



# BOOK

OF DREAMS

Retail

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- Primary Persona
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- Solution Design Best Practices
- Solution Architecture

Retail Book of Dreams

# Customer Assistance – Informed Associate



# Scenario Vision



## Context

- Rachel, a customer of Northwind retail chain, wants to buy home entertainment system for her newly constructed house.
- Rachel has basic understanding of home entertainment options and is at the retail store to get a closer look at the different options, understand and compare features and prices and buy a system that matches her requirements.

## Current State

- ⚠ When Rachel enters the retail chain, she either sees a static notice board to recognize aisles / sections in the store or asks an associate nearby to find the section for home theaters
- ⚠ On reaching right section, Rachel waits to be assisted and calls upon help from a nearby associate who in turn asks about her requirement and needs
- ⚠ After learning about Rachel's requirements, store associate finds right associate who is an expert in home theater options and is available for assisting
- ⚠ The expert then takes Rachel on a tour of available options, pitching fast moving products in the store which might or might not match her brand preferences and budget restrictions
- ⚠ The associates also have to keep themselves updated on latest product features, specifications and discounts that are currently running in the store and for each product line.

## Future State

- ✓ When Rachel enters the retail chain, she is greeted by a store associate who talks to her to understand her requirements. The associate then creates a ticket for assisting Rachel.
- ✓ An available associate sees the requirements and picks it up and can immediately start assisting Rachel. The associate not only knows what Rachel is interested in right now but also has an insight into her prior purchases and preferences
- ✓ The associate can quickly browse through list of home theater options available at the store which are fast moving and relevant to customer's preferences.
- ✓ Along with product details, specifications from centralized knowledge repository, personalized offer and discounts that is authorized for Rachel is also surfaced.
- ✓ After successfully making a sale, the associate is presented with real time insights on other products frequently sold together encouraging cross selling and upselling
- ✓ The associate is also provided with an option to capture customer sentiment and satisfaction at the order confirmation

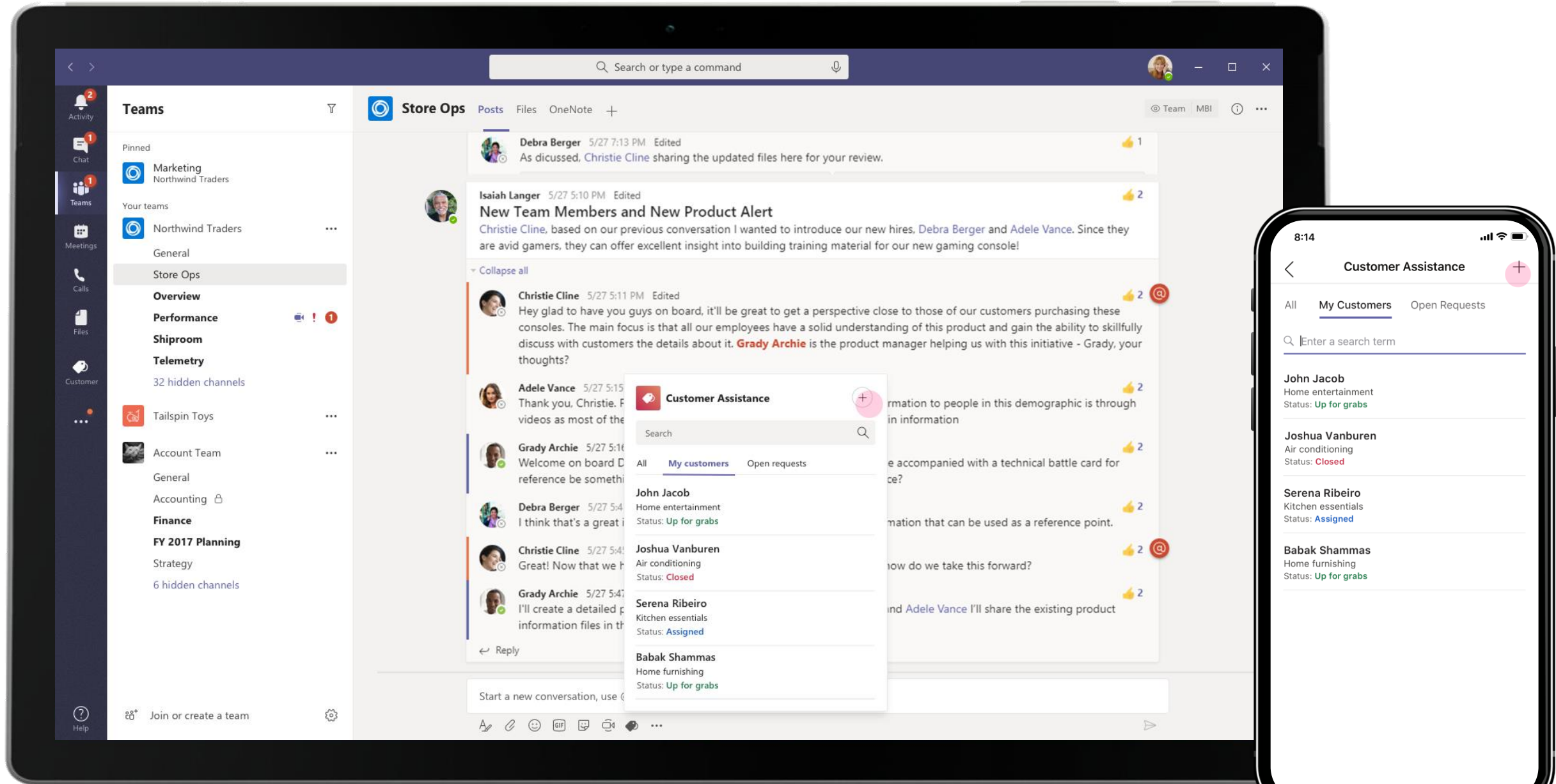




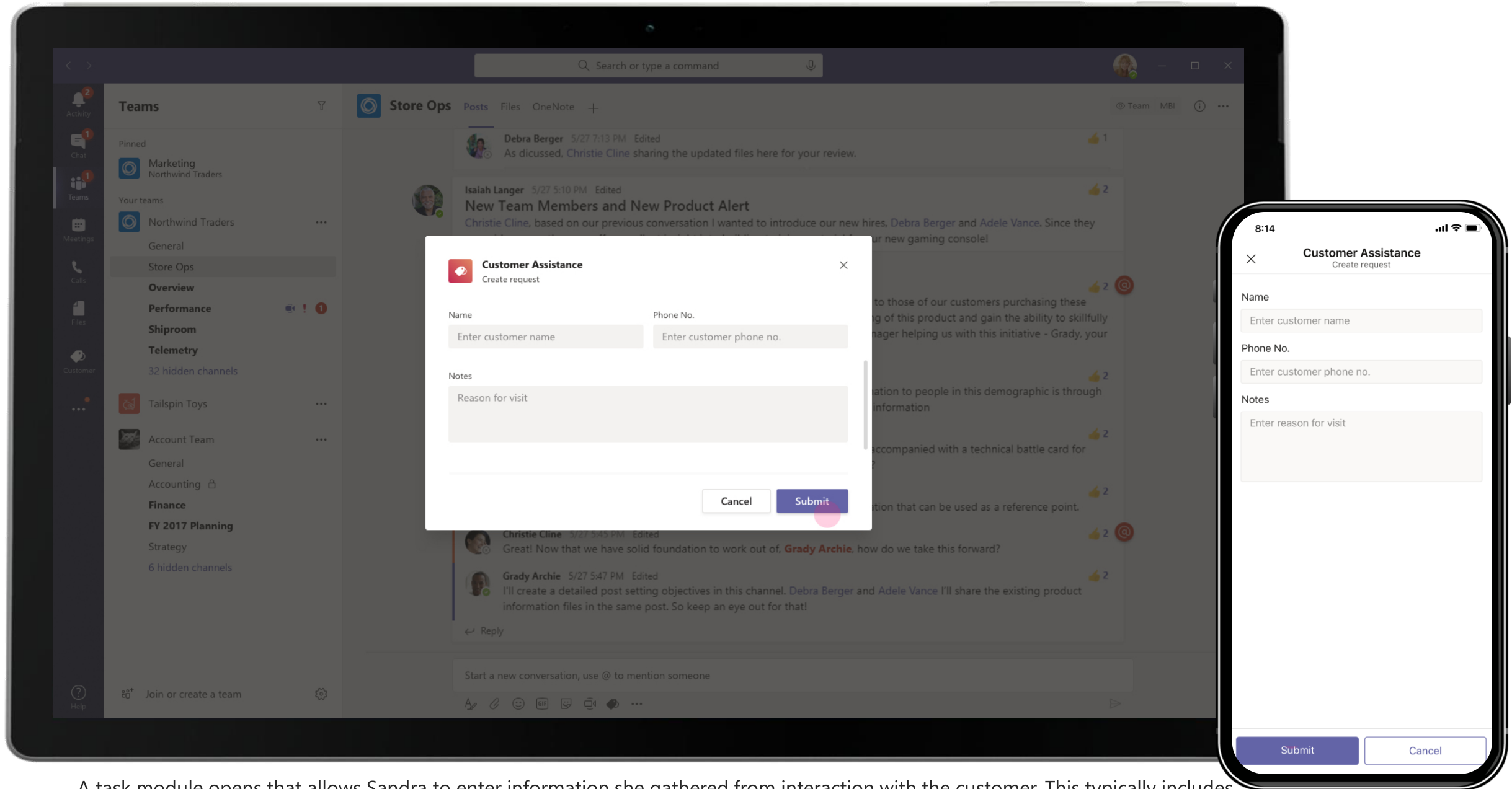
## **Sandra Jones, Retail Customer Assistance Champion**

Sandra is an amicable, friendly customer assistance champion in Northridge region store of North Wind Traders electronics retail chain. She is an expert at identifying customer needs and is proficient in handling customer relations.

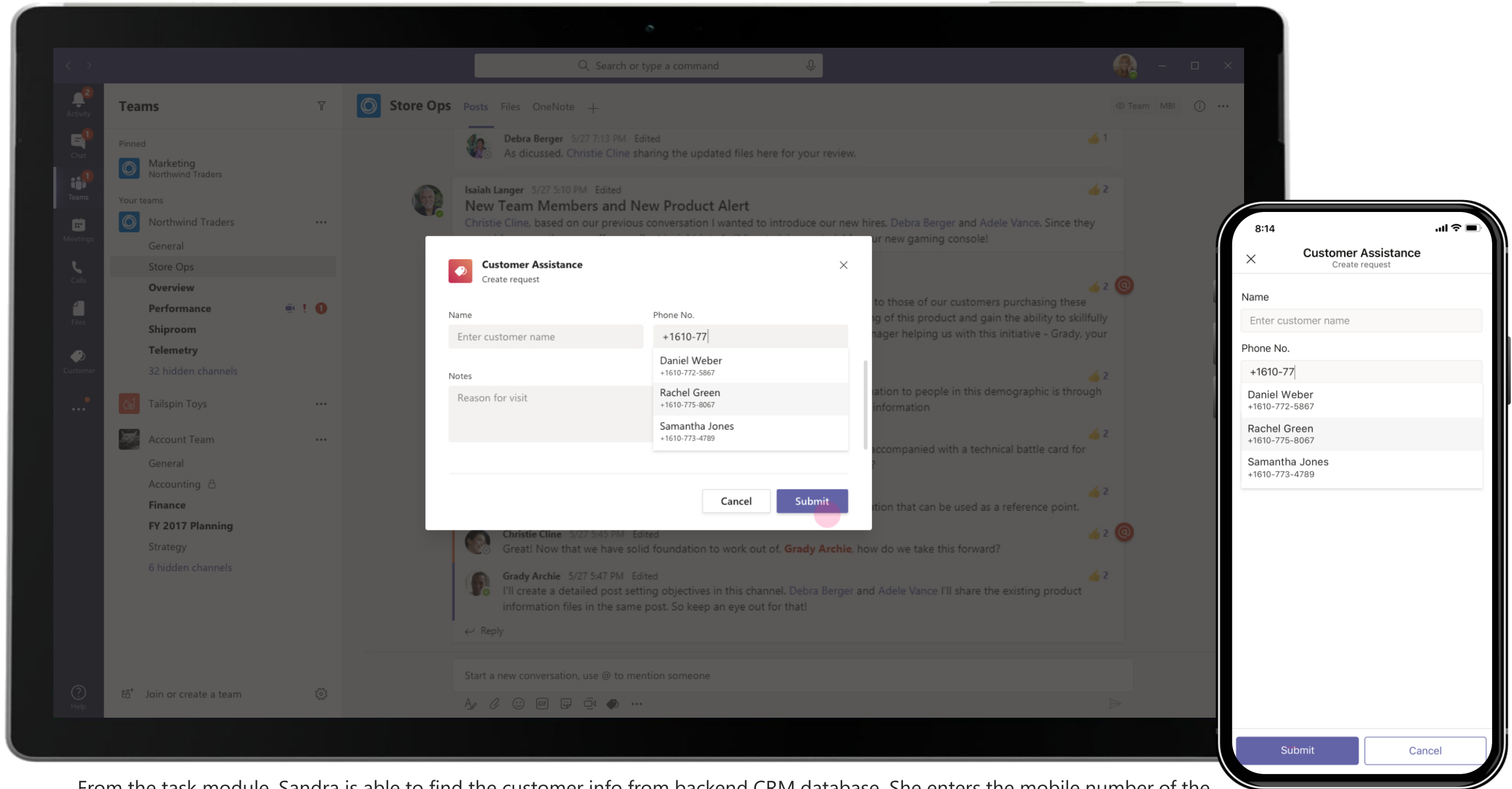
Customer assistance staff welcomes a regular customer, creates an assistance ticket that can be picked up by available Sales pros



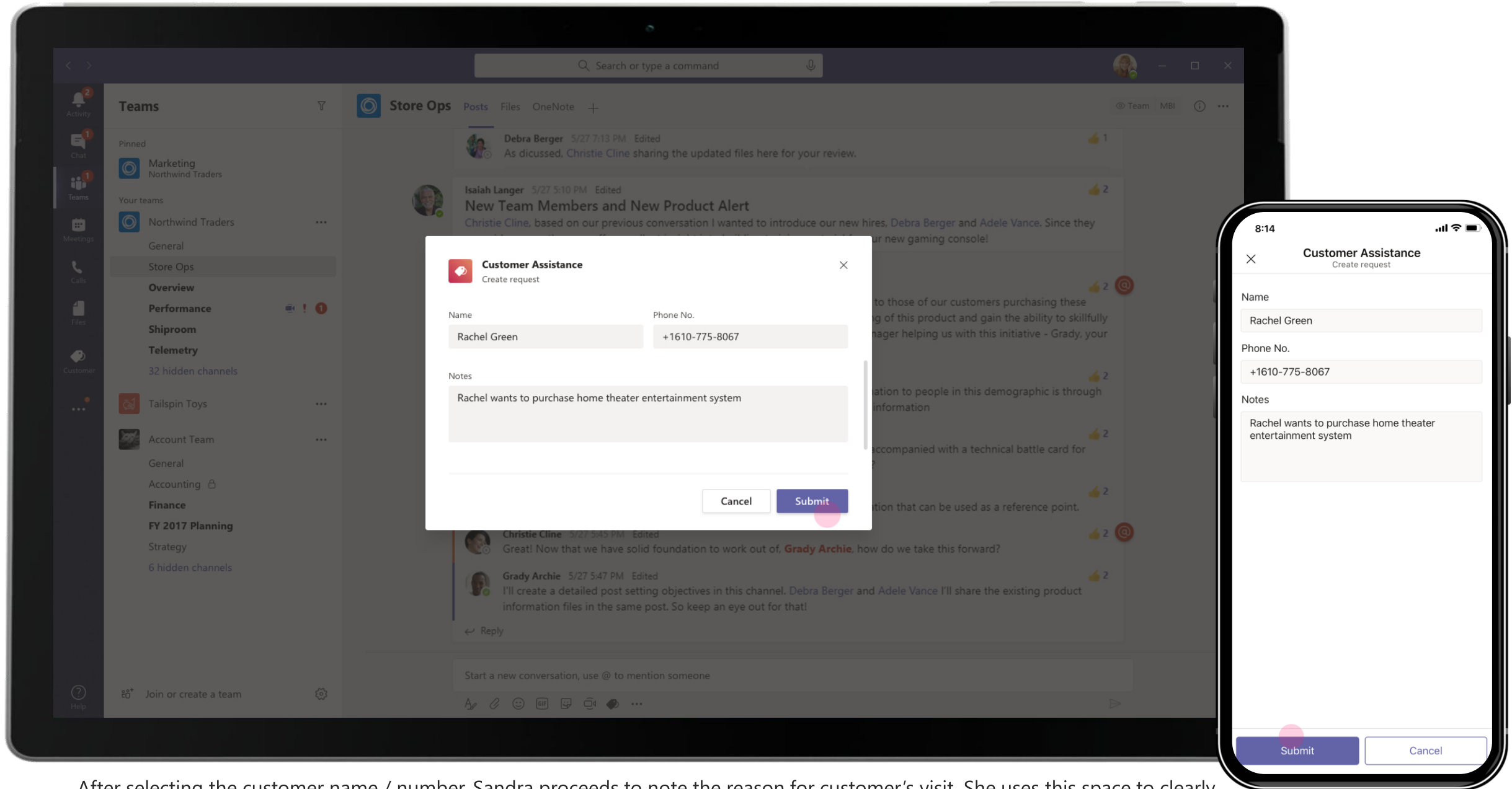
The store staff welcomes a loyal customer back to their store. After talking to the customer, Sandra uses the app's message extension to create a new customer request



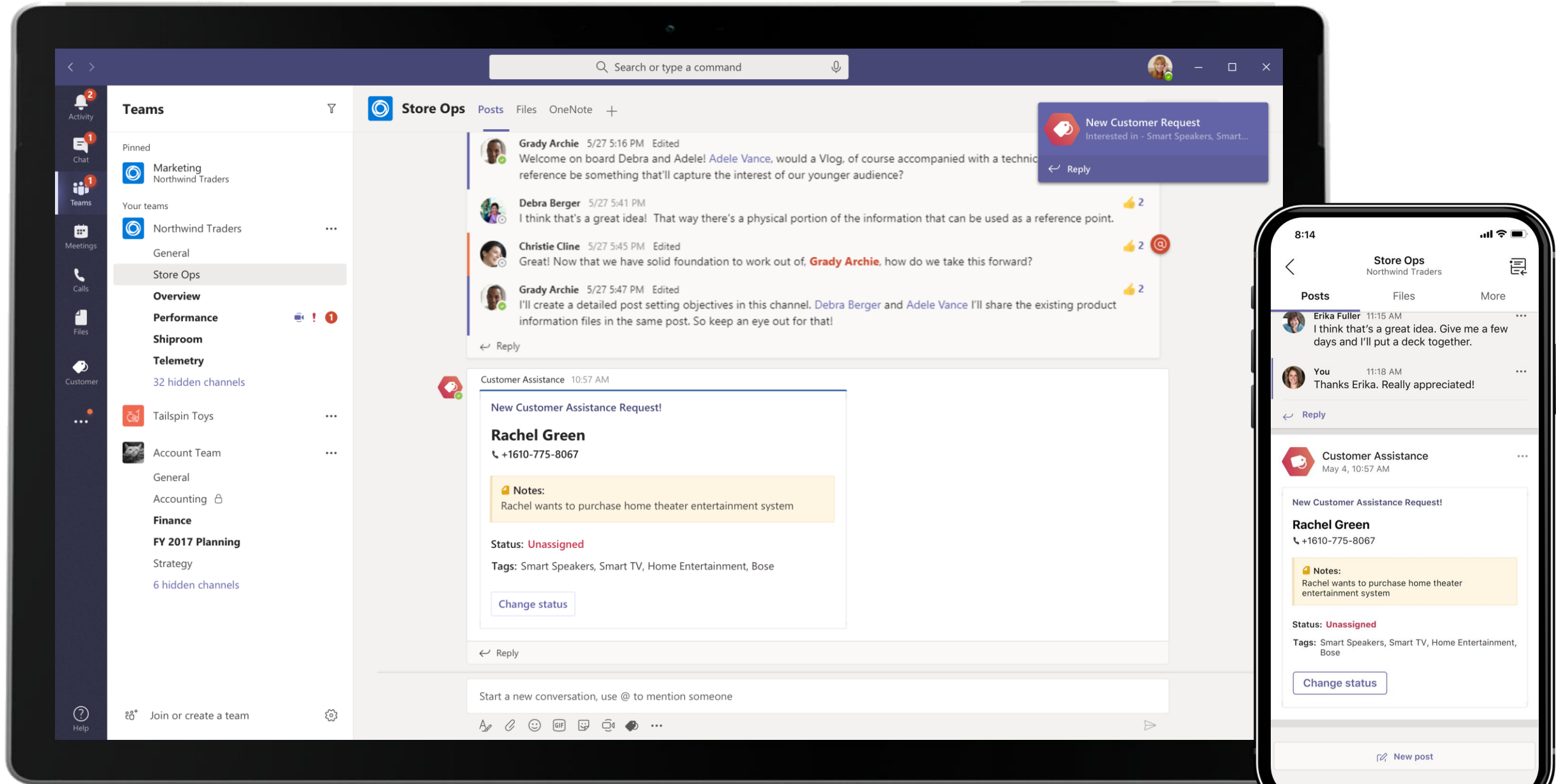
A task module opens that allows Sandra to enter information she gathered from interaction with the customer. This typically includes the reason for visit and if the customer wants to check out any particular product or wants to browse through a section.



From the task module, Sandra is able to find the customer info from backend CRM database. She enters the mobile number of the customer to locate their profile

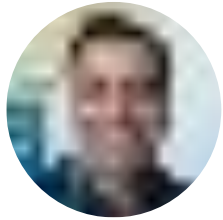


After selecting the customer name / number, Sandra proceeds to note the reason for customer's visit. She uses this space to clearly communicate to the floor staff on the customer - Rachel's interests, wants and needs.



On clicking submit, the new customer assistance request gets posted into designated channel with all retail floor staff. The card provides useful information as tags auto generated from Rachel's prior purchase behaviour and text from Notes

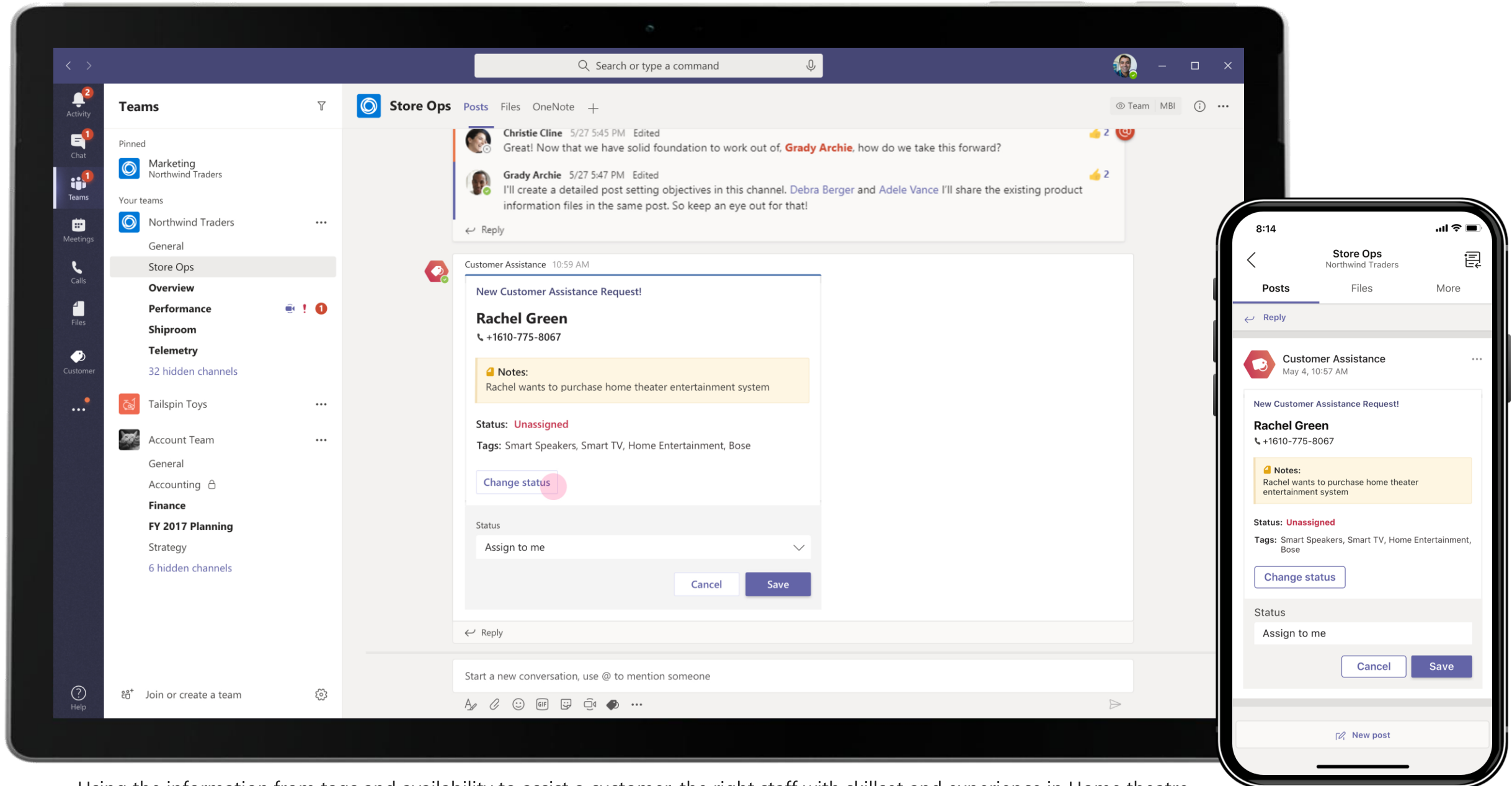




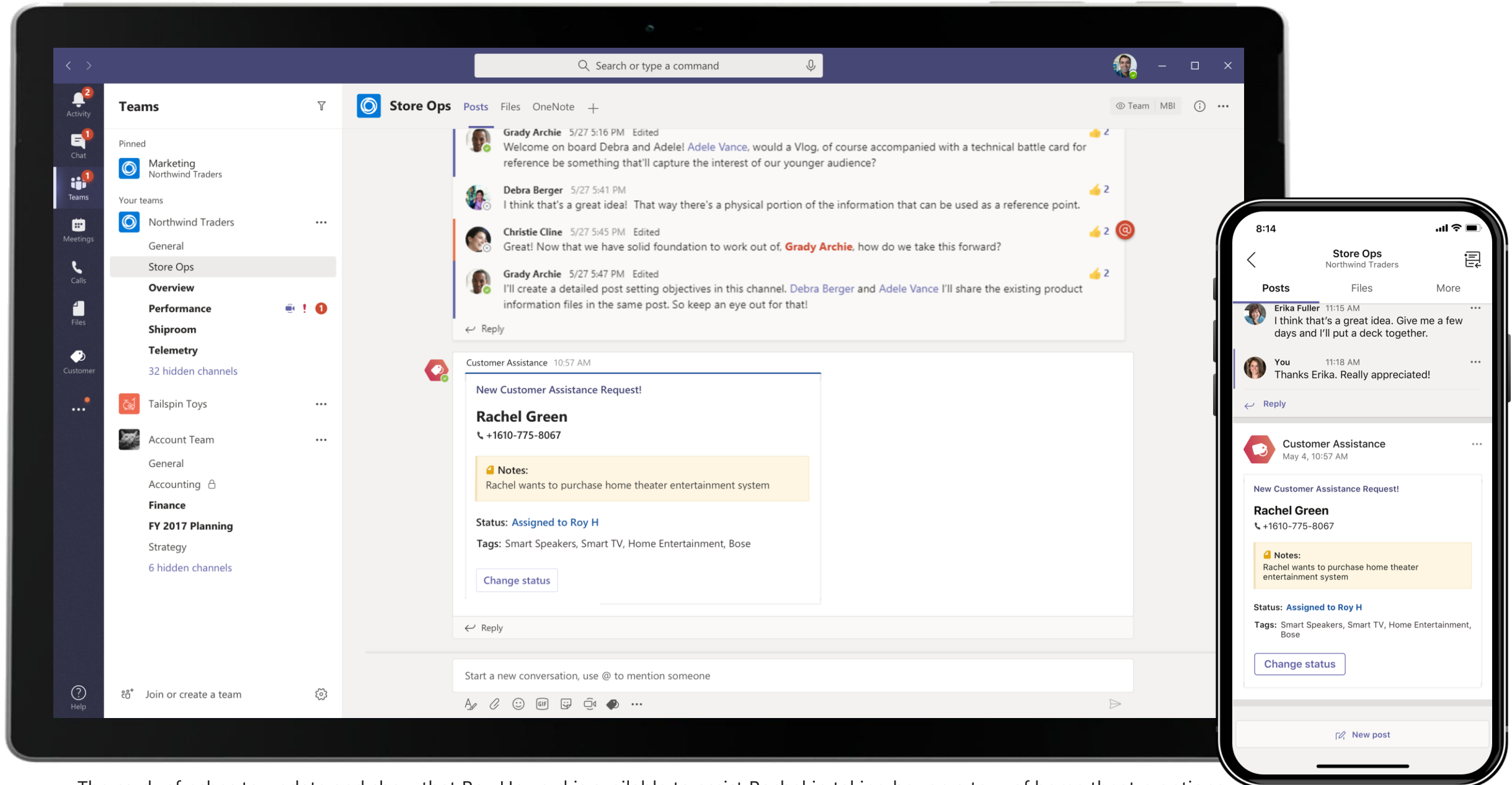
## **Roy Howard, Sales Pro**

Roy Howard is a sales pro at North Wind Traders electronics retail chain. He is in charge of the Home entertainment, Smart TVs section of the store.

Sales Pros are notified as the message gets posted on the channel and they can start assigning customer assistance request to themselves

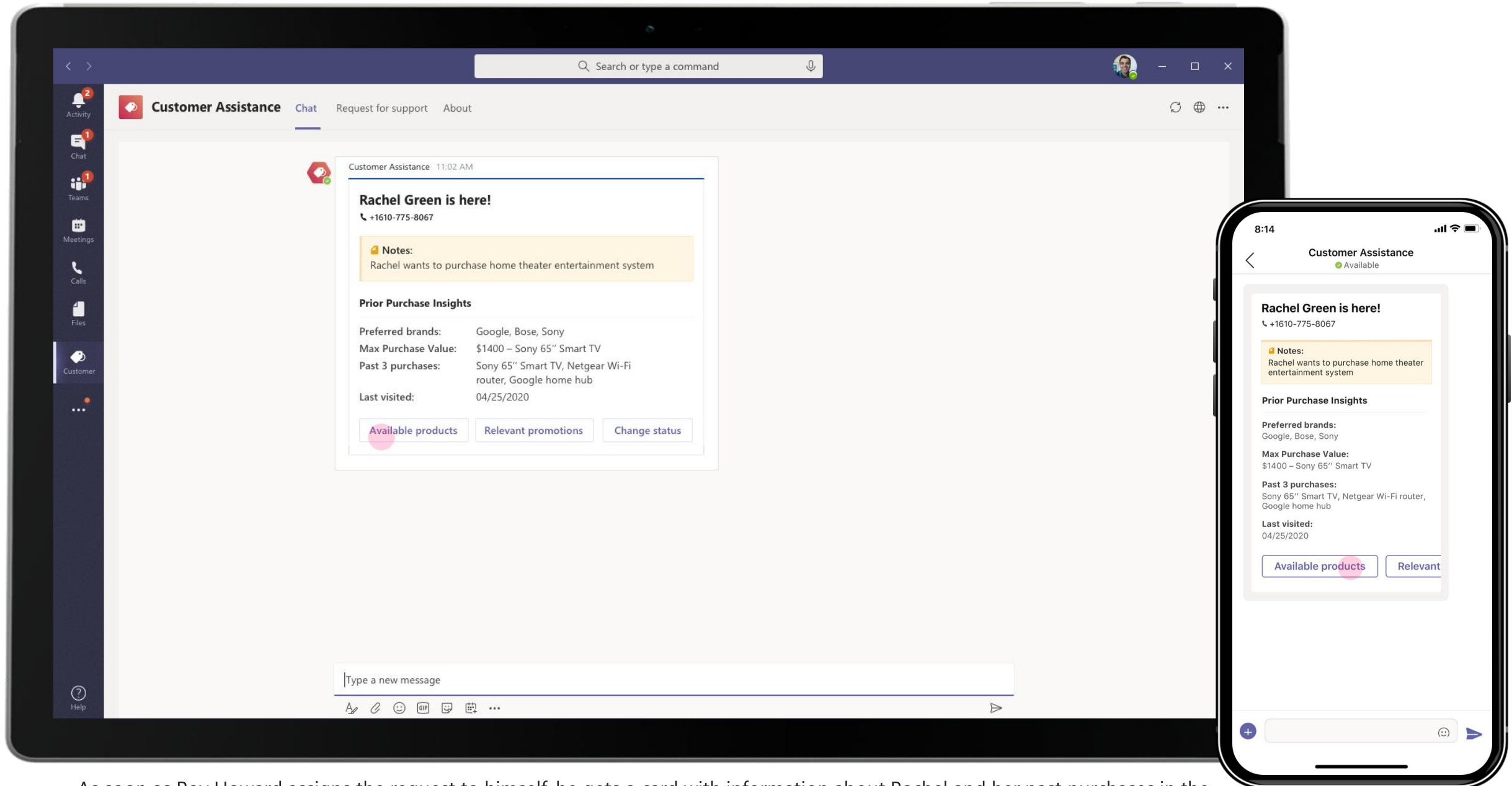


Using the information from tags and availability to assist a customer, the right staff with skillset and experience in Home theatre entertainment systems can choose to assign the request to their name and start interacting with Rachel.

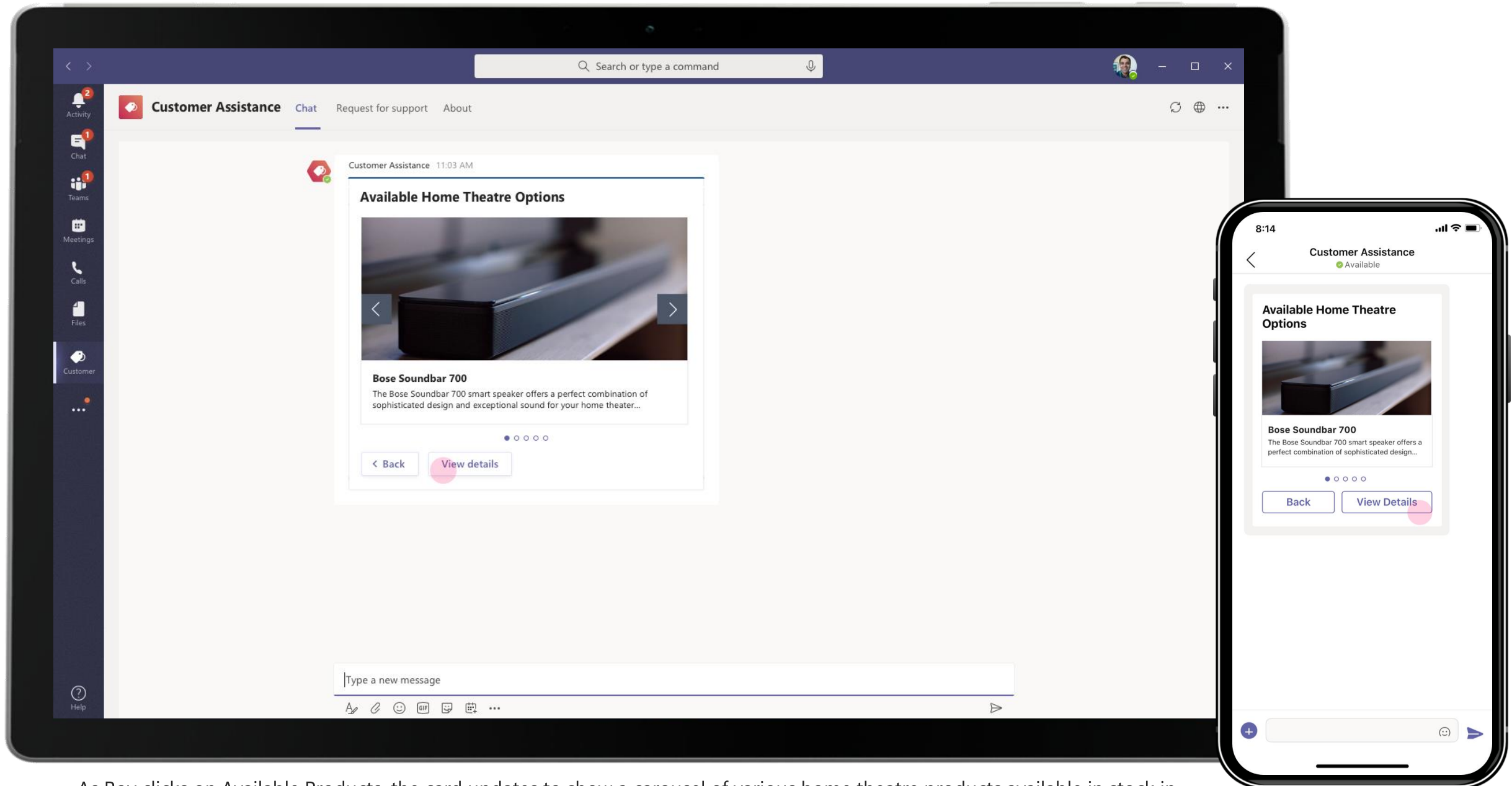


The card refreshes to update and show that Roy Howard is available to assist Rachel in taking her on a tour of home theatre options available at the store

Sales Pros get access to currently available options for Home entertainment system at the store, entire knowledge library of product talk track and customized user discounts and offers

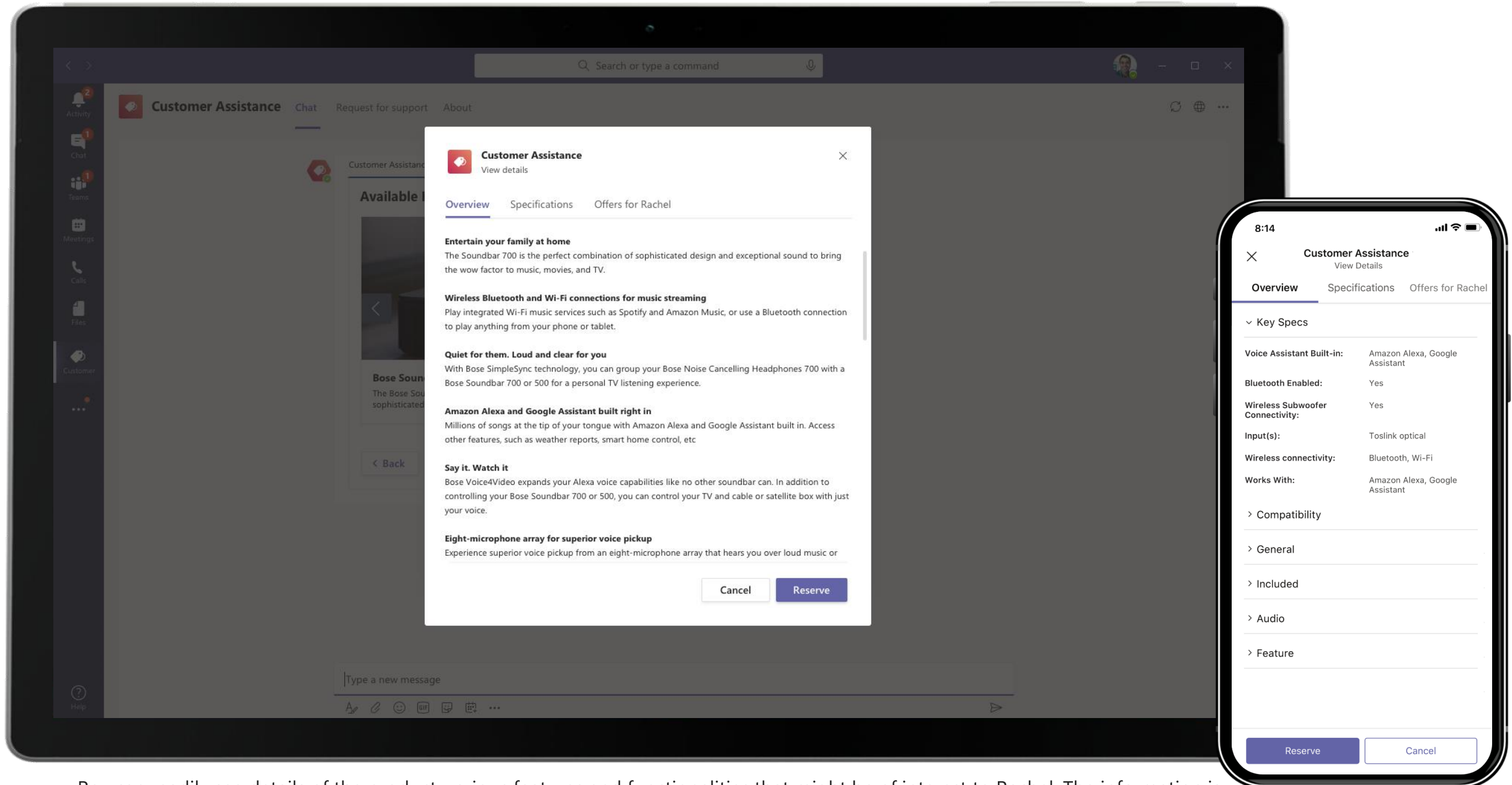


As soon as Roy Howard assigns the request to himself, he gets a card with information about Rachel and her past purchases in the personal scope of the app. Roy can make product suggestions, recommendations armed with this extra info about Rachel

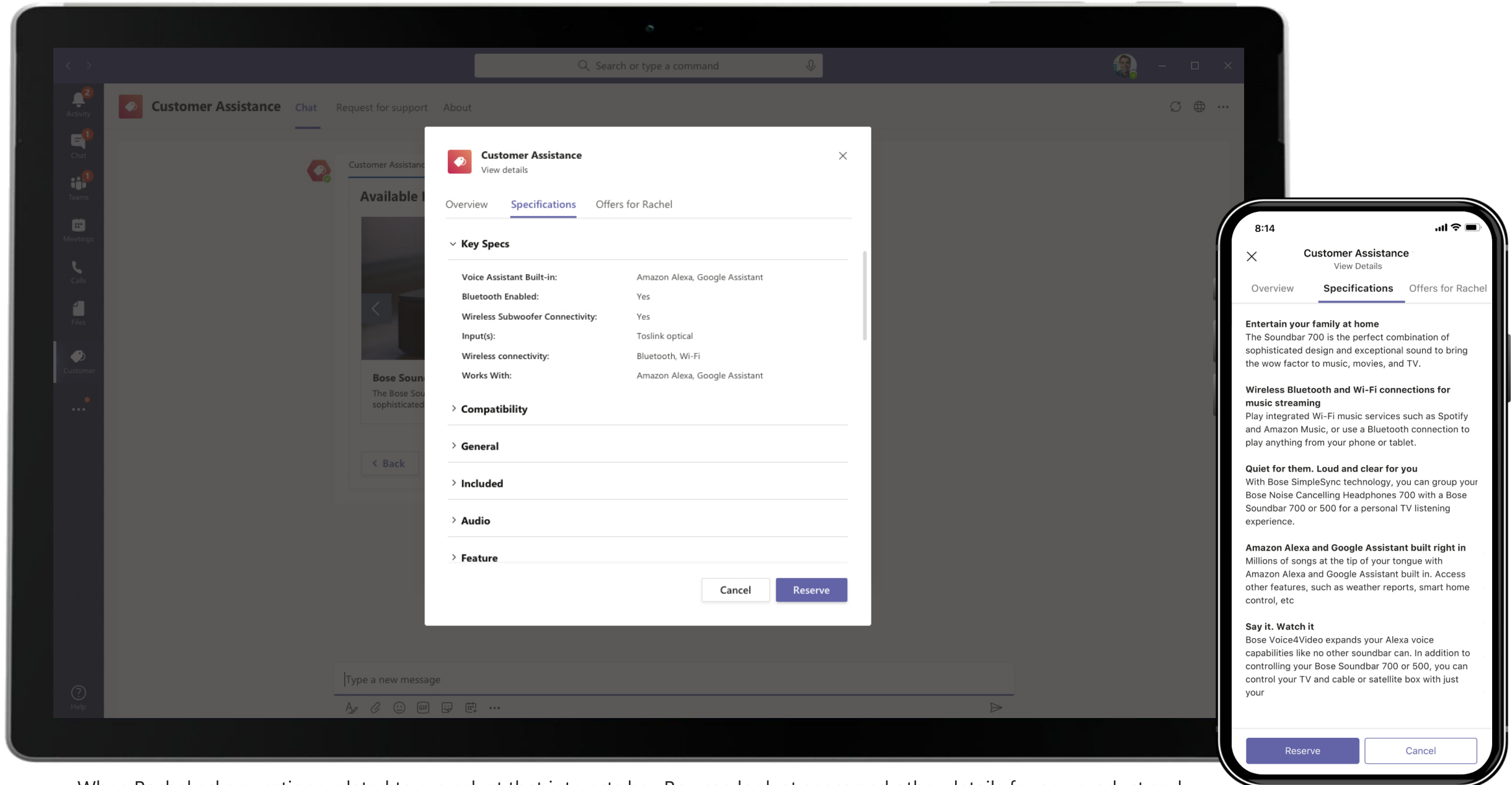


As Roy clicks on Available Products, the card updates to show a carousel of various home theatre products available in stock in the store. This list is sorted based on Rachel's past purchase and popularity of products in the store.

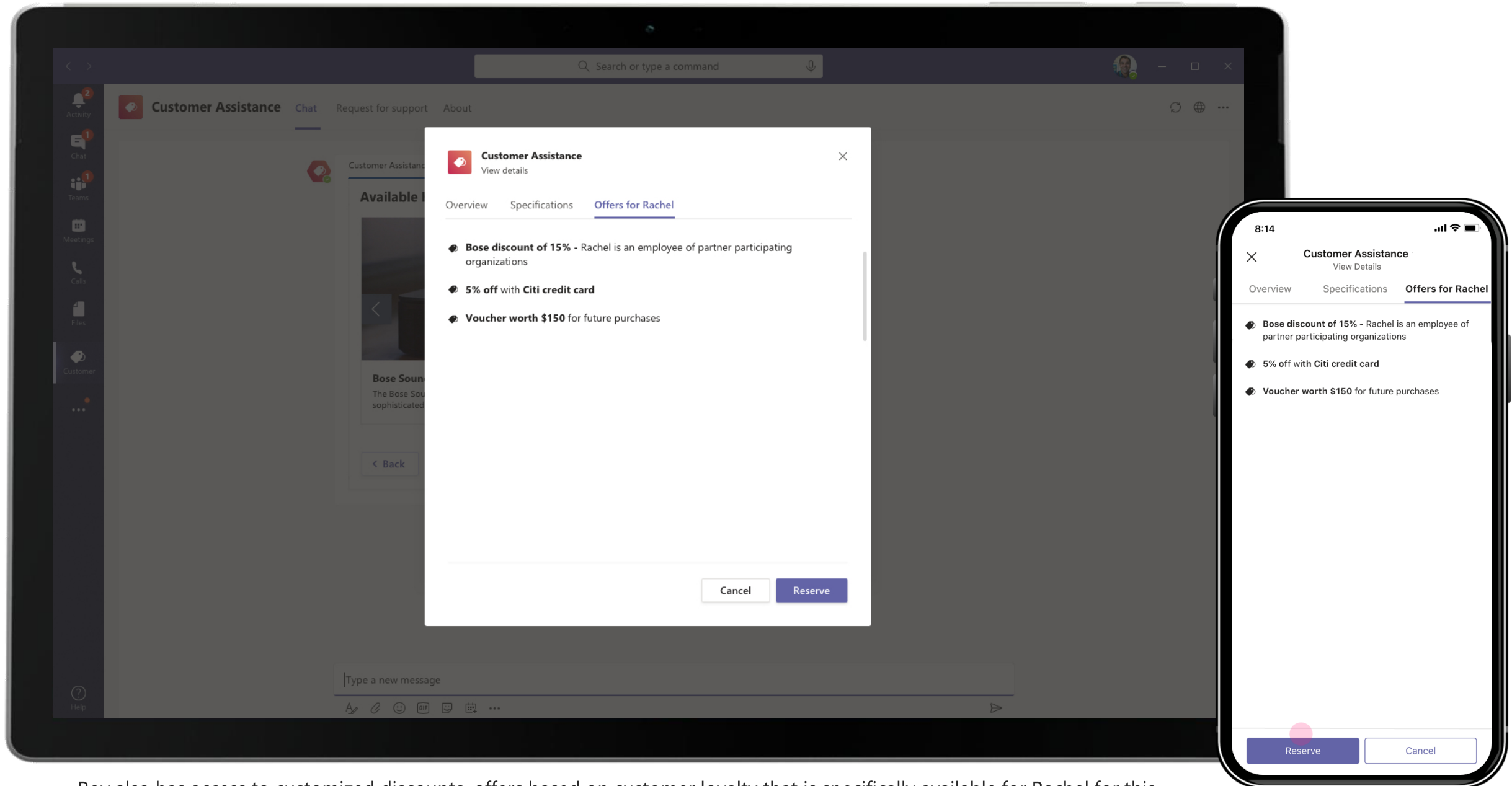




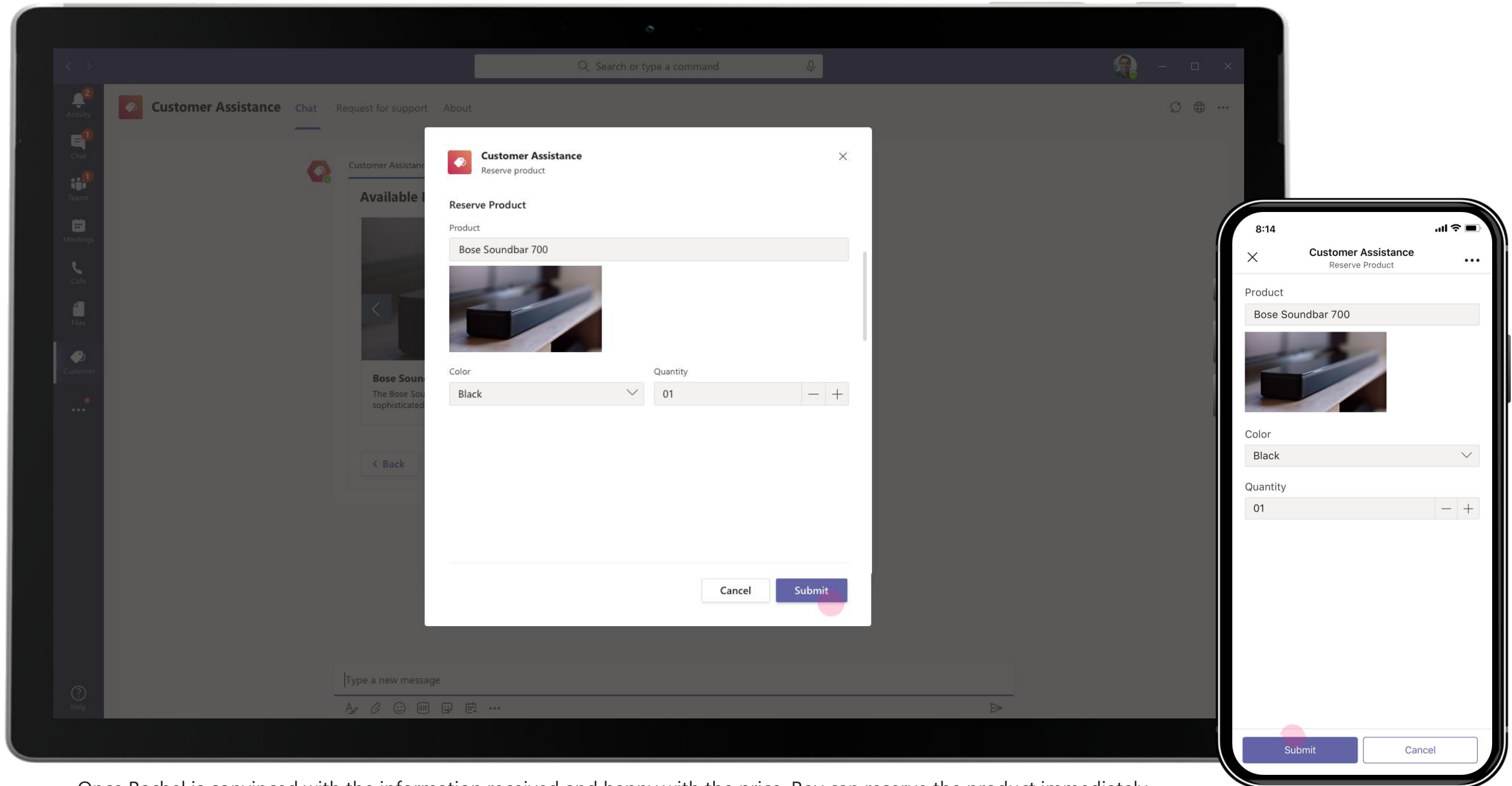
Roy can readily see details of the product, various features and functionalities that might be of interest to Rachel. The information is constantly updated and fetched from backend product database, so that Roy always has latest information



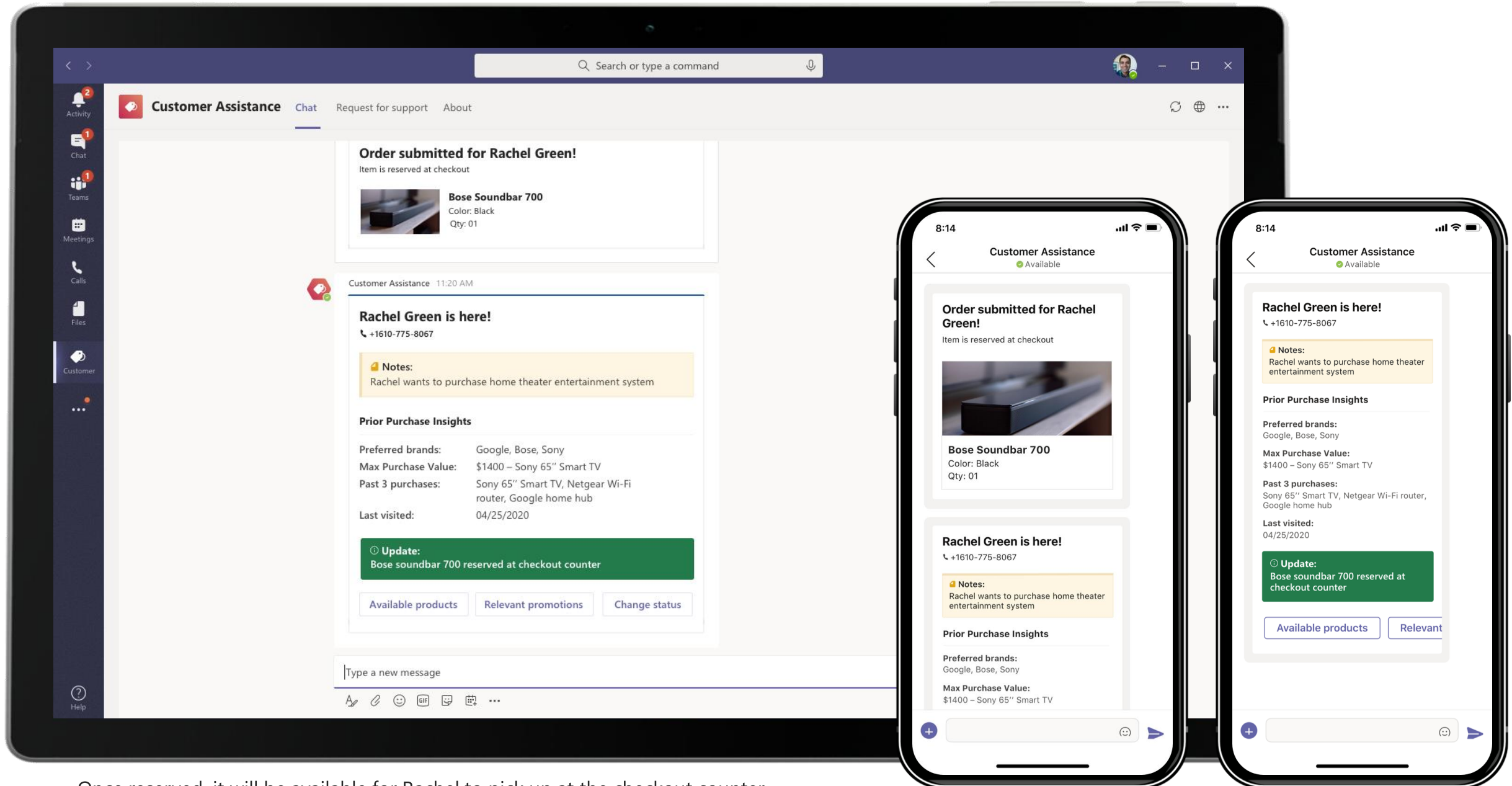
When Rachel asks questions related to a product that interests her, Roy can look at specs and other details for any product and provide accurate answers



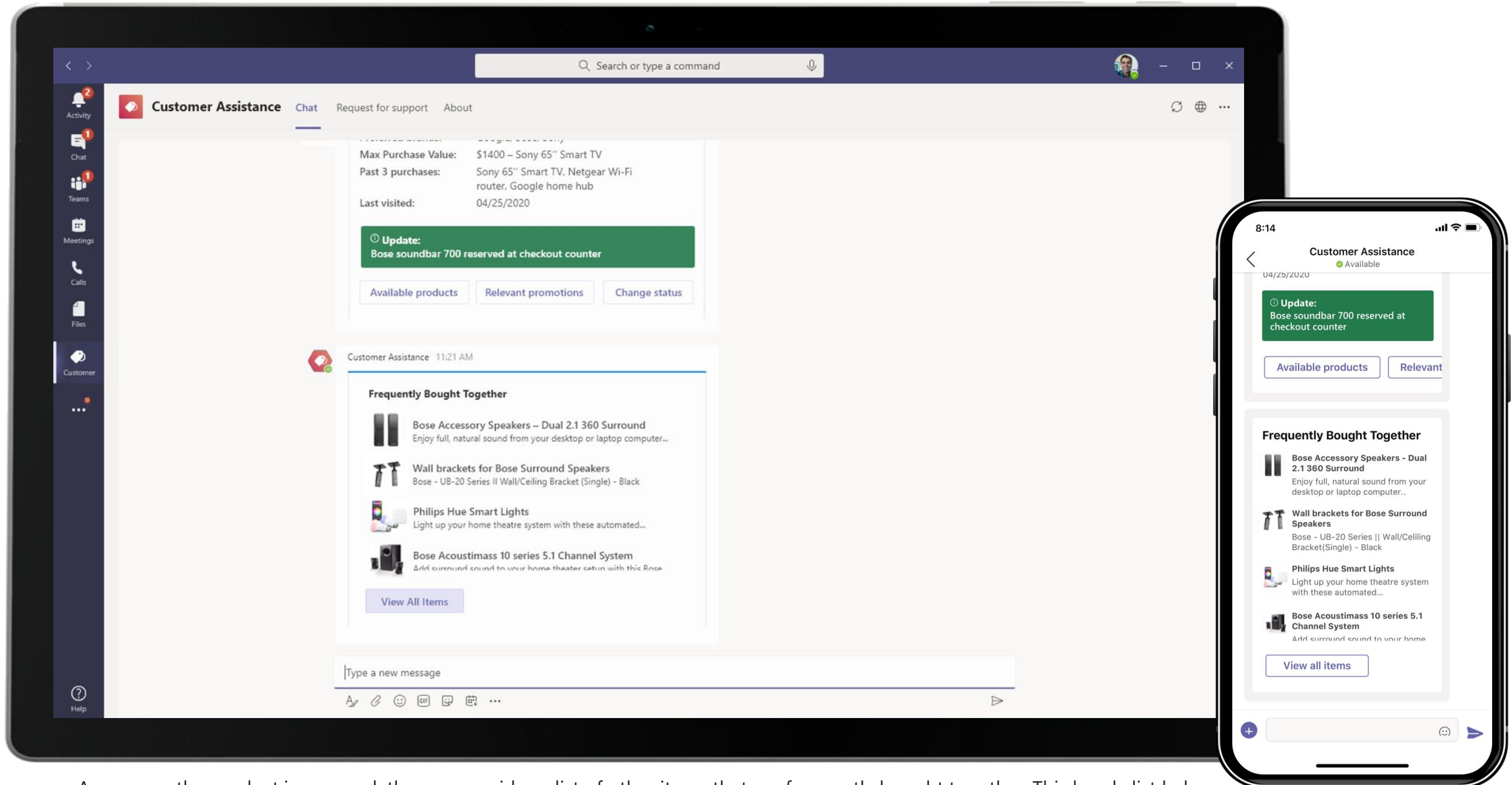
Roy also has access to customized discounts, offers based on customer loyalty that is specifically available for Rachel for this product. Roy is armed with all discount campaigns that are currently running in the store and for each product line



Once Rachel is convinced with the information received and happy with the price, Roy can reserve the product immediately.



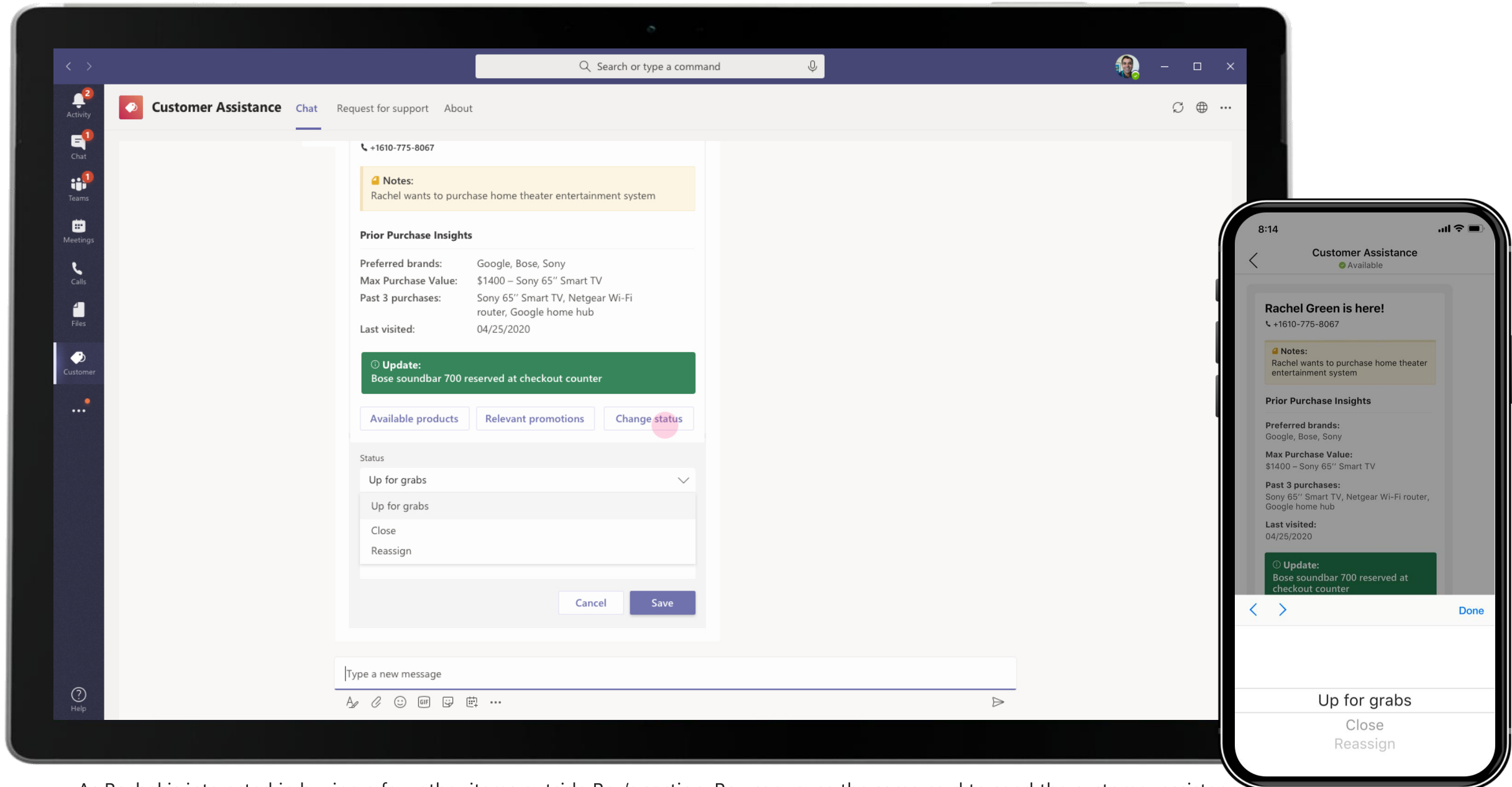
Once reserved, it will be available for Rachel to pick up at the checkout counter.



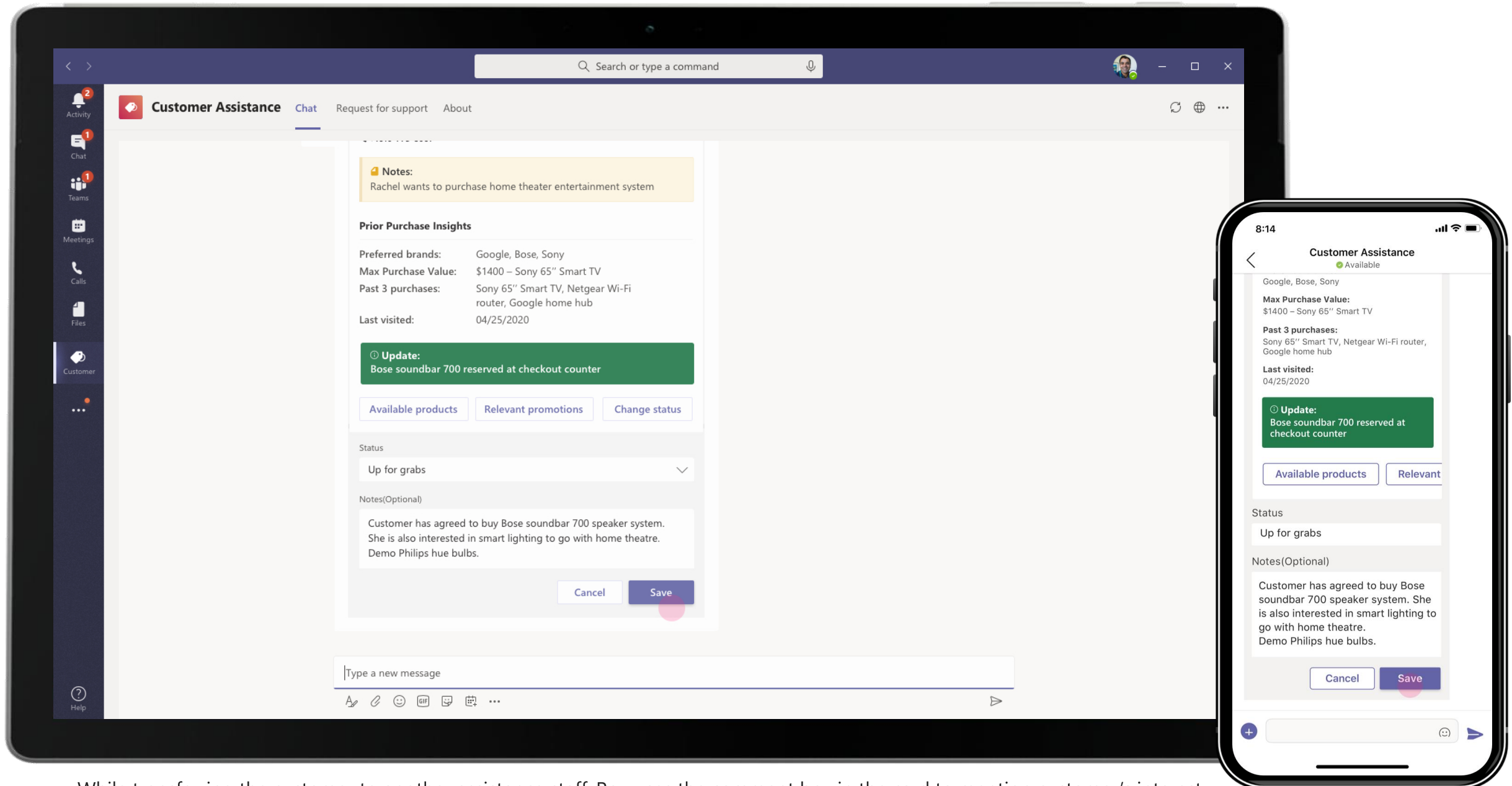
As soon as the product is reserved, the app provides a list of other items that are frequently bought together. This handy list helps Roy to perform upsell or cross sell of other related products in the store

Sales Pros can sell additional items, accessories to go with main sale and redirect the customer to another department to buy more

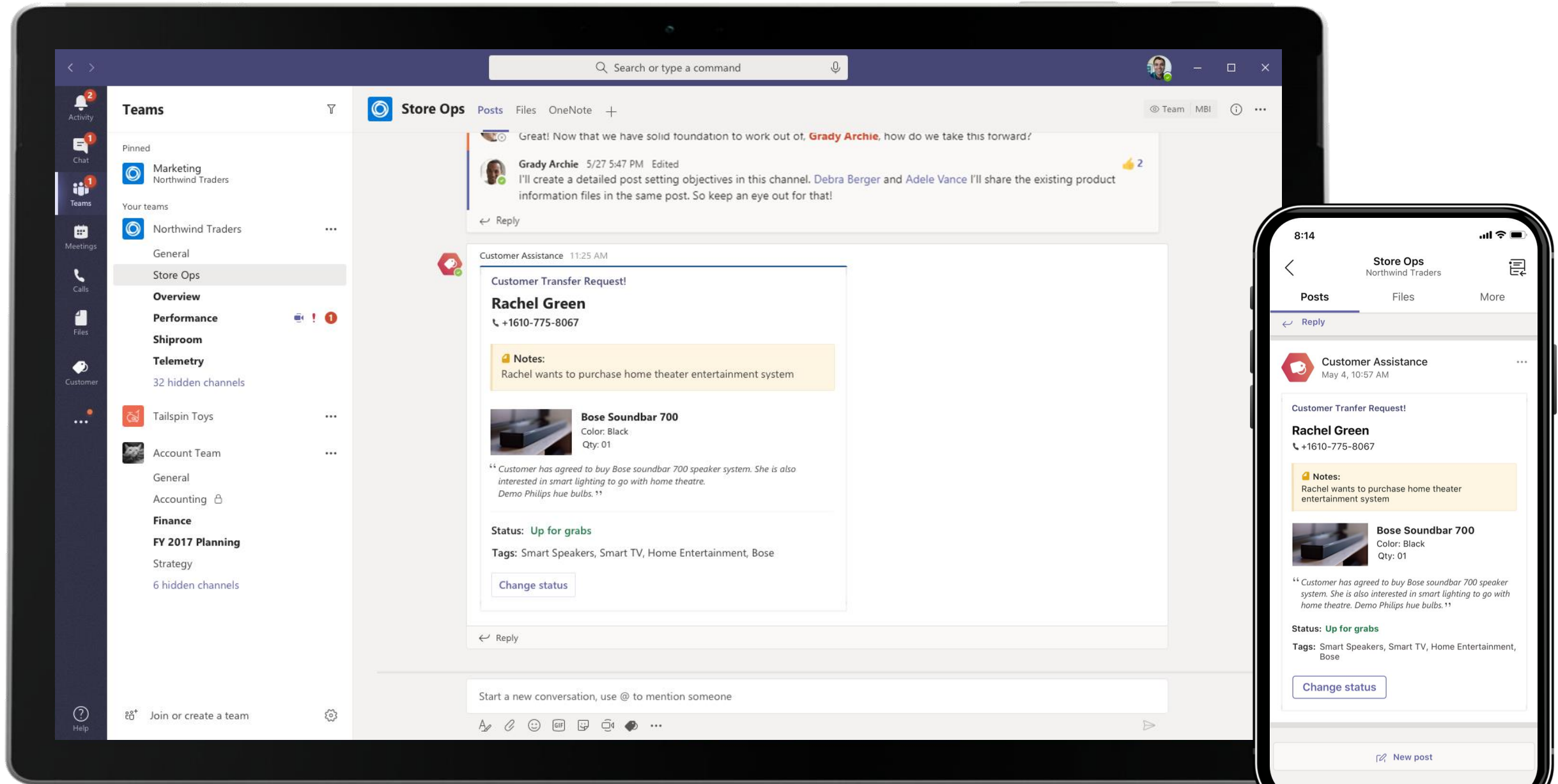




As Rachel is interested in buying a few other items outside Roy's section, Roy can reuse the same card to send the customer assistance request back to the common pool.

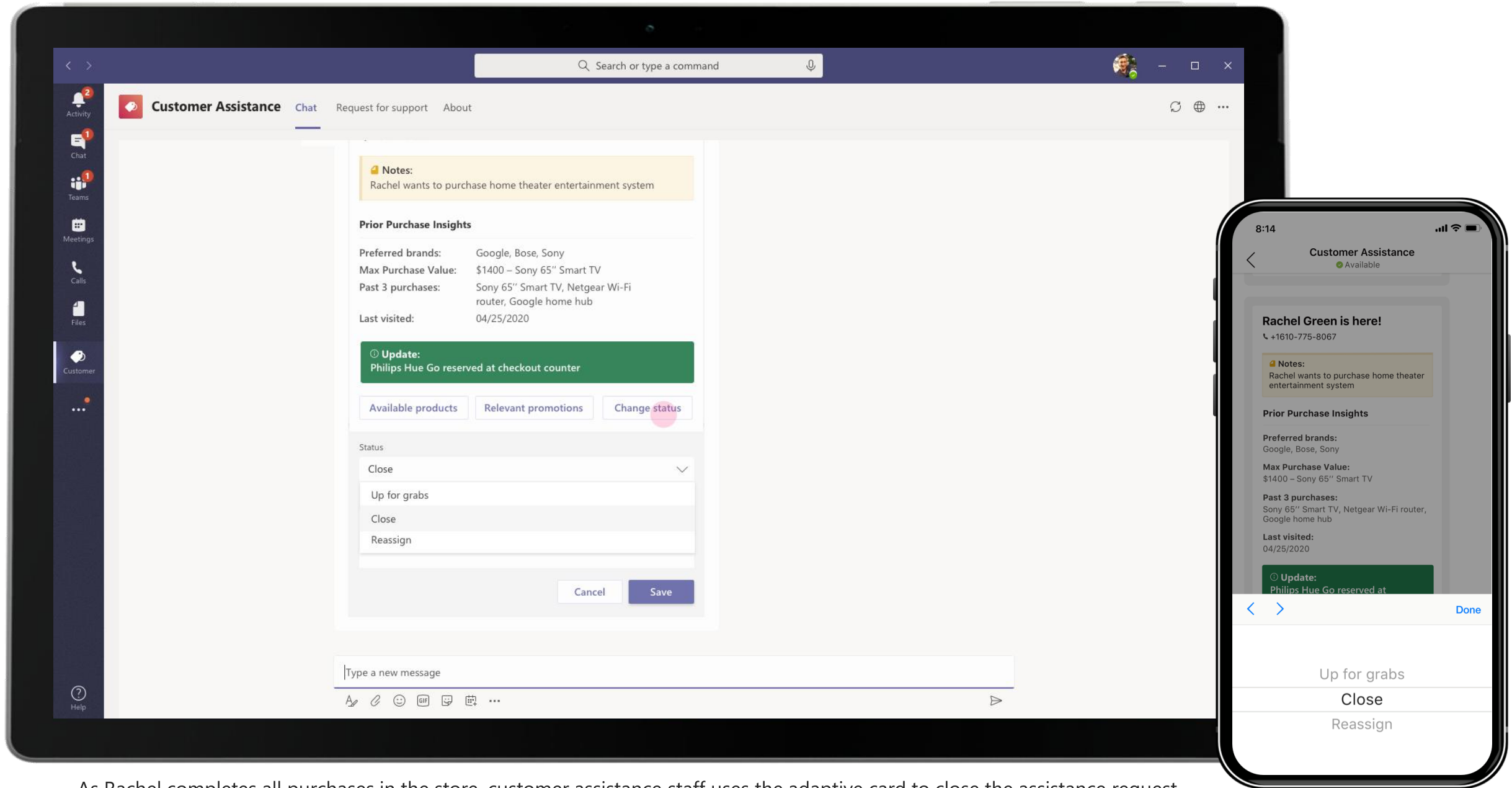


While transferring the customer to another assistance staff, Roy uses the comment box in the card to mention customer's interest and asks the next assistant to demo smart lighting solutions available at the store

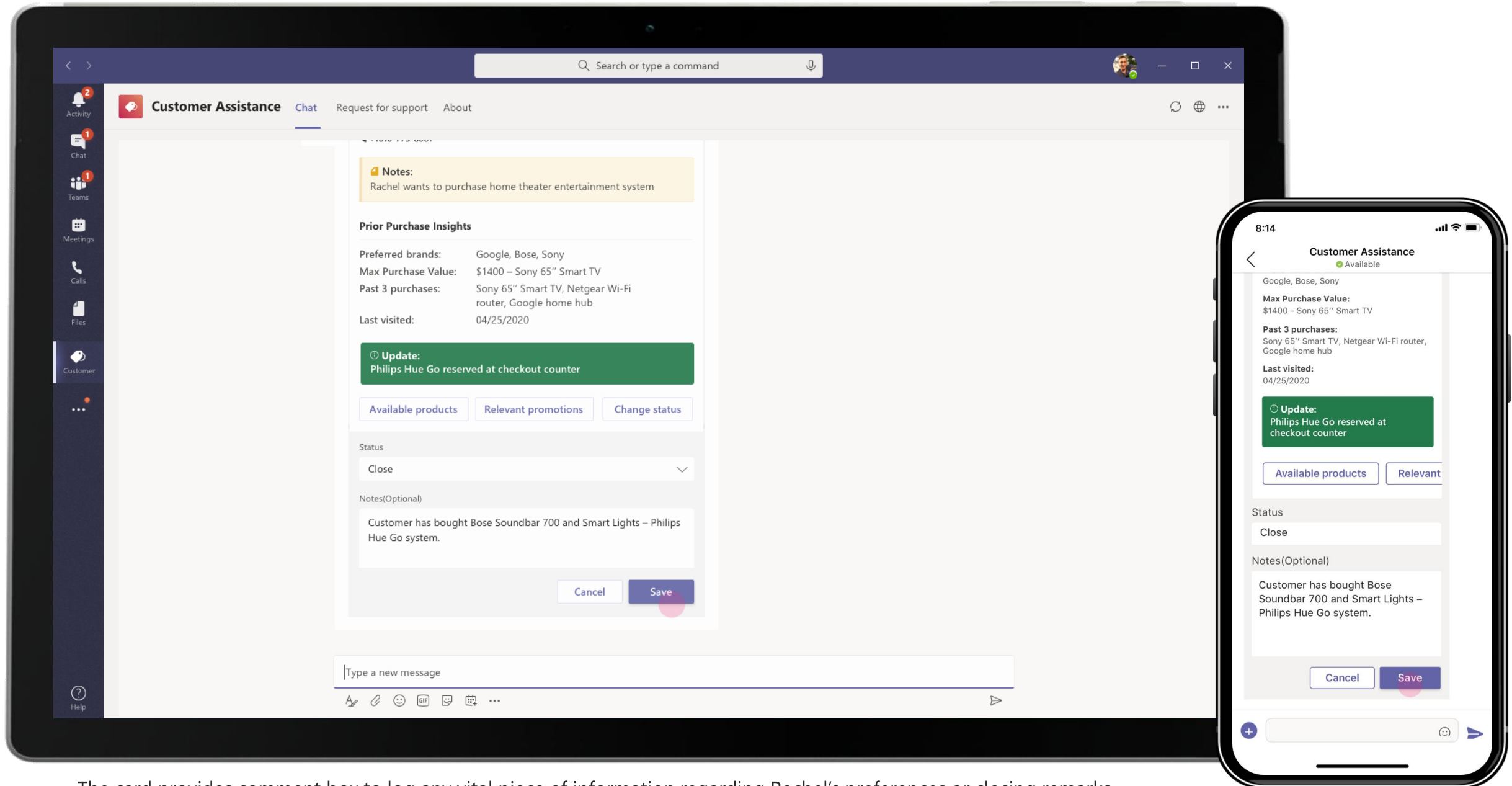


Once Roy marks the card as 'Up for Grabs' it is posted again in the common channel used by Floor staff as Customer Transfer Request. The sales staff responsible for Smart Bulbs section can then choose to pick up this customer for the demo

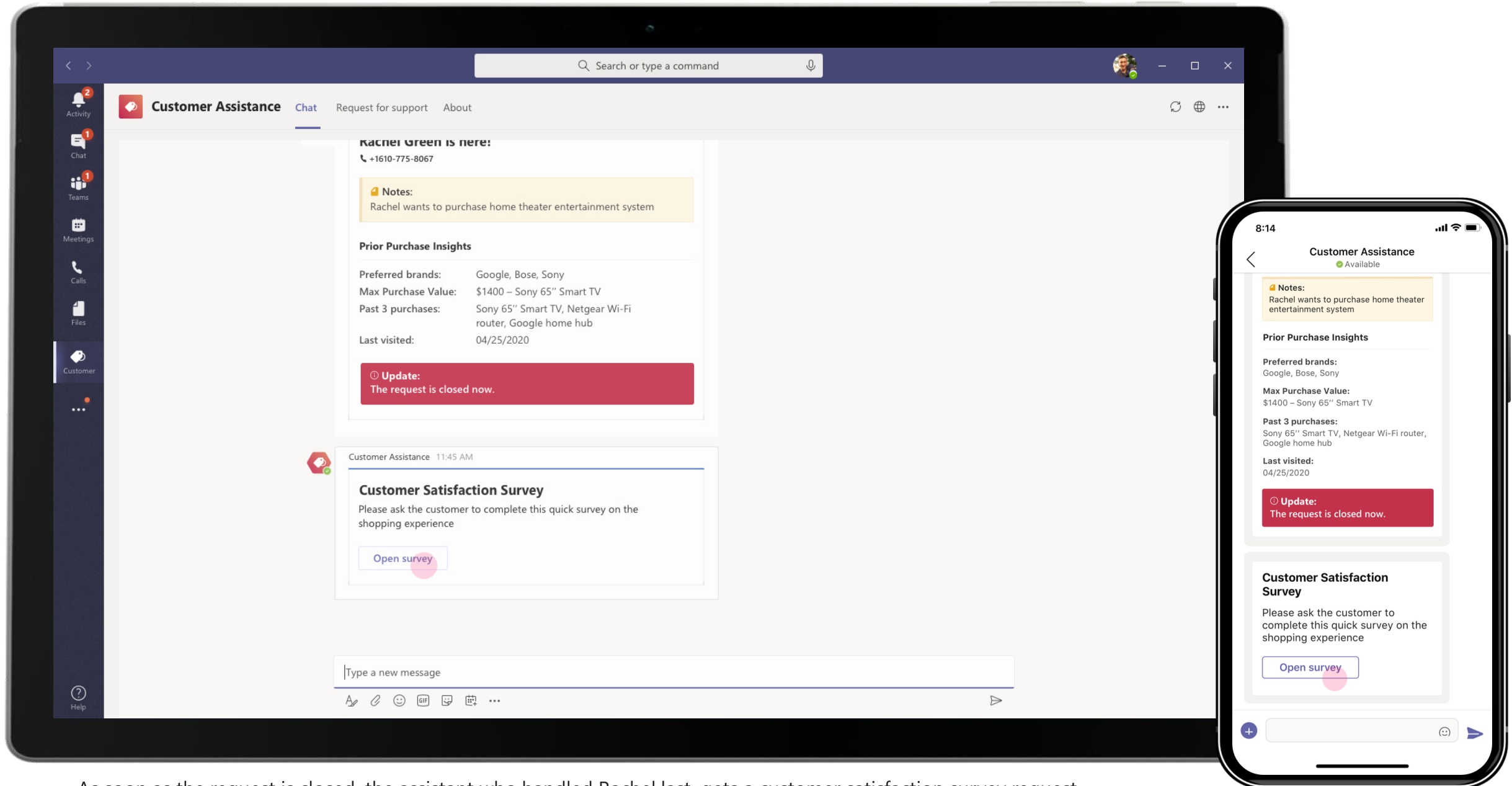
Sales Pros can get instant customer satisfaction survey at the time of sale confirmation to immediately capture the customer experience



As Rachel completes all purchases in the store, customer assistance staff uses the adaptive card to close the assistance request

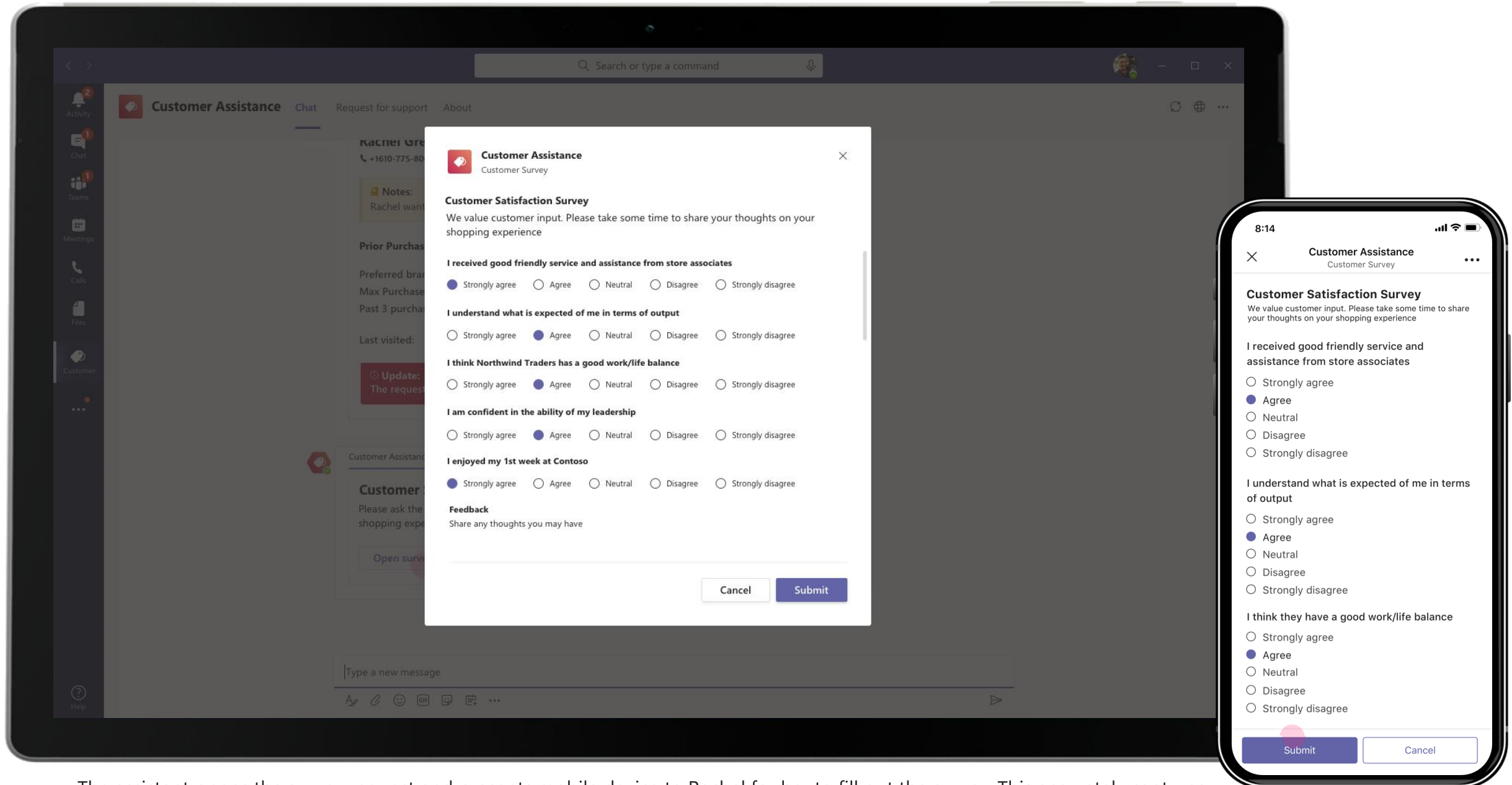


The card provides comment box to log any vital piece of information regarding Rachel's preferences or closing remarks.



As soon as the request is closed, the assistant who handled Rachel last, gets a customer satisfaction survey request.





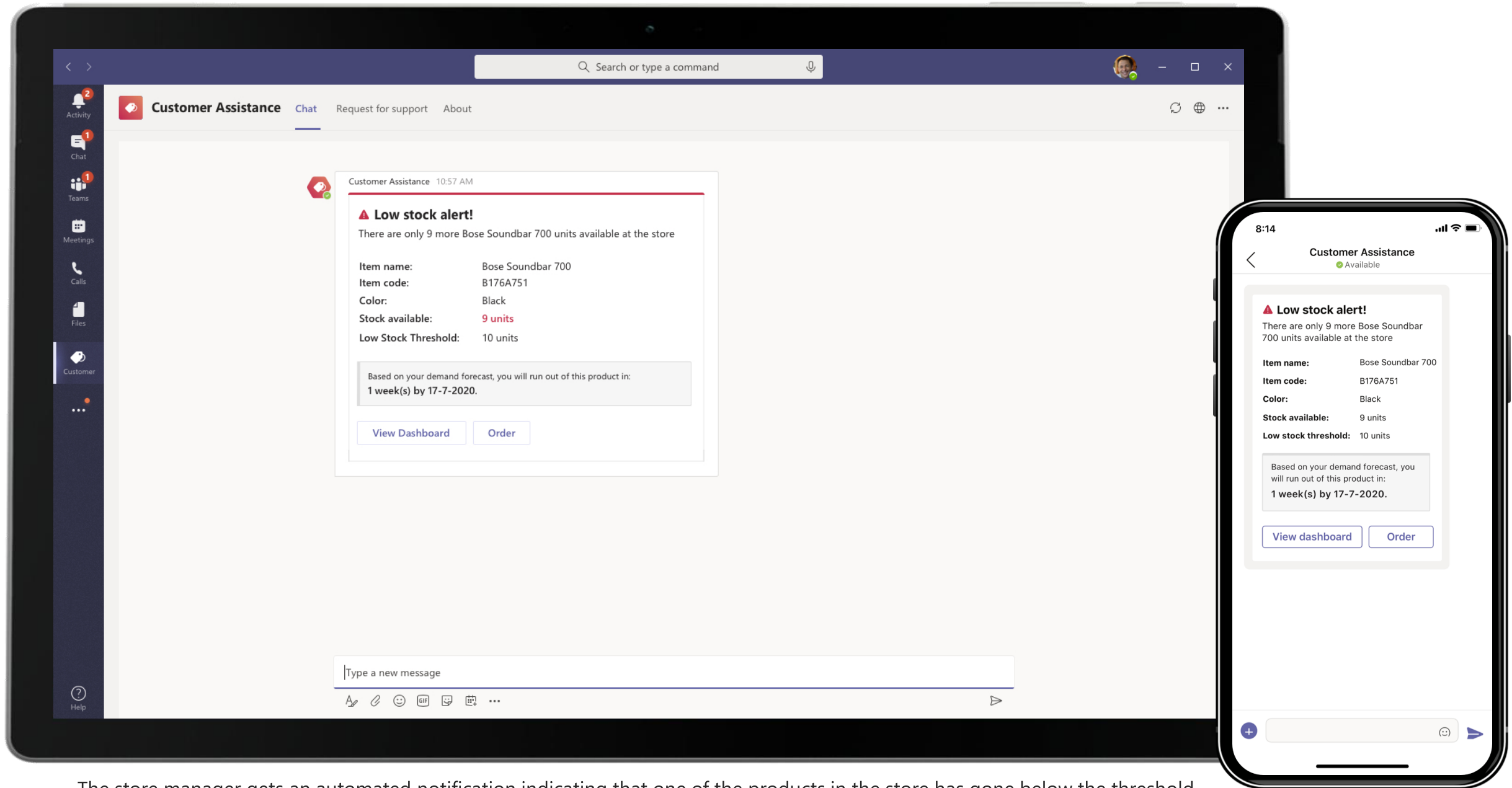
The assistant opens the survey request and presents mobile device to Rachel for her to fill out the survey. This accurately captures Rachel's sentiment and experience at point of purchase.



## **Will Little, Store Manager**

Will Little is the store manager at Northridge region store of North Wind Traders electronics retail chain. He takes care of store operations, manages inventory, and oversees end to end customer care

As soon as a customer purchases the item, the Retail Store Manager gets a low stock alert based on minimum threshold set



The store manager gets an automated notification indicating that one of the products in the store has gone below the threshold limit set by the manager. The manager can then choose to reorder the item to maintain optimal inventory levels.

# Solution Highlights – Best Practices

## Key Solution Design Considerations

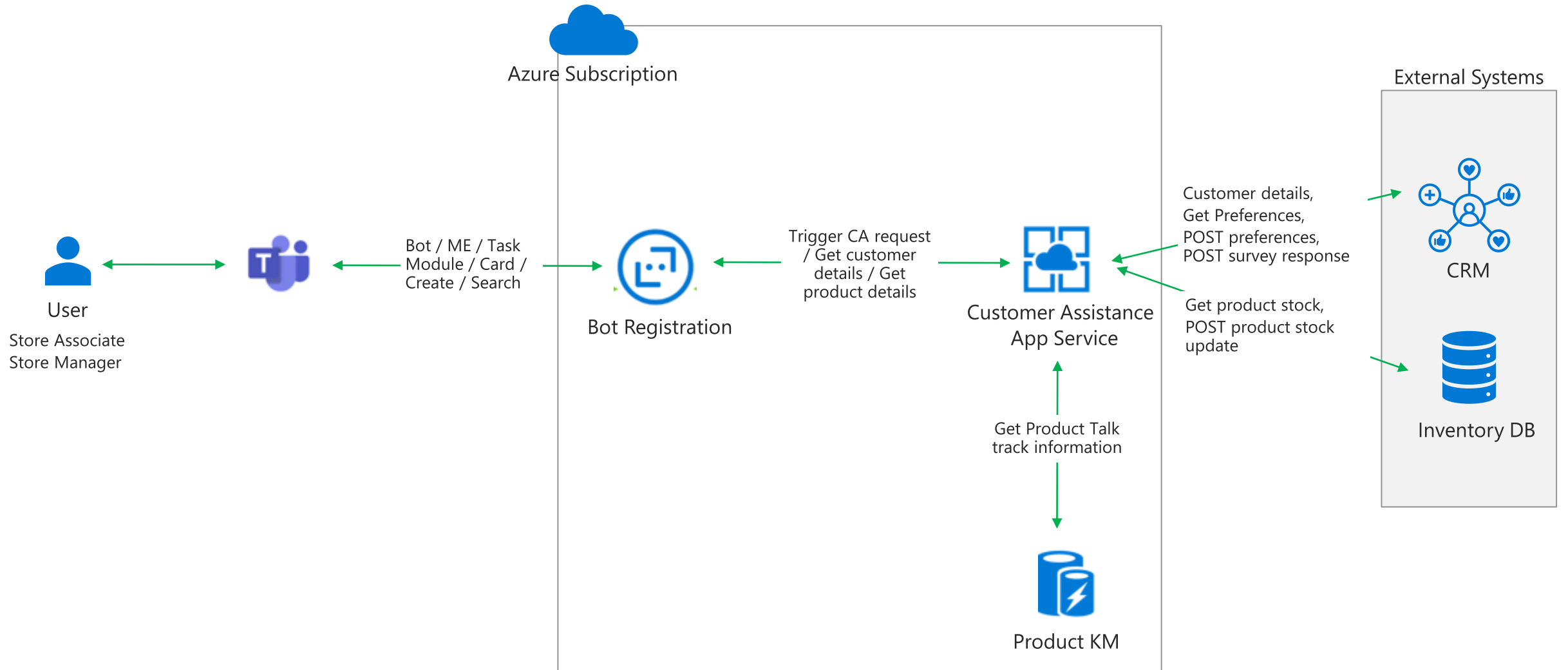
### Platform Extension Points

- **Messaging Extension (ME)** is used for triggering new customer requests to enable search, sharing and collaboration of customer assistance cards.
  - MEs fit this use case better than using, say a bot to raise this request because MEs inherently allow information created to be shared to larger group.
  - Since customer assistance requests are meant to be shared in a channel full of Sales associates for everyone to collaborate and take decision, ME becomes the ideal platform extension point
- **Task modules** are used for customer satisfaction survey, viewing product details, reserving a product use cases in order to quickly take actions, perform information exchange between associate and backend systems while keeping the associate in the main flow of assisting the customer
  - The same survey could have been achieved as an adaptive card in the chat screen. However, adaptive cards become persistent messages.
  - In this case, the sales associate will have no use for viewing the survey card after the customer completes the survey. Hence task modules provide the ideal experience

### Adaptive Cards

- **Card refreshes** are used to update the card status instead of sending multiple different cards about the same request. This ensures that readability and tracking of a customer request is easy for store manager and associate
- **Carousel cards** are used for browsing through product options by the store associate in order to focus on one product at time while still allowing the associate to browse through other options. In addition, it allows associate to take quick actions to view additional product details and reserve
- **Digest cards** are used for showing multiple different product items by category for the associate to view in one glance and choose one for cross sell / upsell based on knowledge from current conversation with customer

# Solution Architecture



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# Reserve Inventory – Inter-store collaboration



# Scenario Vision



## Context

- Rachel, a customer of Northwind store, wants to buy 10 units of Philips Hue Bulbs for a smart home setup she is building.
- While shopping at the Northwind store, Rachel noticed that there is just one unit of the bulb is available in stock. That unit seems to be defective as well. She approaches a nearby store associate for assistance in finding more units of the product.

## Current State

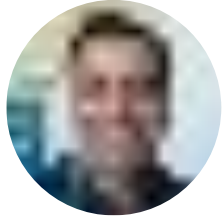
- Rachel finds a nearby store associate and shows the product asking for information on where she could find 10 more working units of the same type of bulbs
- ⚠ The store associate, David Shamas, uses the product name and goes to a central kiosk or to customer helpdesk to search for available stocks in the store
- ⚠ After entering product name / scanning the barcode, David finds available stock and finds that his store has just 1 unit available. David has no insight into whether the product replenishment will happen soon or if inventory replenishment request has been placed.
- ⚠ David uses the inventory portal to check on available stock in nearby branches. David has no means to contact the store to reserve certain units in said inventory
- ⚠ Once David finds the nearby store with at least units of stock available of the said product, he prints out the store details, location and contact number and gives it to Rachel
- ⚠ Rachel uses the contact and location information from the printout to reach other store assuming the stocks will still be available by the time she reaches

⚠ - Points of Friction

## Future State

- ✓ Rachel finds a nearby store associate and shows the product asking for information on where she could find 10 more working units of the same type of bulbs
- ✓ David Shamas uses the inventory app to take a photo of the product's barcode. The app finds the right product and provides stock information.
- ✓ The app provides additional details such as available quantity in the current store, with updates on its stock replenishment including useful information such as the person who ordered replenishment, shipment expected date
- ✓ In addition, the inventory card allows Babak to expand his search to nearby stores for that product.
- ✓ On finding the right store based on customer preference and stock availability, Babak can contact the store to reserve 10 units of Hue Bulbs under Rachel's name.
- ✓ Store executive from the other store, can immediately confirm the order. Rachel can walk in at any time, provide her name / number to collect the items right at the checkout counter.

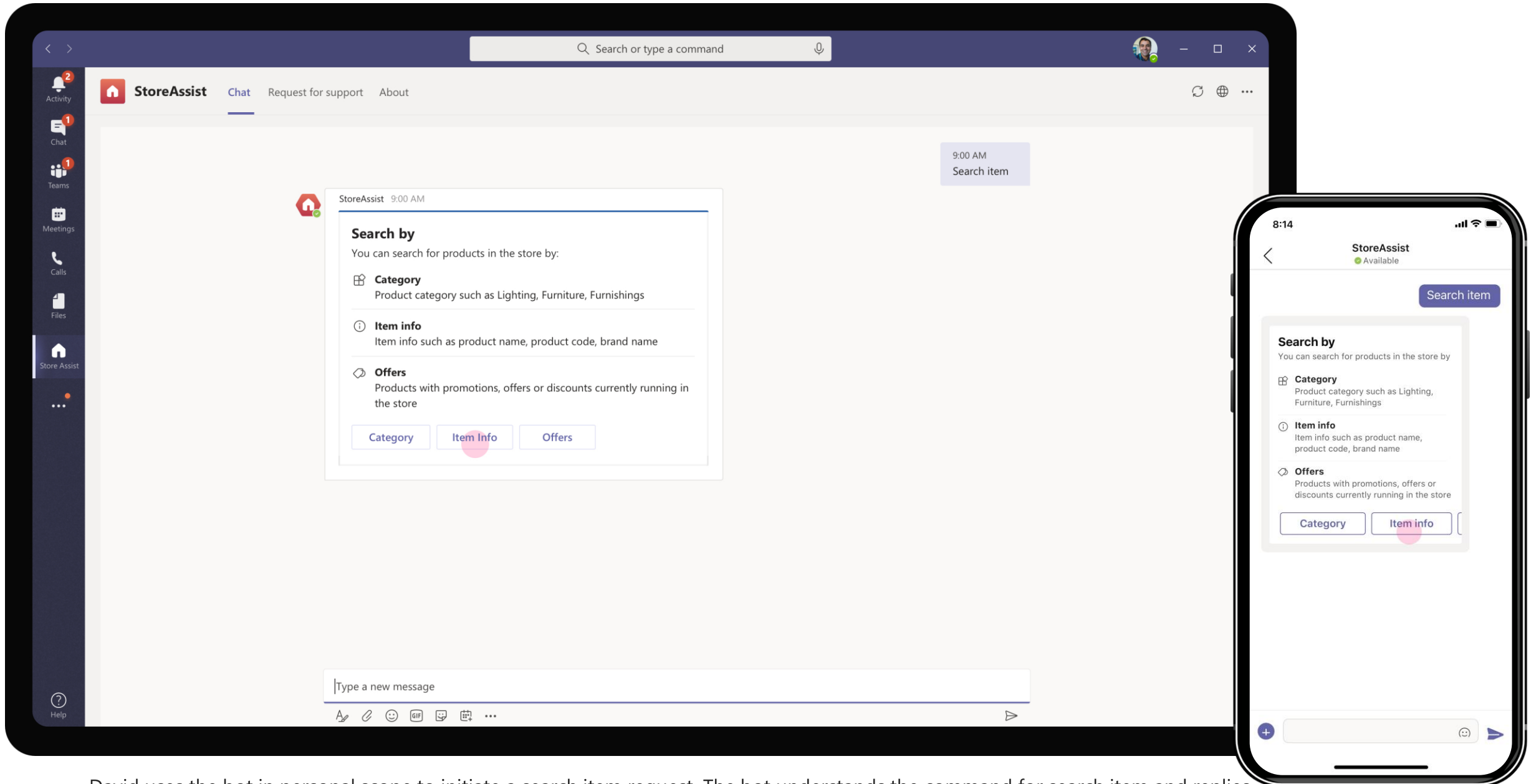




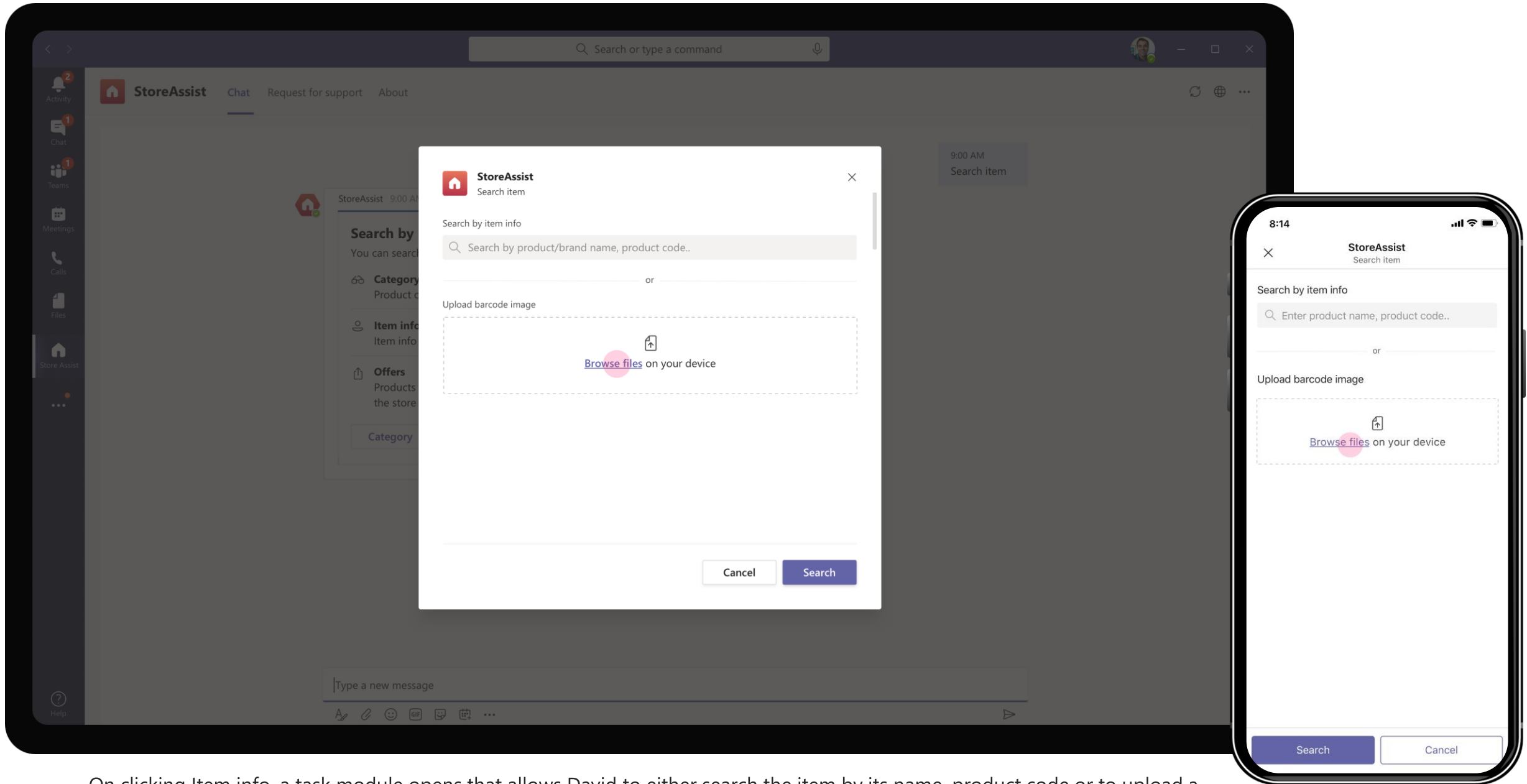
### **David Shamas, Retail Store Associate**

David is an amicable, friendly store assistance in Northridge store of North Wind Traders electronics retail chain. He is adept at handling customer relations and is responsible for directing customers to merchandize within the store, handling cash registers and financial transactions, customer assistance

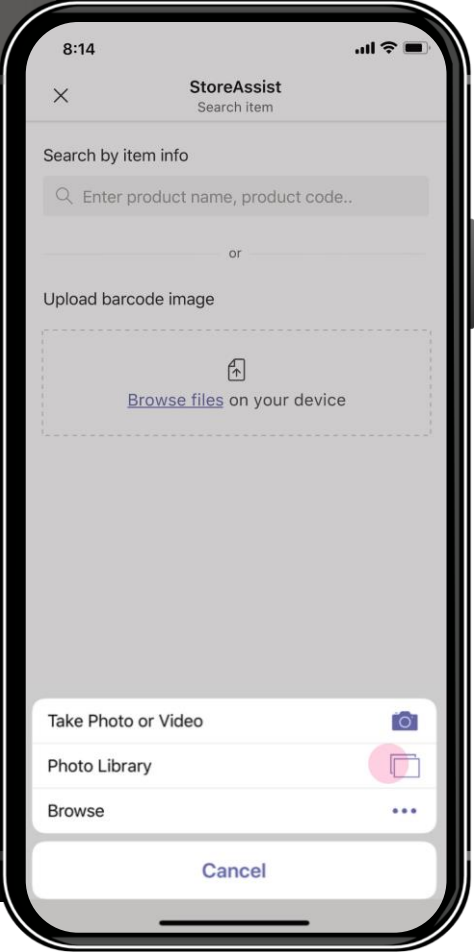
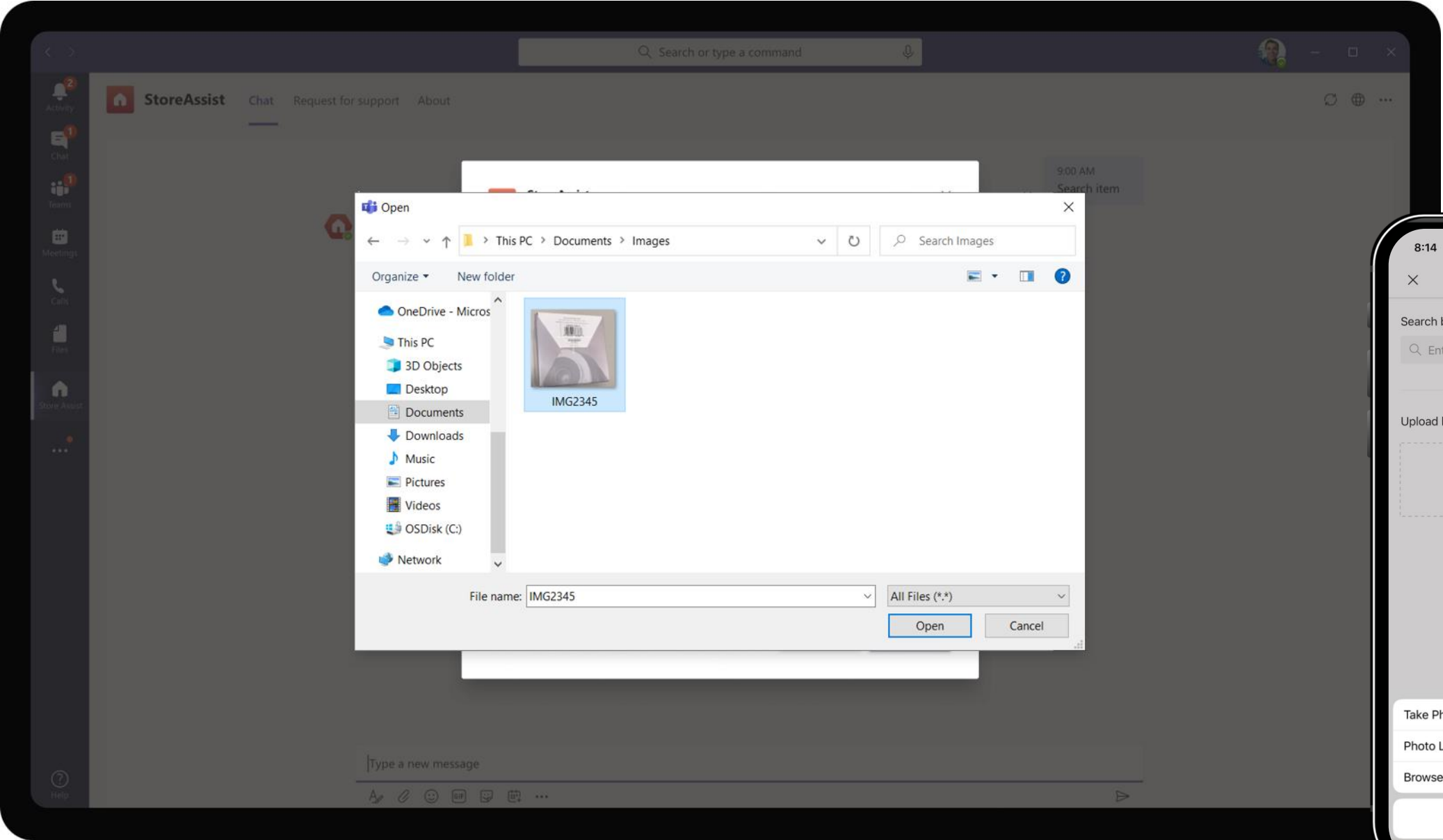
The Store associate welcomes Rachel, the customer and hears out her request to find additional stock units of Philips bulbs within the store



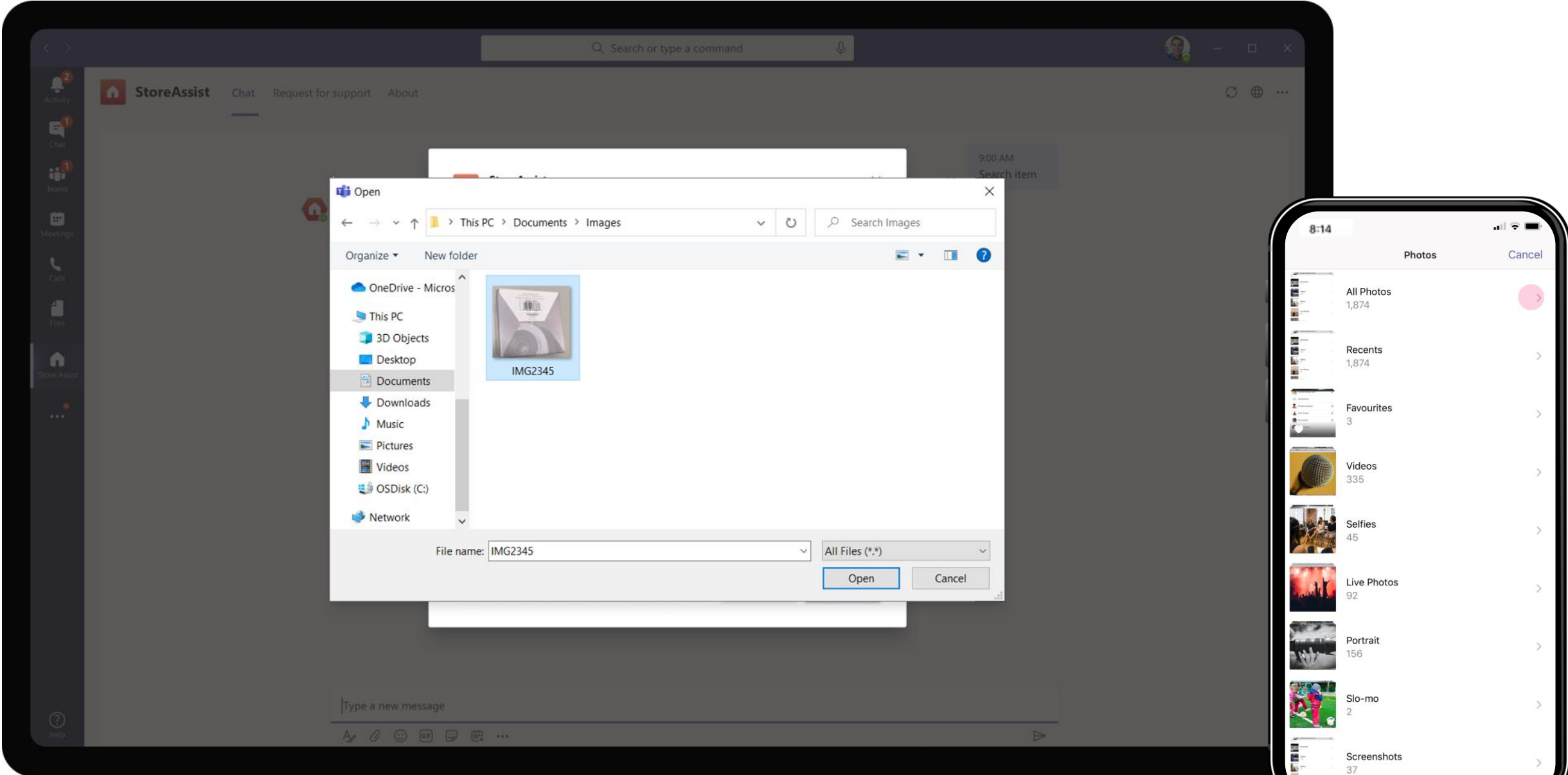
David uses the bot in personal scope to initiate a search item request. The bot understands the command for search item and replies with an adaptive card to search items in three different ways – By their category, their product info and current offers



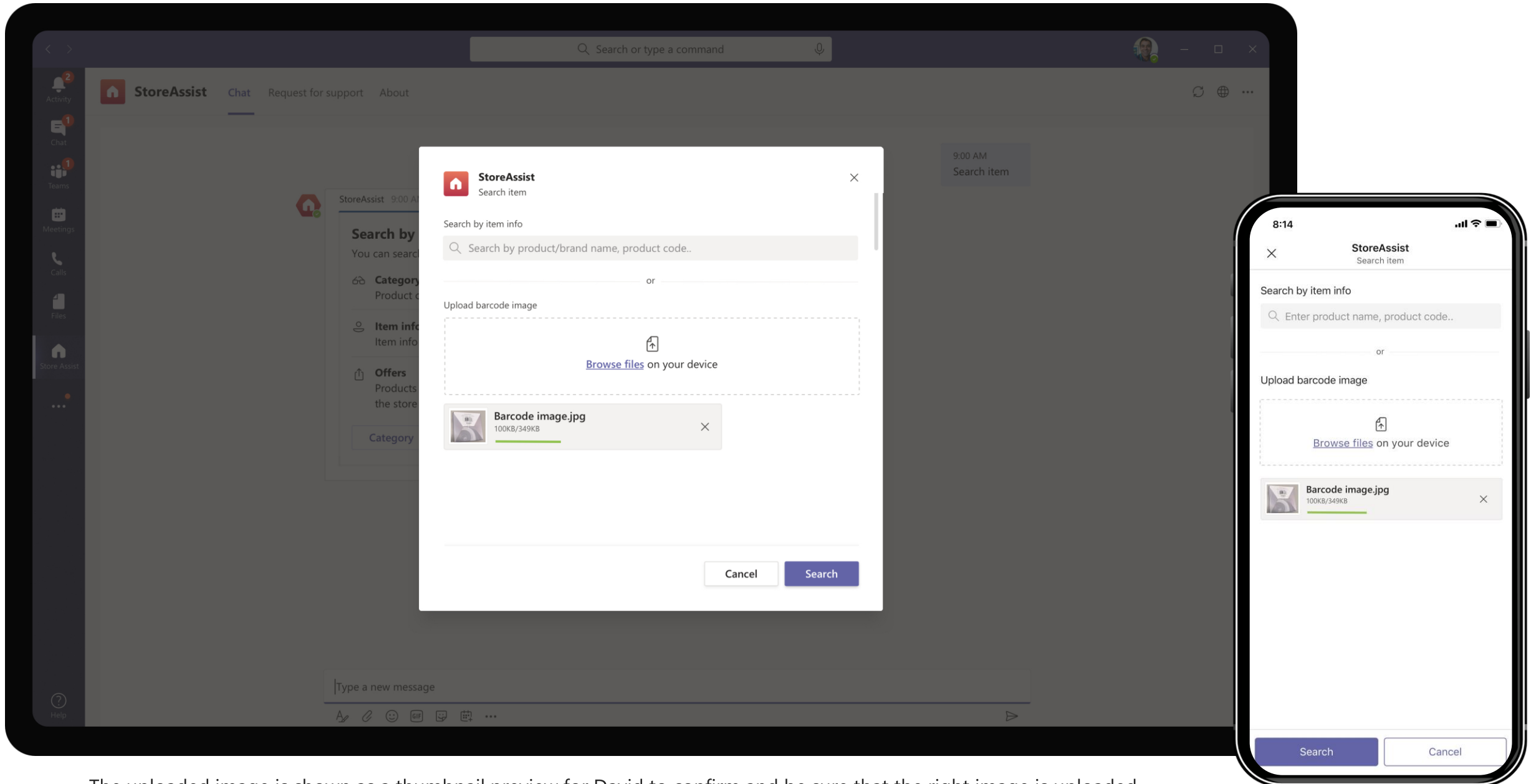
On clicking Item info, a task module opens that allows David to either search the item by its name, product code or to upload a camera image containing the bar code of the item.



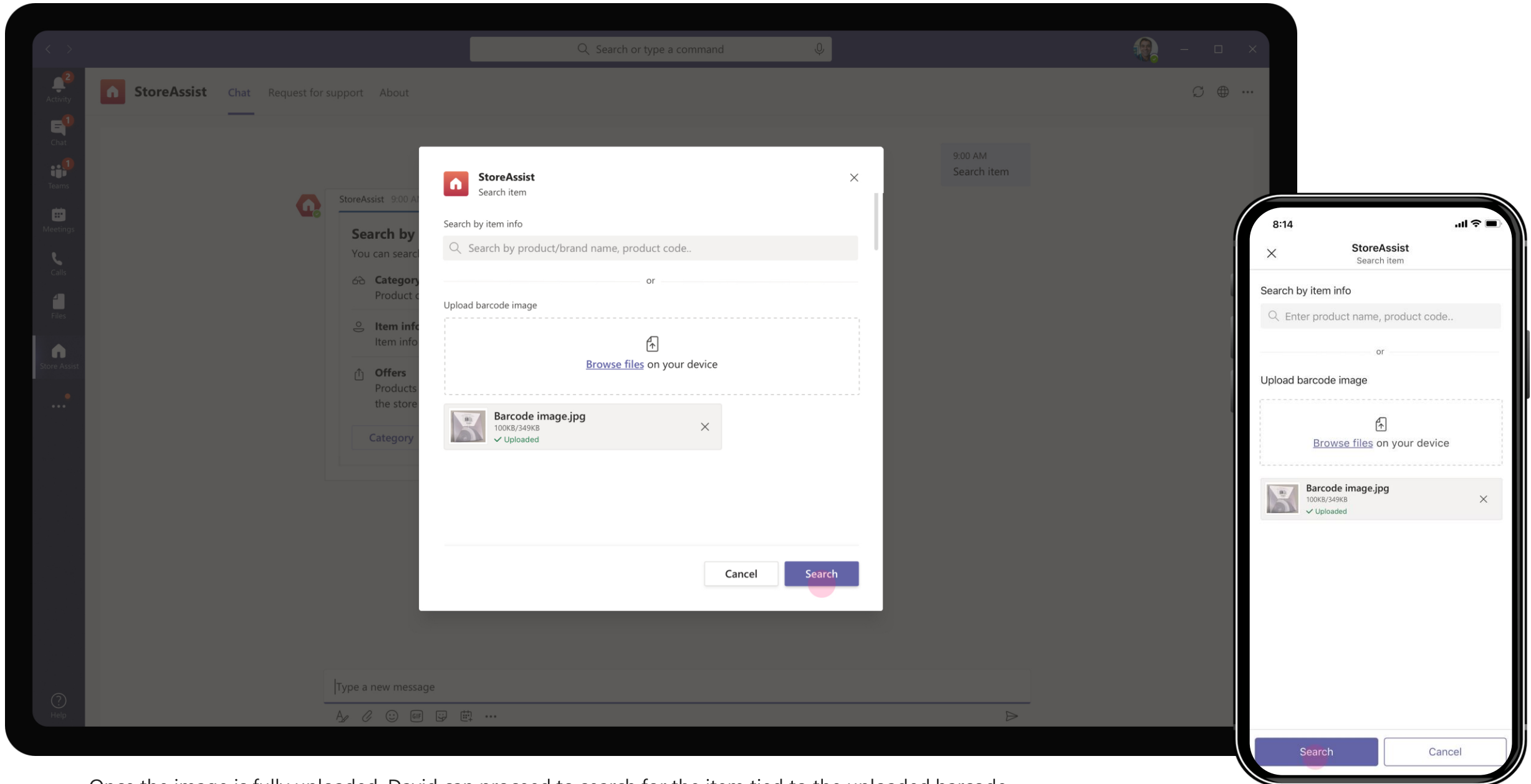
On clicking Browse files, the file picker for the corresponding device opens allowing David to choose the image file to upload



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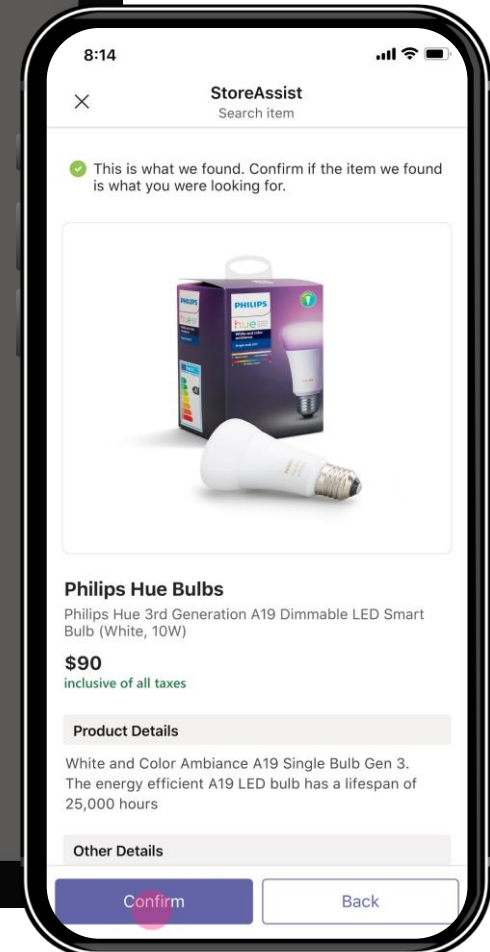
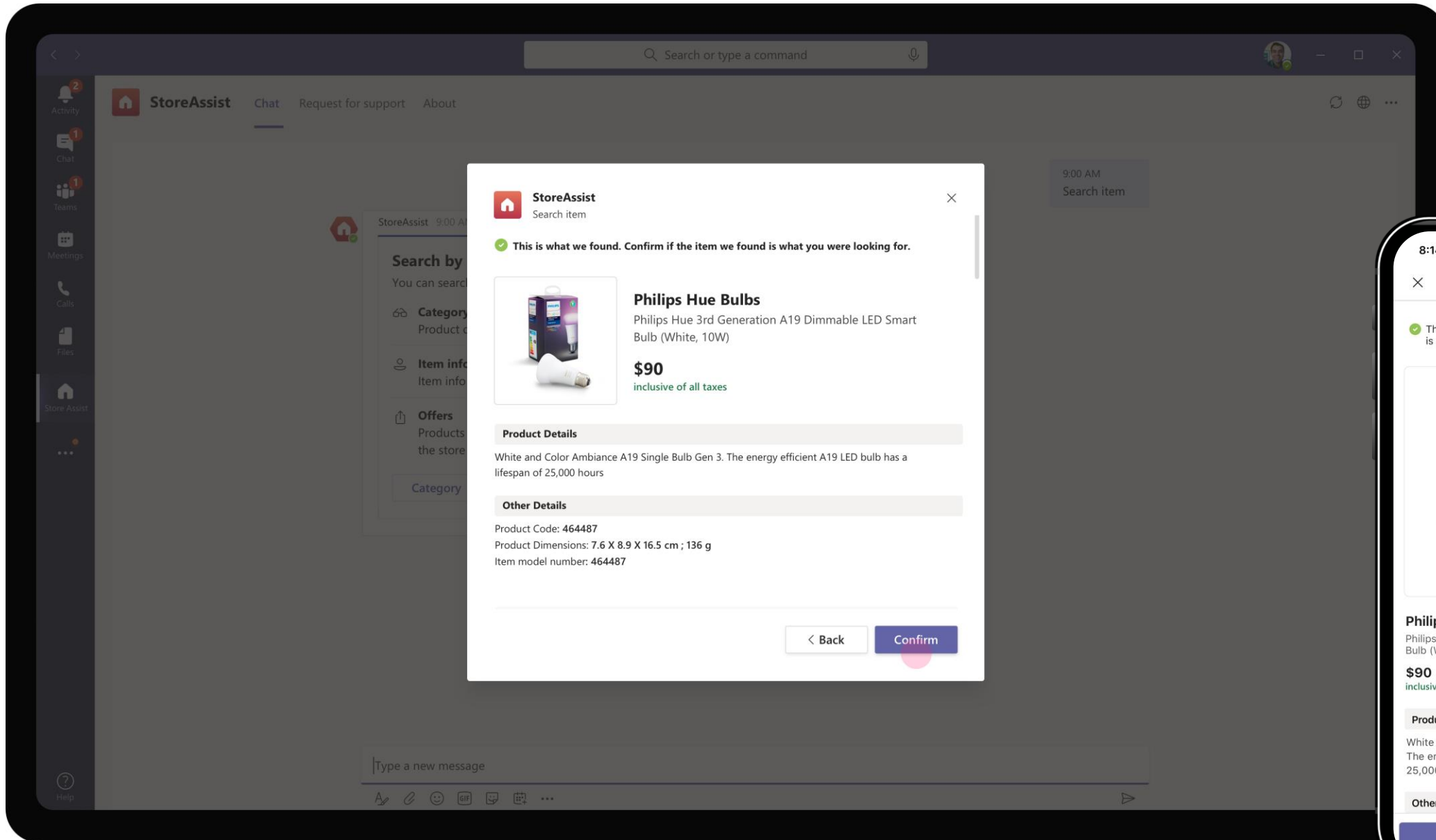


The uploaded image is shown as a thumbnail preview for David to confirm and be sure that the right image is uploaded.

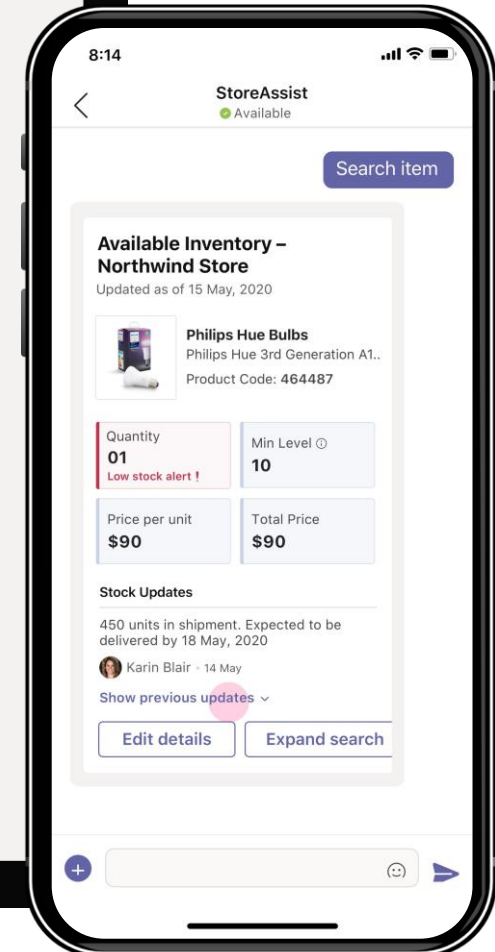
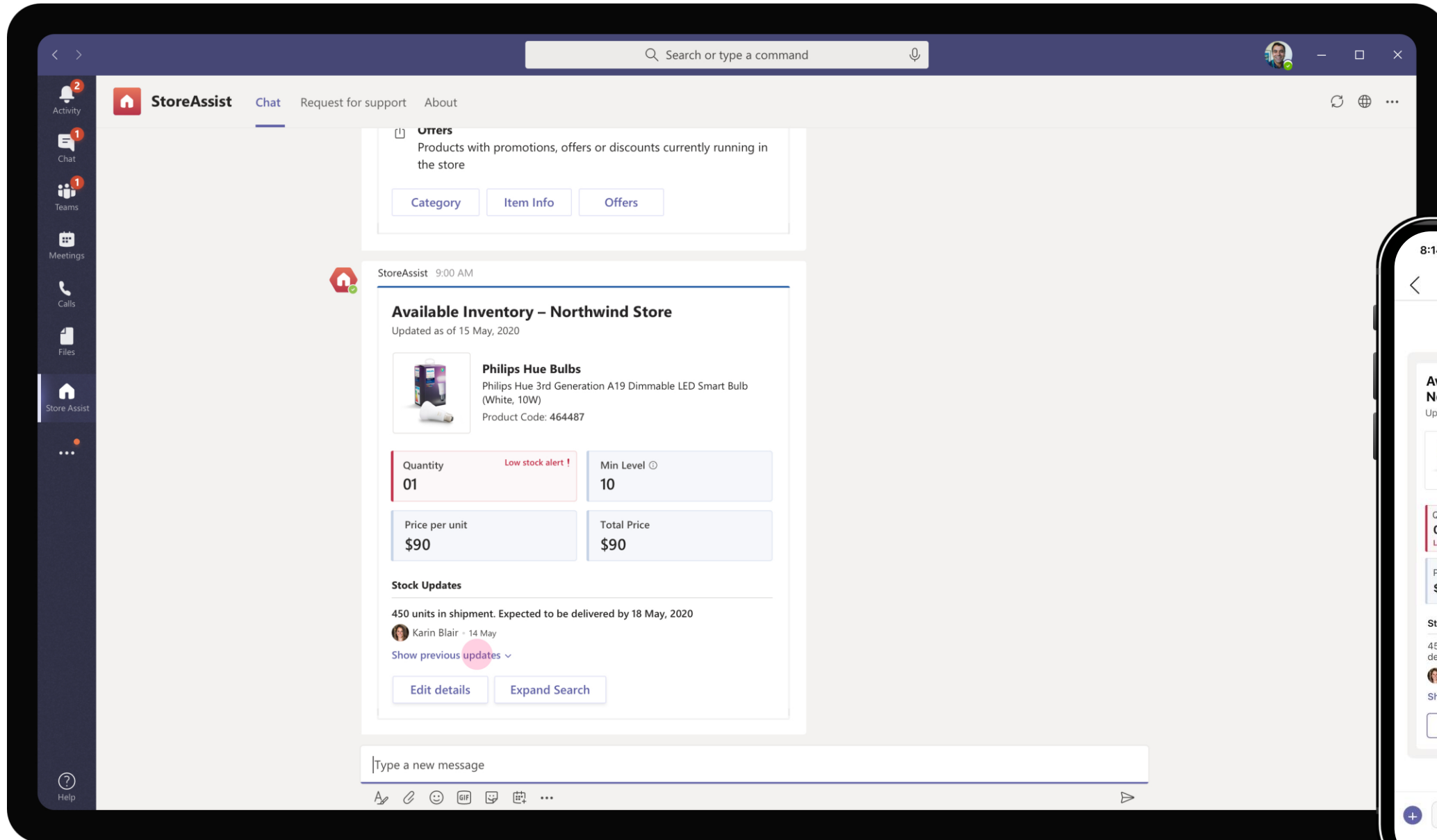


Once the image is fully uploaded, David can proceed to search for the item tied to the uploaded barcode.

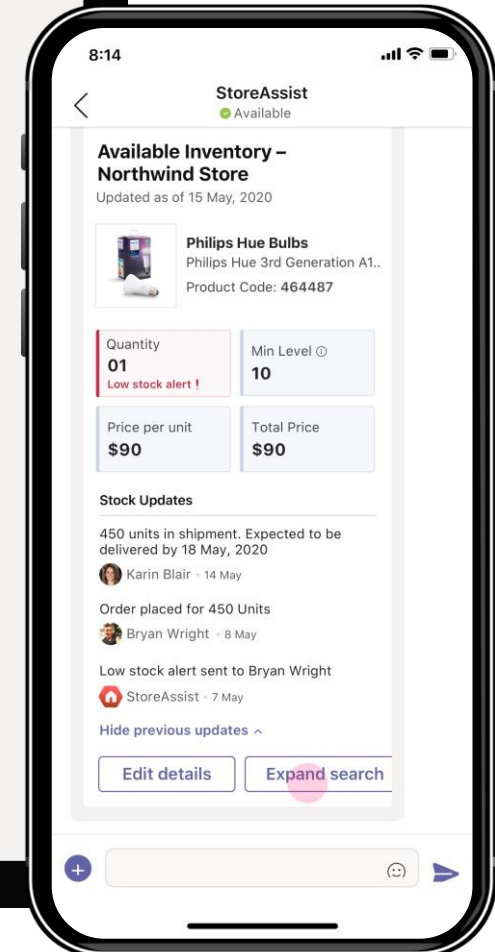
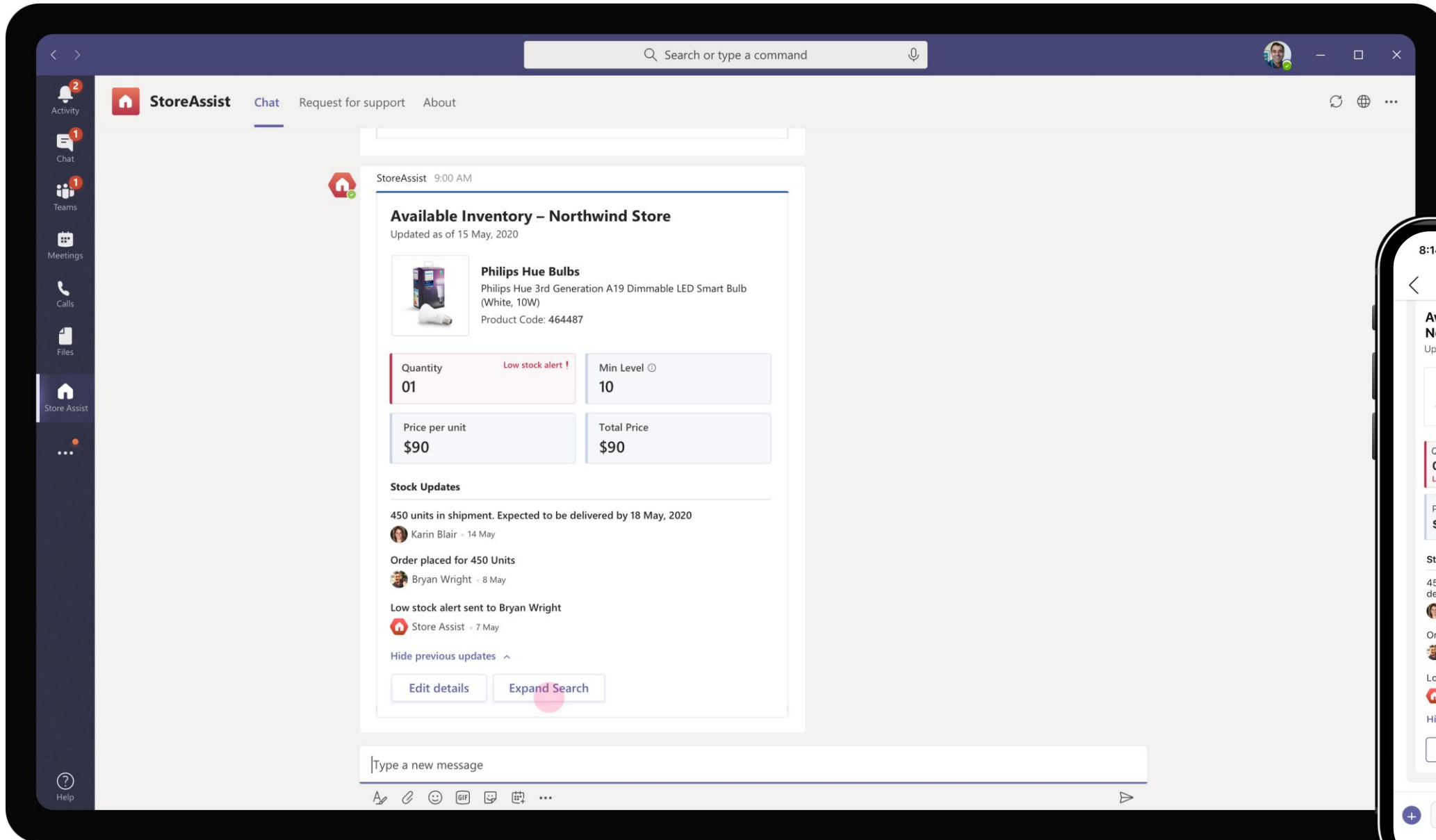




The task module refreshes to show the item which was found after processing the barcode in the uploaded image. If the product found is incorrect, David can go back to the previous screen and use other input parameters such as name, code to search

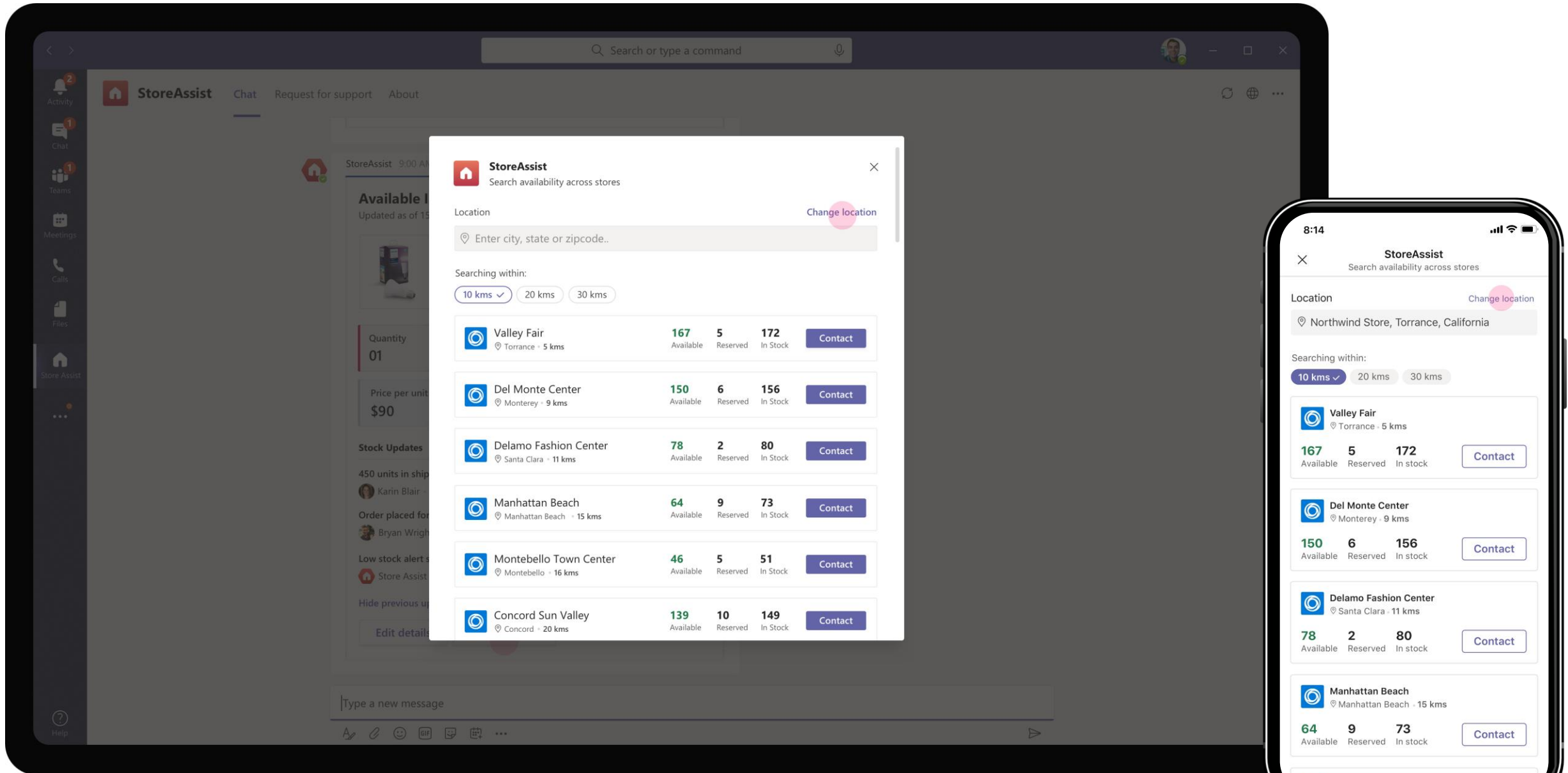


On confirming that the found product is correct, the available stock for the product is posted as an adaptive card. In addition, the card shows minimum threshold level set for the stock and total quantity of stock by volume and value

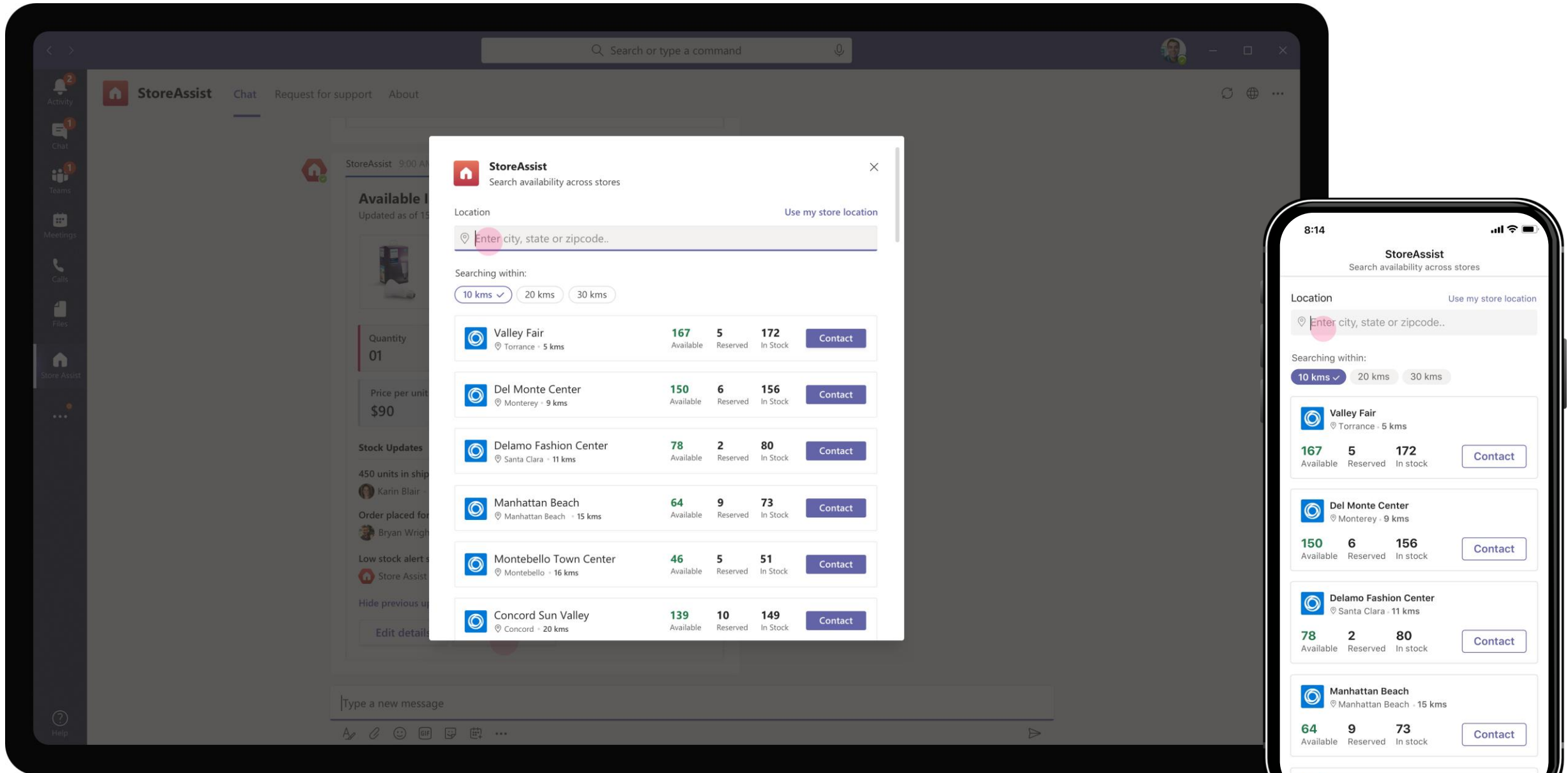


David has the ability to go through updates related to product's inventory and finds that low stock alert has gone to the manager Bryan on 7<sup>th</sup> of May and a stock replenishment order has been placed a day later. The vendor has updated the shipment due date.

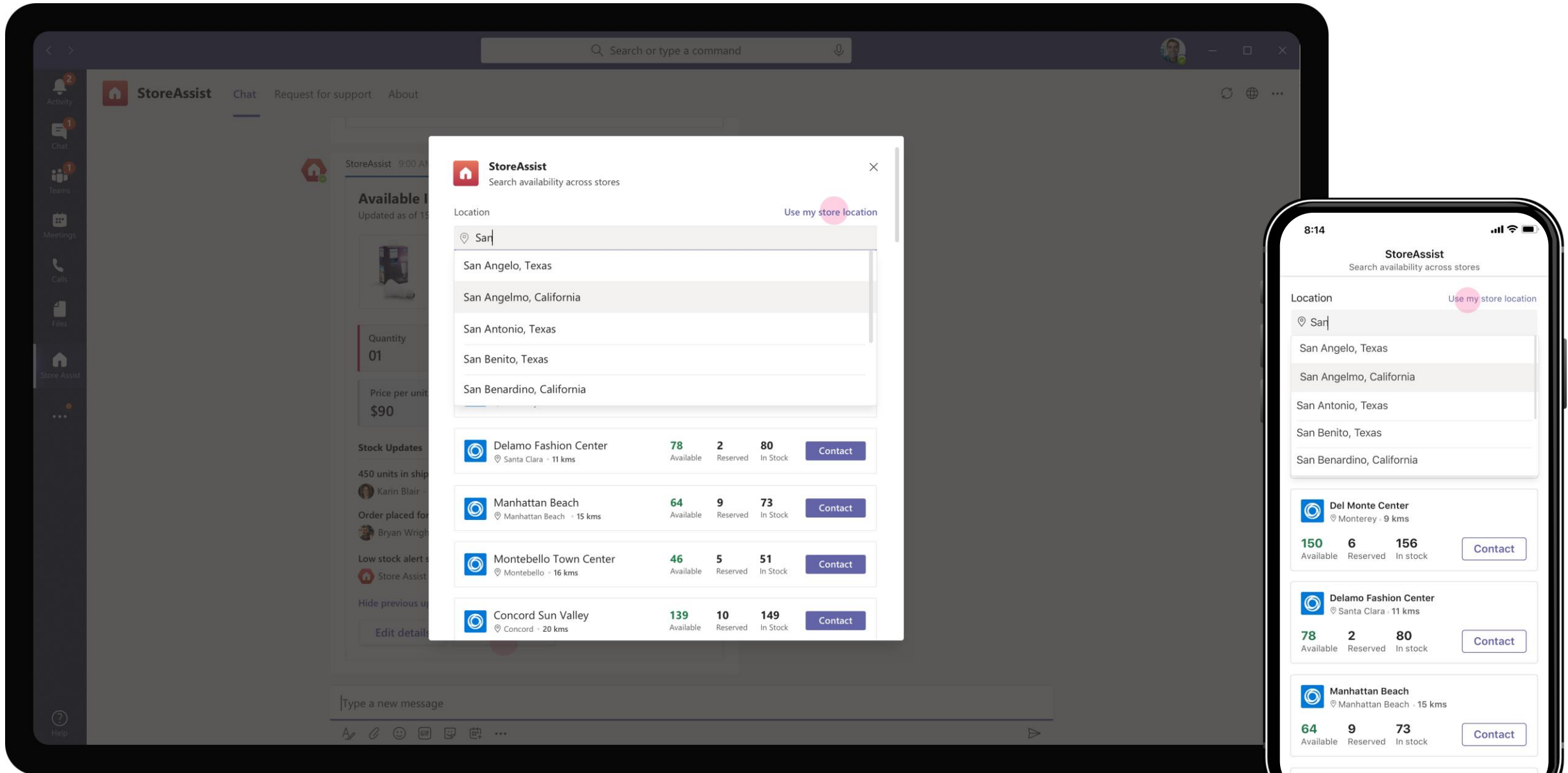
After finding out that there is no stock available at the store, the associate decides to search nearby stores for availability and reserve the items on customer's behalf



Since the shipment is not expected anytime soon, David decides to expand search to cover nearby stores. A task module opens showing the available stock for the same product across stores near to the store David works.

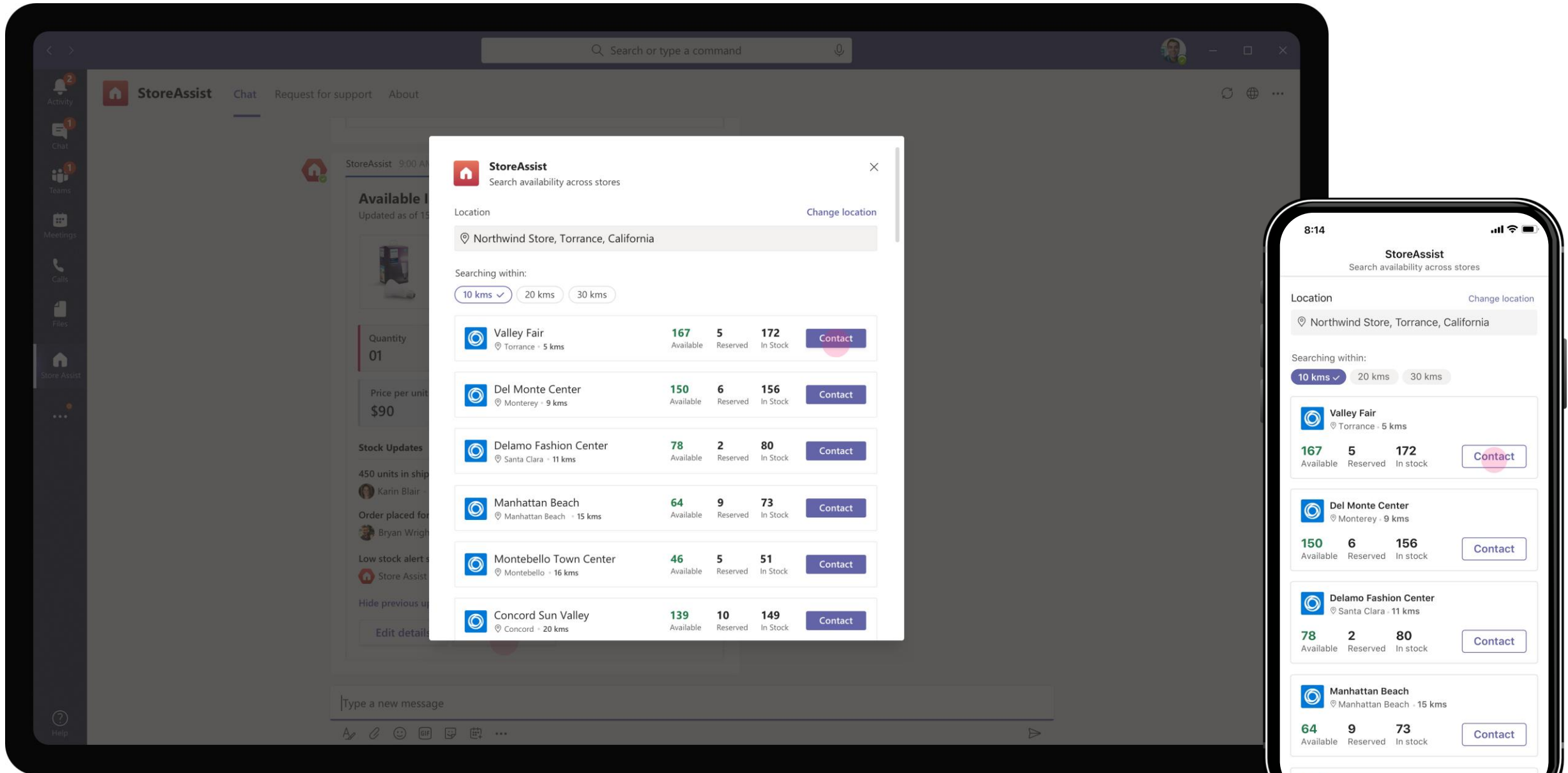


The stock available for purchase, reserved items are shown for each store, sorted by their distance from the current store



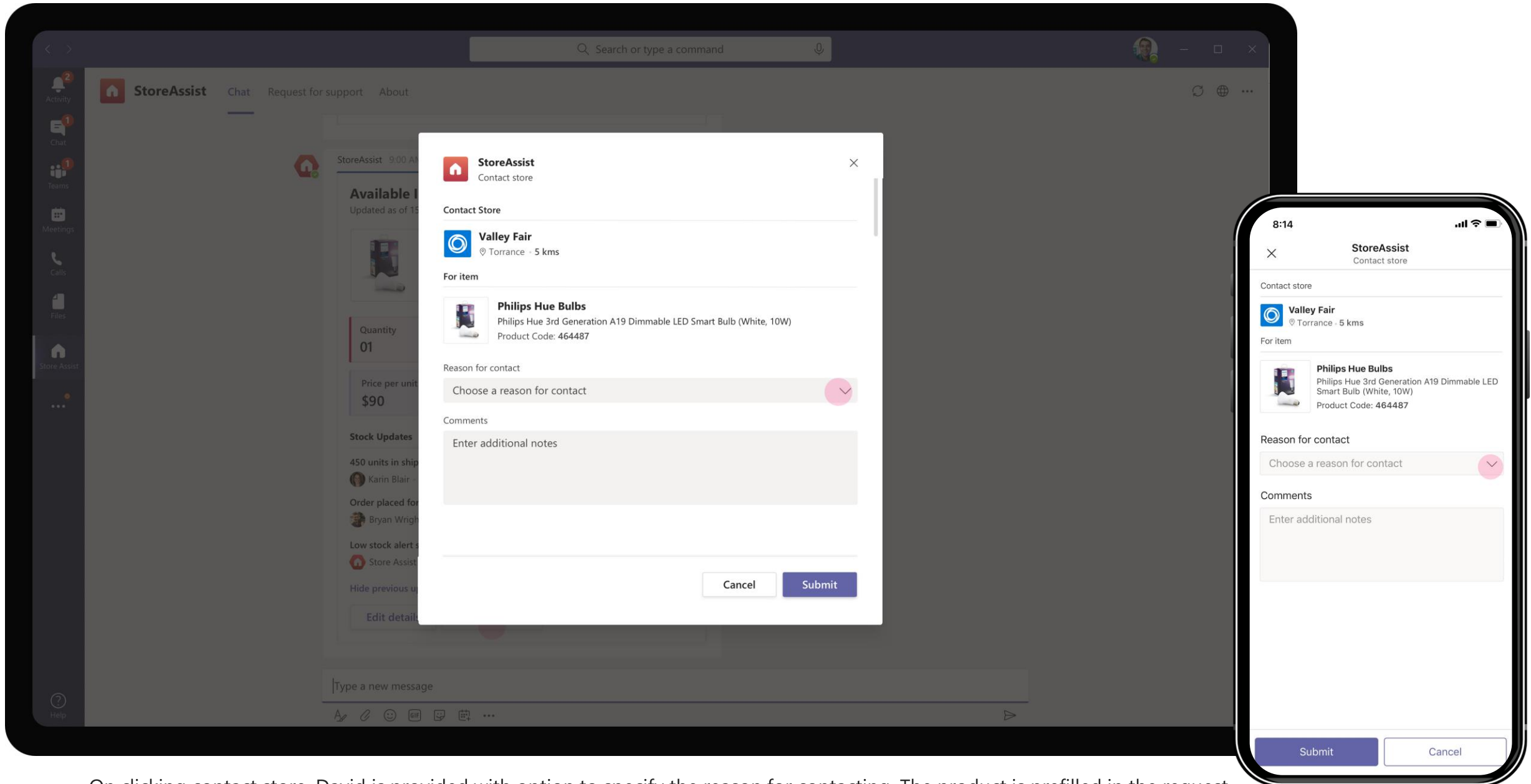
David can choose to view stores in the radius of a different location if the customer wishes to pick up the item from a different place



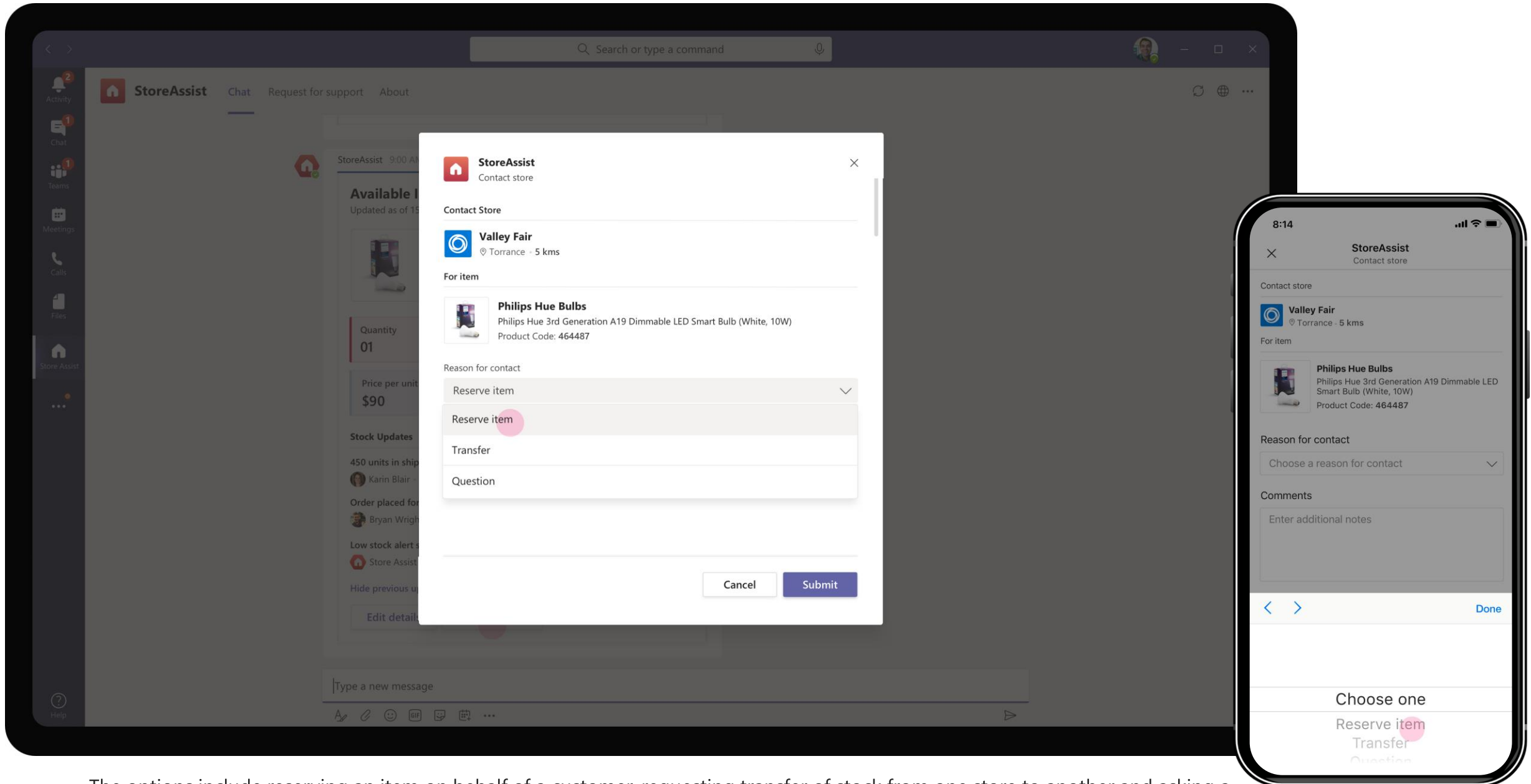


Alternatively, David can continue to use the current store's location to view nearby stores and contact the closest one with stock availability for reservation

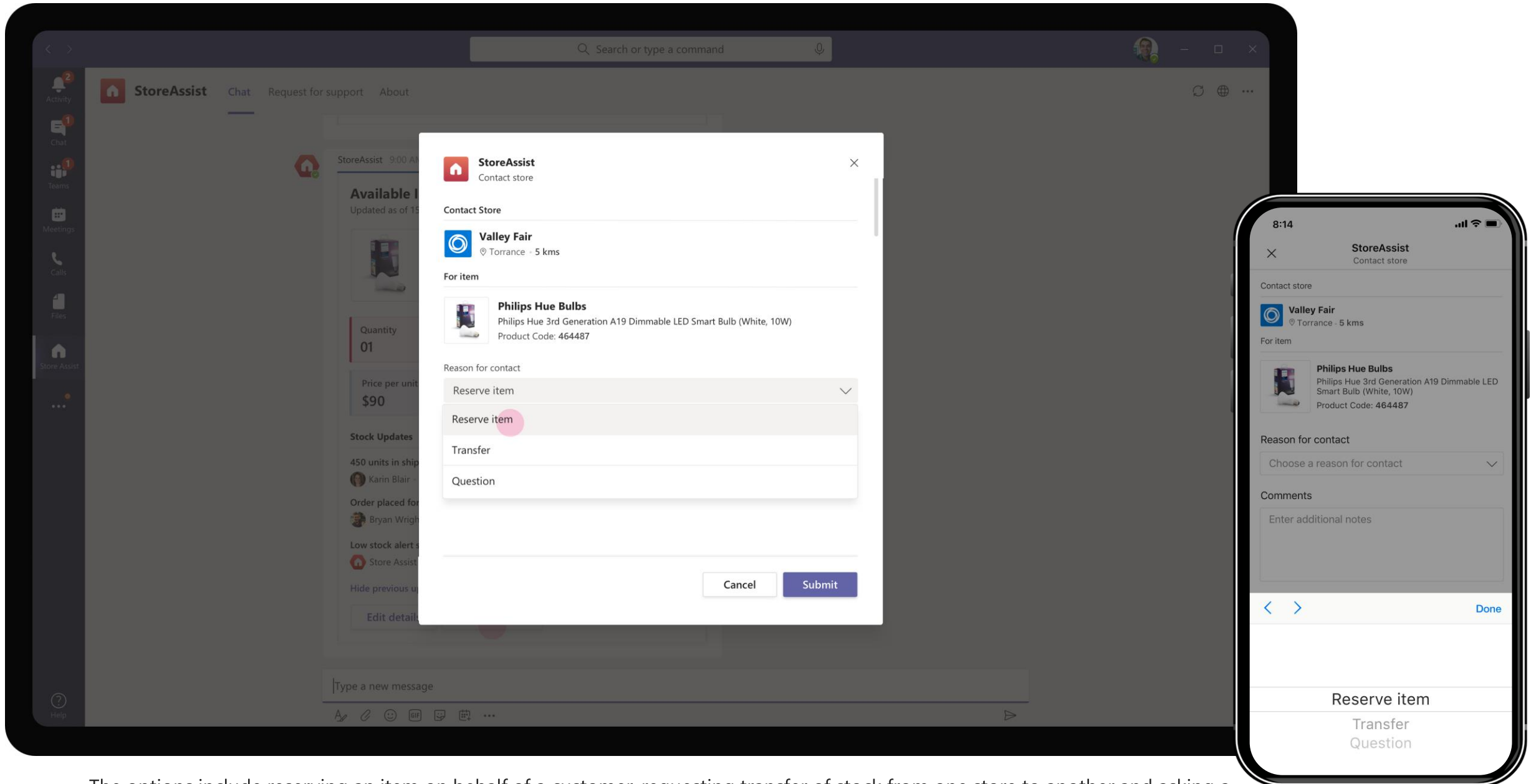




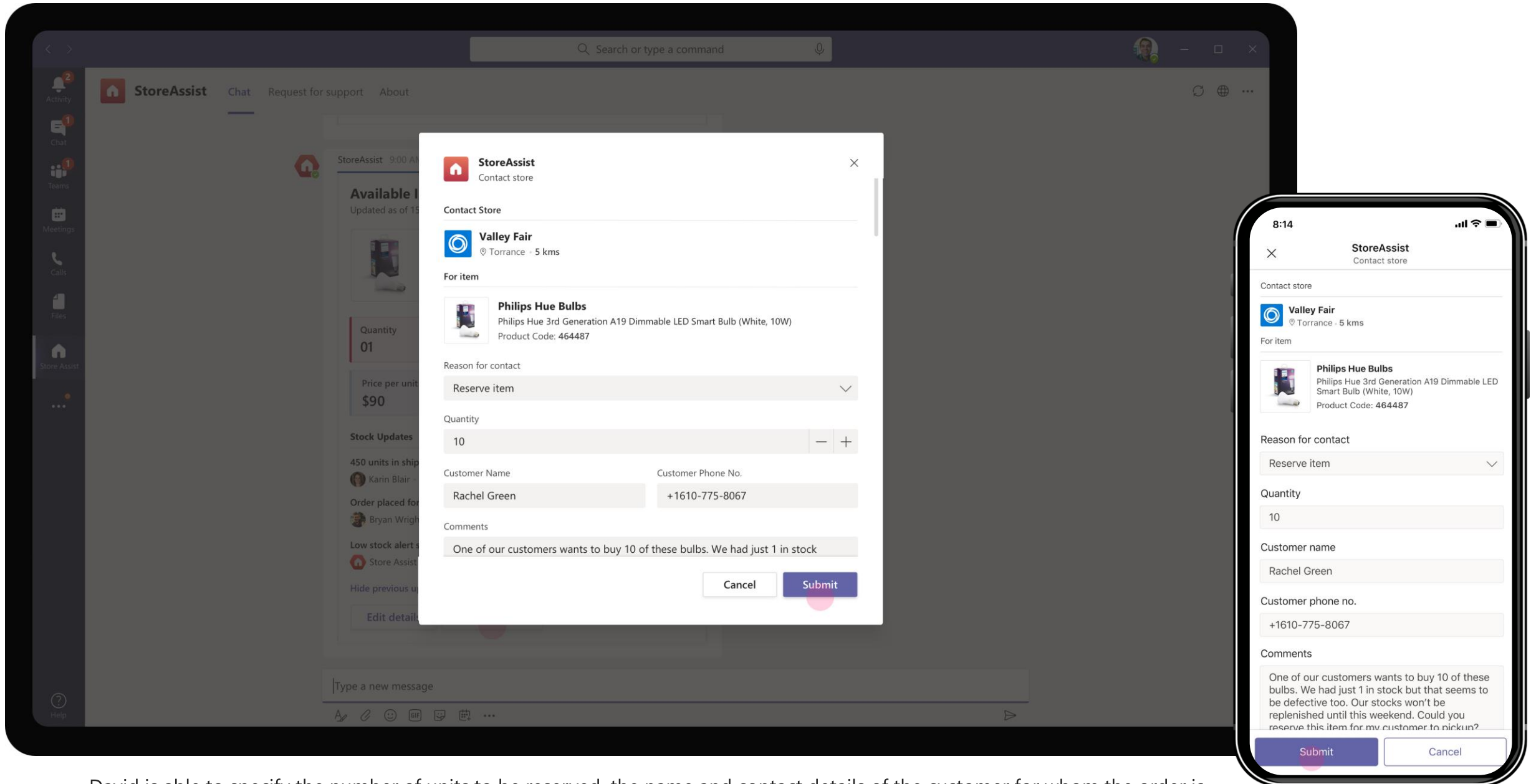
On clicking contact store, David is provided with option to specify the reason for contacting. The product is prefilled in the request



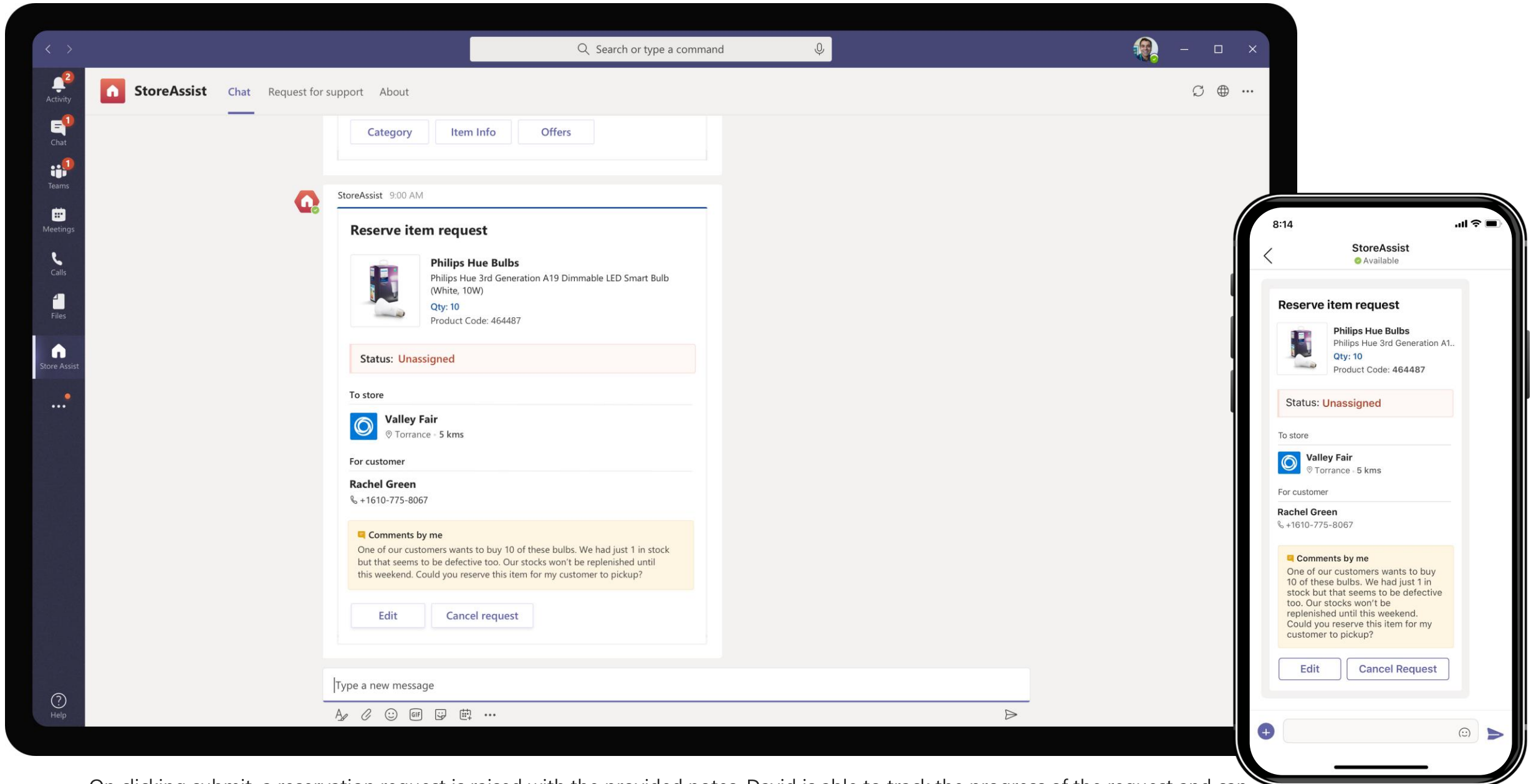
The options include reserving an item on behalf of a customer, requesting transfer of stock from one store to another and asking a question for information to store associates in Valley Fair. David chooses to reserve the item for Rachel.



The options include reserving an item on behalf of a customer, requesting transfer of stock from one store to another and asking a question for information to store associates in Valley Fair. David chooses to reserve the item for Rachel.



David is able to specify the number of units to be reserved, the name and contact details of the customer for whom the order is being reserved along with additional notes to the floor staff in Valley Fair branch



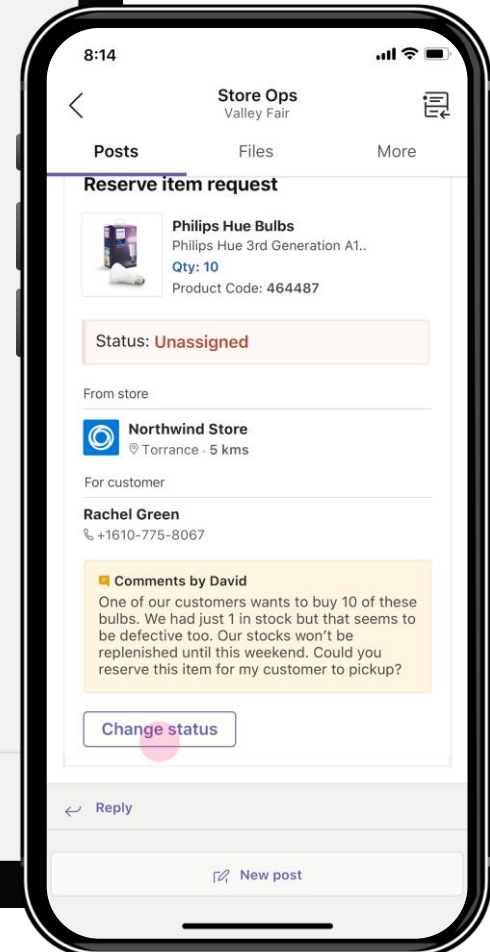
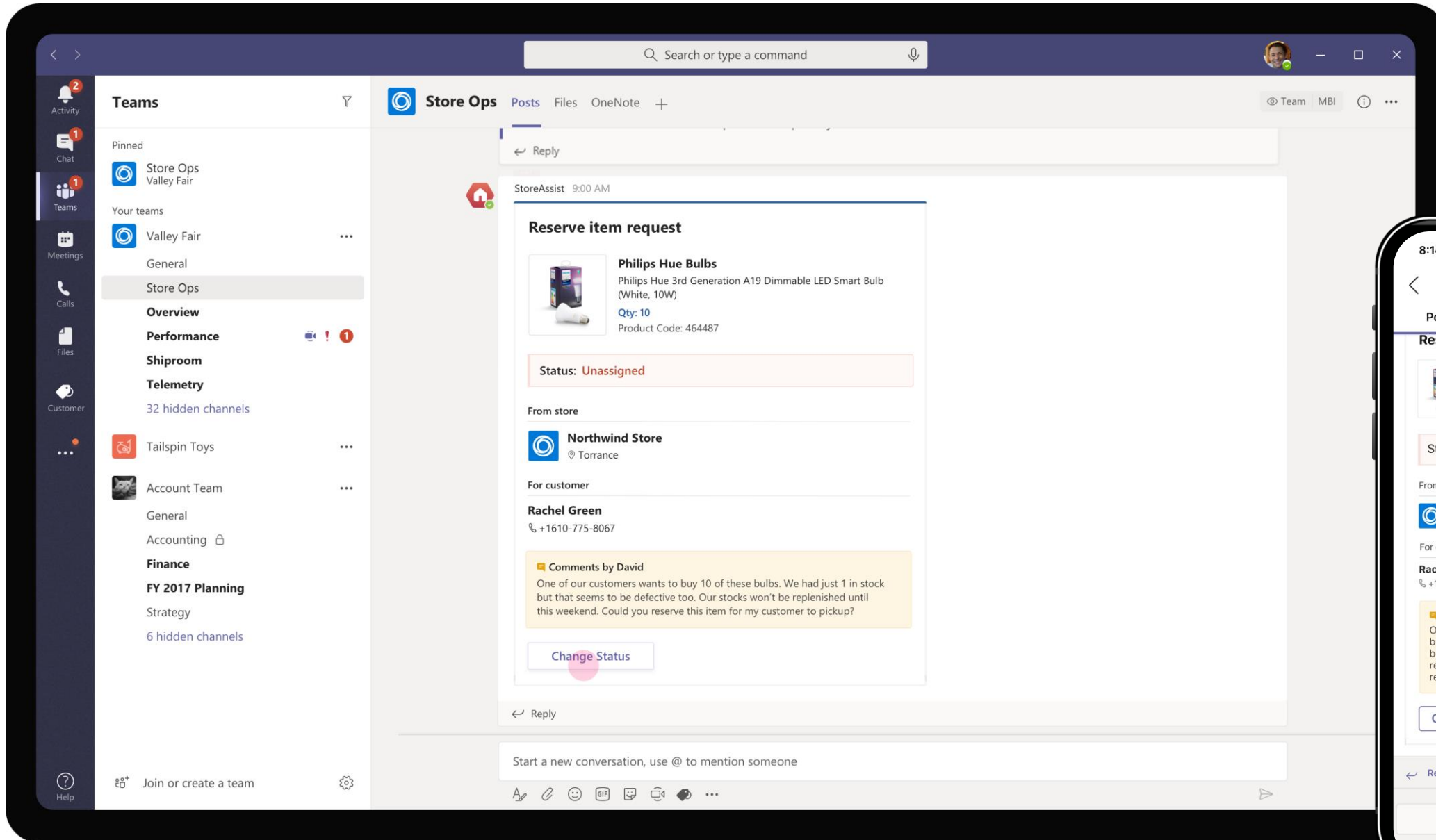
On clicking submit, a reservation request is raised with the provided notes. David is able to track the progress of the request and can cancel or change details of the request if the customer changes their mind.



**Roy Howard, Sales Associate at Valley Fair Store**

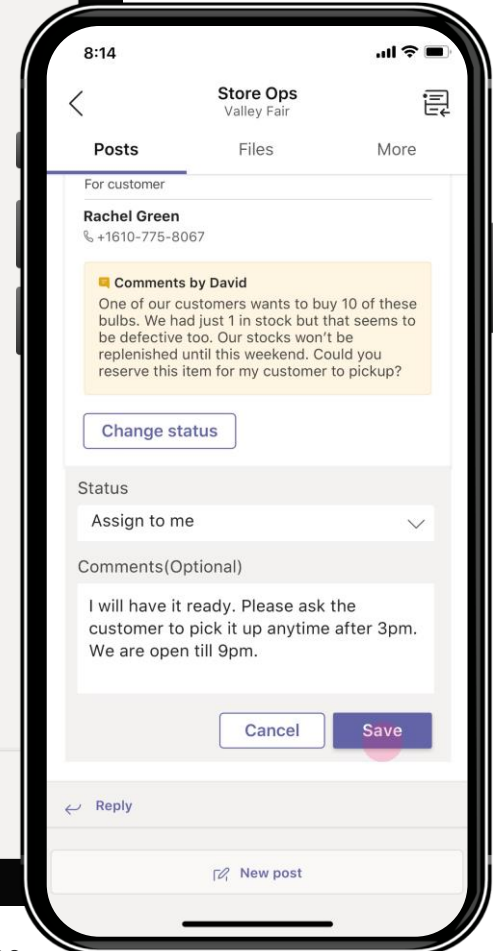
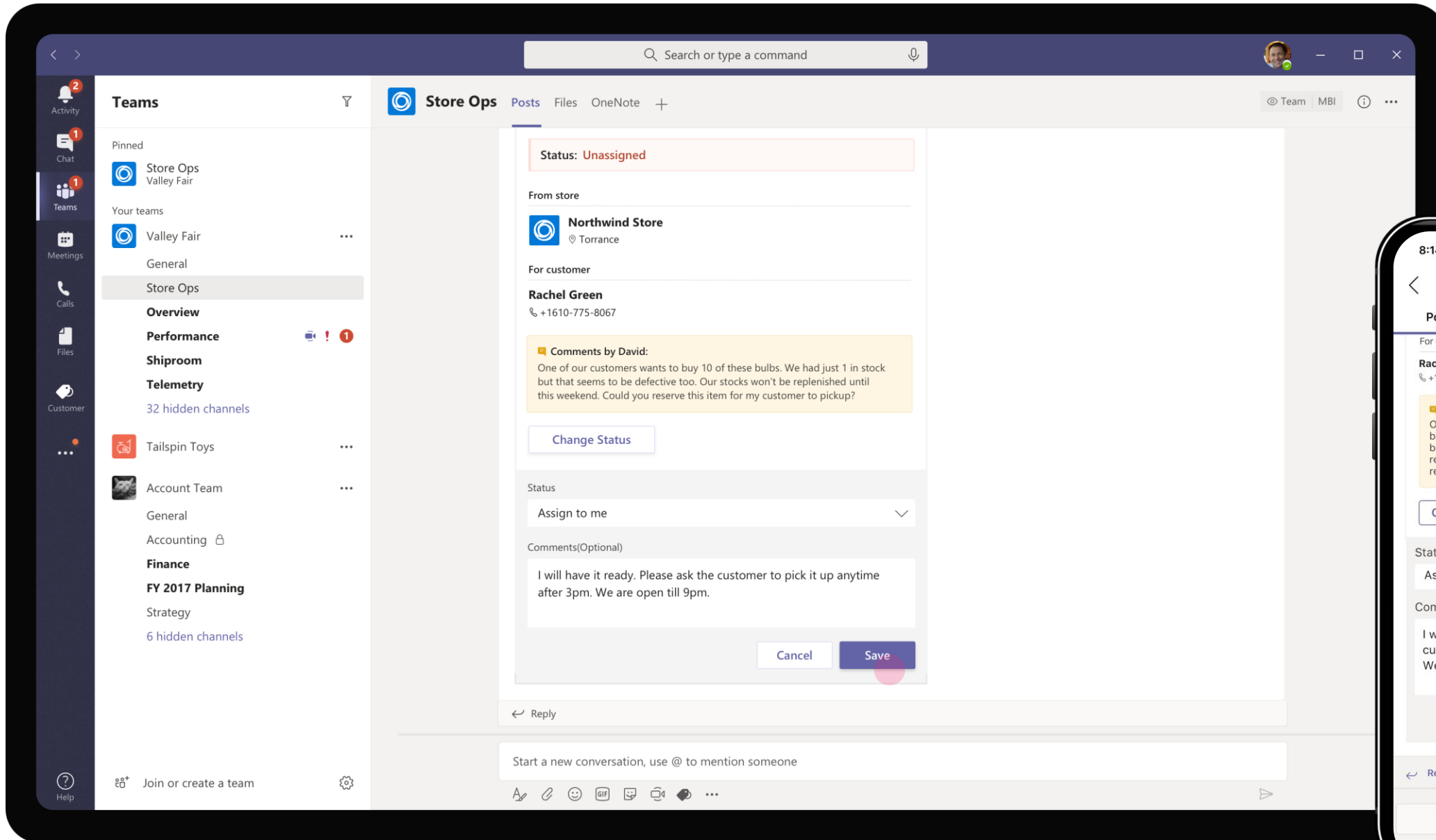
Roy Howard is a sales associate at Valley Fair Store of Traders electronics retail chain.

Roy Howard, the sales associate at Valley Fair branch accepts the reservation request and sets aside the required units for customer pickup.

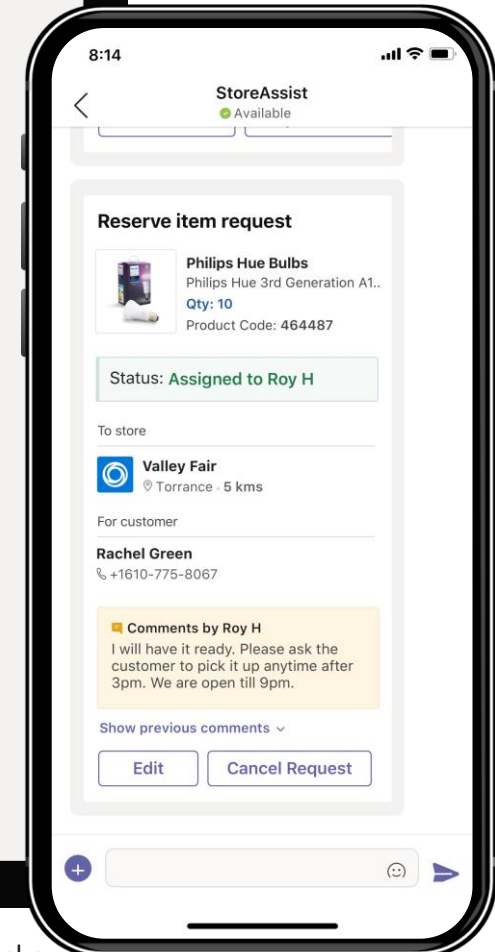
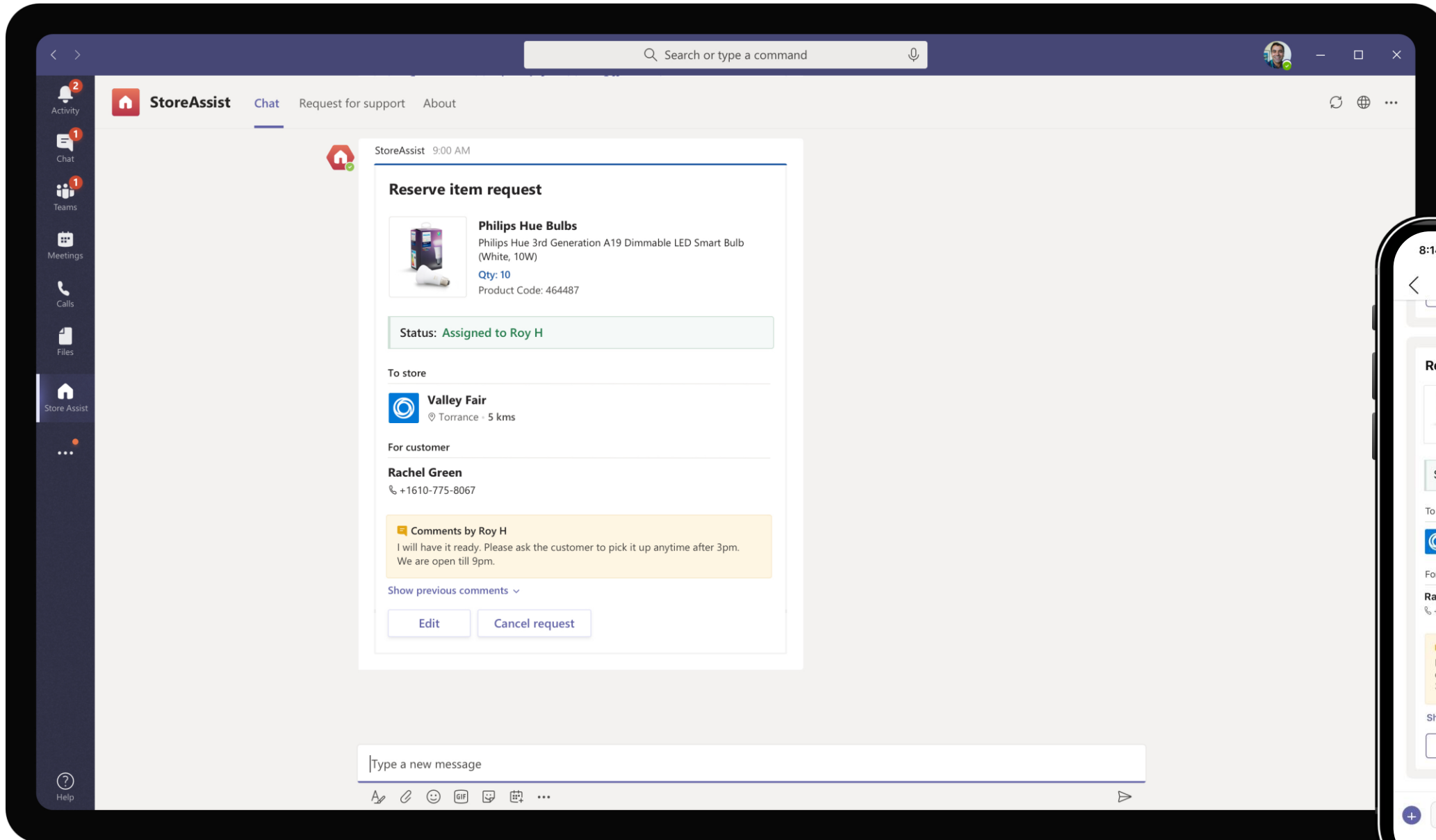


The reservation request created by David in Northwind store, gets posted into Store Operations channel of Valley Fair branch Team as an adaptive card.



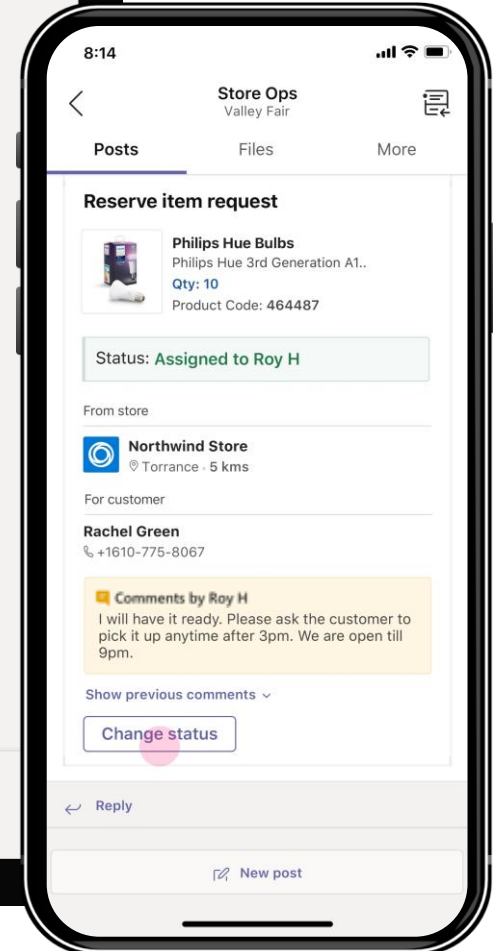
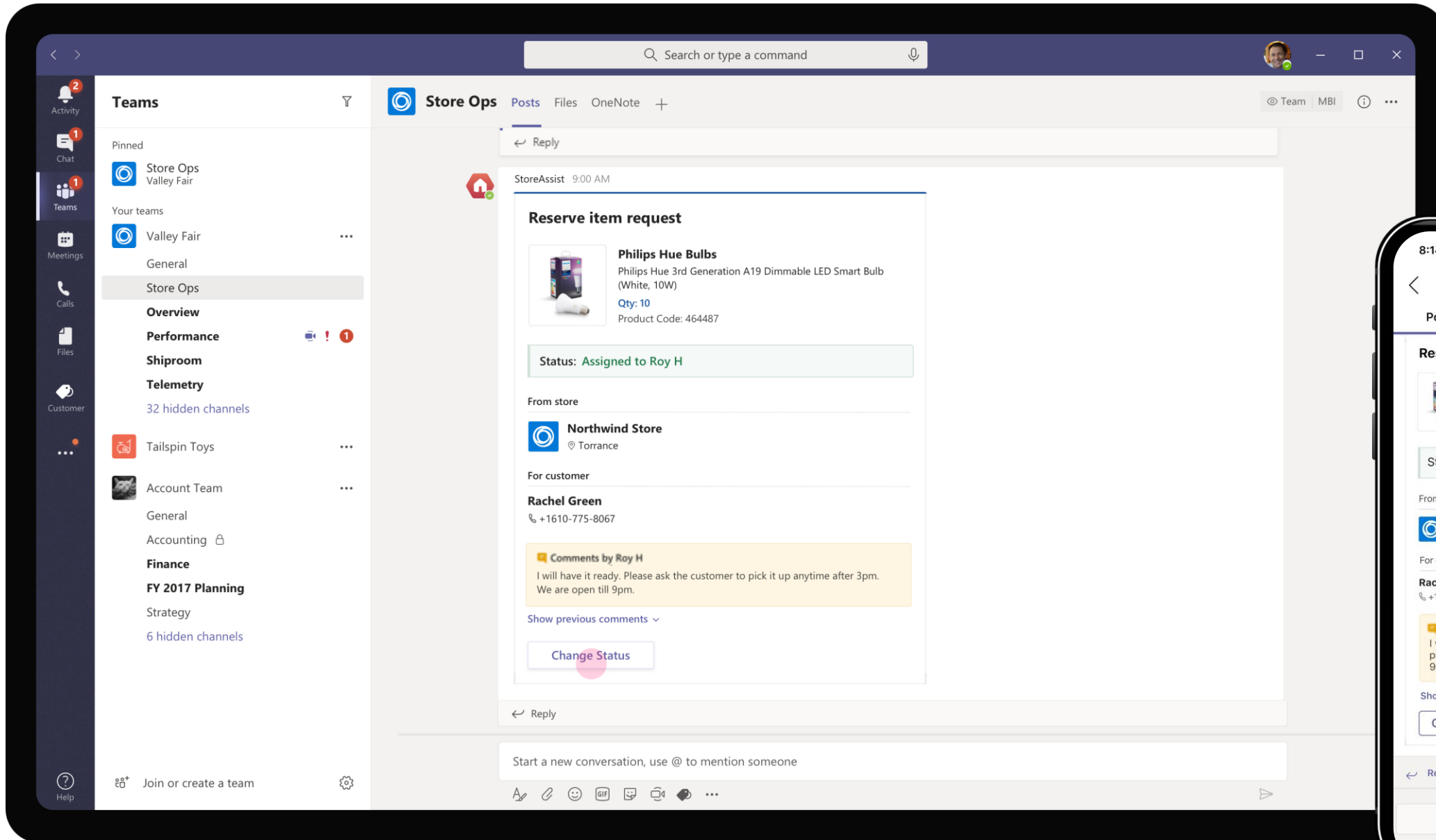


Roy Howard, a store associate at Valley Fair assigns the ticket to himself and adds a note asking the customer to pick it up from the store

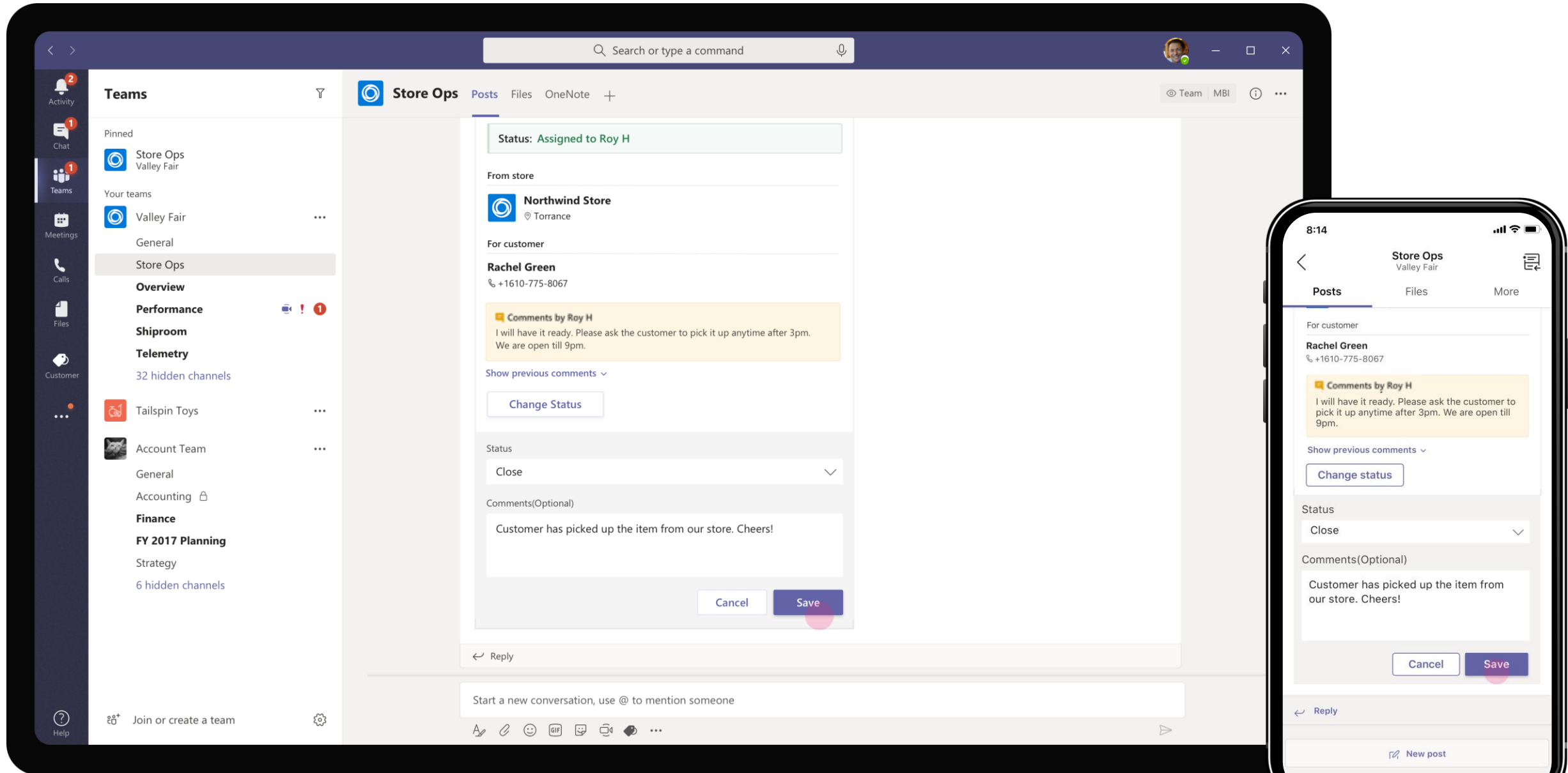


The assignment status and note submitted by Roy gets updated at David's end of adaptive card. After seeing the update, David asks Rachel to visit the store before 9pm and pickup her order.

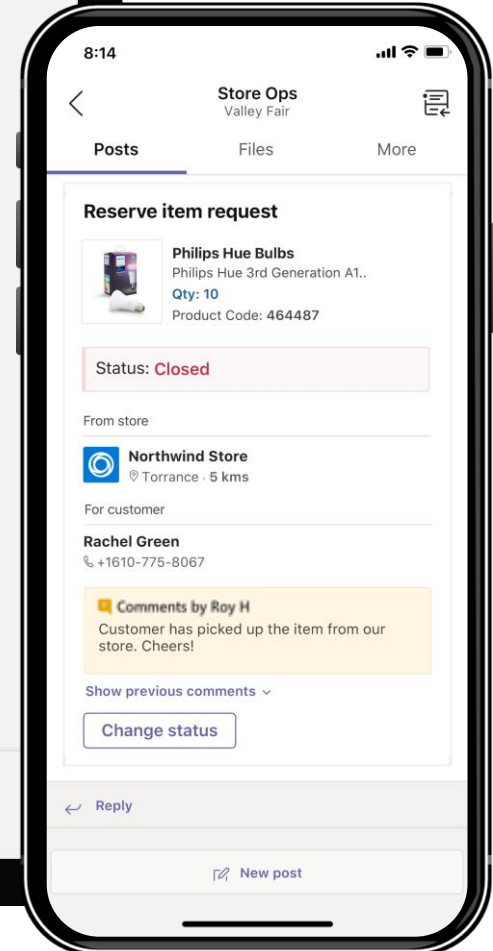
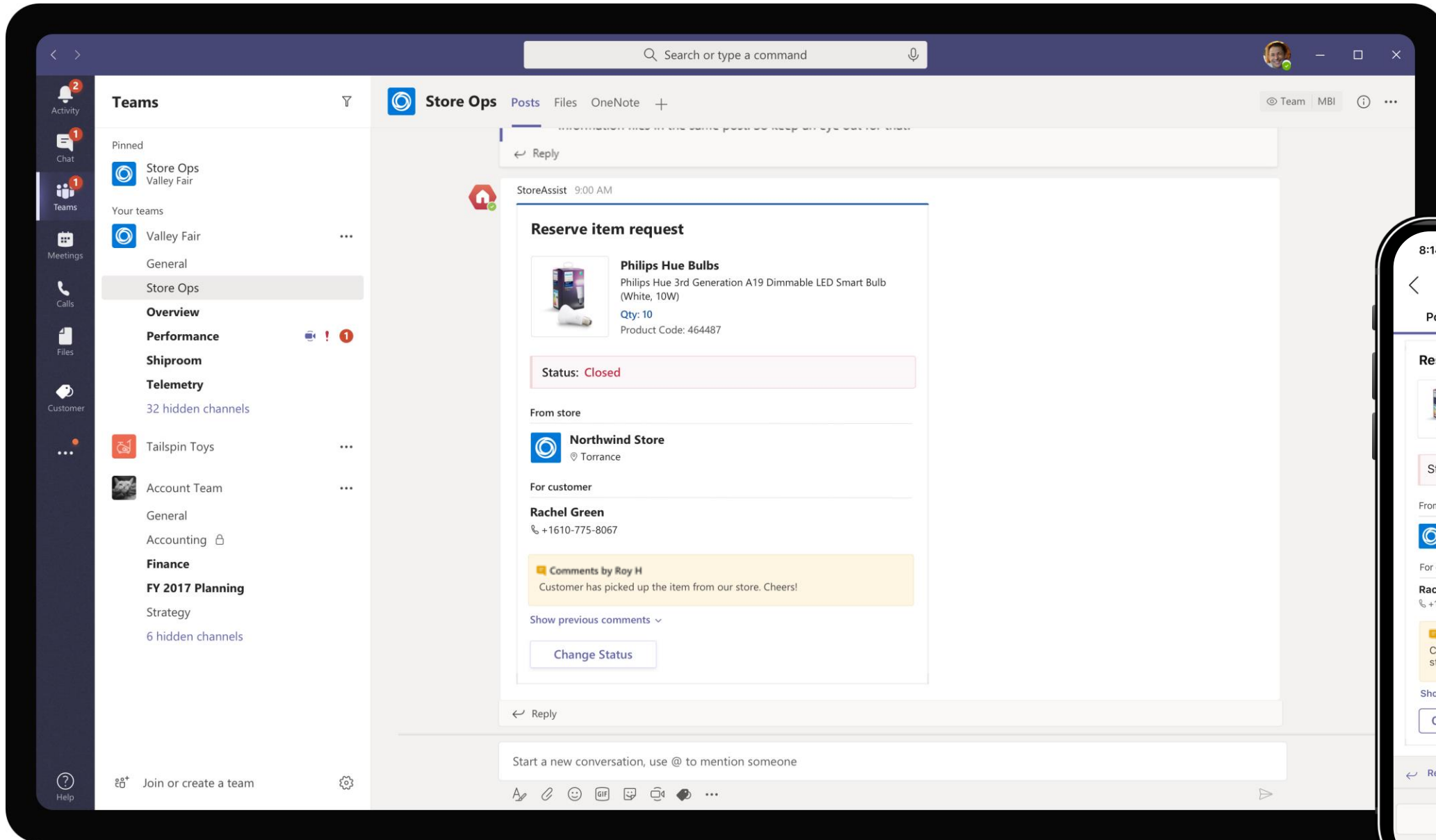




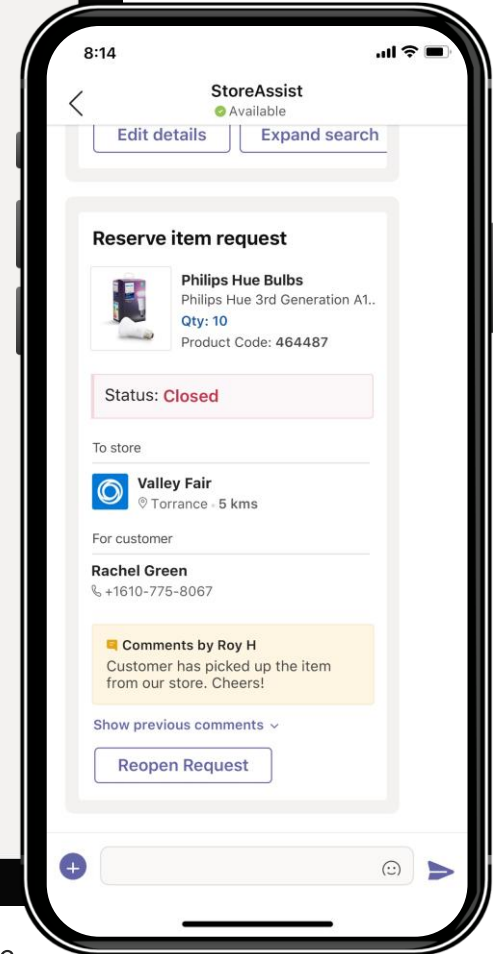
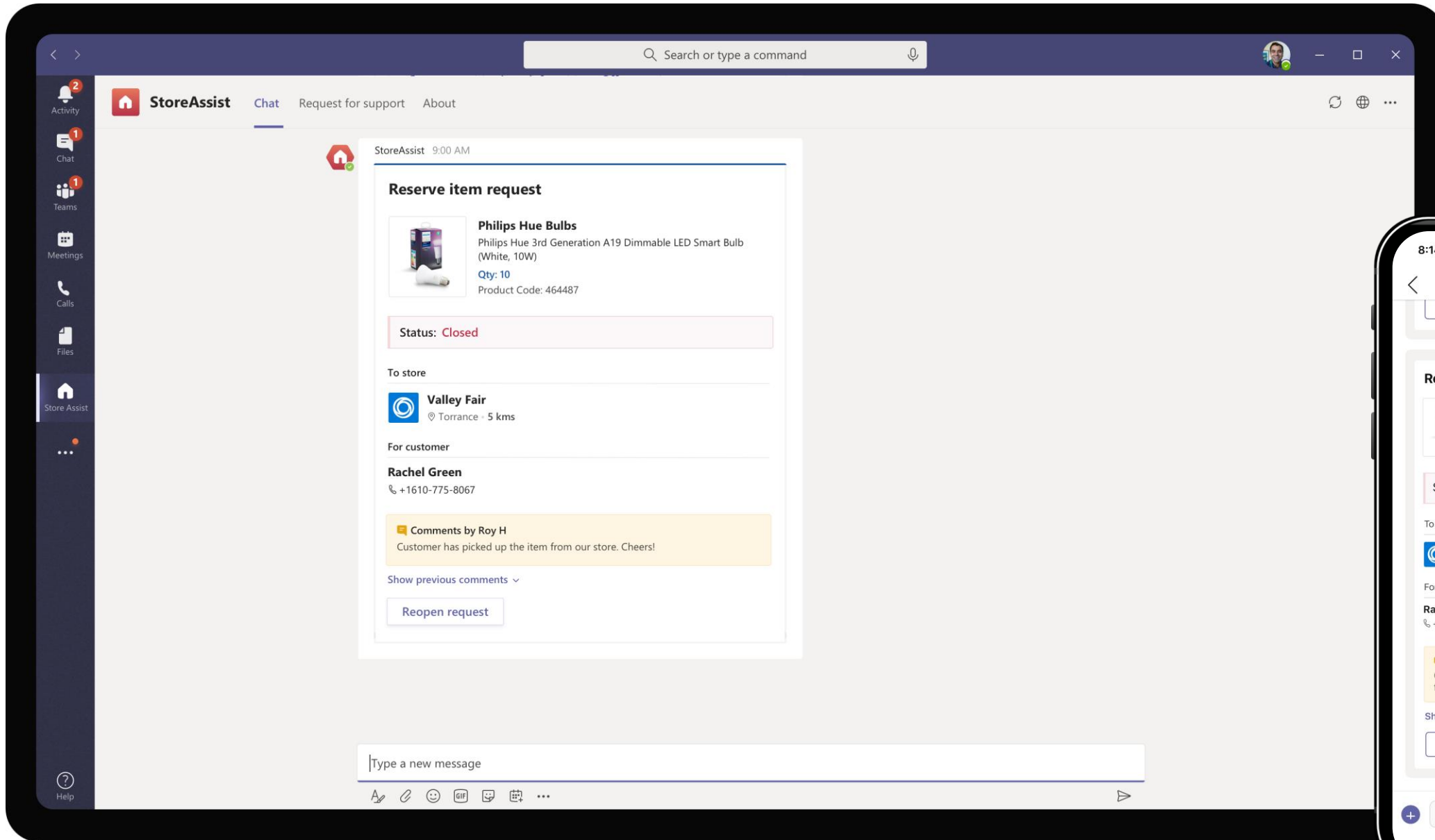
On mentioning her name / phone number, Rachel is presented with her order ready for checkout at the checkout counter. Once Rachel completes the purchase, Roy decides to update the reservation request.



Roy closes the reservation request and adds a note mentioning that the customer has picked up the items successfully.



Roy closes the reservation request and adds a note mentioning that the customer has picked up the items successfully.



David's adaptive card gets updated to reflect the change in status. David is able to see that Rachel has picked up the order. If there are any other issues, David will be able to reopen the request as well from his end.

# Solution Highlights – Best Practices

## Key Solution Design Considerations

```
graph TD; A[Key Solution Design Considerations] --- B[Platform Extension Points]; A --- C[User Experience];
```

### Platform Extension Points

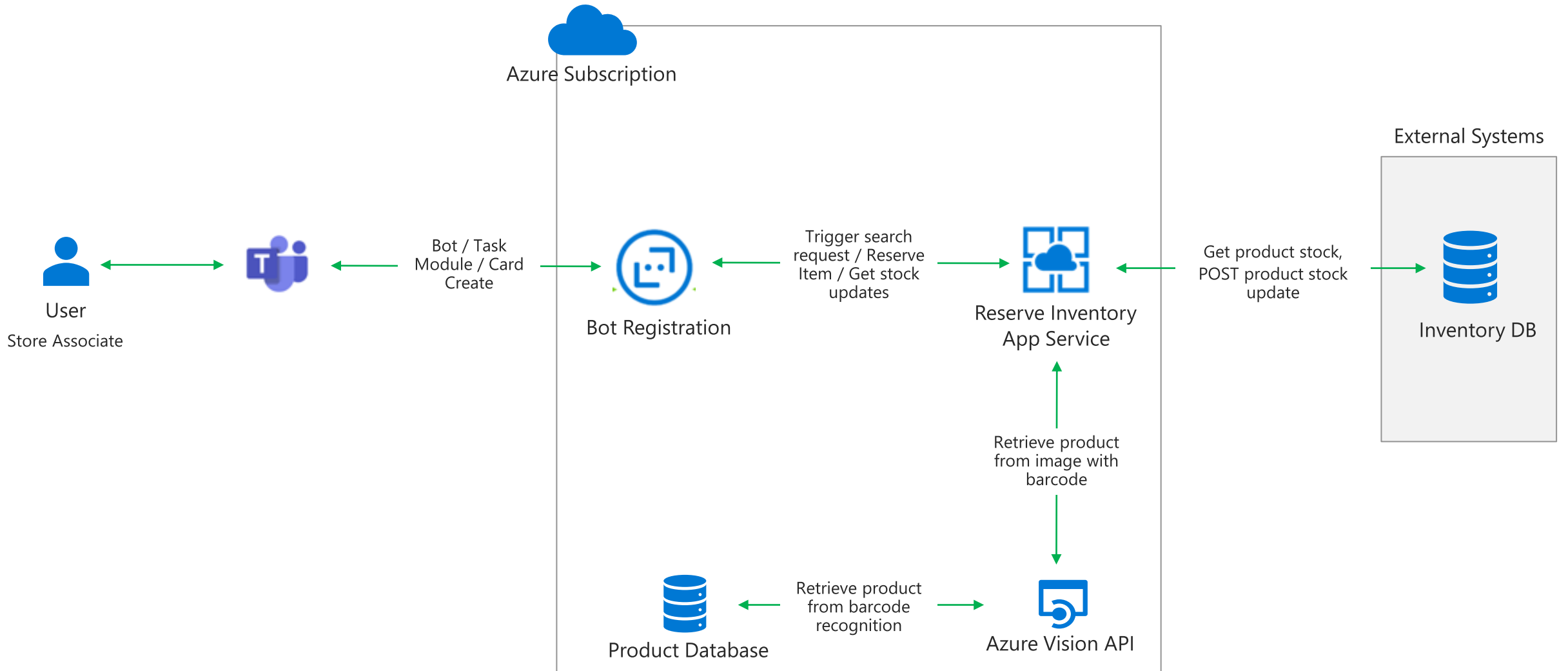
- **Bot** is used for navigating the capabilities within the inventory app. Bot with fixed set of commands fits well in this scenario as -
  - The app has a defined fixed set of functionalities such as searching for a product, updating stock information. With bot command list, it is easy to access these frequently used functionalities
  - The information from the bot responses is useful only for the single end user who requested it. The requester can choose to perform further operations on the presented information
- **Task modules** are used for searching product inventory, searching inventory across various stores -
  - While finding the product stock availability is the goal, scanning of bar code, entering product information are various means to the end
  - The various means (searching inventory across stores, finding product from image) are handled via task modules while the end result of the operation is surfaced via adaptive cards so they remain as persistent information that end user can revisit and consume

### User Experience

- **Card refreshes** are used to update the status information on reservation requests to provide updates on customer purchase. Refreshing the same card to show update progresses avoids crowding with multiple messages in the chat screen of the end user.
- Implementing a file picker in the task module, provides ability for end user to upload stored images when accessed from a desktop. When accessed using mobile, it also provides an option to take a photo and upload in addition to picking file from image gallery.



# Solution Architecture

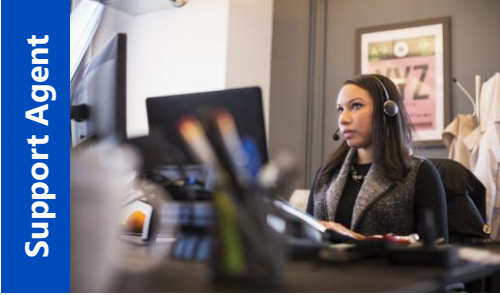


Retail Book of Dreams

# Virtual Consult –Enhanced Customer Support



# Scenario Vision



Support Agent

## Context

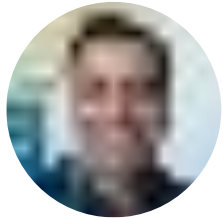
- Megan, a loyal customer of Contoso Furnitures, has recently bought a table for her home. She has trouble assembling the furniture as per the instructions provided and decides to call customer support for help
- Megan uses the company's website to raise a customer support request and provides her contact information and order details. She chooses a preferred time for the agent to call back

## Current State

- The customer support agent receives the request and acknowledges it by assigning the request to himself
- ⚠ At the designated time, the agent performs an audio call to Megan and inquires about the issue she is facing. Megan faces difficulties in explaining the assembly step which is confusing for her
- ⚠ Sales agent asks Megan to take a photo of the assembly as it is and send it over in e-mail to a specified mailbox along with order / ticket ID in subject
- ⚠ Megan sends the email and waits on the call for the agent to get up to speed. Agent asks follow up questions and gets more step by step images as required
- ⚠ Realizing that Megan has an older version of guidebook which is less detailed in steps, the agent starts providing additional guidance over phone call
- ⚠ After Megan successfully assembles the furniture, agent completes the call and closes the ticket to move on to next call

## Future State

- ✓ All customer support requests are collated in a single channel which provides periodic reminders and tags available agents alerting them of incoming ticket
- ✓ As soon as call is scheduled, Teams meeting join information is sent to customer over email and text message.
- ✓ The agent has the option to request ticket reassignment before the scheduled call time in case of any emergencies
- ✓ The app sends reminder before scheduled call time and suggests relevant articles and guidebooks, related tickets if any
- ✓ Megan and the agent join a video call where Megan shows the agent her assembly issues live on the call.
- ✓ The agent pulls up the updated guide, does a screen share to walk Megan through installation steps
- ✓ Once Megan has successfully assembled the furniture, she takes a picture of assembled table and sends it in the meeting chat. Agent attaches it to the ticket before closing it
- ✓ As part of closing notes, the agent updates the discrepancy in setup guide and marks follow up action to update setup manuals



**Babak Shammam, Virtual Consult Agent**

Babak Shammam is a customer consult & support agent, adept at handling all setup, installation queries for Contoso furniture.

Megan Bowen, a customer of Contoso Furnitures, has recently purchased a table at the store. As she faced difficulties in assembling the table, Megan raises an assembly help request on Contoso website

The screenshot shows a Microsoft Teams interface. On the left is a navigation pane with 'Activity', 'Chat', 'Teams', 'Meetings', 'Calls', 'Files', and 'Virtual Con...'. The 'Teams' section is expanded to show 'Virtual Consult' selected. The main area displays a channel named 'Virtual Consult' with tabs for 'Posts', 'Files', and 'Consult Schedule'. Two recent posts are visible: one by Christie Cline and another by Grady Archie. Below these is a support request card titled 'New video consult request!' for 'Setup for Maplewood table' (Ticket ID: T12345) from Megan Bowen. The card includes a query, preferred contact times for May 26th and 27th, and a status of 'Unassigned' with 'Accept' and 'Reject' buttons. At the bottom, there is a text input field for starting a new conversation and a toolbar with icons for attachments, emojis, GIFs, video, and voice.

The information provided by Megan while raising the support request gets posted as a message inside channel with all Virtual consult support agents. The posted card contains Megan's contact details, the product name, the support query and preferred time to contact.

The screenshot shows a Microsoft Teams interface. On the left is a navigation pane with 'Teams' selected, showing a list of teams including 'Virtual Consult' and 'Contoso'. The main area displays the 'Virtual Consult' channel. At the top, there's a search bar and a user profile. Below, two text posts are visible: one from Christie Cline asking for advice on 'Grady Archie', and a reply from Grady Archie promising to create a detailed post. A video consult request card is shown below, titled 'Setup for Maplewood table' (Ticket ID: T12345) from Megan Bowen. The card includes a query about setting up a table, preferred times for 26 and 27 May, and is assigned to Babak Shammass. Buttons for 'Call now' and 'Schedule for later' are at the bottom of the card. A bottom bar contains a text input field and various communication icons.

Any available agent can take a look at the topic / product in which support is required and the preferred timing. Based on availability and expertise, an agent can take up the consult request. Babak has assigned the ticket to himself and proceeds to setup the call

The screenshot displays the Microsoft Teams interface. On the left, the navigation pane shows 'Activity', 'Chat', 'Teams', 'Meetings', 'Calls', 'Files', and 'Virtual Con...'. The main area is titled 'Virtual Consult' and contains a post from 'Megan Bowen' with a query about a Maplewood table. A modal window is open for scheduling a consult, showing the status 'Assigned to Babak Shammass', preferred times for May 26 and 27, and a 'Call now' button. A custom message is being composed in the bottom text area.

**Virtual Consult** Posts Files Consult Schedule +

Team MBI ⓘ ⋮

### Setup for Maplewood table

Ticket ID: T12345

**Megan Bowen**  
+1(310)-228-7435 | megan.bowen@gmail.com

**Query:**  
I have bought the Maplewood table for home office use and I don't know how to set it up. Please help me with setup and installation.

**Preferred time**  
26 May 15:00 – 17:00, 17:00 – 19:00  
27 May 17:00 – 19:00

**Status:** Assigned to Babak Shammass

**Call now** **Schedule for later**

**Choose date and time**  
26 May 2020 15:00 → 26 May 2020 16:00

**Comments(Optional)**  
Hi Megan! Please do join on video call. I will be happy to assist on all your queries.

**Cancel** **Save**

← Reply

Start a new conversation, use @ to mention someone

⌨️ 📎 😊 📄 📺 📞 ⋮

Babak proceeds to write a custom message that will be sent to Megan along with the consult invite. The meeting joining details will be auto generated and sent to Megan as email and to her phone as text message.



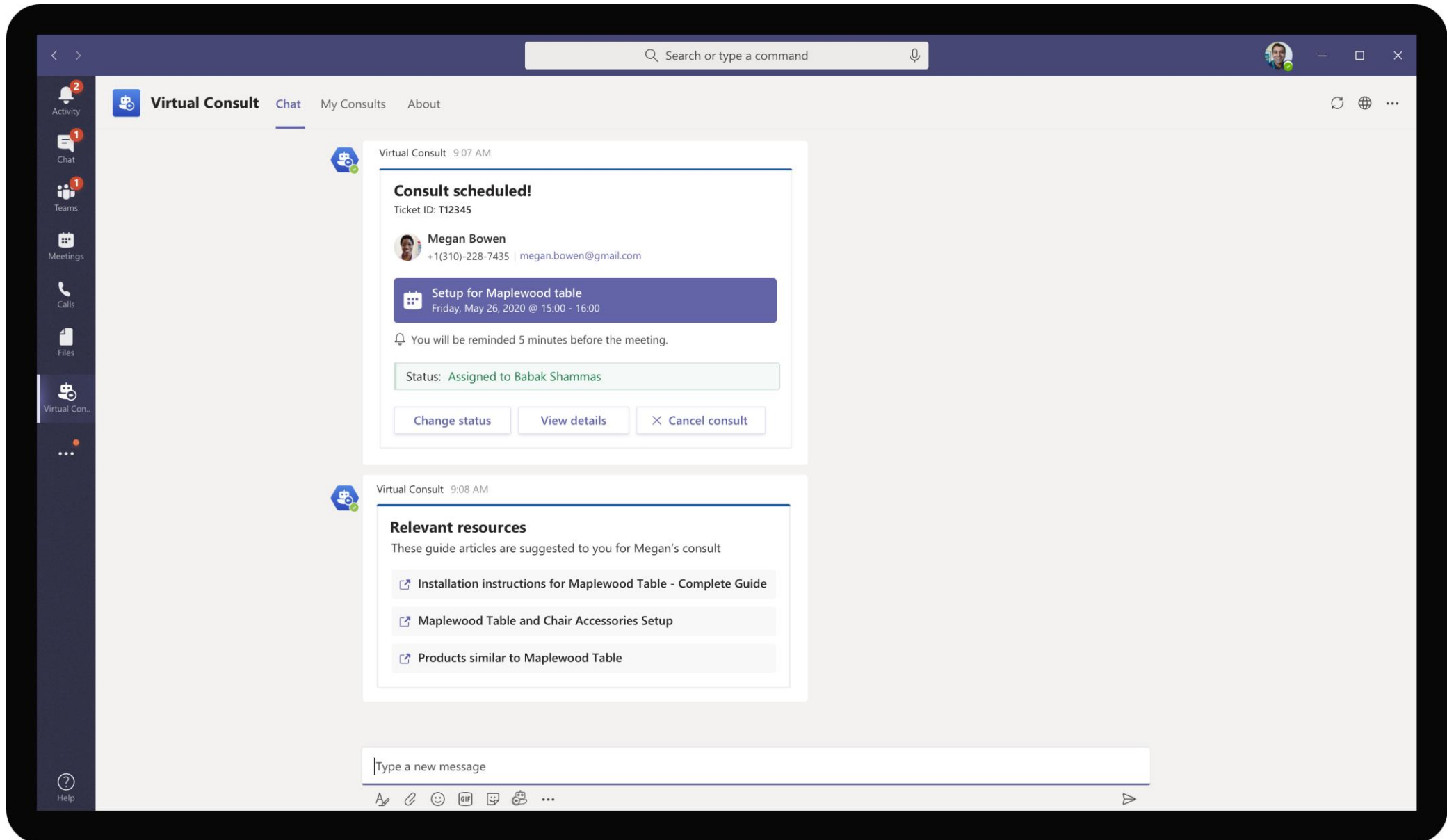
The screenshot displays the Microsoft Teams interface. On the left, the navigation pane shows the 'Virtual Consult' team selected. The main area shows a channel named 'Virtual Consult' with a search bar at the top. Below the search bar, there are two messages from 'Christie Cline' and 'Grady Archie' discussing a physical portion of information. A large card titled 'New video consult request!' is displayed, containing details for a 'Setup for Maplewood table' with ticket ID T12345. The card lists the agent 'Megan Bowen' and a 'Query' about setting up a table. It also shows a 'Scheduled time' of '26 May 15:00 - 16:00' and a status of 'Assigned to Babak Shammass'. At the bottom, there is a text input field for starting a new conversation and a toolbar with various communication icons.

The scheduled consult cards get updated to show the agent who is attending the consult and the scheduled time of consult. The meeting join details and a calendar invite is also automatically added to Babak's calendar

The screenshot shows the Microsoft Teams interface for a team named 'Virtual Consult'. The main content area displays a table of 'Consults scheduled for today(12)'. The table has the following columns: Ticket ID, Customer name, Appt time, Email ID, Phone no., and Status. Each row includes a 'Join' button. The left sidebar shows the team structure with various channels like 'Performance', 'Shiproom', and 'Telemetry'.

Ticket ID	Customer name	Appt time	Email ID	Phone no.	Status	Join
T28389	Ranjan Mehta	09:00 - 09:30	ranjan.mehta@gmail.com	+1(310)-228-7435	Assigned to Babak S	Join
T11387	Marie Behra	09:00 - 09:30	marie.behra@gmail.com	+1(310)-878-7435	Assigned to Rupa B	Join
T76389	Rajesh Malhotra	09:30 - 09:45	rajesh.malhotra@hotmail.com	+1(310)-228-3879	Unassigned	Join
T98929	Shivalika Sharma	10:00 - 11:00	shivalika.sharma@gmail.com	+1(310)-389-2737	Assigned to Roy H	Join
T82028	Rishab Patel	11:00 - 11:30	rishab.patel@gmail.com	+1(310)-372-2930	Unassigned	Join
T87297	Sonam Patel	12:00 - 13:00	sonam.patel@gmail.com	+1(310)-382-2289	Unassigned	Join
T77292	Aditya Gogoi	14:00 - 14:30	aditya.gogoi@gmail.com	+1(310)-829-1910	Assigned to Danielle M	Join
T12345	Megan Bowen	15:00 - 16:00	megan.bowen@gmail.com	+1(310)-383-2728	Assigned to Babak S	Join
T78696	A R Shivakumar	15:00 - 16:00	shiva.kumar@gmail.com	+1(310)-102-1389	Assigned to Rupa B	Join
T29692	Pratham Sardar	16:00 - 16:30	pratham.sardar@gmail.com	+1(310)-282-3839	Unassigned	Join
T78979	Seri Jawa	16:30 - 17:00	seri.jawa@gmail.com	+1(310)-229-3891	Assigned to Shinwu Q	Join
T27628	Mriduk Baiwa	17:00 - 18:00	mriduk.baiwa@gmail.com	+1(310)-119-2819	Unassigned	Join

The app also supports a team tab which lists all virtual consults scheduled for the day across all agents. In addition to providing the consults that are underway, it also provides option for user to join any call for audit, quality and training purposes.



As soon as a consult request is scheduled, Babak receives the scheduling information, documents, and guides from internal Knowledge Management repository to serve as an aid in supporting the customer. This information is customized and relevant to each virtual consult call.



## **Kadji Bell, Virtual Consult Agent**

Kadji Bell is also a customer consult & support agent, adept at handling all setup, installation queries for Contoso furniture.

Before the scheduled consult call with Meghan, Babak is faced with a personal emergency and is looking to reassign the request to his colleague

The screenshot displays the Microsoft Teams interface for a team named 'Virtual Consult'. The left sidebar shows navigation options like Activity, Chat, Teams, Meetings, Calls, and Files. The main area is titled 'Virtual Consult' and shows a 'Consult Schedule' tab. The schedule lists 12 consults for today, each with a 'Join' button and a three-dot menu. A context menu is open over the 'Join' button for ticket T78696, showing options: 'View Details', 'Reassign', and 'Cancel Consult'.

Ticket ID	Customer name	Appt time	Email ID	Phone no.	Status	Action
T28389	Ranjan Mehta	09:00 - 09:30	ranjan.mehta@gmail.com	+1(310)-228-7435	Assigned to Babak S	Join
T11387	Marie Behra	09:00 - 09:30	marie.behra@gmail.com	+1(310)-878-7435	Assigned to Rupa B	Join
T76389	Rajesh Malhotra	09:30 - 09:45	rajesh.malhotra@hotmail.com	+1(310)-228-3879	Unassigned	Join
T98929	Shivalika Sharma	10:00 - 11:00	shivalika.sharma@gmail.com	+1(310)-389-2737	Assigned to Roy H	Join
T82028	Rishab Patel	11:00 - 11:30	rishab.patel@gmail.com	+1(310)-372-2930	Unassigned	Join
T87297	Sonam Patel	12:00 - 13:00	sonam.patel@gmail.com	+1(310)-382-2289	Unassigned	Join
T77292	Aditya Gogoi	14:00 - 14:30	aditya.gogoi@gmail.com	+1(310)-829-1910	Assigned to Danielle M	Join
T12345	Megan Bowen	15:00 - 16:00	megan.bowen@gmail.com	+1(310)-383-2728	Assigned to Babak S	Join
T78696	A R Shivakumar	15:00 - 16:00	shiva.kumar@gmail.com	+1(310)-102-1389	Assigned to Rupa B	Join
T29692	Pratham Sardar	16:00 - 16:30	pratham.sardar@gmail.com	+1(310)-282-3839	Unassigned	Join
T78979	Seri Jawa	16:30 - 17:00	seri.jawa@gmail.com	+1(310)-229-3891	Assigned to Shinwu Q	Join
T27628	Mriduk Baiwa	17:00 - 18:00	mriduk.baiwa@gmail.com	+1(310)-119-2819	Unassigned	Join

The team tab provides option for Babak to initiate the request to reassign a consult request to another agent within the same team.

The screenshot displays the Microsoft Teams interface for a team named "Virtual Consult". The main content area shows a table of "Consults scheduled for today(12)". A modal dialog box titled "Virtual Consult Reassign" is open, allowing the user to select an agent and add a comment. The dialog box is positioned over the table, which lists various consults with their details and status.

Ticket ID	Customer name	Appt time	Email ID	Phone no.	Status	Join
T28389	Ranjan Mehta	09:00 - 09:30	ranjan.mehta@gmail.com	+1(310)-228-7435	Assigned to Babak S	Join
T11387				(310)-878-7435	Assigned to Rupa B	Join
T76389				(310)-228-3879	Unassigned	Join
T98929				(310)-389-2737	Assigned to Roy H	Join
T82028				(310)-372-2930	Unassigned	Join
T87297				(310)-382-2289	Unassigned	Join
T77292				(310)-829-1910	Assigned to Danielle M	Join
T12345				(310)-383-2728	Assigned to Babak S	Join
T78696				(310)-102-1389	Assigned to Rupa B	Join
T29692	Pratham Sardar	16:00 - 16:30	pratham.sardar@gmail.com	+1(310)-282-3839	Unassigned	Join
T78979	Seri Jawa	16:30 - 17:00	seri.jawa@gmail.com	+1(310)-229-3891	Assigned to Shinwu Q	Join
T27628	Mriduk Baiwa	17:00 - 18:00	mriduk.baiwa@gmail.com	+1(310)-119-2819	Unassigned	Join

The reassign dialog box contains the following text:

**Virtual Consult**  
Reassign

Select an agent

Kadji Bell

Comments (optional)

Hi Kadji, I have got a personal emergency and won't be able to consult Megan with installing her Maplewood table. Would you please mind taking up this request?

Buttons: Cancel, Reassign

Babak can choose the name of any agent / multiple agent names to receive the reassign request. Babak chooses to send the reassign request to Kadji Bell within his team with a message explaining details of the customer consult

The screenshot shows a Microsoft Teams chat window for 'Virtual Consult'. The interface includes a top search bar, a left-hand navigation pane with icons for Activity, Chat, Teams, Meetings, Calls, and Files, and a main chat area. The chat area displays a message from 'Virtual Consult' at 9:30 AM. The message content is as follows:

**Consult reassign request!**

**Setup for Maplewood table**  
Ticket ID: T12345

**Babak Shammass**  
Hi Kadji, I have got a personal emergency and won't be able to consult Megan with installing her Maplewood table. Would you please mind taking up this request?

**Setup for Maplewood table**  
Friday, May 26, 2020 @ 15:00 - 16:00

**Customer details**

**Megan Bowen**  
+1(310)-228-7435 | megan.bowen@gmail.com

**Query:**  
I have bought the Maplewood table for home office use and I don't know how to set it up. Please help me with setup and installation.

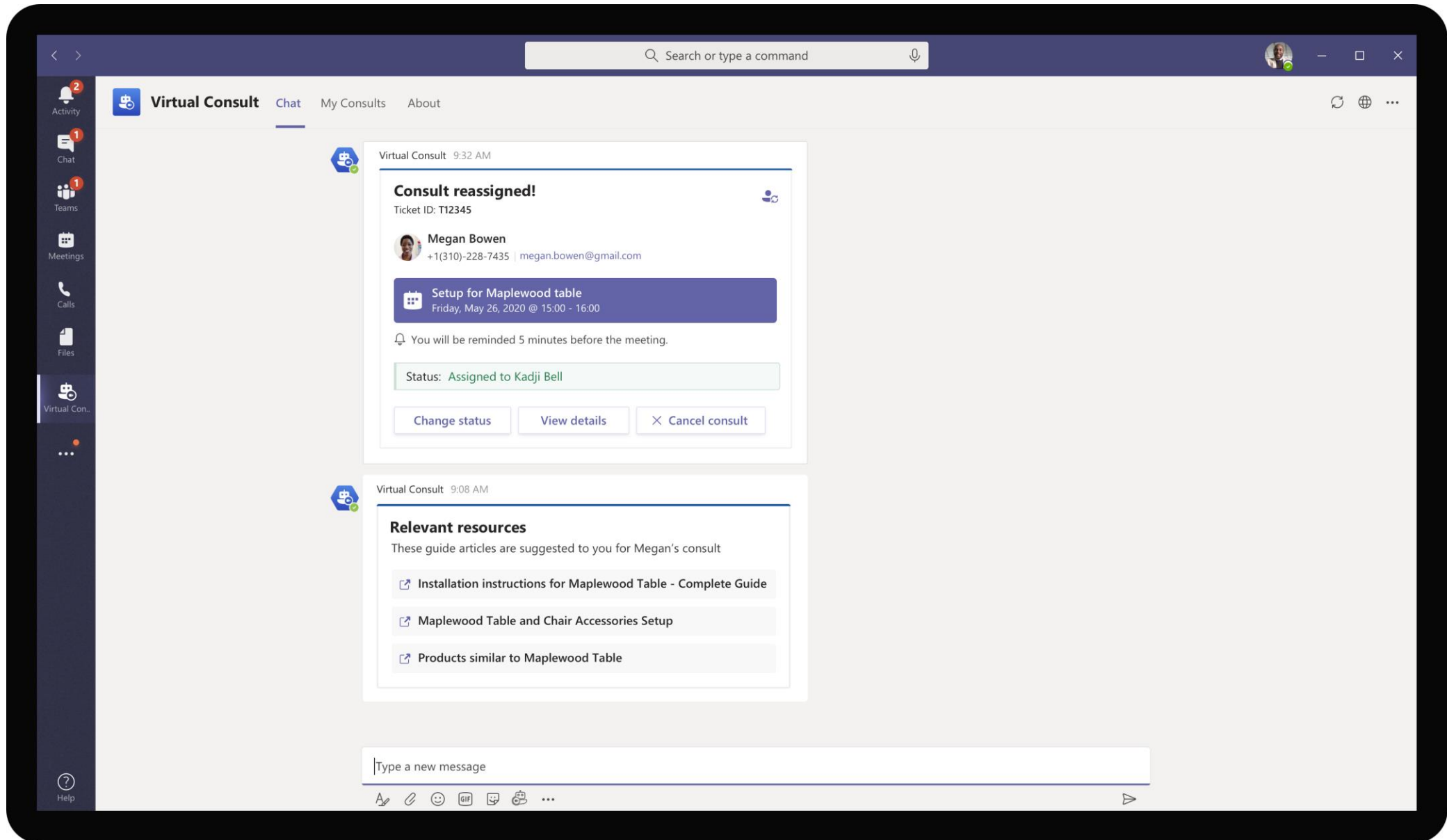
**Status:** Assigned to Babak Shammass

Buttons: **Accept** (highlighted with a pink circle), **Reject**

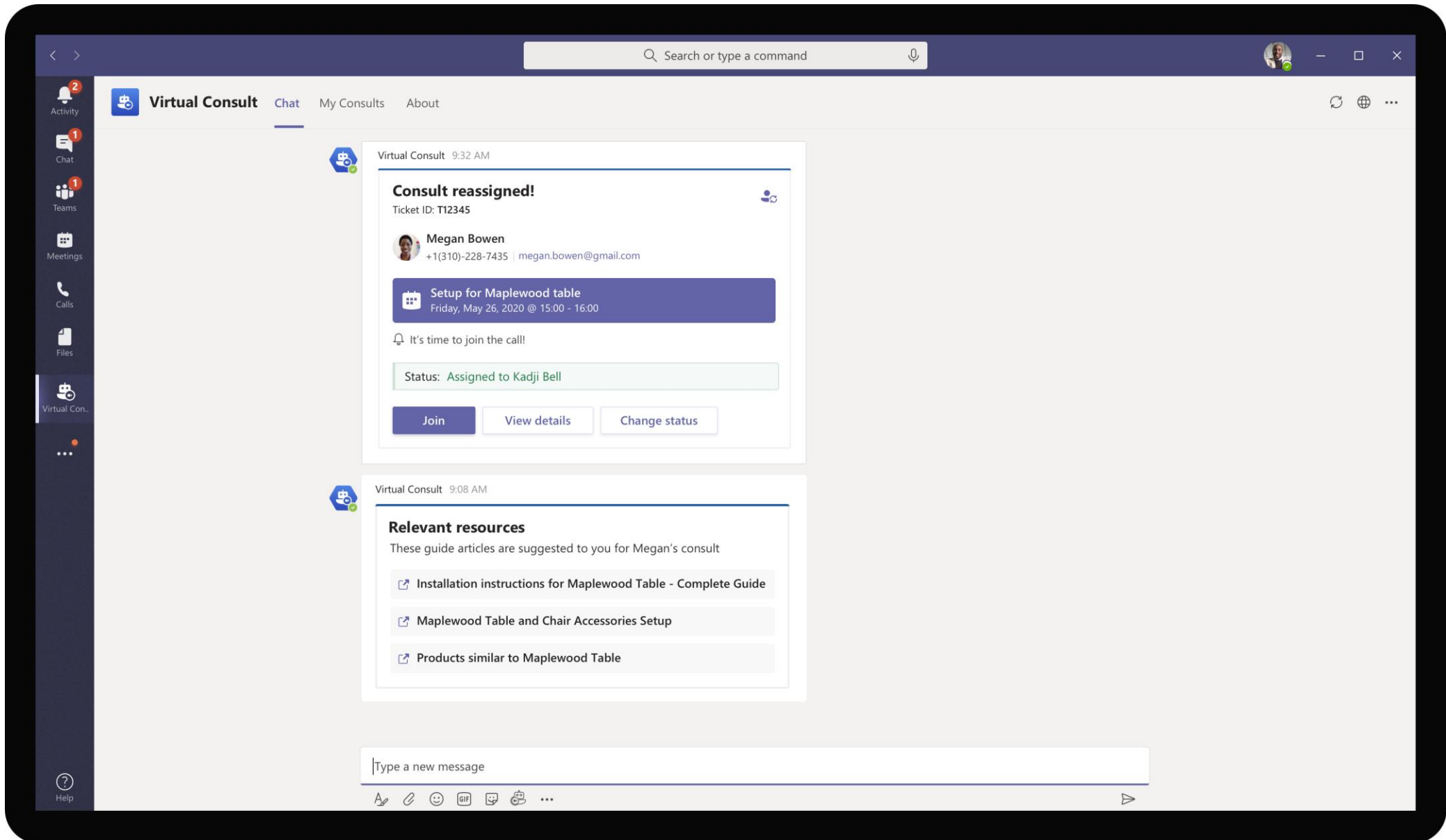
At the bottom of the chat window, there is a text input field with the placeholder 'Type a new message' and a set of icons for attachments, emojis, and other chat functions.

Kadji Bell immediately receives the reassign request in the personal scope of his app. Kadji is provided with complete details of the consult, the customer, query and timings along with Babak's personal message for reassigning the consult.

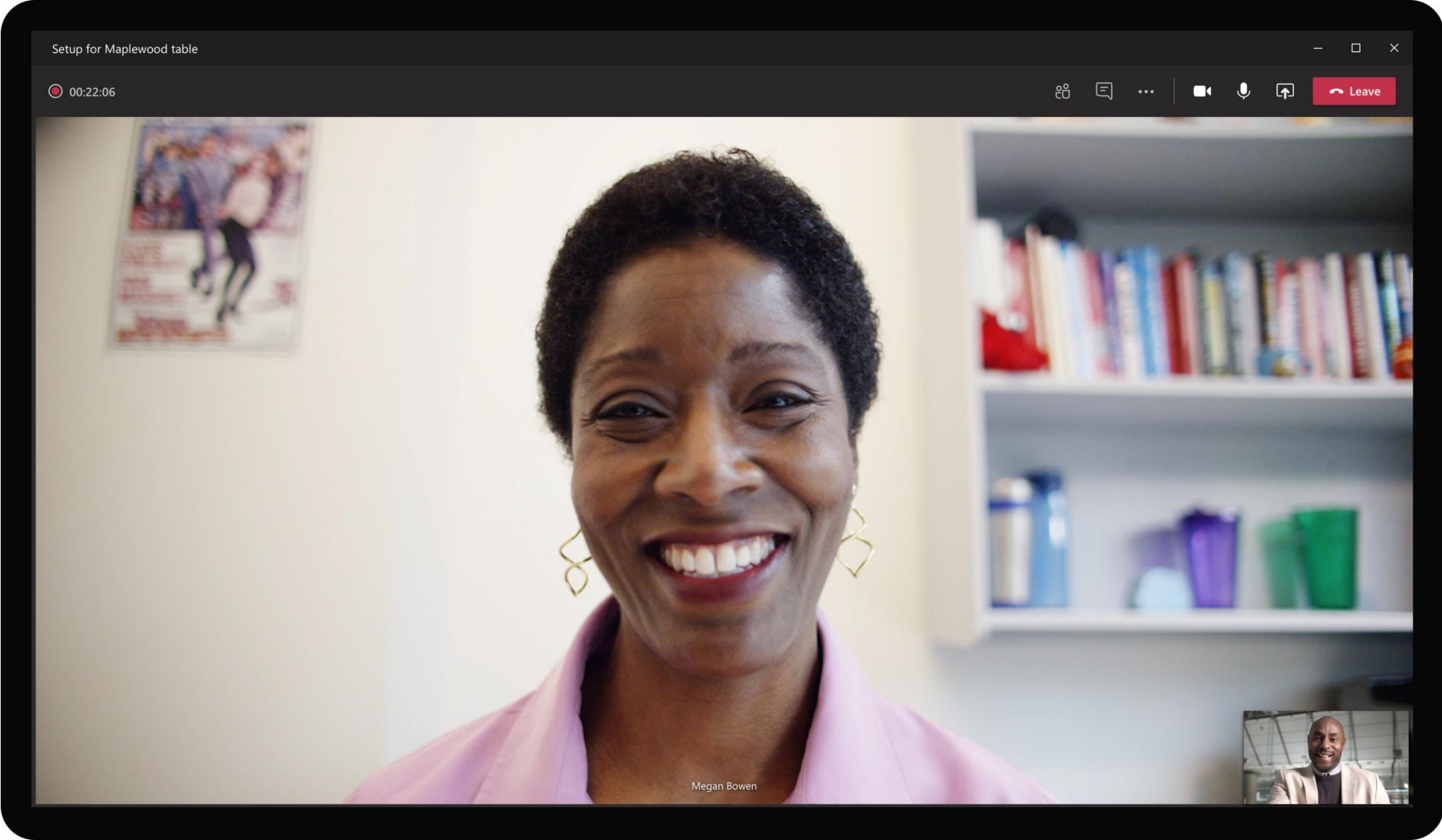




As Kadji accepts the reassign request, the consult is updated to be added to Kadji's roster. He receives the meeting join details added to his calendar. In addition, all the relevant guides and documentation is surfaced to Kadji as well to serve as aid during the call with Megan



The app sends a reminder alert to Kadji 5 minutes before the call with an option to join the meeting from the app. Kadji clicks on the Join meeting and is taken to the meeting join page on Teams.



At scheduled time, Megan joins the call as an anonymous user and explains her assembly issues to Kadji. He realizes that Megan has received an older version of setup guide and does a screen share of his latest setup guide document with illustrations and walks her through the steps.

Megan successfully assembles her table following the instructions provided by Kadji over the video consult

The screenshot shows a Microsoft Teams chat interface. At the top, there is a search bar with the text "Search or type a command". Below the search bar, the chat title is "Setup for Maplewood table". The chat history shows several messages and actions:

- Kadji Bell joined the meeting
- Meeting started 26/05 15:01
- Megan Brownen joined the meeting
- A system message: "Hi Megan, as discussed over the call, it would be great if you could share the pictures of installed table."
- Megan Bowen (Guest) 11:00 AM: A photo of a dark wood coffee table with black legs on a light-colored carpet. Below the photo, she says: "Here you go. Thanks for your help! The table looks amazing!"

The chat input area at the bottom contains the text "Type a new message" and various icons for attachments, emojis, and other chat functions.

Once Megan successfully assembles the table, Kadji asks her to send a picture of the completely assembled table using the meeting chat. Megan immediately uses her phone camera to take a picture and send it on the meeting chat as she is on the call.

The screenshot shows a Microsoft Teams chat window titled "Setup for Maplewood table". The chat history on the left includes messages from Ray Tanaka, Beth Davies, and several other team members. The main chat area shows a meeting setup with participants Kadji Bell, Megan Brown, and Megan Bowen. A message from Megan Bowen at 11:00 AM includes a photo of a dark wood coffee table and the text "Here you go. Thanks for your help! The table looks amazing!". A context menu is open over the photo, with the "Attach to ticket" option highlighted. Other menu options include "Save this message", "Mark as unread", "Copy link", "Translate", "Immersive reader", "Turn on notifications", and "More actions". The chat input field at the bottom contains the text "Type a new message".

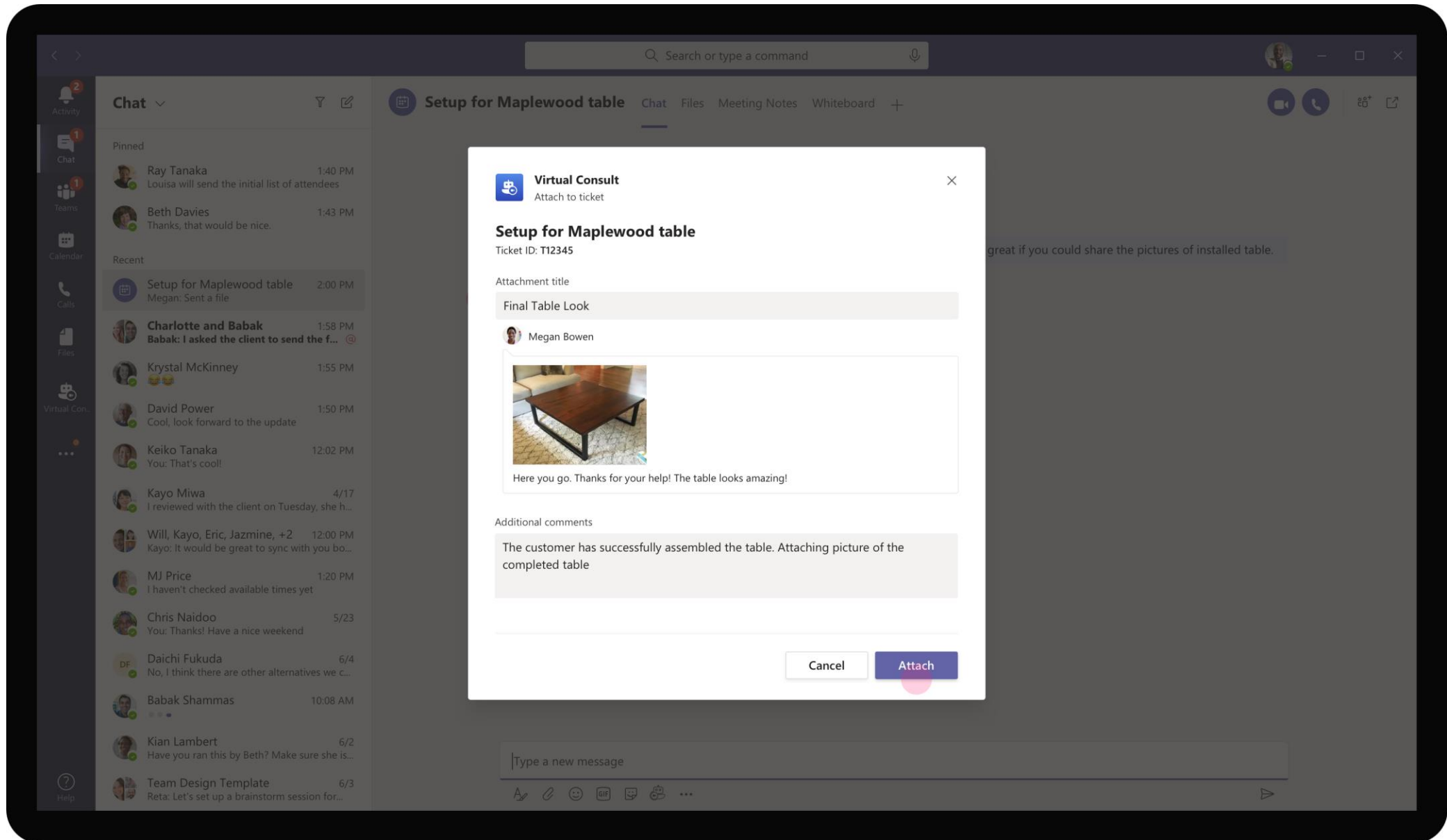
Kadji invokes message action from the image sent by Megan and chooses to add it to the consult ticket raised by Megan.



The screenshot displays a Microsoft Teams chat window. On the left is a navigation sidebar with icons for Activity, Chat, Teams, Calendar, Calls, Files, and Virtual Con... The main chat area shows a list of messages. A modal window is open in the center, titled "Virtual Consult" with a sub-header "Attach to ticket". The modal content includes:

- Ticket title: "Setup for Maplewood table"
- Ticket ID: "T12345"
- Attachment title input field with placeholder "Enter here"
- Sender: "Megan Bowen" with a profile picture
- Attachment: A photograph of a dark wood coffee table.
- Text below attachment: "Here you go. Thanks for your help! The table looks amazing!"
- Additional comments input field with placeholder "Enter comments"
- Buttons: "Cancel" and "Attach"

The task module that opens auto selects the right consult ticket from the context of the conversation. In addition, Kadji can select and write a custom comment to be added along with the attachment.



The task module that opens auto selects the right consult ticket from the context of the conversation. In addition, Kadji can select and write a custom comment to be added along with the attachment.



During his call with Megan, Kadji has the ability to take notes of important queries raised, track follow up action items from the call using the Virtual consult app

The screenshot shows a Microsoft Teams chat window. At the top, there is a search bar with the text "Search or type a command". Below the search bar, the chat title is "Setup for Maplewood table". The chat interface includes a left sidebar with navigation icons for Activity, Chat, Teams, Calendar, Calls, Files, and Virtual Con... The main chat area displays a list of messages. A pinned message from Ray Tanaka at 1:40 PM says "Louisa will send the initial list of attendees". A message from Beth Davies at 1:43 PM says "Thanks, that would be nice." A recent message from "Setup for Maplewood table" at 2:00 PM says "Megan: Sent a file". Below this, a message from Charlotte and Babak at 1:58 PM says "Babak: I asked the client to send the f...". Other messages include Krystal McKinney at 1:55 PM with two smiley face emojis, David Power at 1:50 PM saying "Cool, look forward to the update", Keiko Tanaka at 12:02 PM saying "You: That's cool!", Kayo Miwa at 4/17 saying "I reviewed with the client on Tuesday, she h...", Will, Kayo, Eric, Jazmine, +2 at 12:00 PM saying "Kayo: It would be great to sync with you bo...", MJ Price at 1:20 PM saying "I haven't checked available times yet", Chris Naidoo at 5/23 saying "You: Thanks! Have a nice weekend", Daichi Fukuda at 6/4 saying "No, I think there are other alternatives we c...", Babak Shammass at 10:08 AM, Kian Lambert at 6/2 saying "Have you ran this by Beth? Make sure she is...", and Team Design Template at 6/3 saying "Reta: Let's set up a brainstorm session for...".

In the main chat area, there are meeting status updates: "Kadji Bell joined the meeting", "Meeting started 26/05 15:01", and "Megan Brownen joined the meeting". A text message from Kadji Bell says "Hi Megan, as discussed over the call, it would be great if you could share the pictures of installed table." Below this, a message from Megan Bowen (Guest) at 11:00 AM includes a photo of a dark wood coffee table and the text "Here you go. Thanks for your help! The table looks amazing!". The photo shows a dark wood coffee table with a black metal frame on a light-colored carpet next to a white sofa. The chat input field at the bottom contains the text "Type a new message" and has various icons for attachments, emojis, and more options.

In addition to adding the messages from Megan as attachments to the ticket, Kadji can also add details of the call and his discussion with Megan to the consult ticket. He invokes this using the messaging extension of virtual consult app

The screenshot shows a Microsoft Teams chat window for a meeting titled "Setup for Maplewood table". A "Virtual Consult" task module is open, displaying a list of consult tickets. The top ticket, "Setup for Maplewood table" (Ticket ID: T12345), is highlighted as the "Current consult" and is assigned to Megan Bowen, scheduled for 26 May, 15:00 - 16:00. Other tickets include "Tripod table lamp defect", "Wenge finish table setup", "Upholstered storage bed", "Black iconic chair setup", and "Walnut finish dressing table". A context menu is open over the top ticket, showing options: "View Details", "Share", and "Reassign".

Ticket ID	Customer Name	Scheduled time	Status
T12345	Megan Bowen	26 May, 15:00 - 16:00	Current consult
T39639	Ranjan Mehta	26 May, 9:00 - 9:30	Scheduled time
T37292	Marie Behra	25 May, 12:00 - 13:00	Scheduled time
T29187	Shivalika Sharma	25 May, 11:00 - 11:30	Scheduled time
T27391	A R Shivakumar	24 May, 10:00 - 10:30	Scheduled time
T27391	Pratham Sardar	24 May, 9:00 - 9:30	Scheduled time

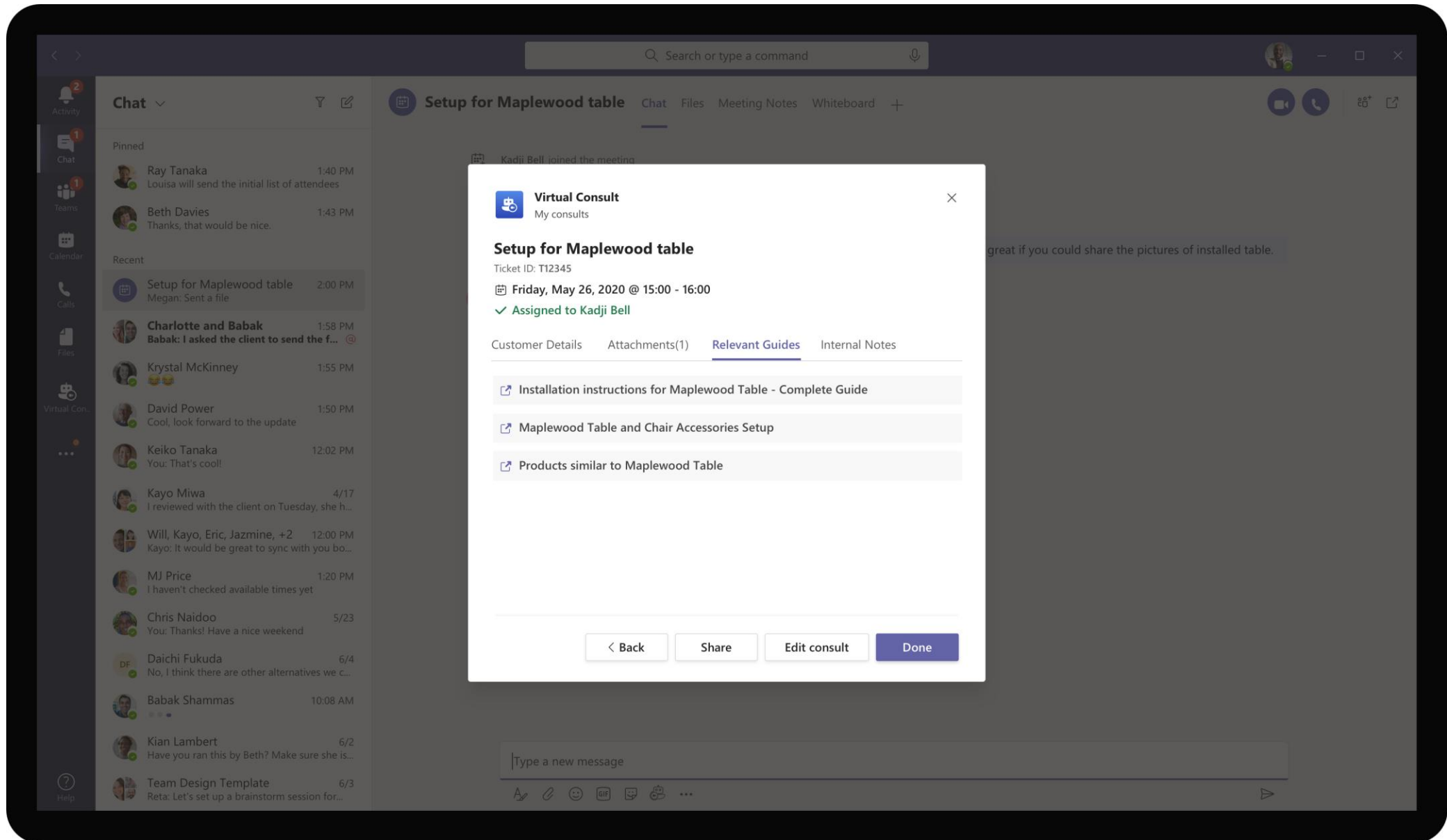
A task module opens up listing all the tickets assigned to Kadji for the day. The app also highlights the current consult ticket call with Megan for ease of use. Kadji can get into the consult ticket's details by clicking on the ticket



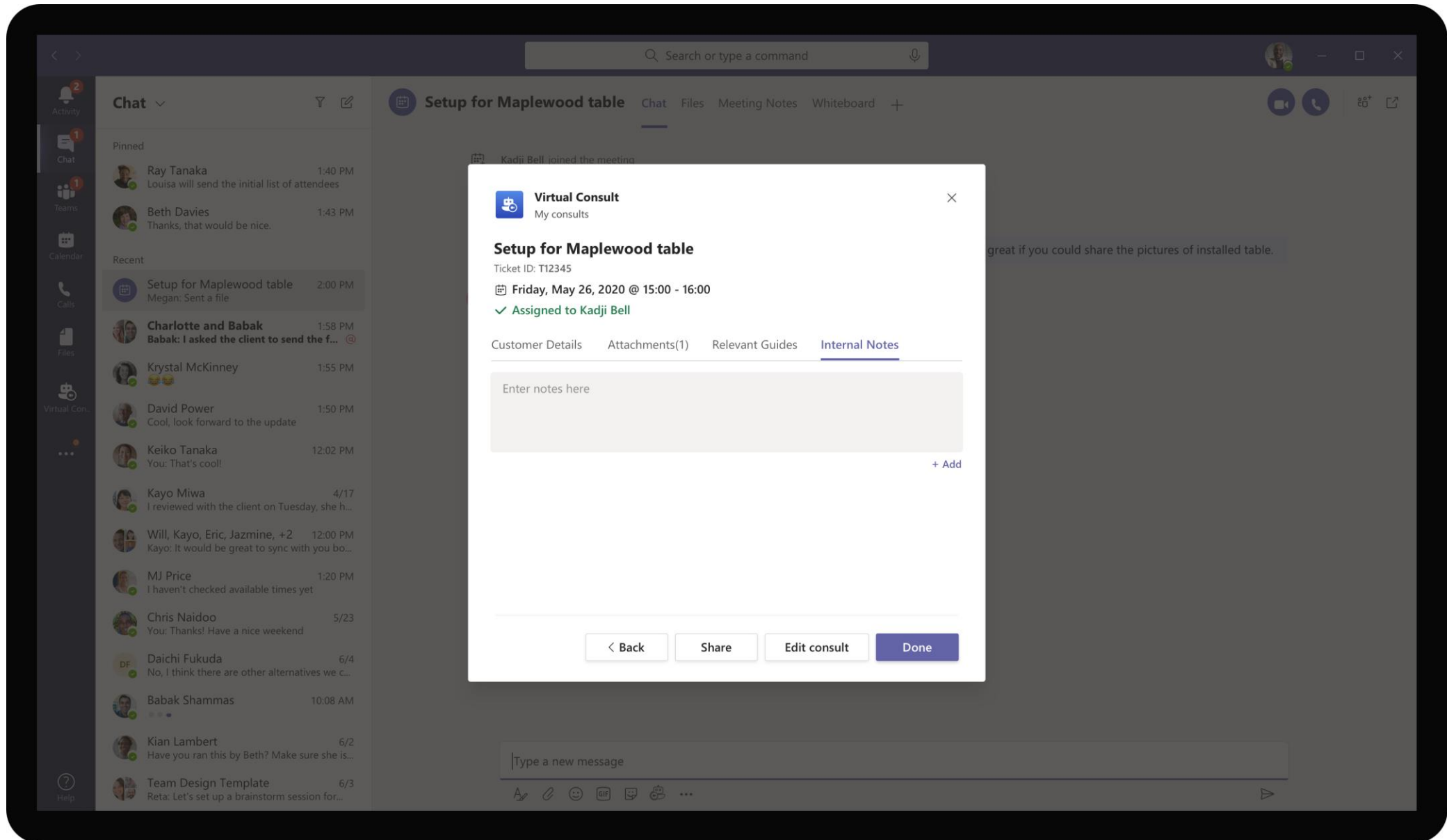
The detailed customer view provides additional information about customer Meghan as fetched from the CRM database. In addition, it also provides the ability to share the ticket details as an adaptive card

The screenshot displays a Microsoft Teams interface. On the left is a navigation pane with icons for Activity, Chat, Teams, Calendar, Calls, Files, and Virtual Con... Below these are three dots and a Help icon. The main chat area shows a conversation for 'Setup for Maplewood table'. The chat history includes messages from Ray Tanaka, Beth Davies, Megan Bowen, Charlotte and Babak, Krystal McKinney, David Power, Keiko Tanaka, Kayo Miwa, Will, Kayo, Eric, Jazmine, +2, MJ Price, Chris Naidoo, Daichi Fukuda, Babak Shammass, Kian Lambert, and Team Design Template. A 'Virtual Consult' pop-up window is open in the foreground, showing details for a ticket titled 'Setup for Maplewood table'. The ticket information includes Ticket ID: T12345, scheduled for Friday, May 26, 2020 @ 15:00 - 16:00, and assigned to Kadji Bell. The 'Attachments(1)' tab is selected, showing a photo of a wooden coffee table. Below the photo is a message from Megan Bowen: 'Here you go. Thanks for your help! The table looks amazing!'. Underneath, there is a section for 'Additional comments from Babak' stating: 'The customer has successfully assembled the table. Attaching picture of the completed table.' At the bottom of the pop-up are buttons for '< Back', 'Share', 'Edit consult', and 'Done'. The background chat area is dimmed.

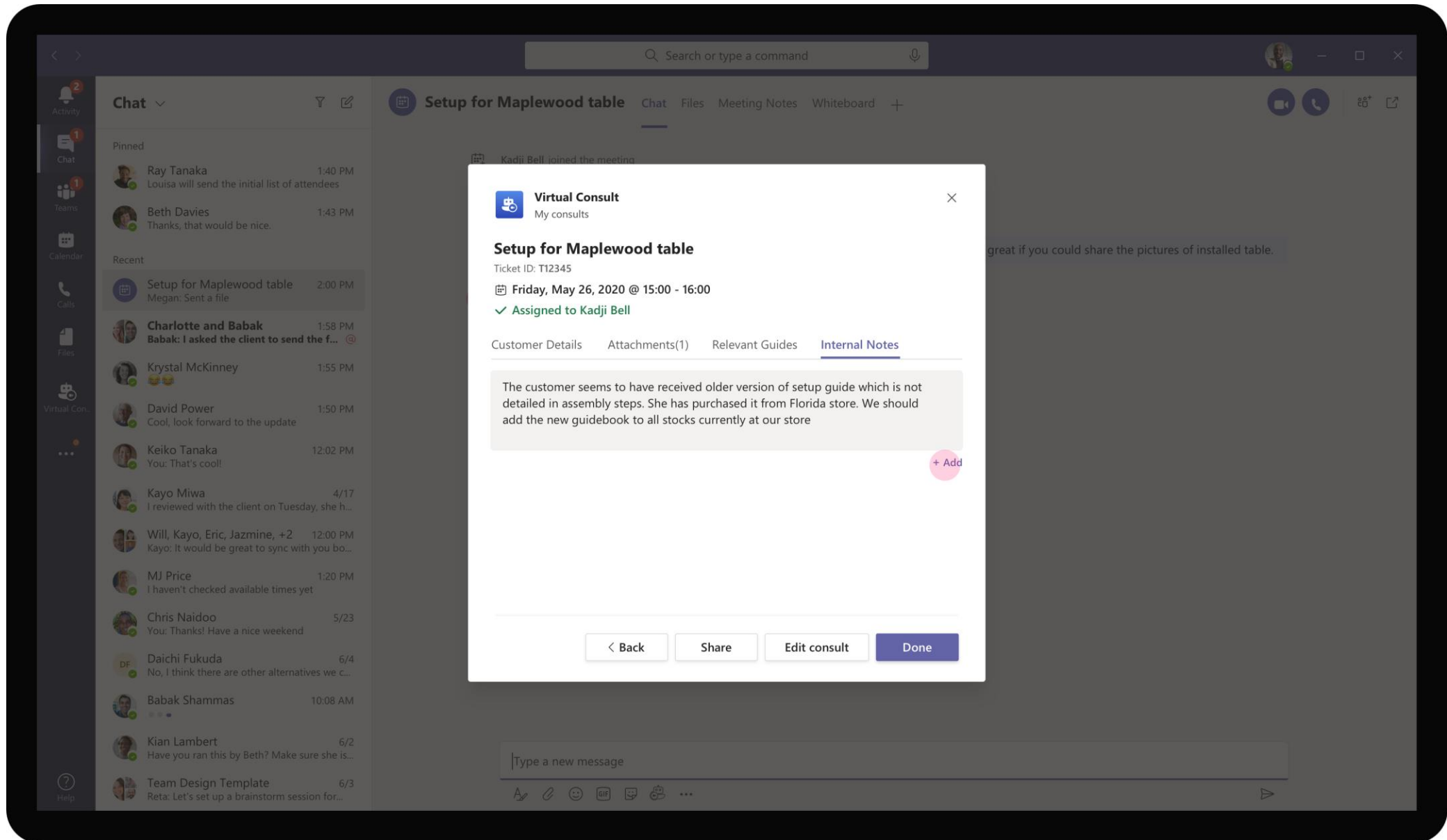
The attachments section lists any and all attachments added as part of the ticket. In addition, it shows attachments that were sent and received as part of the chat conversation that can potentially be added to the ticket.



All documentation, guides determined by the app as relevant to Megan’s virtual consult request, are available as links in the Relevant Guides section for Kadji’s use during the call.

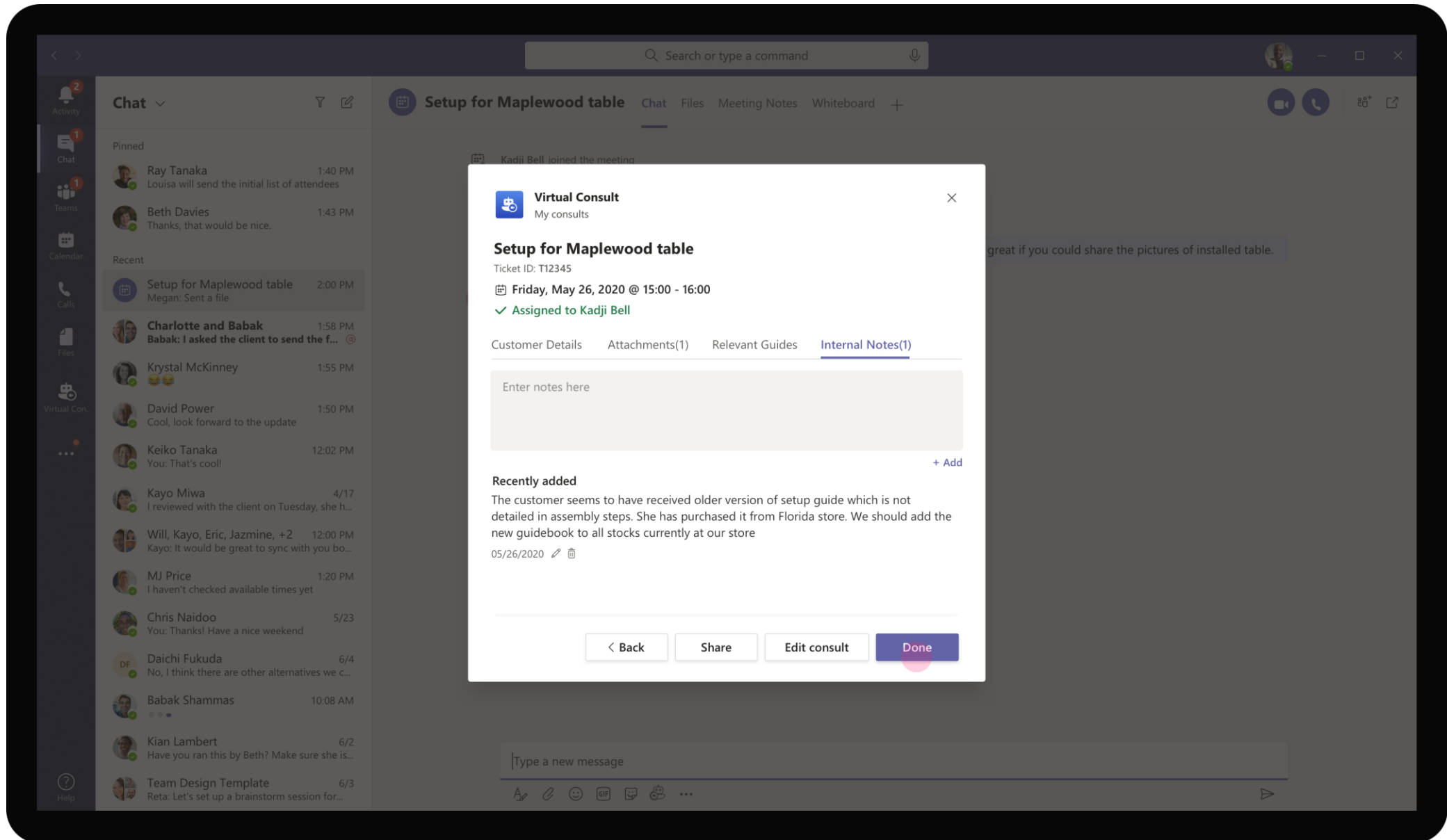


Kadji chooses the Internal Notes section to document learnings, insights and follow up actions from the call that will help improve overall customer experience.



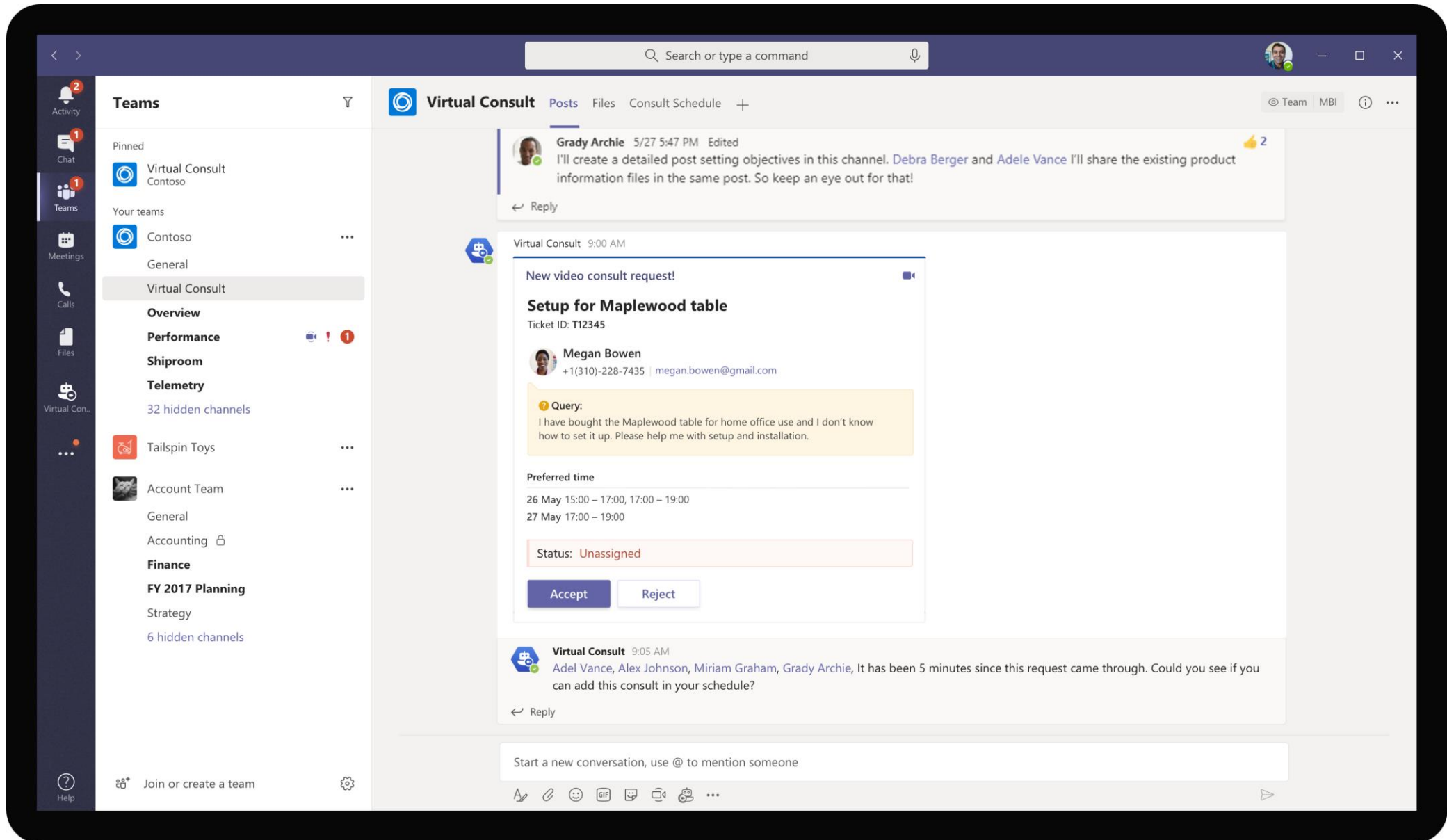
Kadji documents that Megan has received an older version of setup guide which lacks rich illustrations to help a customer assemble the table. Since this could be a repeating request from all customers who buy the table, Kadji documents the root cause of the issue as part of the ticket





Kadji further emphasizes the need to check and make sure Contoso stores carry the updated guides to avoid similar setup calls from customers and improve customer experience.

The Virtual Consult app sends reminders for consult requests which remain unassigned for prolonged duration

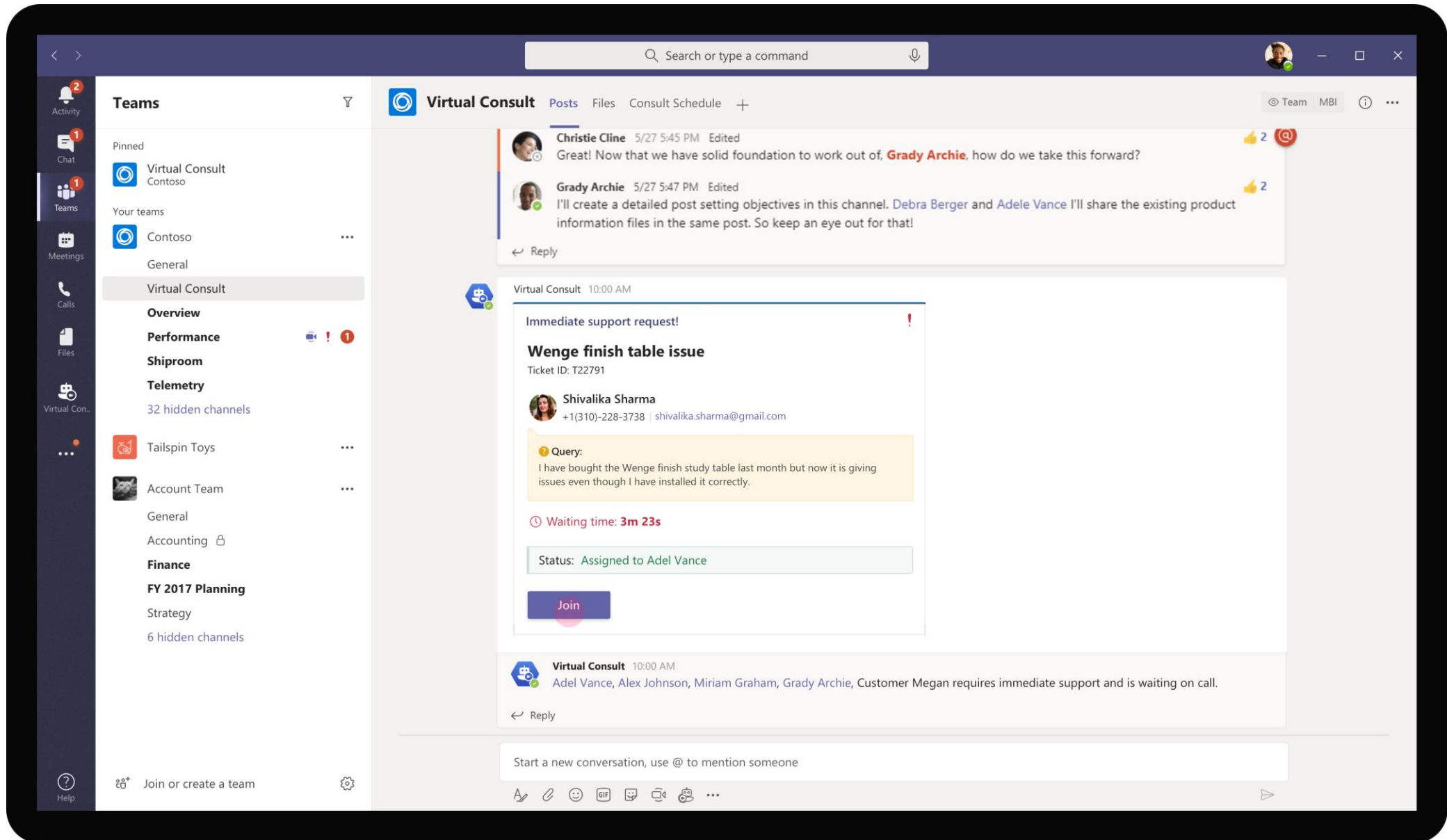


The app analyses the schedule and availability of all agents in the team and sends periodic reminders to these agents. It @mentions the available support agents alerting them to a consult request which is left unattended for a prolonged duration

The app handles consult requests from customers requiring immediate assistance differently from scheduled consults

The screenshot displays a Microsoft Teams interface. On the left is a navigation pane with icons for Activity, Chat, Teams, Meetings, Calls, Files, and Virtual Con... Below these are team listings: 'Virtual Consult' (selected), 'Tailspin Toys', and 'Account Team'. The main area shows a channel named 'Virtual Consult' with tabs for Posts, Files, and Consult Schedule. Two chat messages are visible: one from Christie Cline asking for direction on 'Grady Archie', and a reply from Grady Archie promising to create a detailed post. Below the chat is a support request card titled 'Wenge finish table issue' with ticket ID T22791, submitted by Shivalika Sharma. The card shows a query about a study table, a waiting time of 2m 31s, and an 'Unassigned' status with 'Accept' and 'Reject' buttons. A system message below the card states: 'Adel Vance, Alex Johnson, Miriam Graham, Grady Archie, Customer Megan requires immediate support and is waiting on call.' At the bottom is a text input field for starting a new conversation and a toolbar with icons for text, attachments, emojis, GIFs, video, and voice.

If a customer requests immediate assistance on a product, the customer is immediately added to a Teams meeting call and a consult card gets posted into the channel. The card updates itself periodically to show the number of minutes customer has been waiting on the call for consult support.



The app also @mentions the available agents as soon as the card is posted (instead of waiting for a certain duration). This alerts agents to an open request that requires immediate attention.

# Solution Highlights – Best Practices

## Key Solution Design Considerations

### Platform Extension Points

- **Personal & Channel Tab** are added as part of the app to provide a consolidated view of consult schedule for all agents and support manager
  - Channel Tab – Channel tab provides list of consults across all agents and is predominantly used by supervisors/managers to monitor various calls and ensure process efficiency
  - Persona Tab – Consults scheduled for each agent is accessible in their own personal tabs for ease of managing their day, reassigning consults, updating details for follow-up
- **Message actions and Message extensions** enhance the 'in-meeting' experience by providing a way for agent to process and store incoming information from customer (attachments) and document interaction without leaving context (adding notes)

### User Experience

- On invoking the message extension, the task module opens, automatically highlighting the current customer consult. Since message extensions receive the context (meeting / chat ID / channel ID) from which they are invoked, the app highlights the corresponding consult depending on where it was invoked
- The message action also receives the message object from which it was invoked. This allows the app to automatically fetch the right message text, and associated attachment to be surfaced in the resultant task module

## Graph API

- The app utilizes [Bookings Graph API](#) to create appointments / meetings that will be sent to customers requiring virtual consult. This ensures proper meeting joining information is sent to customers with adequate reminders
- The app also utilizes [Presence Graph API](#) to determine agent availability while assigning consult requests.

# Solution Architecture

