STC | iQ
State User QRG

(v. April 2018)

Landing Page (Home) - State

The landing page (or Home) for State users provides a high-level summary of the status of all interface projects, and also provides a starting point for quick and easy navigation to the iQ tools
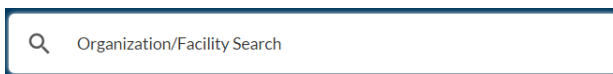
After logging on to STC | iQ, the landing page is the first page that opens (Home). The following features are available on the Home page:

The **Healthcare Provider Count by Onboarding Stages** displays the number of providers who have been in each stage during the past 30 days.

Records at Each Milestone displays the total number of records that have passed through each milestone during the past 30 days.

Onboarding Healthcare Provider Counts by HL7 Version displays the total number of interfaces that are sending in each HL7 message format.

The top **Search Bar** is a global search feature that allows users to search for a specific organization or provider by name, VFC PIN, or IIS ID. Just enter a few characters of the name or number and press Enter, then scroll through the list and select the organization/facility.

Once the desired organization/facility is entered/selected, all reports are filtered by this selection until it is changed or removed.

Provider Profile

To access the Provider Profile page, click the **Provider > Provider Profile** menu link.
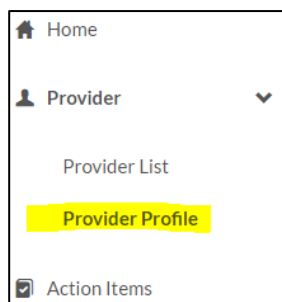
If an organization/facility is not entered in the Search Bar, no data is displayed on the page.

Once and organization/facility has been entered (in the Search Bar), the follow tabs display on the page:

- **Profile** – Displays provider and contact information. Users can assign a provider to a specific group for onboarding.
- **Documents** – Any documents that have been uploaded for a specific interface project appear her. Users can also upload documents for the interface here.
- **Interface Form** – This tab contains the questions listed in the interface form assigned to the provider. Tabs that display here depend on the categories in the interface form, but can include:
  - Provider Info
  - EHR Info
  - EHR Docs
  - IIS Participation
  - MU & Status
  - Bi-Direction

  Note that if a provider does not have an interface form assigned to it, no Interface Form tab appears on the Provider Profile page, and a link to the interface form appears at the bottom of the Profile tab.

Provider List

To access the Provider List page, click the **Provider > Provider List** menu link. From this page, users can view each of the groups and a list of providers that are in each group by selecting the group from the drop-down list.
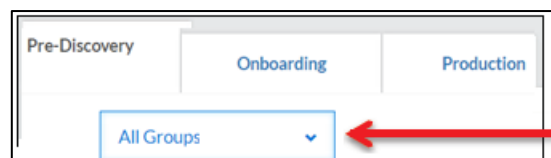
On the Provider List page, providers are listed according to what stage they are currently in. To re-assign a provider's stage, select the new stage from the drop-down list in the *Stage* column for that provider in the list.

Action Items

Click the **Action Items** menu link to view the errors and warnings generated by data submission for the selected organization/provider. Use the filters to view an actionable list of errors and/or warnings, including specific information needed to identify the records that caused them.

Data Quality Assessment (DQA) Tool

Click the **DQA** menu link to use the Data Quality Assessment tool. The DQA tool allows users to analyze the overall success rate of messages, as well as view the quality of individual data elements.

Data Summary

Click the **Data Summary** menu link to open the Patient Records Summary page and see an overview of what occurred with patient records at each milestone in the process from the EHR to the IIS. This data summary includes information about patient records and vaccination records, and gives a highlight of the top five record errors and warnings, with links to the Action Items list.

HL7 Transactions Log

Click the **HL7 Transactions Log** menu link to view the transaction details of an HL7 message as it moves through PHC-Hub to the IIS. This can be helpful when investigating or troubleshooting issues. The HL7 Transaction Log viewer opens in a new browser tab or window, separate from the STC | iQ application.

Trend Reports

The Trends menu category displays links to four trend reports. Click on a link to open the page, enter report filters, and run the report. The reports are:

- **Data Quality** – Displays general statistics on the data quality of organizations/facilities to quickly evaluate the progression of data quality both across the state and per provider

- **Data Element Quality** – Displays general statistics on the data quality of specific HL7 message locations, allowing for quick identification of which one needs attention across all providers and for specific organizations/facilities

- **Data Volume** – Displays general statistics on the number of HL7 messages submitted monthly, and the organizations/facilities with the lowest and highest number of HL7 message submissions

- **Organization Status** – Displays statistics on the general status of organizations/facilities in data exchange with the IIS, allowing state users to monitor the number of organizations/ facilities that are in different stages for reporting purposes

Healthcare Provider Onboarding Panel

To view the onboarding panel for the provider entered in the global Search Bar at the top of the page, click the Onboarding icon () on the top right of the page.

The panel displays all information pertinent to the interface project itself, including information about the organization, what stage the project is in, contacts associated with the project, and any notes or tasks attached to the project.

Administration Settings

Click the **Admin** menu link to configure the settings for the application. Settings are configurable for:

- **DQA** – Assign the state expectation rates and recommendations for fixing errors and warnings
- **Alerts** – Configure settings to control when and how users are notified about alerts
- **Onboarding** – State users can select the onboarding stages, activate/deactivate waitlists and rankings, create organization groups, and create standard task subjects
- **Reports Logo** – Upload the state logo to brand STC | iQ to show providers that it is an official state application
- **Interface Form** – Create standard interface form templates to capture needed information at the beginning of onboarding, so that an organization or facility's readiness to onboard can be evaluated.
- **Global Contacts** – Create and store a contacts list in the application

Healthcare Provider Onboarding Panel - State

The Healthcare Provider Onboarding Panel provides a space to complete common tasks necessary to onboard a provider. The panel enables users to see pertinent information all in one location.

There are two ways to access the Healthcare Provider Onboarding Panel after logging in to STC | iQ:

1. Enter/select a provider in the global Search Bar at the top of the page, then click on the Onboarding icon (🗓), located on the upper right side of the page.

2. Click the **Provider > Provider List** menu link, locate and select a provider, and then click on the Onboarding icon (🗓).

The top section of the Healthcare Provider Onboarding Panel displays information related to the provider, along with Main, Logs, and Contact tabs.

Main Tab:

- Displays the provider's stage and rank

- Provides quick link access to Profile, Interface Form, and Documents

- Tasks can be added by clicking on the Tasks tab (if it is not already open) and then clicking the Add icon (➕). When the Add Task window pops up, enter the task information and click **Submit**. To edit a task, click in the text field and change it as needed. To add additional lines to the text, press Shift+Enter on the keyboard at the location where you want to add the additional line(s). When finished editing the text, click anywhere outside of the area; the information is automatically saved. Delete a task by clicking the Delete icon (🗑) for that task. Mark a task as complete by clicking the checkbox to the left of the task in the list

- Email tasks to people on the contacts list by clicking on the email icon (✉)

- Search for a specific task in the list by entering a few characters (of a word in the task) in the Search field. The list narrows based on the search criteria

- Notes can be added by clicking on the Notes tab, then clicking the Add icon (➕). When the Add Note window pops up, enter the information and click Submit. To edit a note, click in the text and change it. When finished editing the text, click anywhere outside of the text area; the information is automatically saved. To delete a note, click the Delete icon (🗑) located on the top right side of the note

- Notes are added based on the onboarding stage. If necessary, change the stage from the drop-down list located in the Main tab section. Up to one hundred notes can be added per phase for each provider

Logs Tab:

Each time a provider's details are updated (for example, when a document was uploaded, the waitlist rank or stage was updated, etc.), the change details are recorded in a log. Click the Logs tab to view the list of logs. To sort the columns, click a column header. To search for a specific log, enter a few characters in the Search field.

Contacts Tab:

Click the Contacts tab to open the section where State users can create and maintain a list of contacts related to the onboarding process of a specific provider. Contact groups can also be used with the provider.

To add a new contact, click the Contact List tab (if it is not already open), then click the Add icon (➕). On the Add/Create Contact window that pops up, click the Create Contact tab (if it's not already open), enter the person's information, and click **Create**.

Note that contacts can also be added from Global Contacts by selecting the Global Contacts tab, then clicking the checkbox to the left of each contact to be added. Finally, click **Add** at the bottom.

Action Item List - State

The Action Item List allows state users to review the action items of any interface that is in the pre-production or production phase, providing insight into how well providers are paying attention to their data quality. This gives state users a starting point for conversations with providers regarding how to make adjustments and improve data quality.

1. After logging on to the STC | iQ application, enter the name, VFC PIN or IIS ID of the organization or facility in the Search Bar.

> Q   Organization/Facility Search

2. Click the **Action Items** menu link.

> 🏠 Home
> 👤 Provider   >
> ☑ Action Items
> 🧮 DQA
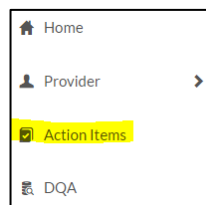
3. On the Action Items List page, select whether to view messages by Error, Warning, or both (All).

> Status Filters: ○ Error   ○ Warning   ● All   Due ⬜ Fixed
>
> Date Filters: Start Date   Start Time   End Date   End Time
>
> SEARCH

4. Toggle the slider between Due and Fixed to view those Action Items.

5. To view action items due or fixed within a specific date/time range, click in the fields to enter the start/end dates and times.

6. When finished entering the search parameters, click **Search**.

7. The Action Items are displayed in the search results list. To narrow the search results, click in the Search Patient or MRN field and enter the first few characters of a patient name or MRN number.

The information displayed in the search results is as follows:

- **MRN** – Patient Medical Record Number
- **Patient** – Patient name
- **HL7 Field** – Location of error/warning in message
- **Issue** – Description of the error/warning
- **Type** – Identifies the issue as an error or a warning
- **Recommendation** – Action needed to fix the error/warning
- **Date/Time** – The date and time the error or warning was triggered
- **Fixed** – Select the checkbox once the issue has been fixed.

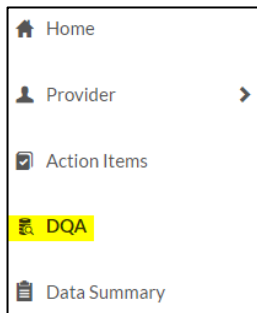| MRN	Patient	HL7 Field	Issue	Type	Recommendation	Date/Time	Fixed
							☐
							☑
							☐
							☑
							☐
							☐
							☑
							☐

8. After correcting an issue, select the Fixed checkbox to mark it as resolved. Click **Submit** when finished correcting issues. After an Action Item is marked as Fixed, it is added to the Fixed list and can be located by toggling the Due/Fixed slider to Fixed and entering the correct search parameters.

Data Quality Assessment (DQA) Tool - State

The DQA tool tracks data quality for each HL7 data element so that the submitted data can be evaluated. The DQA tool assists in ongoing monitoring and includes an Action Item List that provides recommendations for improving data quality.

1. After logging on to the STC | iQ application, enter the name, VFC PIN or IIS ID for the organization or facility in the Search Bar.

> 🔍 Organization/Facility Search

2. Click the **DQA** menu link.

> 🏠 Home
>
> 👤 Provider   ❯
>
> ☑ Action Items
>
> 📇 **DQA**
>
> 📋 Data Summary

3. On the Data Quality Assessment Tool page, select the search filters and click **Search**. As each option is selected from a drop-down list, additional drop-down lists may appear with additional options. Click **Reset** to clear the filters and start over.

> 🖨 📄 ▼
>
> Filter by: Year ⌄
>
> EHR Vendor ⌄   Import Profile ID ⌄   Connectivity User ⌄
>
> Age Under 19: ⚪   HL7 Message Location: ⚪ Segment ⚪ Component ⚪ Field
>
> SEARCH   RESET

The search filter options are as follows:

- Year
- Time Frequency
  - Quarterly
  - Monthly
  - 10-Day Interval
- EHR Vendor
- Import Profile ID
- Connectivity User
- All Ages or Under 19
- HL7 Message Location
  - Segment
  - Component
  - Field

4. The DQA tool is divided into five sections:

- Patient Information
- Patient Next of Kin Information
- Patient Vaccination Information
- Patient Contraindication/Example/History Information
- Patient Guardian

Click the section header to expand the section. An assessment of each HL7 data element is listed.

HL7 Data Element	HL7 Code	Success Rate	State Expectation	Score	Errors	Warnings
Patient Information						
PATIENT PID (Is eligible for VFC, but no guardian was submitted)	PID	500(100%)	100%	PASS	0(0%)	0(0%)
PATIENT DATE OF BIRTH	PID - 7	450(90%)	100%	FAIL	250(%)	250(%)
PATIENT ID	PID - 3.1	500(100%)	100%	PASS	0(0%)	0(0%)

5. Click the Print icon (🖨) to print the list. Click the Export icon (📄) to export the list to a file.

6. For each data element, if there are one or more errors or warnings, the displayed number and percentage amount become links to the Reason for Failure graph for that item. Click a link to open the Reason for Failure graph and view the details. The graph shows a pie chart with each type of error or warning displayed as a different color, with the detailed information displayed below the graph. Users can mark items that have been fixed.

Data Summary - State

The Data Summary provides a quick, high-level look at patient records as they are sent through the EHR system. The presented data closes the knowledge gap regarding how records submitted through the interface affect the IIS.

1. After logging on to the STC | iQ application, click the **Data Summary** menu link.

2. On the Patient Records Summary page that opens, enter the search criteria by using the filters.

   The search filter options are as follows:

   - Year
   - Time Frequency
     - Quarterly
     - Monthly
     - 10-Day Interval
   - EHR Vendor
   - Import Profile ID
   - Connectivity User

Filter by:	YEAR ▾		
	EHR VENDOR ▾	IMPORT PROFILE ID ▾	CONNECTIVITY USER ▾
		SEARCH	RESET

3. Click **Search**. The following charts then display:

   - **HL7 MESSAGE MILESTONE TRACKER** – Displays the number of patient records accepted by the PHC-Hub application, the number not accepted by the IIS (rejected by PHC-Hub), and the number currently being processed

   - **PATIENT RECORDS ACCEPTED BY IIS** – Of the number of patient records accepted by the IIS, this graph displays the number of patient records that have ambiguous IDs, as well as the number of records needing manual deduplication

- **PATIENT RECORDS IN PROCESSING** – Of the number of patient records currently being processed, this graph displays the number of records in Ambiguous ID and the number in Manual Deduplication

- **VACCINATION RECORDS RECEIVED BY THE IIS** – Displays the number of unique vaccination records and the number of updates to vaccination records received and processed by the PHC-Hub application

- **VACCINATION RECORDS ACCEPTED BY THE IIS** – Of the number of vaccination records accepted by the IIS, this graph displays the number of administered and historical vaccinations

- **RECORD ERRORS RECEIVED BY PHC-HUB** – Of the records received by PHC-Hub that have errors, this graph displays the number of vaccination-level errors and the number of patient-level errors

- **TOP 5 RECORD ERRORS** – Displays the five most common record errors received

- **TOP 5 RECORD WARNINGS** – Displays the five most common record warnings received

Trend Reports - State

The Trend Reports provide overall state quality success rates, a list of high- and low-performing organizations and vendors, least/highest data elements that error/warn by organization and EHR, and statistics on volume of HL7 messages submitted per provider across time. With this information, users can access overall/aggregated IIS quality for reporting, benchmarking, process, and performance improvement strategies. Project progression can be monitored by viewing onboarding and Meaningful Use stages.

After logging on to the STC | iQ application, click the **Trends** category in the menu. The menu displays the links to the four available trend reports:

- Data Quality
- Data Element Quality
- Data Volume
- Organization Status

Click the menu link to access the related trend report. Each of the reports is detailed below.

Data Quality

Click this menu link to access and run the Data Quality Progress trend report, which shows the following information:

- **Monthly Success Rate** – Displays the overall state quality (success rate) across time. It is calculated by [Count(successful HL7 message (only Milestone 4) transactions that month or day)/Count(total HL7 message transactions received that month or day)*100]. Click on a bar to see the **Daily Success Rate** information.

- **Organizations with the Lowest Percentage of Messages with Errors**

- **Organizations with the Highest Percentage of Messages with Errors**

- **EHR Vendors with the Lowest Percentage of Messages with Errors** – Displays the 5 EHR vendors with the lowest percentage of errors

- **EHR Vendors with the Highest Percentage of Messages with Errors** – Displays the 5 EHR vendors with the highest percentage of errors

For some of the graphs, you can toggle between the Graph View and Table View to see the data in different formats. Also, performance is calculated by [Percent(error/warning) for previous month – Percent(error/warning) for current month]. The green up arrow represents positive values, and the red down arrow indicates negative values.

Data Element Quality

Click this menu link to access and run the Data Element Quality trend report, which shows the **Top 10 HL7 Data Elements**, the **Bottom 10 HL7 Data Elements**, and the overall **HL7 Data Element Success Rate**.

Enter the search filter parameters and click **Search**. The available filters are:

- Year
- Time Frequency
  - Quarterly
  - Monthly
  - 10-Day Interval
- HL7 Message Location
  - Segment
  - Component
  - Field

The **Top 10 HL7 Data Elements** graph displays the HL7 data elements, as defined by the filter, that have the fewest errors and warnings associated with them.

The **Bottom 10 HL7 Data Elements** graph displays the HL7 data elements, as defined by the filter, that have the most errors and warnings associated with them.

Data Elements	Error(%)	(#)with Errors	Warnings(%)	(#)with Warnings	Total(#)	Performance
Segment 1	18	63	0	0	350	5% ↑
Field 1	7	8	0	0	121	11% ↑
Field 2	33	2	0	0	6	2% ↑
Component 1	20	1	0	0	5	6% ↓
Component 2	33	2	0	0	6	21% ↑
Field 3	12	29	0	0	242	1% ↓

The **EHR Data Element Comparison** graph displays the HL7 data elements with the highest number of errors and warnings for the primary EHR vendor and allows the user to compare this information with up to five additional EHR vendors.

The **HL7 Data Element Success Rate** graph displays the overall success rate for HL7 data elements. The rate is calculated by `[Count (successful HL7 segments, fields, and components that month)/Count(total HL7 message fields/segments received that month)*100]` for up to 5 data elements.

Data Volume

Click this menu link to access and run the Data Volume Statistics trend report, which shows the following information:

- **Monthly Message Tracker** – Displays the HL7 message volume by month. Click on a bar to see the **Daily Message Tracker**.

- **Organizations with Lowest Number of HL7 Message Submissions** – Displays the top 5 organizations with the lowest number.

- **Organizations with the Highest Number of HL7 Message Submissions** – Displays the top 5 organizations with the highest number.

- **Milestone Tracker** – Displays the number of HL7 messages at each milestone to highlight bottlenecks and determine the need for additional investigation and troubleshooting.

Organization Status

Click this menu link to access and run the Organization Status trend report, which shows the following:

- **Healthcare Provider Count by Onboarding State** – Displays the number of organizations/ facilities at several onboarding stages, such as discovery, pre-discovery, testing, waitlisted not ready, and waitlisted ready.

- **Healthcare Provider Count by Meaningful Use Stages** – Displays the number of organizations/ facilities at specific meaningful use stages: Stage 1, State 2, and Stage 3.

- **Healthcare Provider Count by HL7 Version** – Displays the number of organizations/facilities that use each of the two HL7 version formats: Version 2.3.1 and version 2.5.1.

Administration Settings

Settings for the application are configured from the links in the Admin menu category. The links that appear in the menu depend on the user's access level and permissions.

After logging on to the STC | iQ application, click the **Admin** category in the menu. The menu displays the links to the administrative pages. Click a menu link to access the related Admin page. Each of the pages is detailed below.

DQA

Click the **Admin > DQA** menu link to open the page. For each DQA category, click the section header to open the section, then click the Edit icon (✏) for an HL7 data element to edit its State Expectation Rate and/or Recommendations. Click **Submit** when finished.

Alerts

To edit the Alerts settings, click the **Admin > Alerts** menu link. Select **Daily** (and the day of the week), **Weekly**, or **Monthly** to schedule alert notifications. Select the types of alerts by Provider and/or Status.

For Thresholds, enter the appropriate amounts:

- **Patient maximum error %** - The maximum percentage rate of errors to use as the measure for sending alert notifications. For example, if 5% is entered, an alert is sent whenever 5% or more of the patient records contain errors

- **Patient maximum warning %** - The maximum percentage rate of warnings to use as the measure for sending alert notifications. For example, if 35% is entered, an alert is sent whenever 35% or more patient records contain warnings

Onboarding

Click the **Admin > Onboarding** menu link to open the Onboarding Preferences page. Click a section header to open the section and configure the settings:

- **Select Onboarding Stages** – The four required stages are **Pre-Discovery**, **Waitlisted Ready**, **Waitlisted Not Ready**, and **Production**. In addition, one or more optional stages can be selected. To add a stage, select it; the checkbox turns blue. Select it again to remove a stage from the process

- **Activate/Deactivate Waitlist and Ranking** – When enabled, this feature allows users to identify an organization/facility as part of the waitlist ranking functionality, allows users to assign them a score based on their interface profile answers, and assigns a rank according to that score. Toggle the slider to On to enable

- **Create Organization Groups** – Organization groups can be created for easier tracking during the onboarding process. For example, a group could be created based on the EHR used by multiple organizations/facilities. To add an organization group name, click in the Add a Group field, enter a unique group name, and click the plus icon (or press Enter). To remove a group, click the minus icon to the left of the name in the list

- **Standard Tasks** – To include a standard task available for use on the Healthcare Provider Onboarding Panel, select it in the list (the checkbox turns blue). Click it again to remove it. To add a state-specific task, click in the Add a Task Subject field, enter a unique task subject, and click the add icon (or press Enter). To remove a state-specific task, click on the minus icon to the left of the task in the list

- **Email Settings** – When a State user assigns an interface form to a provider, an email is sent to that provider to let them know. That email is configured here. Enter the email subject and body text, then click **Save Email Template**. Remember to add the URL for the application login page and your contact information!

Reports Logo

Click the **Admin > Reports Logo** menu link. To upload a logo to add to the reports, either drag and drop the image file into the box on the page, or click the **Click or Drag to Upload Files** button, locate the file and click **Open** in the pop-up window, and then click **Upload**. Click the **X** under the image to cancel the file upload process. Once the image is uploaded, it displays below the box on the page.

Interface Form

Click the **Admin > Interface Form** menu link. This page allows you to create, edit, and view the interface forms assigned to providers. Interface forms capture the information needed to onboard an organization/facility and allows users to evaluate their onboarding readiness. Interface forms on this page are divided into three sections:

- **Active** – The interface form currently being used
- **Draft** – The interface form currently being built/created
- **Archived** – Older interface forms that are no longer in use, but might have been used by providers previously
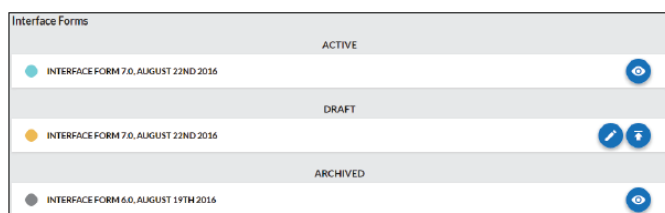
To view an active or archived interface form, click the View icon (👁) for that form in the list.

To create a new interface form, click the Edit icon (✏) for the Draft version of the interface form. The current draft version of the interface form opens with the separate sections listed as tabs:

- Provider Info
- EHR Info
- EHR Docs
- IIS Participation
- MU & Status
- Bi-Direction

Required information automatically displays on the form. Drag and drop additional questions/ answers from the left onto the form. If a question is required, select the Required option. Select the **State only** option if only State users should be able to view the question. To remove a question from the form, click the Delete icon (🗑), after which it returns to the list on the left. When finished updating the form, click the Save icon (🔒). Click the Close icon (❌) to close the form without saving changes. Back on the main Interface Forms page, click the Publish icon (⬆) to make the form Active and ready for use.

Global Contacts

Click the **Admin > Global Contacts** menu link to open the Global Contacts List page, where State users can create and store a contacts list for use throughout the application. Click the Add icon (➕), enter the information on the Create Contact pop-up window, and click **Create**. To search for a contact in the list, enter a few characters in the Search field. To delete a contact from the application, select it in the list and click its Delete icon (🗑). To send an email to one or more contacts, select them in the list and click **Send Email** (at the bottom of the page), which auto-populates the email addresses into your default email application. To edit a contact, select it in the list and click its Edit icon (✏).

Contact Groups

Click the **Admin > Contact Groups** menu link. Contact groups allow State users to create distribution lists by adding contacts to them. To create a new contact group, click the Add icon (➕), add a unique List Name and a Description, select the contacts from the list that you want to add to the group, and click **Create**. To search for a specific contract group in the list, enter a few characters of the group name in the Search field.

To delete a contact group, locate the group in the list and click it to expand the section, then click the Delete (🗑) icon. To email all of the contacts in the group, click the Email icon, which opens your default email application with all of the email addresses pre-populated in the To field. To add a new contact, click the Add Person icon. To edit the group name, click the Edit icon.