For years, public safety officials have been struggling to build a real-time, common operating picture showing all the emergency events in an area. (Previously, each fire and police department tracked their own activities.) In this lesson, and as a GIS coordinator for a task force involving Redlands, California, you'll use ArcGIS Dashboards to simultaneously track fire, police, and medical responses to incoming 911 calls.

<u>View final result</u>

Requirements

- Publisher or Administrator role in an ArcGIS organization (get a free trial)
- ArcGIS Dashboards

Lesson Plan

Explore a dashboard Explore an existing dashboard for emergency incident management.	15 minutes
Create a map Create a web map as the foundation of your dashboard.	15 minutes
Create a dashboard Create a new dashboard in ArcGIS Dashboards.	25 minutes
Configure elements Complete the dashboard with information displays.	15 minutes

Explore a dashboard

First, you'll open and explore a dashboard that monitors emergency incidents in Redlands, California. This is the same dashboard that you'll create later in the lesson.

Open a dashboard

You'll sign in and open the Redlands Incident Management dashboard.

1. Sign in to your ArcGIS organizational account.

Note:

If you don't have an organizational account, you can sign up for an ArcGIS free trial.

2. On the ribbon at the top of the page, click the **Search** button.



- 3. In the search bar, type **Redlands owner:Learn_ArcGIS** and press Enter.
- 4. In the search results, under **Filters**, turn off the option to only search in your organization.
- 5. Click the title of the **Redlands Emergency Dashboard by Learn_ArcGIS 2019** result. (Several results may have similar names.)



The dashboard's details page appears.

6. Click View Dashboard.

The dashboard opens.

Note:

The dashboard updates in real time, so your dashboard may not match the example images exactly.



The dashboard contains a map and additional information that updates in real time as the underlying data changes. This dashboard displays simulated real-time data of emergency incidents and emergency service vehicles.

7. If necessary, zoom in or out until you can see all of the emergency symbols. Pan the map to center all the symbols within the dashboard.



Phone symbols represent emergency calls and other incidents. Black symbols represent emergency facilities, such as hospitals and schools. Blue, dark pink, and yellow symbols represent the current locations of police, fire, and ambulance vehicles, respectively. The red, orange, yellow, and green lines represent traffic conditions on roads. Unlike the emergency data, the traffic data is not simulated.



Red lines represent stop-and-go traffic, orange lines represent slow traffic, yellow lines represent moderate traffic, and green lines represent free-flow traffic. Traffic incidents are represented by yellow circles with black borders. The larger the red dot in the circle, the bigger the impact of the traffic incident.

8. To the left of the map, under **Open Incidents**, click the incident at the top of the list.

16	k [™] ▼ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
	Vehicle Accident	
	Open Date November 6, 2019	
Current Incidents	Location Park Redlands, Redlands, C 92373	Α
Last update: a few seconds ago	Synopsis Parked car hit and driver ha	s
Open Incidents	reported no injunes.	
Vahiala Assidant	⊕ ⊕, №3 [-]	
November 6, 2019	CD -	Fi
Battery	Main II -old	C
November 0, 2019		
November 6, 2019		L

On the map, a pop-up opens with more information. The incident is highlighted on the map.

- 9. Close the pop-up.
- 10. Click any yellow ambulance symbol on the map to open its pop-up. In the pop-up window, click the **Follow** button.

		Showing 1 \times	avis , an
	Ambulances: Ame	rican Medical	Bidg W
	Unit	American Medical	
	Status	Active	
	Туре	Type II - Van Chassis	
	Call Number	A1234B04289B	
1	Speed	55.00	O I
	Last Report	May 14, 2020	
	⊕ ⊕ [∄]		11
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The **Follow state** bar appears above the pop-up. As the data refreshes and the ambulance moves to a new location, the map adjusts to keep the feature centered.

11.On the **Follow state** bar, click the **Pause** button.



- 12. Close the pop-up. Close the **Follow state** bar.
- 13.On the map, click the **Layers** button. In the **Layers** window, uncheck all layers except the **Reported Incidents Dispatch** and **World Traffic Service** layers.

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-		Layers	\times
100	-	Reported Incidents - Dispatch	04 m to 17
		Police	0.00 B 0.00
		Fire	
		Ambulances	10
5		Emergency Facilities	0.0.00
	-	World Traffic Service	>
X	100		

14. Close the **Layers** window.

At the bottom of the dashboard, a bar chart shows the number of current incidents by type.

15.On the **Current Incidents by Type** chart, click any colored bar.



The map and **Open Incidents** list now show only incidents of the chosen type.

- 16.On the map, click the **Layers** button. Turn on all layers and close the **Layers** window.
- 17.Click the **Search** button. For **Place or Facility name**, type **Redlands Animal Shelter** and press Enter.



The map zooms to the Redlands Animal Shelter facility.

18. Explore the dashboard on your own. When finished, close the dashboard.

You've explored a dashboard and now have a sense of the interaction between the map and its data, as well as how it updates over time. Next, you'll make your own map and dashboard.

Create a map

Previously, you explored a dashboard. Next, you'll create a web map in ArcGIS Online and add layers to it. The layers will be the same ones you saw in the dashboard: reported incidents, emergency facilities, emergency vehicles, and traffic. Later, you'll add this map to your dashboard.

Add layers to a new map

The map for your dashboard is created in ArcGIS Online.

1. Sign in to your <u>ArcGIS organizational account</u>.

Note:

If you don't have an organizational account, you can sign up for an ArcGIS free trial.

2. At the top of the page, click **Map** to begin a new map.



Note:

The default basemap and map extent are set by your portal or organization administrator. Yours may be different from the example image.

3. On the ribbon, in the search box, type **Redlands**. From the results, choose **Redlands**, **CA**, **USA**.



The map navigates to Redlands and a pop-up opens with information about the location.

- 4. Close the pop-up.
- 5. On the ribbon, click the **Add** button and choose **Search for Layers**.



By default, a list of layers shared within your organization is displayed. You'll change the search settings to find the layers you need for the map.

6. In the search pane, click the arrow next to **My Content** and choose **ArcGIS Online**.



7. In the search box, type **Redlands** dashboard and press Enter.

\leftarrow	ArcGIS Online	•			
Q Redlands dashb	oard				
18 layers		≣	E	łţţ	=

8. Click the **Filter** button. In the **Filter** pane, choose **Only show content within map area**.

← Arc	GIS Online 🔻	Filter ×
Q Redlands das	hboard	Only show content within map area 🚺
15 layers	≣ ☷ ₩ ਵ	> Item Type
Within Map Are	a $ imes$ Clear All	 Date Modified

- 9. Close the **Filter** pane.
- 10.In the search pane, click the **Sort** button. On the **Sort** pane, for **Sort content by**, choose **Owner**.



Your search results are sorted by owner. It will be easier to identify results owned by esri_dashboardpub.

- 11.Close the **Sort** pane. In the list of search results, locate the following five layers owned by esri_dashboardpub (other results may also be returned):
 - Police
 - Ambulances
 - Fire
 - Emergency Facilities

• Reported Incidents - Dispatch



12. Click the name of the **Reported Incidents - Dispatch** layer.

A pane opens with a detailed description of the layer and a thumbnail of the layer content.

13.Click Add to Map.

The **Reported Incidents - Dispatch** layer is added to your map.

14. Close the **Reported Incidents - Dispatch** layer description pane. Add the **Emergency Facilities**, **Police**, **Ambulances**, and **Fire** layers to the map.

Note:

You can add the layers more quickly to the map by clicking the **Add** button for each layer.

Ambulances by esri_dashboardpub Updated: 12/30/19	
•	\oplus

The layers are added to the map.



In addition to these layers, you'll add a layer of live traffic conditions. This layer will provide information about which streets emergency vehicles should avoid because of traffic or accidents.

15. In the search pane, click the **X** next to **Within Map Area** to remove the filter. Delete the existing search text, type World Traffic owner:Esri, and press Enter.

The list of search results includes the **World Traffic Service** layer by **Esri**.

९ World Traffic owner:Esri		
1 layer	≣ I E	
World Traffic Service		
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16. Add the **World Traffic Service** layer to your map.

The map now displays traffic conditions from the World Traffic Service. Because the data updates frequently, your traffic conditions likely differ from those shown in the example images.

- 17.In the search pane, click the **Back** button. Click the **Show Contents of Map** button to open the **Contents** pane.
- 18. In the **Contents** pane, point to the **Emergency Facilities** layer. Point to the reorder layers icon to the left of the layer name.

e	About	E Content	📃 Legend	4
Co	ntents			
:	Emerg	jency Facilities 🖩 🜆 🧖 🝺	2	
	Police			

The mouse pointer becomes a four-headed arrow.

19.Drag the **Emergency Facilities** layer until it is directly above the **World Traffic Service** layer.

As you drag the layer, its position is represented by a dotted horizontal line.

The **Emergency Facilities** layer should be near the bottom of the **Contents** pane because the locations of these facilities don't change, and this layer is not as important to decision making as the other layers. By placing the layer near the bottom, the **Reported Incidents - Dispatch**, **Police**, **Fire**, and **Ambulances** layers will be more prominent on the map.

20. Change the positions of other layers to organize them in the following order:

- Reported Incidents Dispatch
- Police
- Fire
- Ambulances
- Emergency Facilities
- World Traffic Service



This order reflects their importance to users making emergency response decisions.

Set the layer refresh intervals

When you work with real-time data, it's important to consider how often you want to refresh the data. You'll look at the current refresh settings on your layers and make a few changes.

1. In the **Contents** pane, point to the **Reported Incidents - Dispatch** layer, click the **More Options** button, and choose **Refresh Interval**.



The current setting is displayed. The refresh interval for this layer is set to 0.1 minutes (6 seconds).

2. Change the refresh interval to 0.3 minutes (18 seconds).



- 3. Set the refresh intervals for the **Police**, **Fire**, and **Ambulances** layers to **0.3** minutes.
- 4. Check the refresh interval for the **Emergency Facilities** layer.

No refresh interval is set for this layer, which is fine, because the facility locations don't change.

5. Check the refresh interval for the **World Traffic Service** layer.

The refresh interval for this layer is 5 minutes. The live traffic data is updated at 5minute intervals, so this value is appropriate.

Tip:

Learn more about the <u>World Traffic</u> layer.

Configure pop-ups

Clicking a reported incident symbol on the map opens a pop-up with information about the incident. To make this information more accessible, you'll create elements based on the data contained in the pop-ups. These elements will be similar to the elements you interacted with earlier. First, you'll configure the pop-ups so you can see the attributes associated with the layer and control which details to display in your dashboard.

1. Click one of the existing reported incidents, which are styled as phone icons with green backgrounds. (Your incident may differ from the one in the example image).

Phze	
Dispatch: Jei	n McDonald
Contact Name	Jen McDonald
Contact Email	jmc@gmail.com
Contact Phone	909-795-4355
Open Date	May 14, 2020
Closed Date	
Operational Status	Open
Incident	Cardiac Emergency
Location	1601 Barton Road Apt 2934
Zoom to Ge	et Directions

Information about the incident is shown in a pop-up as a list of fields and associated values. In the example image, the **Contact Name** field has the associated attribute value of **Jen McDonald**. This information is available to anyone viewing the map. It also determines the information shown in the elements in the dashboard that you'll configure later.

- 2. Close the pop-up.
- 3. In the **Contents** pane, point to the **Reported Incidents Dispatch** layer, click the **More Options** button, and choose **Configure Pop-up**.
- 4. In the **Configure Pop-up** pane, for **Pop-up Title**, delete the existing text. Click the **Add Field Name** button and choose **Incident {incident}**.

Configure Pop-up	Z Memoria Cemeter
Reported Incidents - Dispatch	Bernardino
▼ Show Pop-ups	
Pop-up Title	
Pop-up Contents	GlobalID {globalid} Incident {incident} Location {location}
Display: A list of field attributes 👻	Synopsis (synopsis)
These field attributes will display:	CreationDate (CreationDate) Creator (Creator) EditDate (EditDate)
Contact Name {pocname} Contact Email {pocemail}	Editor {Editor}

The pop-up title is made up of the contents of a field (indicated by the field name in braces). The fields come from the data in the layer on your map. In this case, the field name is **incident**. It displays the incident type. Field names work like variables, so when you click an incident on the map, its pop-up title shows the incident type for that particular report.

5. For **Pop-up Contents**, click **Configure Attributes**.



The **Configure Attributes** window appears. It lists the fields in the feature layer by their display state (on or off), field name (which can't be changed), and field alias (which can be changed).

- 6. In the **Configure Attributes** window, check the **Display** box to select all. Check it again to clear the selection.
- 7. Check the boxes for the following fields:
 - **Open Date**
 - Location
 - Synopsis

The other fields will no longer appear in the pop-ups.

- 8. Click **OK**. In the **Configure Pop-up** pane, click **OK**.
- 9. On the map, click an incident to view its pop-up.



- 10.Close the pop-up.
- 11.On the ribbon, click the **Save** button and choose **Save As**.
- 12. In the **Save Map** window, for **Title**, type **Redlands Emergency Map**.

- 13. For **Tags**, type incidents, emergency, fire, ambulances, police, traffic and press Enter.
- 14. For **Summary**, type Map for Redlands Emergency Dashboard.

Save Map	
Title:	Redlands Emergency Map
Categories:	+ Assign Category ~
Tags:	incidents × emergency × fire × ambulances × police × traffic × Add tags
Summary:	Map for Redlands Emergency Dashboard
Save in folder:	Your Folder 💌

15.Click Save Map.

Configure feature search

Next, you'll configure feature search in your web map so users can find an emergency facility by searching for it by name in the dashboard.

1. In the **Contents** pane, click **About** to display the map's details.

i About	🖉 Content	📒 Legend	4
Contents			

- 2. Click **More Details** to go to the map's item page.
- 3. Click the **Settings** tab and scroll to the **Web Map** category.
- 4. If necessary, in the **Application Settings** category, expand **Find Locations**.
- 5. Check **By Layer**.

The facility name is stored in the **Name** field of the **Emergency Facilities** layer.

- 6. Click **Add Layer** to specify which layer can be searched.
- 7. Set the following parameters:
 - For the first box, choose **Emergency Facilities**.
 - For the second box, choose **Name**.
 - For the third box choose **Contains**.
 - For **Hint text**, type Place or Facility Name.

Application Settings Select the tools and capabilities to enable in applications that access this web map.
Find Locations [-]
Hint text
Place or Facility Name
By Layer
Emergency Facilities 🔻 Name 🔻 Contains 🔻
Add Layer
✓ By Address

When the map is used in a dashboard, users can quickly find emergency facilities by searching for them by name.

8. Click Save.

You've created and configured a map to use in your dashboard. Next, you'll begin configuring the dashboard.

Create a dashboard

Previously, you created a map to go in a dashboard. A dashboard contains maps and displays for monitoring situations in real time. Like maps, layers, and other items, dashboards are stored in your ArcGIS Online organization.

Create a dashboard and add a map element

You'll create a new dashboard using the Dashboards app. Once you create it, you'll add a map as the first component. Each component of a dashboard is called an element.

- 1. If necessary, sign in to ArcGIS Online and open your Redlands Emergency Map.
- 2. On the ribbon, click **Share**.



- 3. In the **Share** window, click **Create a Web App**.
- 4. In the **Create a New Web App** pane, click the **ArcGIS Dashboards** tab.

Options for the title, tags, and description of your dashboard appear.

- 5. Add the following information:
 - For **Title**, type Learn ArcGIS Redlands Emergency Dashboard.
 - Leave the tags unchanged.
 - For Summary, type Dashboard showing emergencies in Redlands, California.
 - For **Save in folder**, choose a location of your choice.
- 6. Click **Done**.

The dashboard opens in your browser window and displays the Redlands Emergency Dashboard.



Note:

You can also create dashboards from your ArcGIS Online home page or the Dashboards home page.

Configure map tools

Maps typically offer a number of tools to users. For example, users may be able to search for locations, add bookmarks, or change basemaps. In this section, you'll choose the tools that will be available to users of the dashboard.

1. Point to the upper left corner of the map. On the toolbar, click the **Configure** button.



- 2. On the **Settings** tab, turn on the following options:
 - Default Extent and Bookmarks
 - Layer Visibility
 - Basemap Switcher
 - Search
 - \circ Zoom In/Out

Settings	General	Map Actions	Layer Actions	
Pop-ups				
Scalebar				None Line Ruler
Default E	xtent and	Bookmarks		
Legend				\bigcirc
Layer Vis	ibility			
Basemap	o Switcher			
Search				
Zoom In/	/Out			
Point Zoo	om Scale			10000 <u> </u>

3. Click Done.



The map tools that you've configured are displayed. The hint text in the **Search** tool matches the hint text that you entered when you configured feature search for your map.

Configure dashboard settings

Next, you'll change the color of the dashboard elements, borders, text, and tabs.

1. In the upper right of the **Dashboards** window, click the **Settings** button.



The **Dashboard Settings** pane appears. This pane contains options to change the theme and colors of your dashboard.

 On the Theme tab, change the settings for Dashboard Background Color and Element Background Color to a dark shade of grey (Hex #ADADAD or Gray68).

	Dashboard Settings			
Theme General				
Layout				
Theme	Dark Light			
Text Color				
Dashboard Background Color				
Element Background Color				
Element Outline Color				
Tab Border Color				

3. Click **Done**.

The settings are applied.

4. In the upper right of the **Dashboards** window, click the **Save** button.

The map now has the tools and capabilities you want. Users can turn layers on and off, change basemaps, and search for emergency facilities by name.

Configure elements

Previously, you configured the map elements. Next, you'll add more elements to help users monitor emergencies in real time. These elements are also known as widgets. You'll add a summary of the current number of incidents, a list of open incidents, incident details, and a bar chart showing incidents by type. When you're finished, your dashboard will look like the one you explored in the first module.

Configure the dashboard header

Header panels serve many purposes, but they are also home to selectors (category, number, and date) that are very useful for interacting with the map. You'll configure the dashboard header.

1. On the dashboard application title bar, click **Add**.

Elements such as the header and left panel can only be added once, but the remaining elements can be added as many times as needed. For this dashboard, you'll add a header panel, left panel, map, list, and chart elements.

2. Choose **Header**.

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cri	🔲 Side Panel	Q
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	🗎 Map Legend	AF IN
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	99! Indicator	15
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	i∃ List	14
E.	🖺 Details	3. Provention
たい	abc Rich Text	and for
110	Embedded Content	

- 3. In the **Appearance** panel, for **Size**, choose **Small**.
- 4. For **Title**, type **Redlands Emergency Dashboard**. Leave the other settings unchanged.

Appearance	
Size	Small Medium Large
Title	Redlands Emergency Dashboard
Subtitle	

5. Click **Done**.



Next, you'll add a category selector for all emergency facilities.

 Point to the upper left corner of the header and click the Add Category Selector button.



2. In the Category Selector pane, for Categories From, choose Features.

Selector Options	
Data	
Categories From	Defined Values Features Grouped Values
Value Type	String Integer

The **Select a layer** window appears.

3. For Select a layer, choose Emergency Facilities.



The default field configured in the web map is used as the **Line Item Text** parameter. Because the default field is the facility name, there is no need to change anything. Next, you'll add more options.

- 4. In the Category Selector pane, under Selector, turn on None Option.
- 5. For **Label for None**, type All Facilities.

None Option	
Placement	First Last
Label for None	All Facilities

- 6. In the left pane, click the **Actions** tab.
- 7. Click **Add Action** and choose **Flash**.
- 8. For Add Target, choose Map (1).

Next, you'll add an action to zoom to the Redlands Emergency Map.

9. Click Add Action and choose Zoom. For Add Target, choose Map (1).

Actions	
When Selection Changes	Add Action 🗸
Flash	
🖾 Map (1)	1
Zoom	
🖾 Map (1)	1

10.Click **Done**.

The selector is added as a list on the header panel. If an emergency facility is selected, the map will pan to and center on the facility and the facility location will flash.



11.Click Save.

Add an incident count

Next, you'll add an incident count indicator, so users can see at a glance how many incidents are open at a given time.

1. On the dashboard application title bar, click **Add** and choose **Indicator**.

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	\otimes	Pie Ch	art					on Pea
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ALC: N	бİЭ	Gauge	2					
12		List						an
-	1	Details	S					Ser.
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The **Indicator** pane opens.

- 2. For Layers from 'Redlands Emergency Map' map, choose Reported Incidents Dispatch.
- 3. On the **Data** tab, for **Data Options**, confirm that **Value Type** is set to **Statistic** and **Statistic** is set to **Count**.

Because users are most likely only interested in open incidents, you'll configure the indicator to only show the total count of open cases.

- 4. Click the **Filter** button. For **Field for the condition**, choose **Operational Status**.
- 5. Confirm that **equal** is the operator type. For **Select a value**, choose **Open**.

Fi	lter			
	Operational Status	coded string	\bigtriangledown	Ŵ
	equal		7	~
	Value Field			-1
	Open		~	~
	AND OR			

6. Click the **Indicator** tab.

The **Indicator Options** pane opens. It contains settings to control the color, text, and icons displayed by the indicator.

7. For **Middle Text**, leave the default text unchanged. Click the color palette next to **Fields{}** and choose the green color with the hex value #267300.

Middle Text	Fields: {}	А
{value}		
Bottom Text		А
	#267300	
Icon None	Le Reset to default color	

- 8. For **Bottom Text**, type Current Incidents.
- 9. Click **Done**.

The indicator element is added to the dashboard, but it's larger than you want it to be. You'll adjust the layout and positioning of the elements once a few more are added.



As incidents open or close, this element will update in real time to show the exact number of incidents that are open at a particular moment.

Add a list of incidents

Your users may want to focus on the most recent incidents. The map element is not the best interface for this purpose: it can be difficult to see when and where the most recent incident appeared. A list element provides users the functionality to sort incidents by date and time so recent incidents can be readily identified.

- 1. On the dashboard application title bar, click **Add** and choose **List**.
- 2. In the List pane, choose **Reported Incidents Dispatch**.
- 3. On the **Data** tab, for **Sort By**, click **Sort**.
- 4. In the Sort By group, choose the Open Date field and choose Descending.

	Open Date	\bigtriangledown	Ō
Sort By	Ascending	Descending	
2	+ Sort		

The list element will sort open incidents according to their values in the **Open Date** column of the **Reported Incidents - Dispatch** layer. The descending sort order means that the most recent incidents will be shown on top.

Now you'll make the list match the Indicator, showing only the open incidents. You'll use the same method you just used for the Indicator.

- 5. Click the **Filter** button and choose **Operational Status**.
- 6. Confirm that **equal** is the operator type. For **Select a value**, choose **Open**.

The list will show only open incidents.

7. In the left pane, click the **List** tab.

The list uses the default display field as set by the map layer. This field can be changed to provide more meaningful information.

8. Click the insert button and choose **Incident**.

Line Item Text		
📾 🙊 🎞 🧮 Normal 🛛 Default 🗸 👖	{.} - O Source	
	GlobalID {globalid}	
	Incident {incident}	
	Location {location}	
div p	Synopsis	
Line Item Icon None Symbol		

Note:

The list of field names shows both an alias and the actual field name. For example, **Contact Name** is an alias for the **pocname** field. Field names in this context behave like variables: the title of each incident in the list changes according to that incident's description.

- 9. Add a second line by pressing Enter in the text box. Add the **Open Date** field to the second line.
- 10. Using the formatting options in the **Line Item Text** group, make the **Incident** field text bold and the **Open Date** field text italicized.



The **Preview** pane shows what the element will look like. The sort order has already been configured so that the most recent incidents will be at the top.

- 11. Click the **General** tab.
- 12. For **Title**, click the **Edit** button. In the text box, type **Open Incidents**.
- 13. If necessary, in the **General Options** list, scroll to the **Last Update Text** option.

In this case, the dispatch data is constantly refreshed, so it makes sense to leave this option checked. If your data is static, you may consider turning this parameter off to save space on the screen.

For the incident list, when a user clicks an incident, you want the map to flash the location and show more information about the incident. You'll configure two actions to achieve this behavior.

- 14. In the left pane, click the **Actions** tab.
- 15. In the **When Selection Changes** group, click the **Add Action** button and choose **Show Pop-up**.

- Click the Add Action button and choose Flash. Click Add Target and choose Map (1).
- 17. Click the **Add Action** button and add the **Pan** action. Click **Add Target** and choose **Map (1)** to recenter the map at the location of the incident.

Selection Mode Single Multiple	
When Selection Changes	Add Action $~\lor$
Show Pop-up	
🖾 Map (1)	1
Flash	
团 Map (1)	1
Pan	
🖾 Map (1)	1

18.Click Done.

The list is added to the dashboard. It takes up a large portion of dashboard. Later, you'll resize it and the other elements.



If you click a list item, a pop-up appears on the map and remains until it is closed by the user. Also, the selected incident location flashes three times. As the status of open incidents changes, this list will update in real time, so users can easily find the most recent incident and receive information about it.

Add a chart of incident types

The indicator element tells the user how many incidents are open at that moment. The list element displays and orders the open incidents by date and time. The map element shows the current location of the incidents. However, you can't tell at a glance how many incidents belong to which type. A serial chart element solves that problem.

- 1. On the dashboard application title bar, click **Add** and choose **Serial Chart**.
- 2. In the Serial Chart pane, choose Reported Incidents Dispatch.

The **Serial Chart** element configuration window appears.

- 3. If necessary, on the **Data** tab, click the **Grouped Values** button.
- 4. For **Category Field**, choose **Incident**.

Categories From	Grouped Values	Features	Fields	
Category Field	Incident			\bigtriangledown

The preview pane updates as you configure the serial chart.

5. Click the **Series** tab. For **Bar Colors**, choose **By Category**.

When you choose this setting, the section expands, revealing an option to select a different color ramp.

6. Click **Apply Colors** and choose the third color scheme from the top.

Null		
Blank		
Undefined Categories		
+ Category	Load Categories	Apply Colors

The serial chart preview updates with the chosen color ramp.

7. On the **General** tab, click the **Edit** button. For **Title**, type **Current Incidents by Type**. Center the title text and choose the **Heading 2** formatting.



Charts can also be the source of actions. In this case, you'll filter the map display to only show incidents of a certain type.

- 8. Click the **Actions** tab. On the **Actions** pane, for **When Selection Changes**, click the **Add Target** button and choose **Reported Incidents Dispatch**.
- 9. Click Add Target and choose List (1). Click Add Target and choose Indicator (1).

When Selection Changes	
Filter	
Reported Incidents - Dispatch	<u> </u>
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When a user clicks a bar in the chart, the associated incidents will be shown on the map and the other elements will be filtered accordingly.

This bar chart will update in real time as different types of incidents open and close. Users will know which types of incidents are currently open.

10.Click Done.

Next, you'll rearrange the dashboard elements.

- 11. Point to the upper left corner of the bar chart element. Drag and dock the bar chart element under the map.
- 12. Point to the upper left corner of the indicator element. Drag and dock the indicator element above the list element.
- 13. Drag the right edge of the list and indicatgor elements to reduce their size to a quarter of the total size of the dashboard.
- 14. Drag the upper edge of the bar chart element to reduce its size to a quarter of the total size of the dashboard.



15. If necessary, pan and zoom the map so that Redlands is centered in the display.

Note:

To change an element's settings after it has been added to the dashboard, point to the **Settings** bar in the element's upper left corner and choose **Configure**.

Save and share your dashboard

Your dashboard is now configured with the necessary elements. Next, you'll stop editing and share the dashboard with the appropriate people.

- 1. On the ribbon, click **Save**.
- 2. On the ribbon, click **Home** and choose **Dashboard Item Details**.

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You can share your dashboard either with members of your organization or with everyone. Because this dashboard is meant for use by city authorities, and not the public, you'll only share it with your organization.

- 3. Click **Share**.
- 4. In the **Share** pane, check the boxes next to your organization's name and click **OK**.

Note:

If you choose the **Everyone** option, your users will not have to sign in to open and use the dashboard. When you share a dashboard, like other ArcGIS Online items, the maps and layers it uses must be shared in the same way as the dashboard itself. In this case, all the layers are public (shared with everyone), but the Redlands Emergency Map you created for the map element is private.

Your dashboard is complete. You configured elements to help users monitor emergencies in real time and saved and shared the dashboard with your organization and the wider ArcGIS community.

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