



Secure Messaging Discovery

# Comparative Analysis

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# Background

- As part of the secure messaging discovery effort, we conducted a comparative analysis to understand how other sites handle secure messaging.
- We focused on identifying the different types of features and workflows of messaging services within the healthcare context and in other consumer driven industries and apps.

# Key Questions

- How does secure messaging function for other healthcare related sites?
- What messaging features are popular amongst more consumer-driven brands?
- What are the major differences between desktop and mobile messaging experiences?

# Key Takeaways

- Messaging in the healthcare websites/apps reflect email style correspondences (messages are organized around subject lines) and features (e.g., folders).
- Within consumer-driven space (Airbnb, Etsy, WhatsApp), message threading tends to be more chat-like and center around a running conversation with a person/group.
- Generally, desktop messaging includes more robust features, such as search and managing labels/folders.
- Mobile app experiences tend to be more streamlined and lightweight with a focus on basic messaging tasks (view messages, compose a message, add attachments).
- Email notifications include a variety of CTAs for users to follow up with message, ranging from pointing users directly back to the website/app, to allowing users to reply back via email.

# **Comparative Matrix- Apps**

# Comparative Matrix- Apps

VA Secure Messages	VA Cerner (Mobile Web)	Follow My Health (GW)	MyChart	Carefirst Insurance	One Medical	Airbnb	Etsy	WhatsApp	VA Mobile App MVP
<b>View Messages</b>	X	X	X	X	X	X	X	X	X
<b>Compose Message</b>	X	X	X	X	X	X	X	X	X
<b>Attachments</b>	X	X	X	X	X	X	X	X	X
<b>Folders</b>	X	X							
<b>Drafts</b>									
<b>Search</b>							X		
<b>Delete</b>	X	X	X					X	

# MyChart

# MyChart Desktop

MaineHealth MyChart

Message Center (Arlene)

Inbox Sent Messages Search message list

Sort by: Received Date Filters: All Messages

Restore 0 Deleted Messages Mark All as Read

Your care team 04/06/2020 10:47 AM Appointment Scheduled

Your care team 04/15/2020 11:09 AM Appointment Changed

Your care team 04/15/2020 11:09 AM Appointment Scheduled

Your care team 04/15/2020 11:09 AM Appointment Canceled

Ann Wagner 02/25/2020 04:24 PM Follow Up on Your Recent Visit

Your care team 02/25/2020 04:24 PM Appointment Scheduled

Your care team 02/25/2020 04:24 PM Appointment Changed

Follow Up on Your Recent Visit

There are no more messages available.

Back to the Home Page

MyChart Help Desk: 855-255-2300  
Billing/Insurance Assistance: 866-804-2499 (Mon-Fri 8am-5pm)  
Site Map Terms & Conditions High Contrast Theme  
MyChart Powered by Epic Systems Corporation © 1999-2020

MaineHealth MyChart

Message Center (Arlene)

Inbox Sent Messages Search message list

Sort by: Received Date Filters: All Messages

Restore 0 Deleted Messages Mark All as Read

Your care team 04/06/2020 10:47 AM Appointment Scheduled

Appointment Scheduled  
Our office has added a few extra steps to keep you safe and healthy during your visit with us. We will contact you soon to discuss what will happen when you come in for your appointment.  
Important  
Please call our office before your visit if you have had any of the following in the last 14 days:  
• Exposed to someone sick with COVID-19 (Coronavirus)  
• Fever or shaking chills  
• NEW cough  
• Shortness of breath  
• Sore throat  
• Unexplained body aches  
• Loss of taste or smell  
For the latest news and information about the virus, how it spreads, how to protect yourself, when to get tested, please visit the federal CDC's page on coronavirus: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Appointment Information:  
Date: 6/19/2020 10:00 AM  
Time: 10:00 AM  
Visit Type: Telephone 30  
Provider: Zhilyaz Kabaleva

Previous Appointment Information:

MANNE MEDICAL PARTNERS CAPE ELIZABETH INTERNAL MEDICINE  
155 SPURWINK AVE  
CAPE ELIZABETH ME 04107-9604  
207-797-2174

For the latest appointment information, please refer to your upcoming visits in MyChart.

Reply You cannot reply to a message generated by the system.

Your care team 04/15/2020 11:09 AM Appointment Changed

Your care team 04/15/2020 11:09 AM Appointment Scheduled

Your care team 02/25/2020 04:24 PM Appointment Canceled

Follow Up on Your Recent Visit

MMC GERIATRIC DEPT  
Click here to view resources for you.

Reply This message is too old to be replied to.

Your care team 02/25/2020 04:24 PM Appointment Scheduled

Your care team 02/25/2020 09:51 AM Appointment Changed

Marta Stresinger 02/25/2020 09:51 PM Follow Up on Your Recent Visit

There are no more messages available.

Back to the Home Page

MyChart Help Desk: 855-255-2300  
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Site Map Terms & Conditions High Contrast Theme  
MyChart Powered by Epic Systems Corporation © 1999-2020

MaineHealth MyChart

Send a Message to Your Provider (Arlene)

If you think you might be having a medical emergency, call 911 or go to the nearest emergency room right away. Please do not use MyChart to send messages about a medical emergency.

Be sure to fill out all of the information below before sending your message.

Please note: your message may also be read by a clinical staff member in your provider's office. We will reply to your message within 3 business days. All messages that are sent and received through MyChart will be included in your medical record.

\*Choose a Recipient \* Select a Subject -

Attach an image or video

Send Cancel

Back to the Messaging Options

MyChart Help Desk: 855-255-2300  
Billing/Insurance Assistance: 866-804-2499 (Mon-Fri 8am-5pm)  
Site Map Terms & Conditions High Contrast Theme  
MyChart Powered by Epic Systems Corporation © 1999-2020

# MyChart Mobile Web

There are a few more advanced features in the mobile web view in addition to the core messaging functionality:

- Search
- Sort/Filter
- Mark as Read
- Restore deleted messages

The screenshot shows the 'Message Center (Arlene)' page. At the top, there's a navigation bar with links for Health, Visits, Messaging, Billing, Resources, and Profile. Below that is a sub-navigation bar for Arlene with links for Ask a Question, Inbox, and Sent Messages. The main area is titled 'Inbox' and 'Sent Messages'. It includes a search bar, sort by dropdown (Received Date), and filter dropdown (All Messages). Buttons for 'Restore 0 Deleted Messages' and 'Mark All as Read' are present. A list of messages from 'Your care team' follows, with details like date, time, subject, and status (e.g., Appointment Scheduled, Appointment Changed). At the bottom, a note says 'There are no more messages available.' and a 'Back to the Home Page' button.

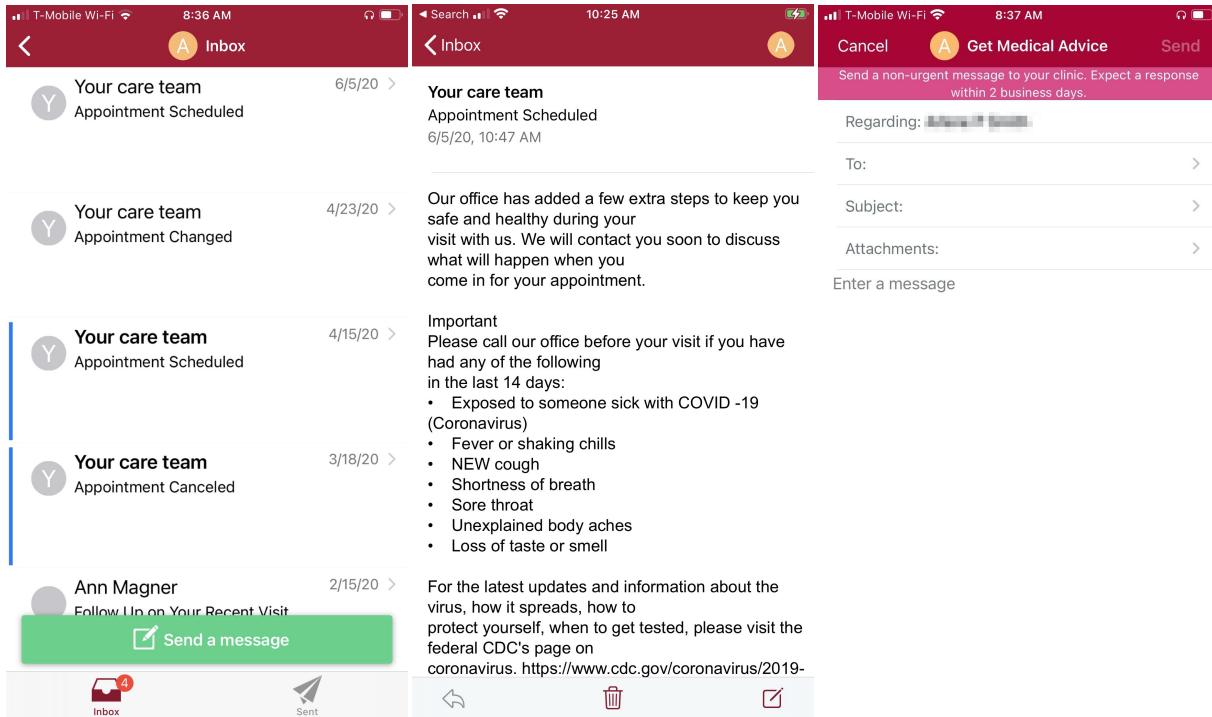
This screenshot shows the 'Message Center (Arlene)' with the 'Compose' button highlighted. To the right, a large message area is titled 'Send a Message to Your Prov...'. It contains a red warning message: 'If you think you might be having a medical emergency, call 911 or go to the nearest emergency room right away. Please do not use MyChart to send messages about a medical emergency.' Below this, instructions say 'Be sure to fill out all of the information below before sending your message.' A note states 'Please note: your message may also be read by a clinical staff member in your provider's office. We will reply to your message within 3 business days. All messages that are sent and received through MyChart will be included in your medical record.' The message body field starts with 'Choose a Recipient' and 'Select a Subject'.

This screenshot continues the message composition process. The recipient 'Arlene' is selected, and the subject 'Follow Up on Your Recent Visit' is chosen. The message body field contains a note about COVID-19 symptoms and a link to CDC guidelines. The message is addressed to 'MAINE MEDICAL PARTNERS CAPE ELIZABETH INTERNAL MEDICINE' with address '155 SPURWINK AVE' and phone '207-767-0714'. The message ends with a 'Send' button, a 'Cancel' button, and a 'Back to the Messaging Options' link.

# MyChart App

The MyChart App consists of only the core messaging tasks:

- Compose a message
- View messages
- Add attachments (photo/file from phone + take photo)
- Reply (non-automated messages)
- Delete message



# One Medical

# One Medical Desktop

Overall, messaging within One Medical is a modern, streamlined experience focused on core messaging tasks.

- Compose a message
- View messages
- Add attachments

## Noteworthy::

- Users can choose which team to send message to, with a notice offering an expected response time
- Users are able to scan the conversations quickly due to condensing messages into previews with a 'See More' CTA
- No search

## All Messages

one medical

Home Health Record Messages Care Plan Get Care

Your membership expired on Apr 28, 2017. [Renew Membership](#)

Renew your membership.  
Once you renew your One Medical membership, you will be able to respond to messages. Until then, you will still be able to view messages and download lab results.

Admin Team responds within 3 business days. Admin Team  

### Download past records?

You > Medical Team  
Oct 27, 2019 at 3:02 PM

Hi there,

See More

 Isaiah Gripper  
Oct 30, 2019 at 9:44 AM  
Hi Ambika,

## Message Details

one medical

Home Health Record Messages Care Plan Get Care 

Your membership expired on Apr 28, 2017. [Renew Membership](#)

All Messages

Message Details

### Re: Re: Final Renewal Reminder - We Don't Want to See You Go

You > Medical Team  
Jul 21, 2018 at 5:45 AM  
Hi Potty,

See More

 Ashley  
Jul 25, 2019 at 8:48 AM  
Hello Ambika,

See More

# One Medical App

Within the app, the experience mirrors the lightweight desktop functionality:

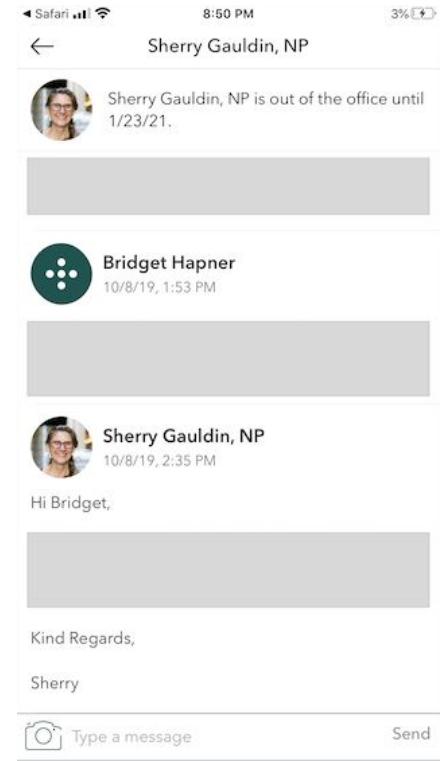
- Compose a message
- View inbox/sent messages
- Add attachments (photo/file from phone + take photo)

Noteworthy:

- Provider out of office notification
- View attachments CTA



[More One Medical App screenshots](#)



**VA Cerner**

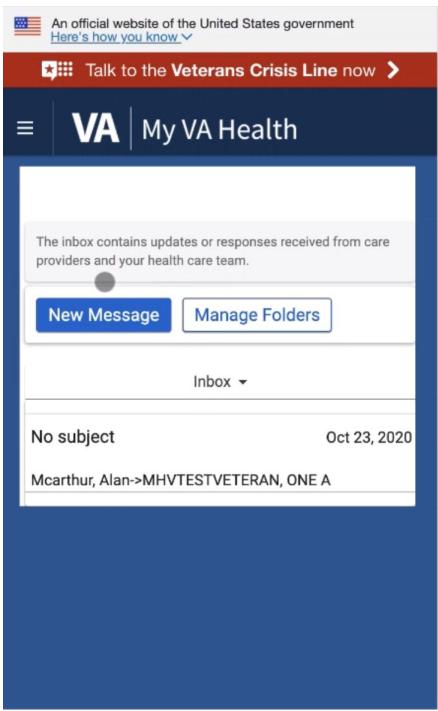
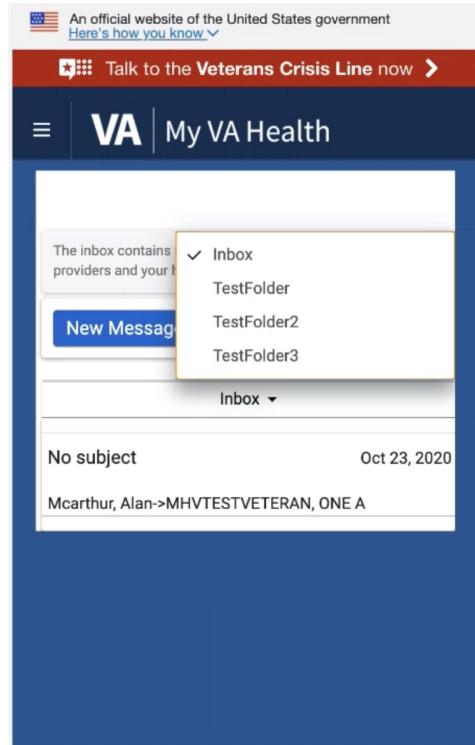
# VA Cerner Desktop

This screenshot shows the VA Prescription Refill And Transaction History page. The top navigation bar includes links for Home, Appointments, Messaging, More, and ONE MHVTESTVETERAN. A "Talk to the Veterans Crisis Line now" button is also present. The main content area displays a message from "Mcarthur, Alan >MHVTESTVETERAN, ONE A" with the subject "No subject" and the date "Oct 23, 2020". Below the message, there are buttons for "New Message" and "Add New Folder". On the left sidebar, there are links for Messaging, View and send messages, View sent messages, and View trashed messages.

This screenshot shows the VA messaging inbox page. The top navigation bar includes links for Home, Appointments, Messaging, More, and ONE MHVTESTVETERAN. A "Talk to the Veterans Crisis Line now" button is also present. The main content area displays a message from "Mcarthur, Alan >MHVTESTVETERAN, ONE A" with the subject "No subject". The message body contains the text "Spokane Mann-Grandstaff VAMC Physiatry/Physical Med & Rehab" and "Spokane Mann-Grandstaff VAMC Vascular Lab-X". Below the message, there is a "Attachments" section with a maximum file size of 25 MB, a "Choose File" button, and an "Add another attachment" link. A "Message" link is also present. On the left sidebar, there are links for Messaging, View and send messages, View sent messages, and View trashed messages.

This screenshot shows the VA messaging inbox folder view. The top navigation bar includes links for Home, Appointments, Messaging, More, and ONE MHVTESTVETERAN. A "Talk to the Veterans Crisis Line now" button is also present. The main content area displays a message from "Mcarthur, Alan >MHVTESTVETERAN, ONE A" with the subject "No subject". The message body contains the text "Spokane Mann-Grandstaff VAMC Physiatry/Physical Med & Rehab" and "Spokane Mann-Grandstaff VAMC Vascular Lab-X". Below the message, there is a "Attachments" section with a maximum file size of 25 MB, a "Choose File" button, and an "Add another attachment" link. A "Message" link is also present. On the left sidebar, there are links for Messaging, View and send messages, View sent messages, and View trashed messages. The right side of the screen shows a folder structure with "Inbox" and "TestFolder".

# VA Cerner Mobile Web

A screenshot of the VA Cerner mobile web compose screen. At the top, it says "An official website of the United States government" and "Talk to the Veterans Crisis Line now". Below that is the VA logo and "My VA Health". The form fields include: "Patient Name" (MHVTESTVETERAN, ONE A), "To" (empty input field), "Subject" (empty input field), "Attachments" (maximum file size is 25 MB, choose file button, no file chosen, add another attachment), and "Message" (empty text area). At the bottom are "Send" and "Cancel" buttons.

# VA Cerner Takeaways

- Includes basic messaging functionality
  - View messages
  - Compose a message
  - Attachments
- On desktop, folders act as tabs. On the mobile web view, folders become a filter.
- No search or drafts
- Limited user preferences
  - Users could only toggle off/on if they wanted to receive an email each time they received a message

# **Follow My Health**

# **George Washington University**

# Follow My Health Desktop

The GW Cerner desktop experience consists of

- Compose a message
- View inbox/sent messages
- Add attachments (photo/file)
- Add/Edit folders
- Print message
- Trash message

The Office of Name of Provider, MD  
PATIENT'S NAME IN ALL CAPS  
01/25/2021 4:20 pm  
RE: Request for prescription (refill)

From: PATIENT'S NAME IN ALL CAPS  
Date: 01/25/2021 12:59 pm  
Subject: RE: Request for prescription (refill)

Text of message...

The Office of Provider Name, MD  
RE: Request for prescription (refill)...  
01/25/2021 4:20 pm Click to view this email.

The Office of The GW Medical Faculty Associa...  
A COVID-19 Vaccine Update  
01/23/2021 1:30 pm

The Office of Provider Name, MD  
Appointment Scheduled at GW Medical...  
01/22/2021 2:21 pm

The Office of The GW Medical Faculty Associa...  
Updated GW MFA Visitation Guideline...  
01/16/2021 12:06 pm

The Office of The GW Medical Faculty Associa...  
MFA Closed on Jan 19 - DC Offices ...  
01/14/2021 8:42 am

The Office of The GW Medical Faculty Associa...  
Information about the COVID-19 Vac...  
01/12/2021 5:53 am

The Office of Provider Name, MD  
Appointment Reminder for GW Medical...  
01/09/2021 9:02 am

The Office of The GW Medical Faculty Associa...  
COVID-19 Vaccine Information  
12/23/2020 3:43 pm

The Office of Provider Name, MD  
Appointment Scheduled at GW Medical...  
12/21/2020 1:49 pm

The GW MFA and the GW Hospital are offering COVID-19 vaccinations to our patients who meet District of Columbia eligibility criteria.  
The MFA is reaching out to eligible patients on a rolling basis, inviting them to self-register. Please understand that many people are interested and we ask for your patience as we work our way through all who are eligible to register.  
For MFA patients who reside in Maryland and Virginia, please refer to the local health department where you reside.

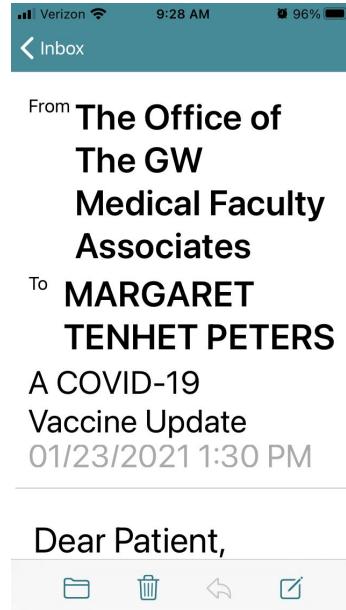
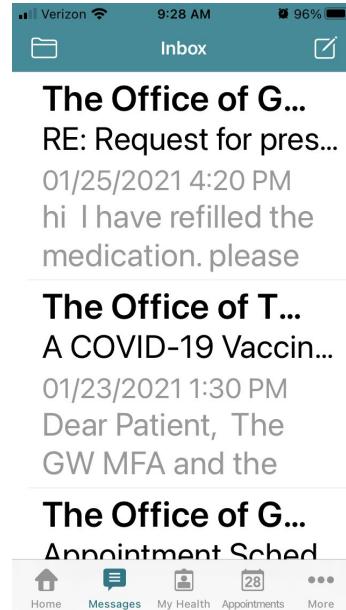
- Maryland: covidlink.maryland.gov
- Virginia: vdh.virginia.gov/covid-19-vaccine

As more COVID-19 vaccine doses become available, we will continue to offer vaccines to individuals who are eligible based on DC Health guidance. It is our goal to distribute the vaccine to patients as quickly and equitably as possible.  
Information on vaccine distribution will be available on our website at gwdocs.com.  
We ask that you avoid calling your provider's office to inquire about your vaccination status so that our department phone lines can remain open to all patients' care needs.  
Even after COVID-19 vaccination, it is important to continue wearing a mask, washing hands and practicing physical distancing.

# Follow My Health App

The GW Cerner app seems to persist all desktop features with the exception of search.

- There are more steps required to compose a message
- Text on mobile is very large and doesn't work well



# Carefirst Insurance

# Carefirst Desktop

 [Log Out](#)  Ambika Roos ▾

[HOME](#) [COVERAGE](#) [CLAIMS](#) [DOCTORS](#) [MY HEALTH](#) [MY DOCUMENTS](#) [TOOLS](#) [HELP](#)

[Home](#) > Message Center

## Message Center



[Inbox](#) [Sent](#) [Archive](#)

-  Medical Claims - B279K0604200 - Date of Service  
09/30/2020 C20-0033506813 Oct 29, 2020 | 2:35 PM
-  Claims C20-0034967488 Oct 28, 2020 | 12:40 PM

 Ad Hoc

[Inbox](#) [Sent](#) [Archive](#)

 Medical Claims - B279K0604200 - Date of Service  
09/30/2020 C20-0033506813 Oct 29, 2020 | 2:35 PM

Case Number: C20-0033506813

 CareFirst Customer Service Dear Mrs. Roos,  
  
  
  


Sincerely,

L. Davis  
Customer Service Department

-  You These charges should fall under the medical benefit - allergy testing included in my plan, and therefore be in network with a \$30 copay.  
Please advise. Oct 16, 2020 | 11:02 PM
-  Claims C20-0034967488 Oct 28, 2020 | 12:40 PM



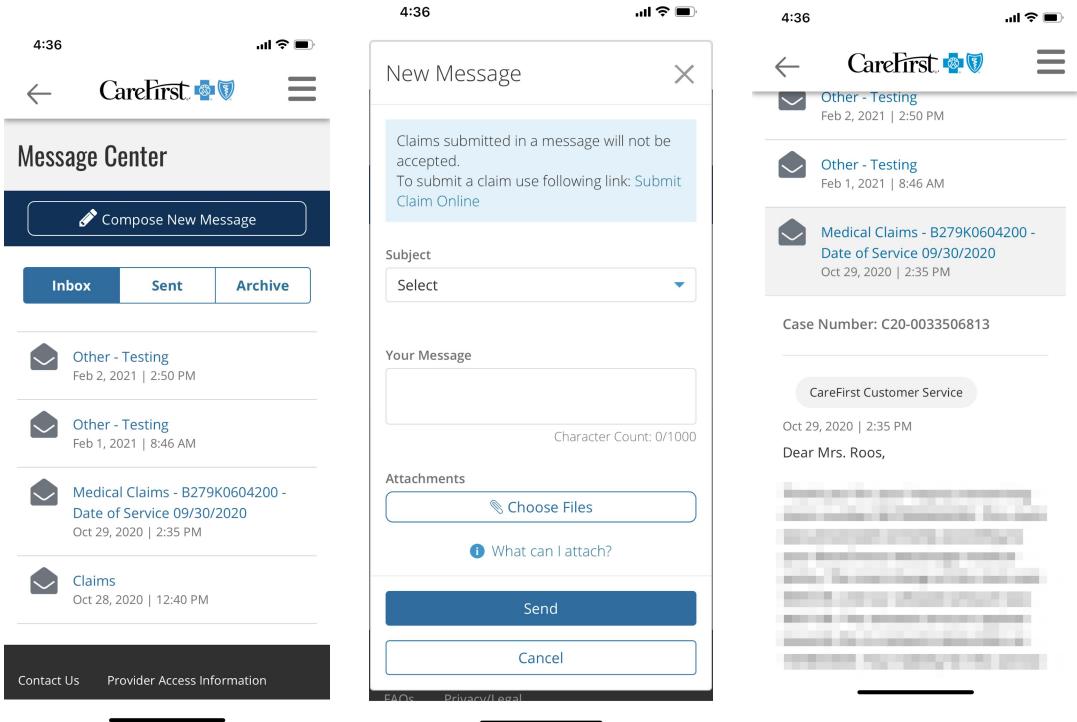
# Carefirst App

Core messaging tasks from the desktop experience are carried over into the app:

- View messages
- Compose a message
- Attachments

Noteworthy:

- Archive folder



Etsy

# Etsy Desktop

- Users are able to perform bulk actions (add a label, delete, mark read/unread/spam)
- Users can create custom labels to organize messages
- Messages are displayed in a chat-like style with text bubbles

The screenshot shows the 'Messages' section of the Etsy Desktop application. On the left, there's a sidebar with navigation links: Inbox (which is selected), Sent, All, Unread, Spam, Trash, and Labels (with 'Custom Requests' and 'Birthday party' listed). At the top right is a search bar labeled 'Search your messages' with a magnifying glass icon. Below the search bar are buttons for 'Compose', 'Trash', 'Mark Unread', 'Mark Read', 'Mark as Spam', 'Archive', and 'Label'. The main area displays a list of messages from various users:

- Doris (lucieandcata) - Hi thank you for the purchase 😊 in which colour do you want to have the name „Margo“? in pink or ... (Oct 10, 2020)
- Circle and Square decor (circleandsquaredecor) - Ashley, Sorry for the delay, I was out visiting my family for the past week. Are you able to send me ... (Nov 28, 2018)
- LENOX JAMES (LenoxJames) - Thank you! (Oct 7, 2018)
- Anneliese - Thank you! (Oct 27, 2017)
- Davie and Chyo (DavieandChyo) - Invoice: <https://www.etsy.com/your/orders/1061278687> Hi there, We hope the summer season is fi... (Jun 27, 2016)

This screenshot shows a detailed view of a message conversation between the user and LENOX JAMES. At the top, there's a header with the Etsy logo, a search bar, and icons for Favorites, Updates, You, and Cart. The sidebar on the left remains the same as the previous screenshot.

The message list shows a single item: 'Re: Order #1358356922 on Oct 5, 2018'. A 'View order' link is next to it. The message content is as follows:

Invoice: [www.etsy.com/your/orders/1358356922](https://www.etsy.com/your/orders/1358356922)

Hi:  
I need to update my shipping address- I didn't realize it was defaulting to an old one.

My new address is 10383 Glenmore Road Ohio City, OH 45874.

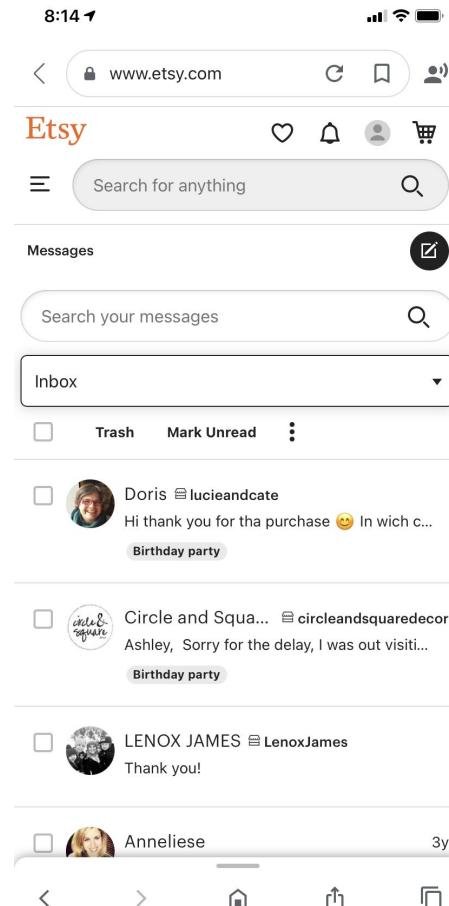
Below the message, the timestamp 'Oct 7, 2018' is shown, followed by a reply bubble from the user: 'Thank you!'.

On the right side of the message window, there's a sidebar with the user's profile information: LENOX JAMES, located in Williston, VT, with a local time of 10:27am and the handle LenoxJames. It also shows 'No contact history' and 'Labels' (No labels added).

At the bottom, there's a large input field for 'Type your reply' with a camera icon, and a 'Send' button.

# Etsy Mobile Web

- A fairly robust mobile web experience including:
  - Search
  - Bulk actions
  - Moving between folders/labels
- Limited label functionality
  - Labels are only displayed, users cannot add labels or manage them in any way



# Etsy App

The app streamlines the experience by removing labels, but still includes search functionality

The screenshot displays the Etsy mobile application's messaging screen. At the top, there is a header bar with a back arrow, a search bar containing the text "Search", and a magnifying glass icon. Below the header, a list of messages is shown, organized by date.

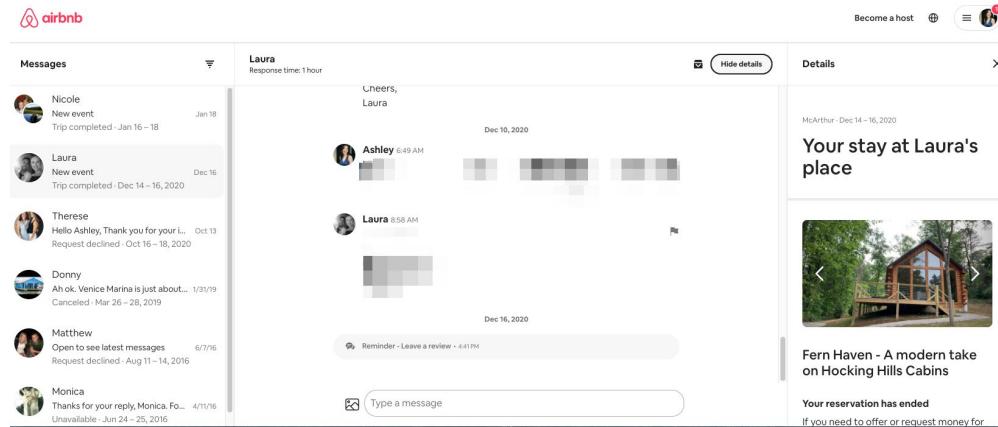
- NOVEMBER 2018:**
  - Doris (Profile Picture) Bestellung 1797694047 Oct 14  
Thank you so much!  
I wish you all the best 🌈 ...
  - Doris (Profile Picture) Bestellung 1797694047 Oct 10  
Hi  
thank you for tha purchase 😊 ...
- OCTOBER 2018:**
  - Circle and Square decor (Profile Picture) Circle and Square decor Nov 28  
Re: Order #1366739169 on Oct 5, 2018  
Ashley, Sorry for the delay, I was out visiting my family for the past week. Are you able to...
  - LENOX JAMES (Profile Picture) LENOX JAMES Oct 7  
Re: Order #1358356922 on Oct 5, 2018  
Thank you!
- OCTOBER 2017:**
  - Anneliese (Profile Picture) Anneliese Oct 27  
Re: Order #1241155840 on Oct 27, 2017  
Thank you!
- JUNE 2016:**
  - Davie and Chiyo (Profile Picture) Davie and Chiyo Jun 27  
Re: Order #1061278687 on Dec 5, 2015  
Invoice: <https://www.etsy.com/your/orders/1061278687> Hi there, We hope the summer s...

At the bottom of the screen, there is a navigation bar with five icons: Home, Favorites, Updates, You, and Cart. To the right of the navigation bar, there is a "Send" button and a "Write a message" input field.

# Airbnb

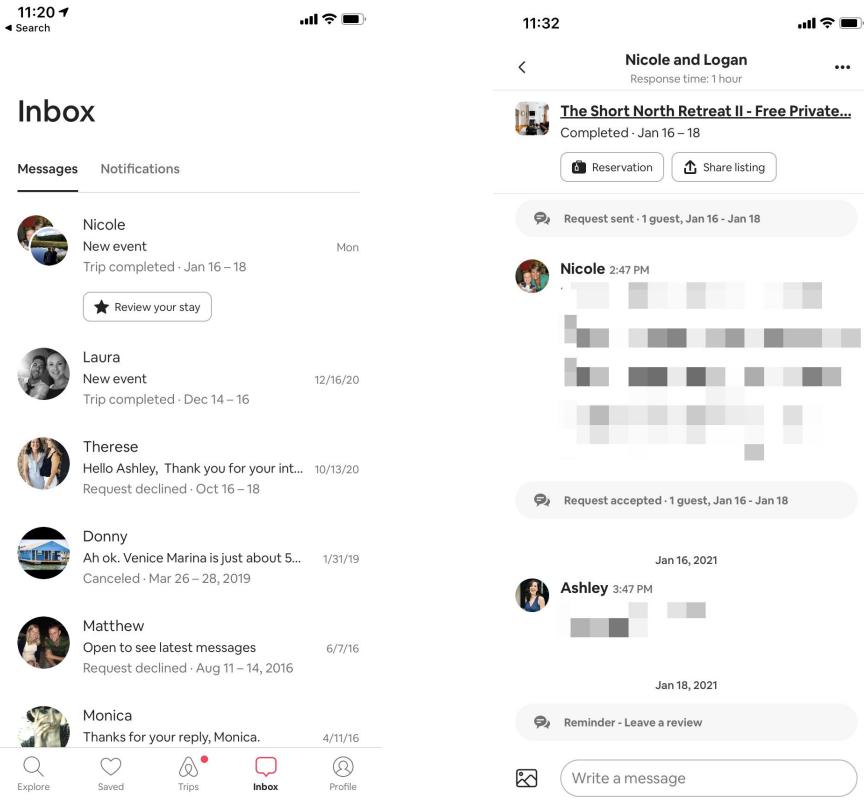
# Airbnb Desktop

- Defaults to a holistic view of the user's communications, displaying the full list of messages, a view of the latest chat conversation, and detail about their stay.
- CTAs within the chats nudge users to leave a review.
- No search or drafts.



# Airbnb App

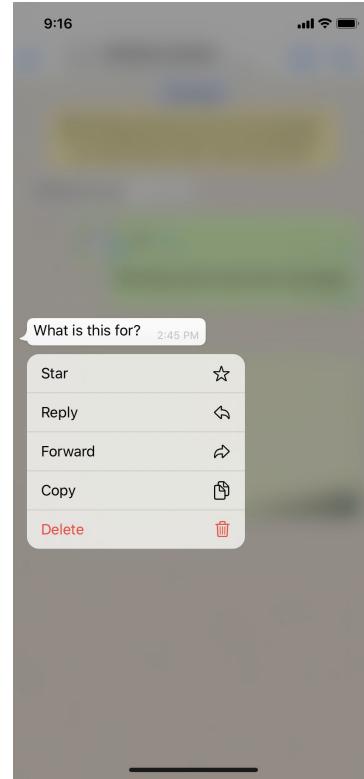
- Messages and notifications are grouped together in the user's inbox
- The mobile app experience mirrors the same desktop functionality with a streamlined workflow



# WhatsApp

# WhatsApp

- Messaging app that offers standard chat features:
  - Text and voice messages
  - Voice and video calls
  - Share documents/images
- Other notable features:
  - Location sharing
  - Disappearing messages
- Within the secure messaging app space, security is top of mind for user. WhatsApp popularized end-to-end encryption, meaning only you and the recipient can see the contents of your conversations.

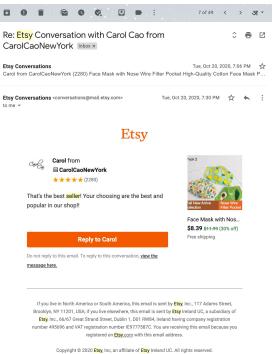
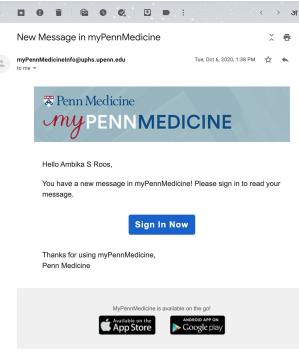


# Email Notifications

# Email Notifications

The type of notification and how users can respond fall on a continuum of different experiences

Users are directed to the app/website with no message preview



Users receive a preview of the message, but are directed to the app/website to respond

Users can read the full message with the email notification and respond to the conversation by replying to the email

