who are a part of multiple teams. We also wanted to know if speed is an issue as it would determine the importance of building our solution natively for the Mac.

Therefore, our final objective was to gauge the real-world appeal of our tentative solution:

- i. Improved launch speed, general performance, and reduced energy usage
- ii. UI and UX design that respects the Mac Human Interface Guidelines



- iii. A unified sidebar that encompasses communications in each channel from every team
- iv. A unified timeline that combines all messages in each channel from every team

It was necessary to research this to determine whether or not we are on the right track to clearing up some of the frustrations that users had with the original Slack app.

### ***Methodology***

The primary way of researching our project was through a survey. The general purpose was to determine whether or not Slack users are currently frustrated with or underwhelmed by:

- i. The performance and resource usage of Slack for Mac
- ii. Slack for Mac's non-native, foreign appearance on the Mac platform
- iii. Efficiency of the workflow enabled by of Slack for Mac's current design, notably revolving around team and channel switching

To answer these questions we separated our survey into two broad parts. The first part was used to determine how many teams a member is a part of, how often they use the app and are forced to switch between team tabs, and whether they have any issues with the desktop/web app that the survey may not have touched on. It was important to do this part first before introducing the idea of a unified timeline so there would be no risk in biasing the results. The results from this section give us a fairly good idea of Slack users opinion of parts c and d.

The second part was used to investigate how comfortable users are with the current speed of the Slack app launch. Here we wanted to explore whether or not users thought that Slack fit in well with native Mac apps, and if not, whether or not they would want an updated app specifically for the mac client. This covered questions from UI design to client response after an action was performed. The results from this section give us a fairly good idea of users opinion of parts a and b.

We asked participants to grade their satisfaction with multiple areas within the Slack app on a scale of 1 to 5, with 1 being the least satisfied and 5 being the most satisfied. We then consider grades between 1 to 3 as "not fully satisfied", and 4 to 5 as "fully satisfied".

The end of the survey also included a section for an open response, so that the user can add in additional thoughts about improvements we can make to the Slack app.

## ***Summary of findings***

After collecting and analyzing survey responses, we realized that Slack app's inefficient UI and poor performance are widely acknowledged and experienced. This solidified our intent and direction to build a native Slack app for macOS with UI and performance improvements. In addition, we also unexpectedly found out about users' frustrations with Slack's notification system.

As our solution mostly targets users who are a part of multiple Slack teams, it is important for our sample to include a lot of users who fit this profile. Fortunately, based on Figure 1, amongst 21 participants, 76.1% of them have joined multiple Slack teams, allowing our collected result to be relevant to our solution's audiences.

On the performance side, based on Figure 3, 58% of all participants were not satisfied with the speed of switching between teams and 61.9% of all participants consider this to slow down their workflow (Figure 6). Based on Figure 3, 47% were not satisfied with the launch speed and based on Figure 5, 44% were not satisfied with its general responsiveness. Additionally, free responses in table 2 suggested Slack for Mac has "[h]uge resource usage", "slow start up" and "is extremely slow to load". Combined with the fact that around half of the participants suggested performance concerns, it is clear that performance improvements would be appreciated.

On the design side, table 1 suggested participants believed the app is "too colorful and makes it very hard to use" and "liking a message (adding reaction) takes too many clicks". Figure 8 suggested more than half of our participants believed the app looks foreign on macOS, not fitting in as a native app. Additionally, while less than we anticipated, Figure 7 definitely indicated our tentative unified timeline has sparked some interest (47.1%). This confirmed our intent to redesign aspects of the app should be beneficial to our target users.

# User Stories and Acceptance Test Criteria

We are focusing on the following actions because these are some of the most important actions a user could perform when using our app. These actions either are key to our updated Slack app or is a core part of using Slack in general.

We have arranged our user stories into three parts - each signifying a main area of the app experience: onboarding experience (Part A), core communication (Part B) and transcript indexing (Part C).

## Part A - Onboarding Experience

### A1.

**STORY:** I want Slack to launch quickly

**NARRATIVE:** As a user, I want to launch the Slack app very quickly, so that I can get to send messages to my coworkers as I am ready

**SCENARIO:** A user wants to launch the app

**GIVEN:** He has access to the internet

**WHEN:** A user double clicks on the app

**THEN:** Then the window shows the most recent team they were talking to

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### A2.

**STORY:** Logging Into Teams

**NARRATIVE:** As an existing Slack user, I want to log in to an existing Slack team at work, so that I can communicate with my co-workers.

**SCENARIO:** Logging In Correctly

**GIVEN:** I have access to the internet and have opened up the Slack for Mac App

**WHEN:** I enter the correct username and password

**THEN:** I will be logged into the Mac app and can begin to use the app

**SCENARIO:** Logging In Incorrectly

**GIVEN:** I have access to the internet and have opened up the Slack for Mac App

**WHEN:** I enter an incorrect pairing of username and password

**THEN:** A popup will appear, indicating an incorrect username and password pairing was entered

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### **A3.**

**STORY:** Making a brand new account

**NARRATIVE:** As a new Slack user, I want to be able to register a new account to join my company's team, so that I can communicate with my co-workers.

**SCENARIO:** Typing a valid team domain name

**GIVEN:** The user is on their personal laptop and has downloaded and opened Slack

**WHEN:** The user correctly types the team domain name

**THEN:** Slack will now let me create a new account

**SCENARIO:** Typing an invalid team domain name

**GIVEN:** The user is on their personal laptop and has downloaded and opened Slack

**WHEN:** The user types the wrong domain name for the team

**THEN:** Slack will display a message saying invalid team domain name

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### **A4.**

**STORY:** App should not crash

**NARRATIVE:** As a user, I want to have a crash-free experience when using Slack, so that I can focus on working instead of troubleshooting software errors

**SCENARIO:** User is performing a valid action in Slack

**GIVEN:** User wants to accomplish something

**WHEN:** An action is performed

**THEN:** Desired result should be observed

**SCENARIO:** User is performing an invalid action in Slack

**GIVEN:** User wants to accomplish something

**WHEN:** An action is performed

**THEN:** Error should be handled, there should be no crash

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### **A5.**

**STORY:** Logging into Slack teams automatically

**NARRATIVE:** As a current Slack user, I want to be able to automatically log into my Slack teams when I open the app, so that I don't have to re-enter my username and password every-time I open the app.

**SCENARIO:** The user receives a notification that a new message has been sent to the group chat

**GIVEN:** The user is on their personal laptop and opens Slack  
**WHEN:** The user wants to read new messages from group members  
**THEN:** Slack will directly take me to the team that had the new message

**SCENARIO:** The user wants to communicate with other group members  
**GIVEN:** The user is on their personal laptop and opens Slack  
**WHEN:** The user sends a message to one of his current teams  
**THEN:** Slack will take me to a page with all the current teams then the user will select the corresponding team and type a new message

## **Part B - Core Communication**

### **B1.**

**STORY:** Tagging Someone In a Slack Message  
**NARRATIVE:** As a user, I want to be able to send channel-wide messages that optionally tags someone, so that all members on a particular channel can see my message.

**SCENARIO:** Tagged Message Has Been Sent  
**GIVEN:** A user @ tagged another user in a Slack message  
**WHEN:** The message has been successfully sent  
**THEN:** The @ tagged user will get a specific notification notifying them that they were tagged in a post

**SCENARIO:** User is Writing Out a Message with a Tagged User  
**GIVEN:** A user is writing a Slack message  
**WHEN:** The user starts writing the message and writes an @ in the message  
**THEN:** A dialog box will appear above the message with suggested users to tag

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### **B2.**

**STORY:** Sending Private Messages  
**NARRATIVE:** As a user, I want to be able to send/receive messages to a specific individuals instead of sending them channel-wide, so that my messages stay private and secure.

**SCENARIO:** User Wants to Send a Private Message  
**GIVEN:** A user wants to send a private message  
**WHEN:** They click the plus button next to Direct Messages and they type in the name of the person they want to direct message  
**THEN:** They will be taken to a window for messaging that specific user

**SCENARIO:** User Sends a Private Message  
**GIVEN:** A user is at the direct message window  
**WHEN:** They write a message and click send  
**THEN:** The only user notified about the message will be the specific user who is being messaged

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### **B3.**

**STORY:** View messages from a certain channel  
**NARRATIVE:** As a user, I want to be able to view the entire message timeline of a particular channel, so that I can focus on a specific channel upon demand.

**SCENARIO:** The user wants to recall an important message from a group member  
**GIVEN:** The user has Slack open and is on its current team page  
**WHEN:** The user is trying to find an important message  
**THEN:** Slack will display a box on top of the screen in which the user can navigate and find the message they are looking for

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### **B4.**

**STORY:** Switching between teams quickly  
**NARRATIVE:** As a user, I want to see all channels from every team I have joined in a unified sidebar, so that I can save time from constantly switching between different teams.

**SCENARIO:** The user is communicating with multiple teams  
**GIVEN:** The user is on their personal laptop and Slack already open  
**WHEN:** The user is currently on a team's page but wants to send a message to a different team  
**THEN:** The user will select the correct channel icon and Slack will smoothly transition into the corresponding team's page

**SCENARIO:** The user accidentally selects a different team's icon than intended  
**GIVEN:** The user is on their personal laptop and Slack open  
**WHEN:** The user wants to communicate with a different team but accidentally selects the wrong icon  
**THEN:** Slack will transition to the team's page the user selected

## Part C - Transcript Indexing

### C1.

**STORY:** I want to see past transcripts

**NARRATIVE:** As a user, I want to be able to see past chat transcripts offline, so that I can still refer to work-related messages even if I am out of internet coverage.

**SCENARIO:** No Internet is available

**GIVEN:** The user still has access to the app

**WHEN:** The user has no internet

**THEN:** User should be able to find a database of past transcripts

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### C2.

**STORY:** Search for messages

**NARRATIVE:** As a user, I want to be able to search for message entries containing specific keywords, so that I can easily locate past conversation threads.

**SCENARIO:** Searching for a keyword/user that can be found

**GIVEN:** User has access to the internet and have opened up the Slack for Mac App

**WHEN:** User inputs keyword and hit enter

**THEN:** Display all the results that popped up

**SCENARIO:** Searching for a user or keyword that doesn't exist

**GIVEN:** User has access to the internet and have opened up the Slack for Mac App

**WHEN:** User inputs keyword and hit enter

**THEN:** Display that no results were found

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### C3.

**STORY:** Sending Developer Feedback

**NARRATIVE:** As a user, I want to be able to send the developer feedback I have when using the app without leaving the app, so that the developers can address my concerns.

**SCENARIO:** User notices a bug

**GIVEN:** A user finds a bug

**WHEN:** They press the help menu item on the menu bar of the mac and navigate to the send developer feedback option

**THEN:** They can enter information about the bug that was found

**SCENARIO:** User submits developer feedback  
**GIVEN:** A user writes a bug report  
**WHEN:** They press the submit button  
**THEN:** The developers will receive an email with details about the bug

## Works Cited

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