Lab Guide

Performance Analytics 101:

Now You See It!
Performance Analytics Essentials

Dan Kane & Matt Dodd

Default Login / Password: Knowledge17

admin / Knowledge17

itil / Knowledge17

employee / Knowledge17

Lab Sponsored by Amazon Web Services



This
Page
Intentionally
Left
Blank

Lab Goal

Lab 1.1
Activate a Content Pack

In this lab, you will activate a Performance Analytics Content Pack. Content Packs contain all the components needed for pre-defined dashboards and widgets. Each Content Pack corresponds to a process or application within the ServiceNow platform. For example, the **Performance Analytics - Content Pack - Change Management** content pack contains indicators, breakdowns, sources for indicators and breakdowns, scripts, widgets, and dashboards needed to create the Out-of-the-box (OOTB) Change Management dashboards. You can use this pre-defined content as your primary dashboard as is, or you can use it as a starting point for modifying a dashboard to suit your needs.

Your company has determined a need to create dashboards for Request Management records within the Request Management application. As a starting point for developing these dashboards, you have decided to activate the **Performance Analytics - Content Pack - Request Management (Requests)** content pack.

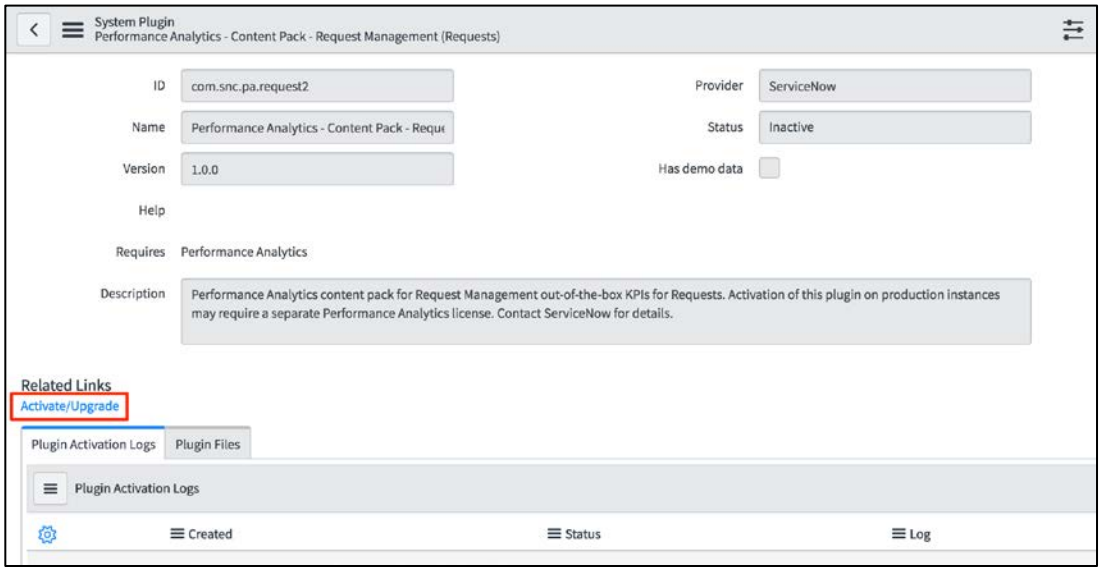
Login to your instance

1. Navigate to the unique instance URL provided to you.
2. Log on with **admin** account credentials provided on the cover page of this guide.

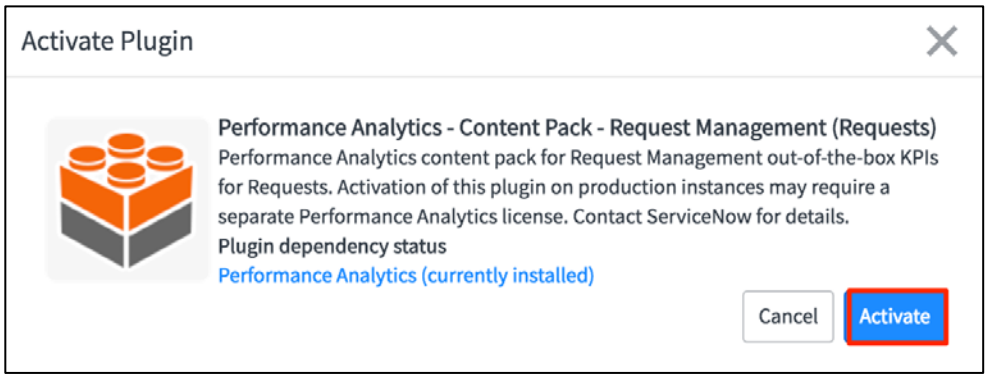
Activate the plugin

1. Navigate to **System Definition > Plugins** in the left navigation.
2. From the Plugins list, search for **Performance Analytics - Content Pack - Request Management (Requests)**. Click on the item to open the plugin.

3. Click the **Activate/Upgrade** link.

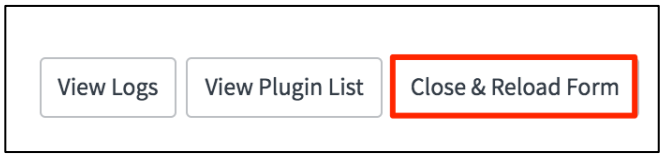


4. The Activate Plugin overlay appears. Review any dependencies, and click the Activate button.



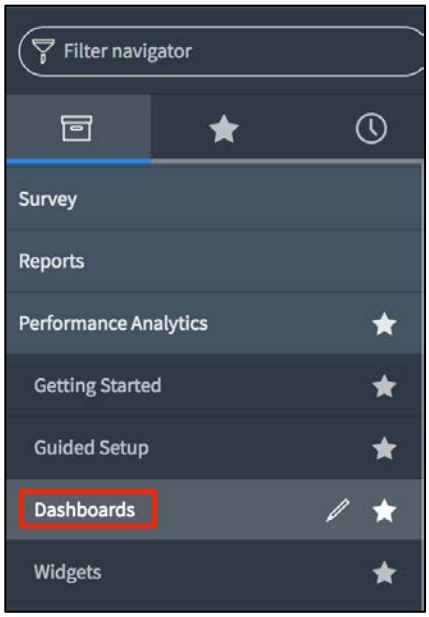
Note: Some plugins offer optional demo data. On those cases, you may choose to load the demo data with the plugin.

5. Once the plugin load is complete, click the **Close & Reload Form** button.

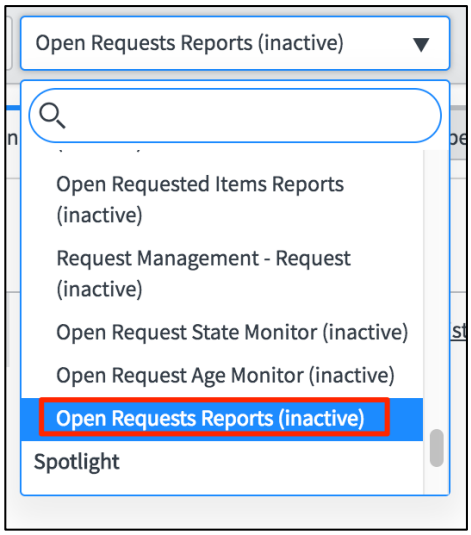


Lab Success Verification

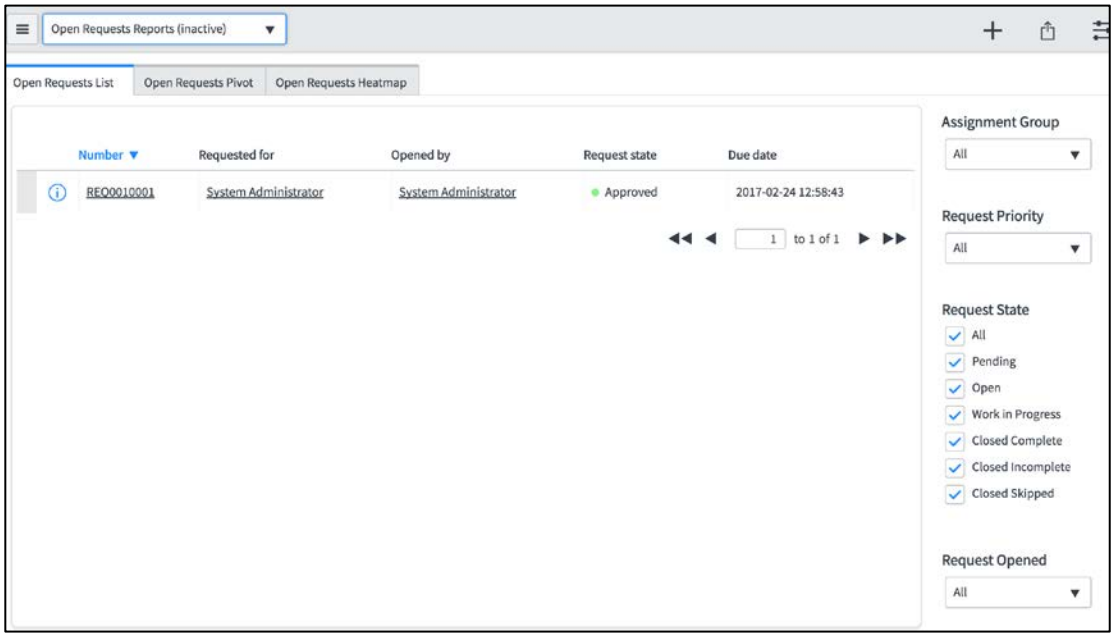
1. Navigate to Performance Analytics > Dashboards.



2. From the dashboards drop-down list, select **Open Requests Reports (Inactive)**.



3. Your dashboard should look similar to the following:



Lab Goal

This lab explains how to both collect historical analytics data and schedule future daily Performance Analytics data collections. The data collection process is required to collect the analytics data from the operational tables in the platform and store those scores in the Performance Analytics tables to drive the visualizations in the dashboards. If the Data Collector does not run, there will be no data to view in the dashboards.

Lab 2.1 Collect Analytics Data

Execute Existing Historic Data Collection Jobs

In this section of the lab, you will configure the historic data collection jobs to collect data for the last 90 days. You will also execute the historic data collection jobs and check their status.

1. In the left navigation pane, go to **Performance Analytics > Data Collector > Jobs**.
2. Select **[PA Incident] Historic Data Collection**. The Scheduled Data Collection form appears in the main content pane.
3. Enter **90** in the **Relative Start** field.
4. Click **Execute Now** to run the data collection job. You return to the list of data collection jobs.
5. Select **[PA Change] Historic Data Collection**. The Scheduled Data Collection form appears in the main content pane.
6. Enter **90** in the **Relative Start** field.
7. Click **Execute Now** to run the data collection job. You return to the list of data collection jobs.

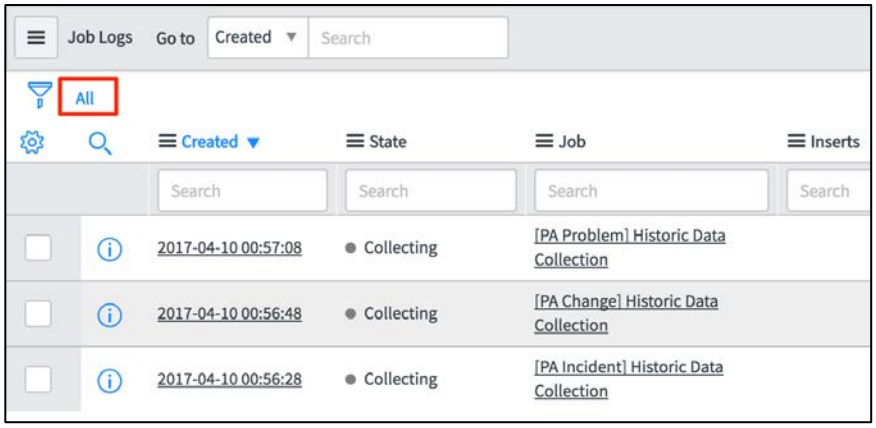
8. Select **[PA Problem] Historic Data Collection**. The Scheduled Data Collection form appears in the main content pane.

9. Enter **90** in the **Relative Start** field.

10. Click **Execute Now** to run the data collection job. You return to the list of data collection jobs.

11. In the left navigation pane, go to **Performance Analytics > Data Collector > Job Logs**. This is where you can see the status of the collection jobs you just executed.

12. Review the list of executed jobs. The list should look similar to the following screenshot (depending on whether or not the jobs have finished).



Notes:

- Click the "All" link to refresh the list and see updated completion status.
- You do not need to wait for the collection jobs to complete before moving to the next section.

Activate Daily Data Collection Jobs

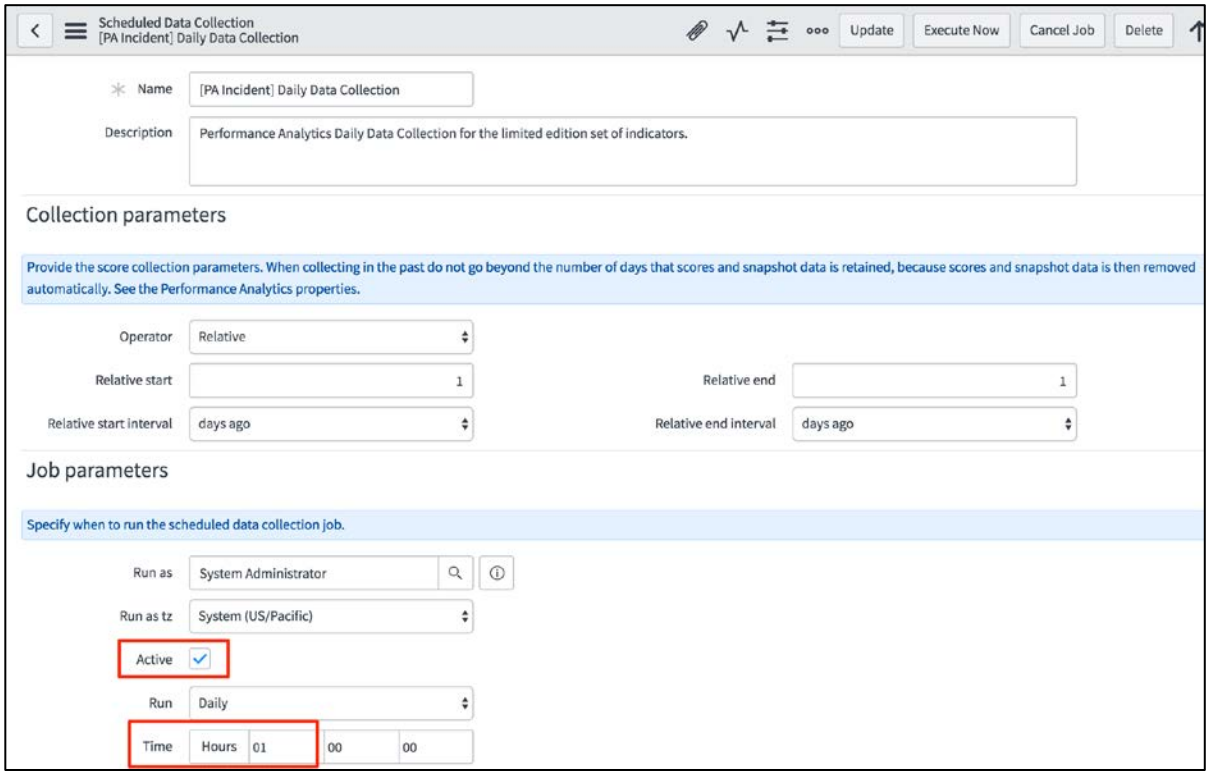
In this section of the lab, you will configure the daily data collection jobs. These jobs are intended to run once per day (usually in the middle of the night) to collect the most recent scores. These daily jobs will keep all your data current and updated going forward.

1. In the left navigation pane, go to **Performance Analytics > Data Collector > Jobs**.

2. Select **[PA Incident] Daily Data Collection**. The Scheduled Data Collection form appears in the main content pane.

3. **Check** the **Active** check box.

4. Enter **1:00:00** in the Time fields. This schedules the job to run at 1AM in the server's time zone.



5. Click **Update** to save your changes. You return to the list of data collection jobs.

6. Select **[PA Change] Daily Data Collection**. The Scheduled Data Collection form appears in the main content pane.

7. **Check** the **Active** checkbox.

8. Enter **2:00:00** in the Time fields. This schedules the job to run at 1AM in the server's time zone.

9. Click **Update** to save your changes. You return to the list of data collection jobs.

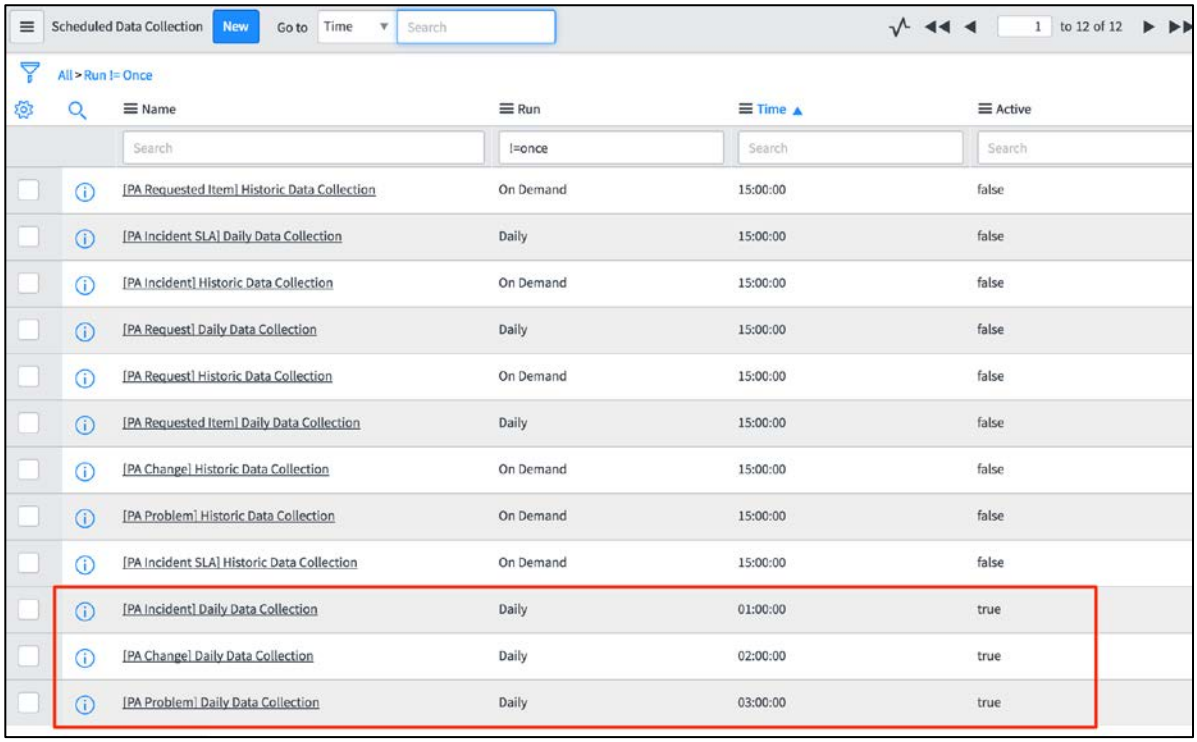
10. Select **[PA Problem] Daily Data Collection**. The Scheduled Data Collection form appears in the main content pane.

11. **Check** the **Active** check box.

12. Enter **3:00:00** in the Time fields. This schedules the job to run at 1AM in the server's time zone.

13. Click **Update** to save your changes. You return to the list of data collection jobs.

14. Review the list of data collection jobs. Your list should appear similar to the following screenshot (with the updated jobs highlighted for you).



Note: These daily data collection jobs are not run in this lab. The purpose of this exercise is to show you how the daily jobs are configured should you need to do so in your own environment.

Extra Credit

1. Collect the historic scores for Incident SLA.

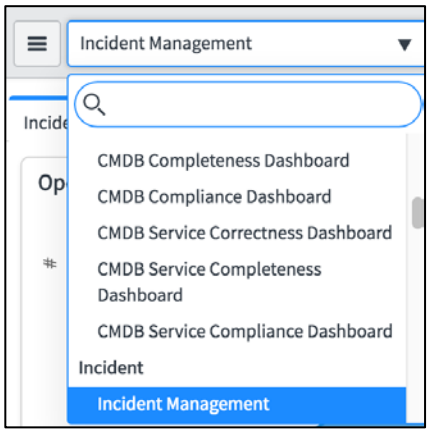
2. Activate the daily data collector job for Incident SLA.

Lab Success Verification

1. Review the status of the collection jobs as described in Steps **11** and **12** on **page 6** of the lab guide. Make sure all historical collections are complete.

2. In the left navigation pane, go to **Performance Analytics > Dashboards**.

3. In the main content pane, select the **Incident > Incident Management** dashboard from the drop-down list.



4. You should see the Incident Overview tab of the dashboard that looks similar to the following:



Lab Goal

Lab 2.2 Indicator Scorecards

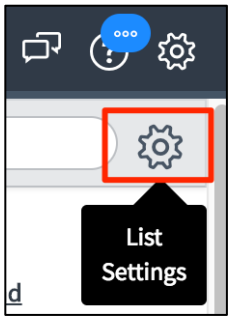
The Data Collector puts the collected scores into the specified indicators and breakdowns. These are the core components you work with to create the visualizations in the dashboard for you and your stakeholders.

This lab explains how to navigate the Detailed Scorecard page for an indicator, which is the core measurement component in Performance Analytics. This lab also explains how to show trend, breakdown, and record information for an indicator (also called a Key Performance Indicator or KPI). During this session, you add statistics overlays and change the date ranges to zoom in on a specific time range for your indicator.

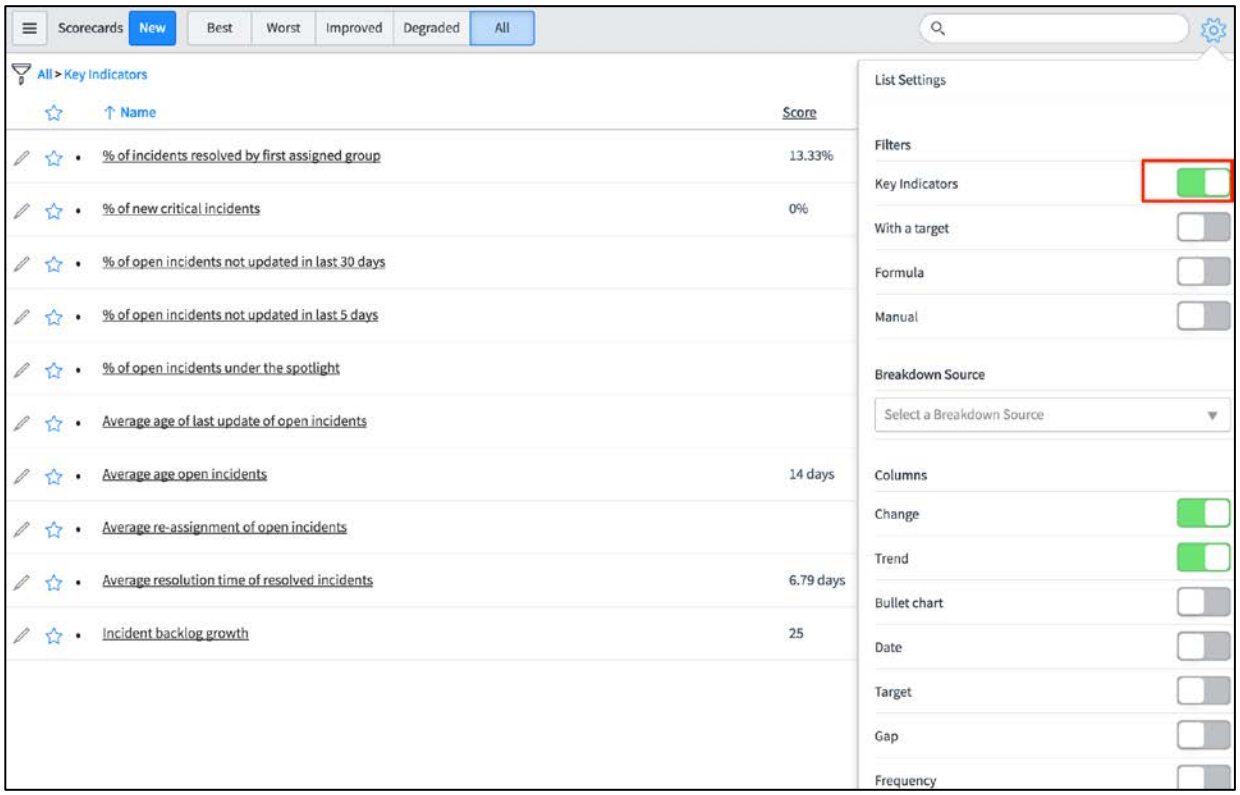
Open the Detailed Scorecard

In this section of the lab, you open the detailed scorecard for the Number of Open Incidents indicator.

1. Navigate to **Performance Analytics > Scorecards**.
2. Open the **List Settings** menu.



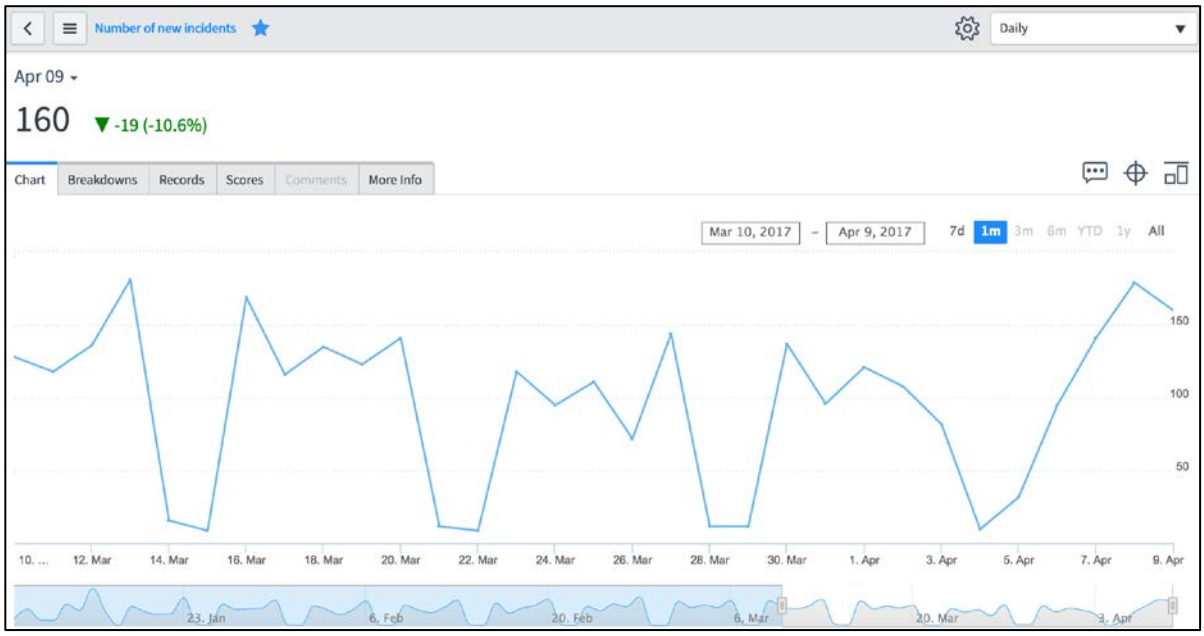
3. Toggle the **Key indicators** filter. This limits the list to just those indicators that are marked as key.



4. Notice the list of indicators becomes much smaller. The indicator is not yet a key indicator, so you need to turn the **Key Indicators** filter off.



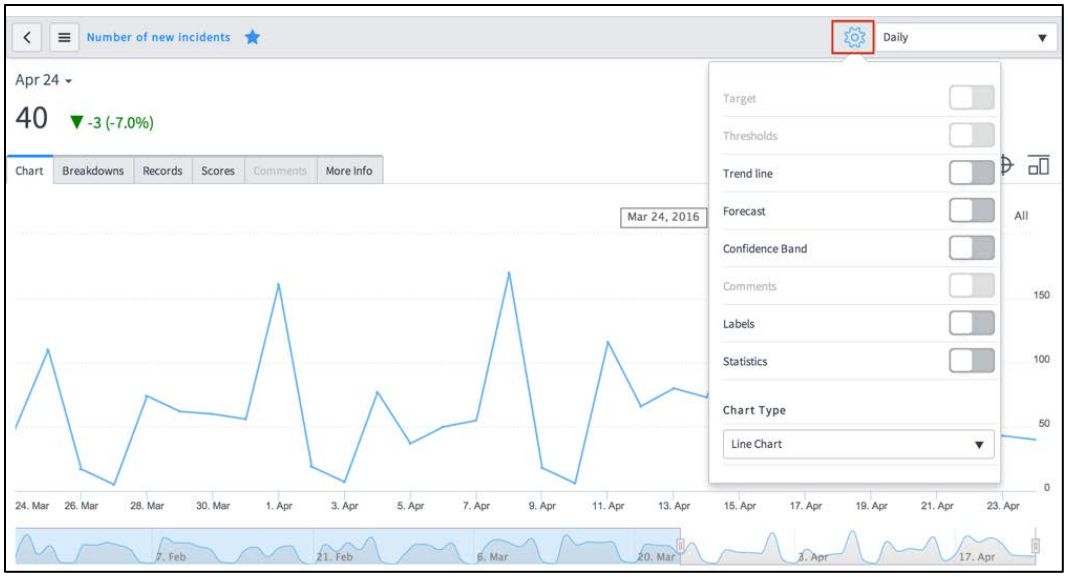
5. From the list of indicators, select **Number of New Incidents**. The detailed scorecard for this indicator appears on the screen.



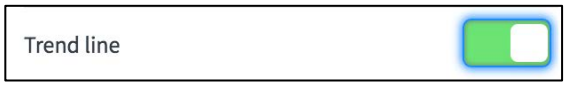
Show the Trend Line

In this section of the lab, you add the trend line to the detailed scorecard.

1. In the Number of Open Indicators detailed scorecard, open the **Chart Settings** menu (the cog wheel).



2. Toggle the **Trend line** option from the Chart Settings menu.



Note: Is the calculated direction of the KPI trending up, down, or is it balanced?

3. Notice the change in score from the previous day. This tells you whether or not the Number of New Incidents opened is bigger, smaller, or equal to yesterday. In this case, the Number of New Incidents created is 19 less than the day before.



Change the Date Range

In this section of the lab, you change the amount of data displayed on the screen in the detailed scorecard.

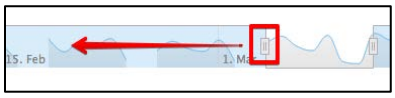
1. In the upper-right area of the chart, click the **7d** data range.



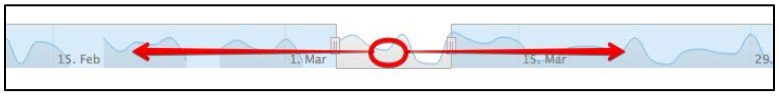
Note: The date ranges use the selected data as the last date for the range selected. The **7d** range should show the scores for the week leading up to the selected date.

Note: Did the trend line change? It should have. The trend line shows you the trend for the data displayed on the screen.

2. Use the **Range Selector** and drag the left end of the data range out.



Note: The **Range Selector** can also be used to pan using the current date range.

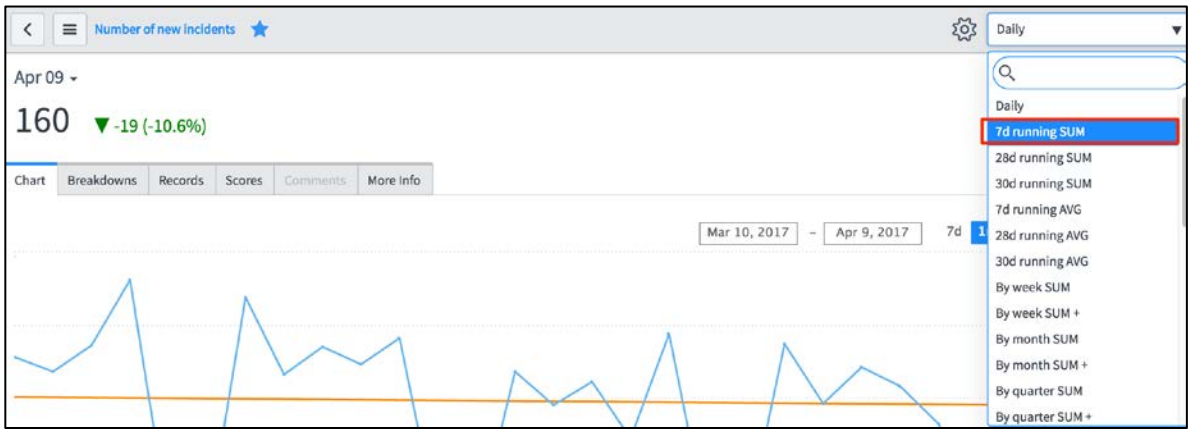


3. Select **All** from the data range selector in the upper-right to show all data collected for the indicator.

Change the Time Series Aggregate

In this section of the lab, you explore the built-in time series aggregates available with Performance Analytics. These time series aggregates allow you to display different versions of the data without having to re-collect or calculate data.

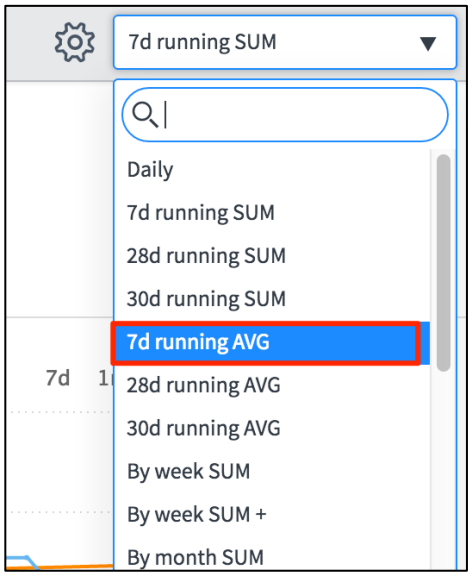
1. In the upper-right drop-down box, select the **7d running SUM** entry.



2. Notice the change in the line. You are now looking at the 7-day running sum for the Number of New Incidents indicator. Notice the Y-axis has changed automatically since the totals have increased.



3. In the upper-right drop-down box, select the **7d running AVG** entry.



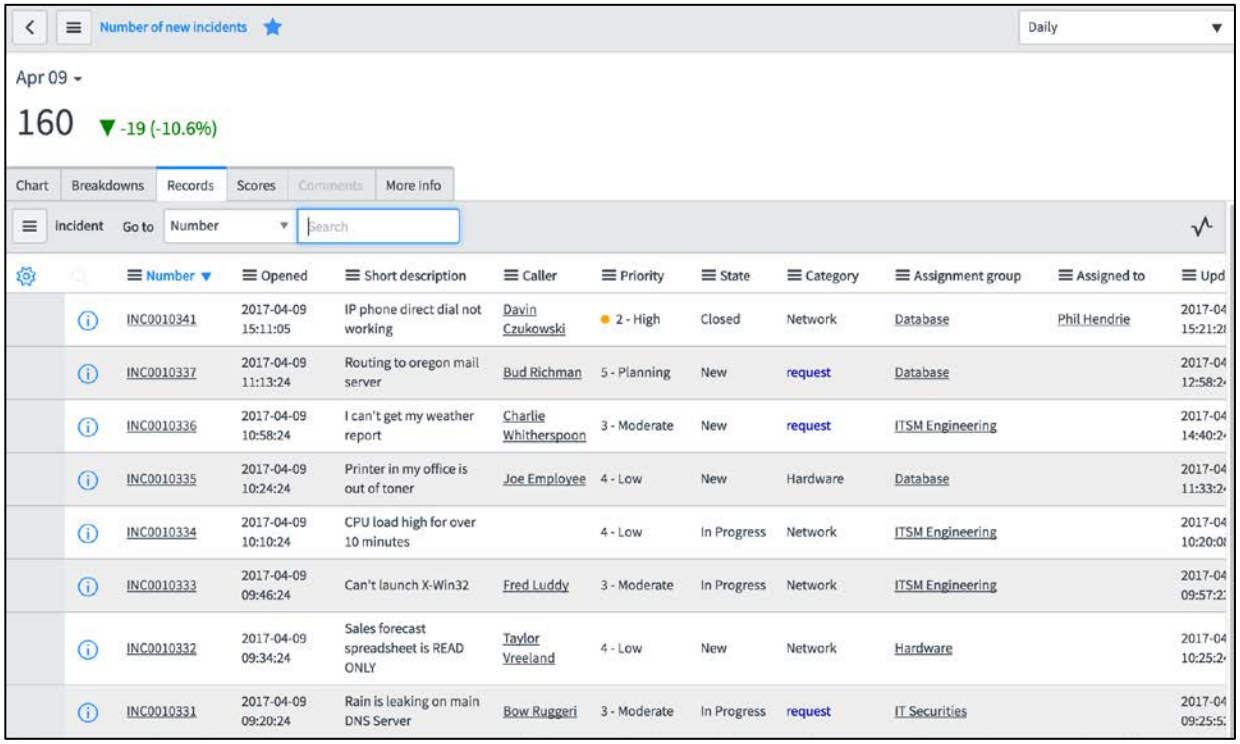
4. Notice the change in the line. You are now looking at the 7-day running average for the Number of new Incidents indicator. Notice that the curve of the chart line is much smoother because the aggregate is showing the average instead of individual daily scores.



5. In the upper-right drop-down box, select **Daily** to return to the original chart.

Explore the Records Tab

1. Click the **Records** tab in the main content pane. The list of records associated with the main indicator score displays.



Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Upd
INC0010341	2017-04-09 15:11:05	IP phone direct dial not working	Davin Czukowski	2 - High	Closed	Network	Database	Phil Hendrie	2017-04 15:21:2
INC0010337	2017-04-09 11:13:24	Routing to oregon mail server	Bud Richman	5 - Planning	New	request	Database		2017-04 12:58:2
INC0010336	2017-04-09 10:58:24	I can't get my weather report	Charlie Whitherspoon	3 - Moderate	New	request	ITSM Engineering		2017-04 14:40:2
INC0010335	2017-04-09 10:24:24	Printer in my office is out of toner	Joe Employee	4 - Low	New	Hardware	Database		2017-04 11:33:2
INC0010334	2017-04-09 10:10:24	CPU load high for over 10 minutes		4 - Low	In Progress	Network	ITSM Engineering		2017-04 10:20:0
INC0010333	2017-04-09 09:46:24	Can't launch X-Win32	Fred Luddy	3 - Moderate	In Progress	Network	ITSM Engineering		2017-04 09:57:2
INC0010332	2017-04-09 09:34:24	Sales forecast spreadsheet is READ ONLY	Taylor Vreeland	4 - Low	New	Network	Hardware		2017-04 10:25:2
INC0010331	2017-04-09 09:20:24	Rain is leaking on main DNS Server	Bow Ruggeri	3 - Moderate	In Progress	request	IT Securities		2017-04 09:25:5

2. Scroll to the bottom of the page and verify the number of records in the list is equal to the number displayed in the main indicator.



	INC0010324	2017-04-09 07:53:24	Needs Parallels installed on MAC	David Loo	4 - Low	In Progress	request	Hardware	2017-04 07:56:5
	INC0010323	2017-04-09 07:41:24	Install XP image	Ted Keppel	5 - Planning	In Progress	request	Network	2017-04 11:41:2
	INC0010322	2017-04-09 07:36:24	Battery dying	James Vittolo	5 - Planning	In Progress	request	Database	2017-04 14:36:2
	INC0010321	2017-04-09 07:18:24	When I send an email to the Sales group	Wayne Webb	3 - Moderate	New	Hardware	Database	2017-04 10:47:2
	INC0010320	2017-04-09 07:09:24	failed drive that needs replacing	Rob Woodbyrne	3 - Moderate	On Hold	request	Service Desk	2017-04 16:09:2
	INC0010319	2017-04-09 07:01:24	Emails sent but not received from mac	Phil Hendrie	3 - Moderate	In Progress	request	Hardware	2017-04 07:09:1
	INC0010318	2017-04-09 06:52:24	Synchronization with your iPhone failed for 1 items	Diana Temple	4 - Low	In Progress	Network	IT Securities	2017-04 06:54:2

◀◀ ◀ 1 to 20 of 160 ▶ ▶▶

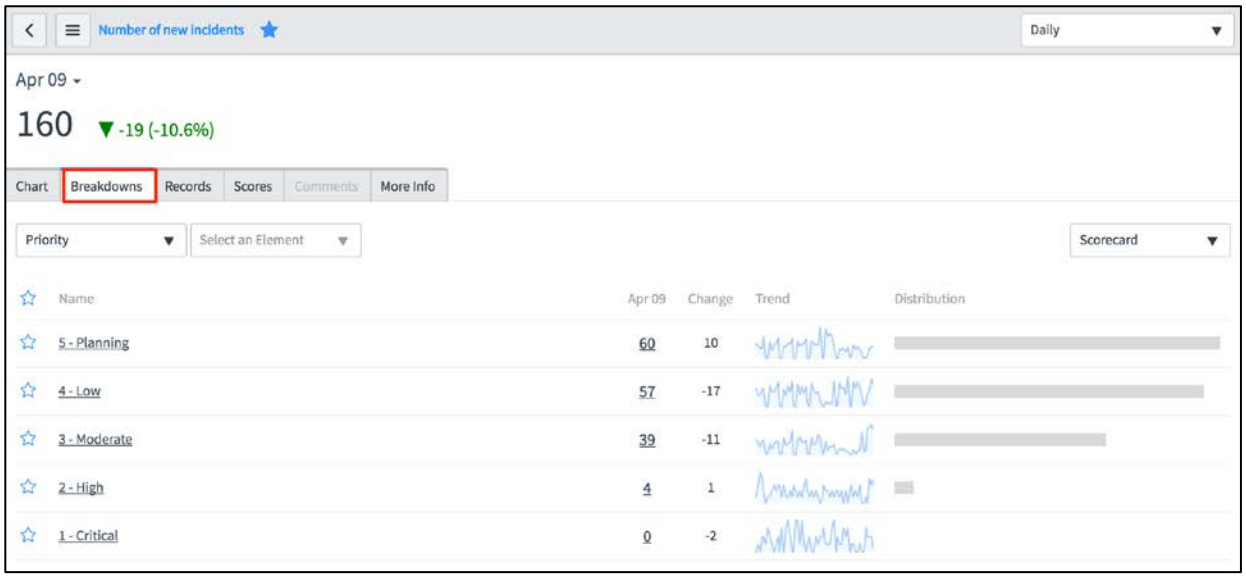
Note: The records shown here are part of the snapshots generated by the **Data Collector**.

3. Scroll back to the top of the page.

Explore the Breakdowns Tab

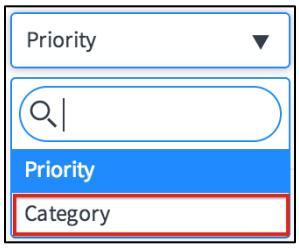
In this section of the lab, you look at the breakdowns available for the main indicator.

1. In the main content pane, click the **Breakdowns** tab. The breakdown for Priority displays.

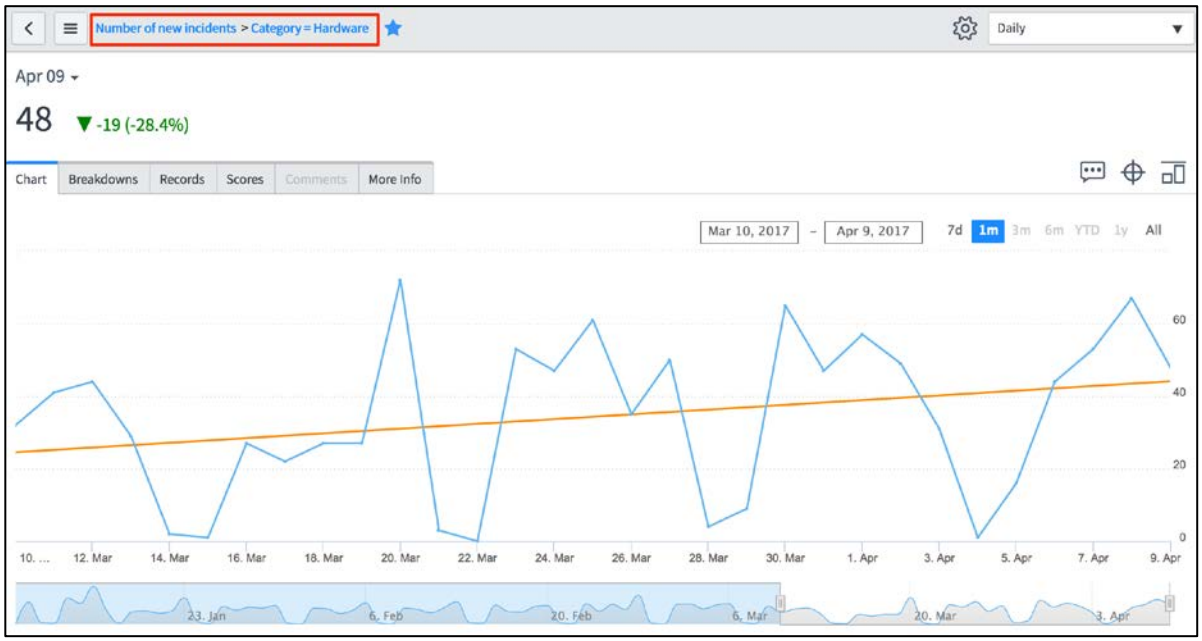


Note: Not only do you see the value of each element for the current day, you can also see the trend for each element to the left of the score. Breakdowns in Performance Analytics keep track of this historical data so you can see if there are "micro trends" developing.

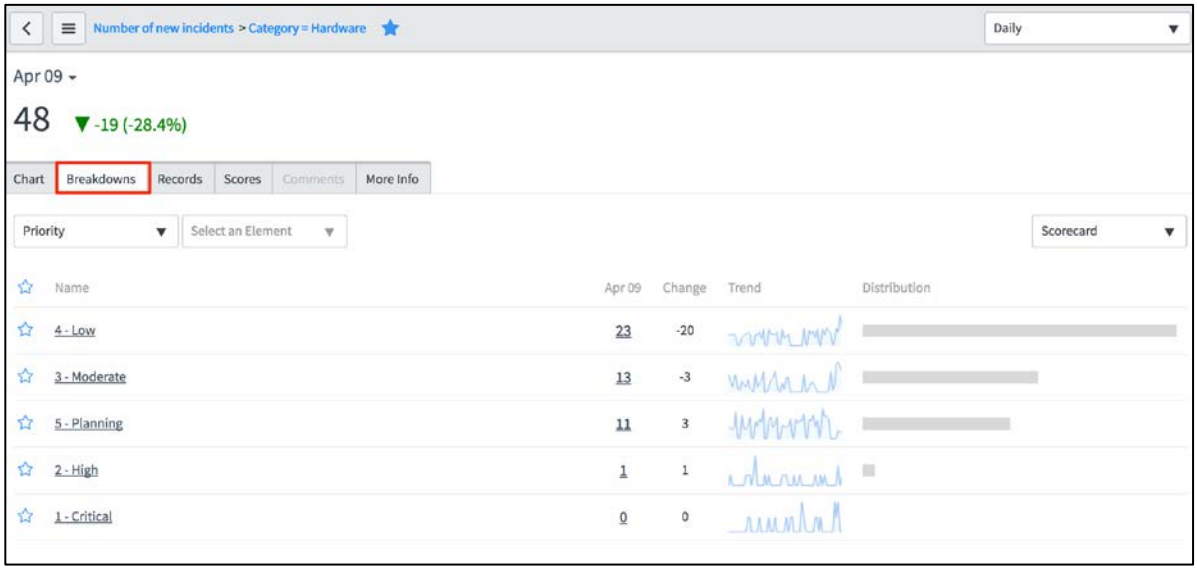
2. Select **Category** from the breakdown drop-down list. The breakdown now reflects the Number of New Incidents by Category.



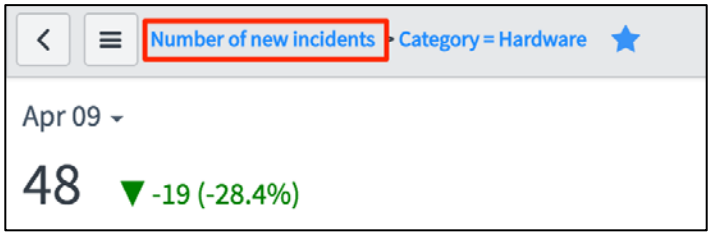
3. Click the **Hardware** category. A new chart appears showing the Number of New Incidents where **Category = Hardware**.



4. Click the **Breakdowns** tab. You are now looking at a "breakdown in a breakdown." In this case, it is the Number of New Incidents where **Category = Hardware by Priority**.

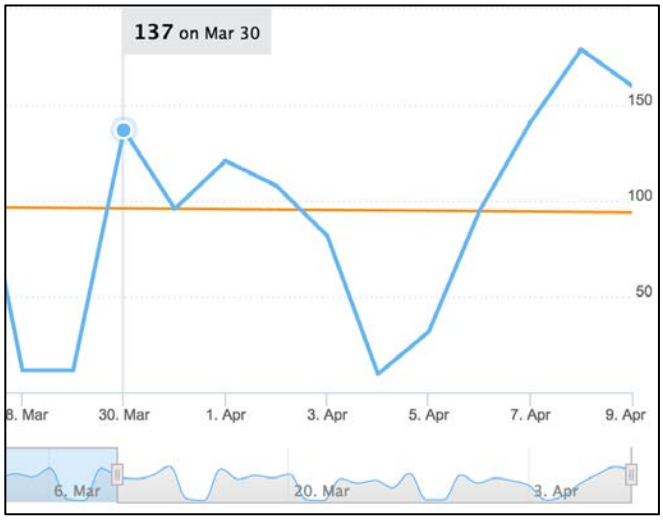


5. Click the **Number of New Incidents** breadcrumb to return to the main indicator.



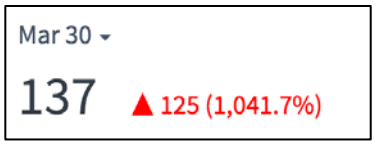
Examine Data for Any Day

1. On the main chart, click on a data point around 10 days from the most recent data point.



Note: This screenshot differs from what you see on your screen.

2. Notice the change in score from the previous day.



Note: This screenshot differs from what you see on your screen.

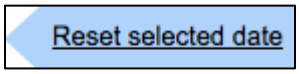
3. Click the **Breakdowns** tab. Note the Number of New Incidents by Priority numbers are different from what you viewed before.

   Note: The **Breakdowns** tab responds to the selected date. The scores shown are the **Breakdown** scores for the selected date.

4. Click the **Records** tab. Note the number of records in the list reflects the score of the selected date.

   Note: While the records shown in this tab are correct for the selected date, they are live views of the records. The **Data Collector** does NOT store snapshots of the field data. This means that the data may have changed since the collection took place.

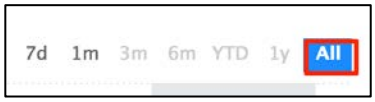
5. Click **Reset selected date**. The most recent day's data appears on the screen.



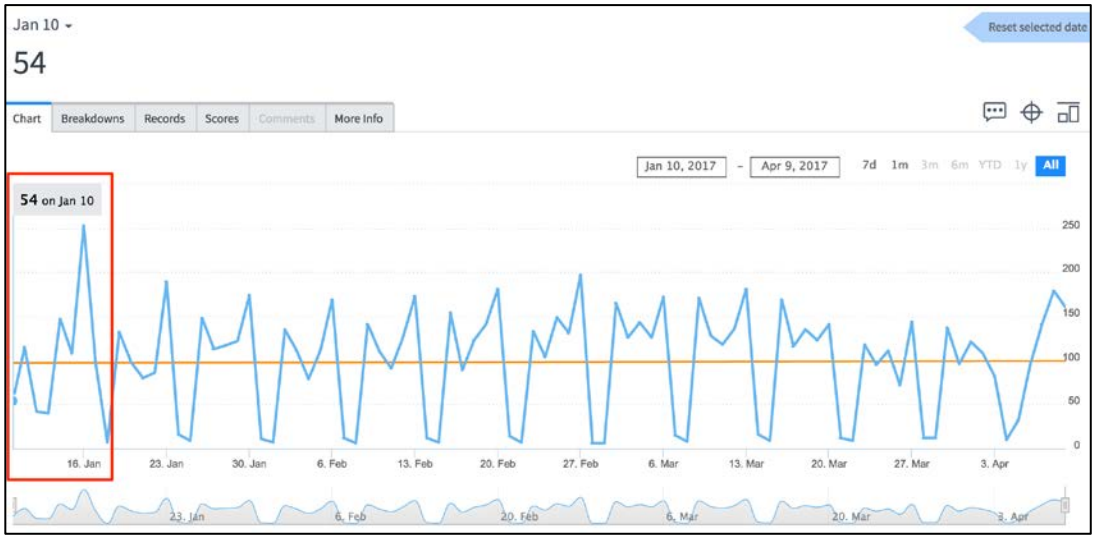
Setting a Target

In this section of the lab, you set a target for the indicator to allow comparison of values against a goal.

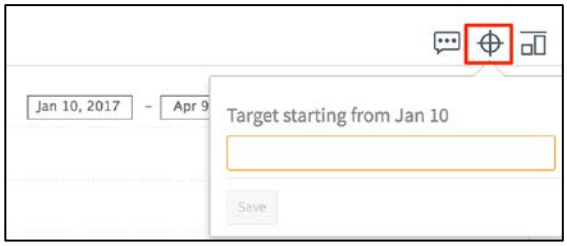
1. Click on the main Chart tab again, then select the **All** date range.



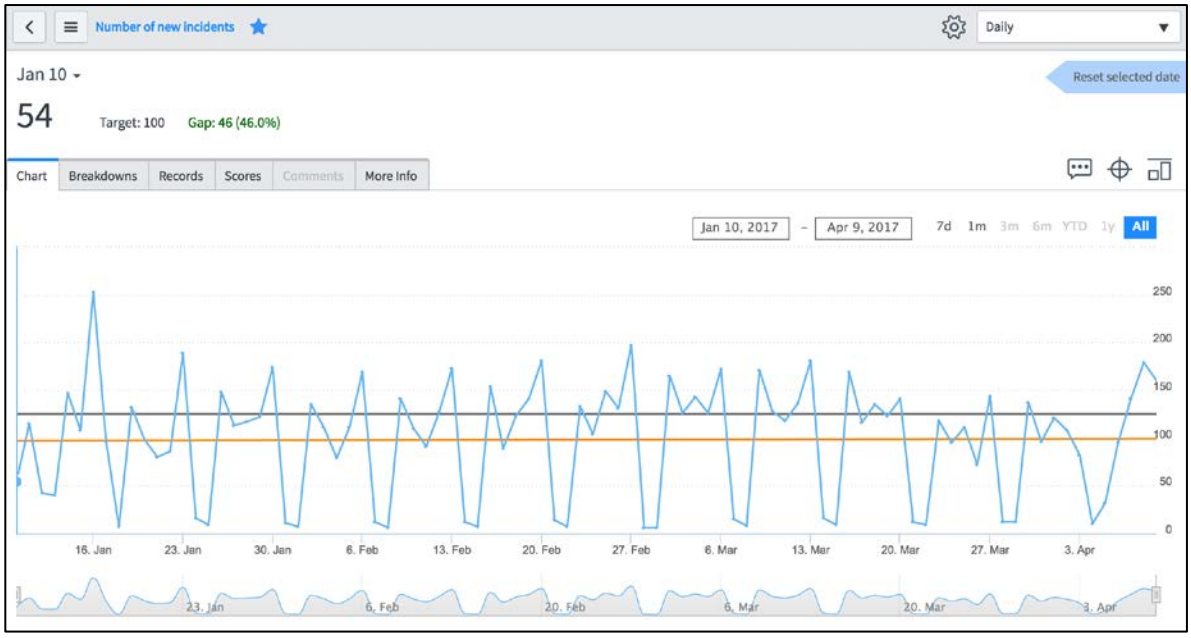
2. Select the **earliest date** available.



3. In the upper-right area of the page, select the **target** icon. The Target input box appears.



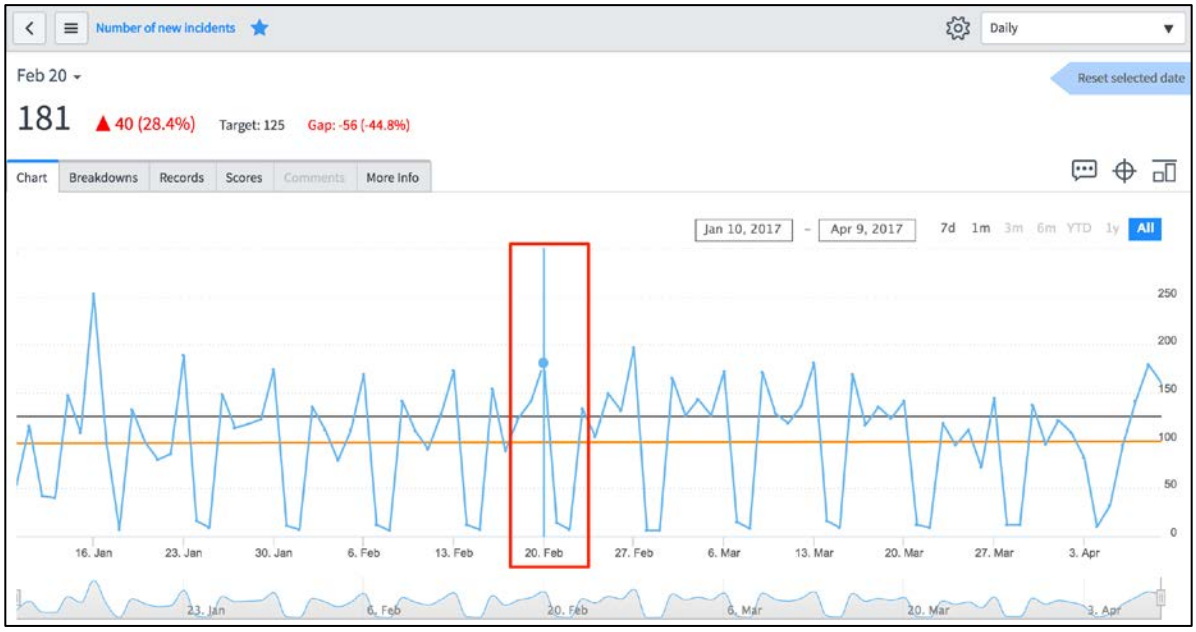
4. Type **125** into the box. Click **Save**. The target appears on the chart.



5. Note the new **Gap** entry near the main indicator showing the comparison of the value against the target.

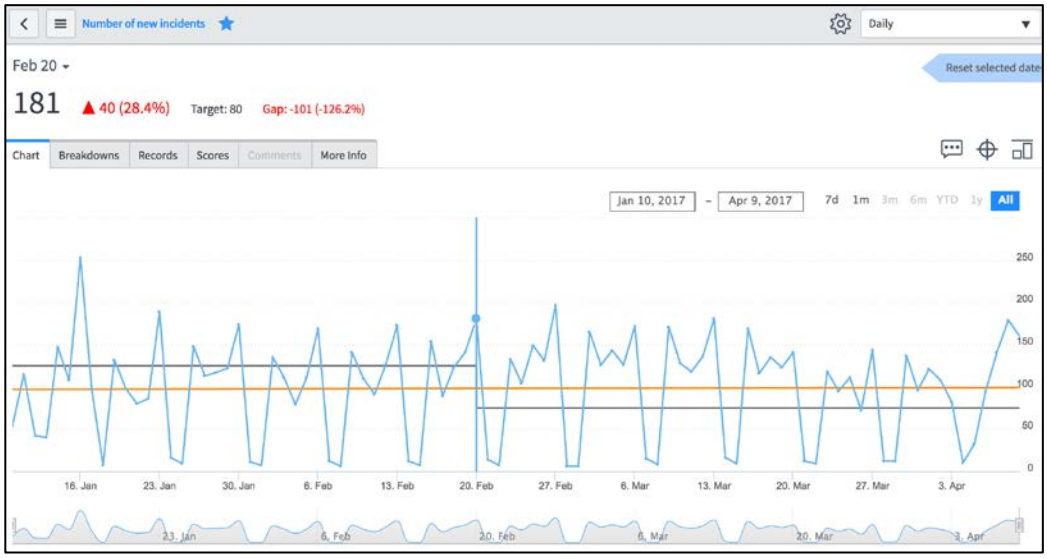


6. Select a date in the middle of the chart's time range. The specific date chosen is not important.



7. In the upper-right area of the page, select the **target** icon. The Target input box appears.

8. Type **75** into the box. Click **Save**. The new target appears on the chart as a step-down from the old target.

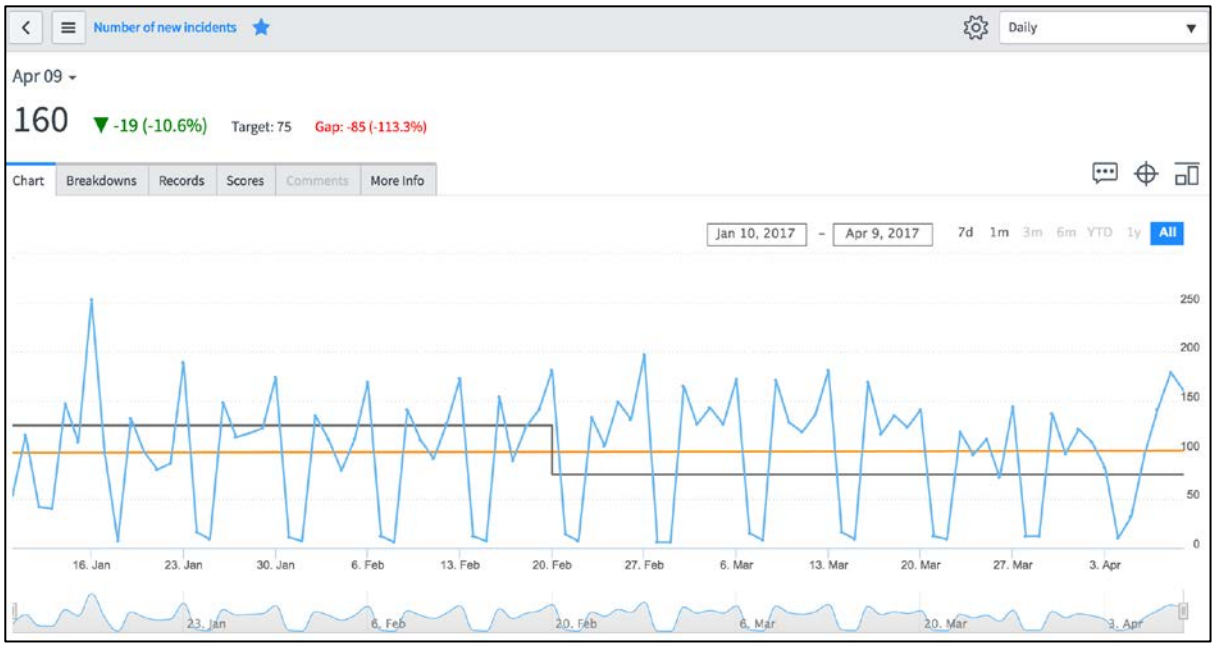


Note: You can only have one target value for a date. However, you can adjust the target over time to drive organizational behavior.

9. Click **Reset selected date**. The most recent day's data appears on the screen.

Lab Success Verification

1. You should now have a better understanding of how to navigate around the Detailed Scorecard to analyze an indicator in more detail.



Lab Goal

Lab 3.1
Dashboards and Widgets

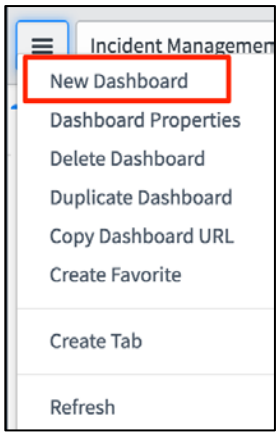
Indicators and breakdowns are the data building blocks for Performance Analytics. You have explored how to work with the scorecard to learn more about the collected data. However, the main way to consume analytics data is through the Performance Analytics dashboard. The dashboard is a collection of widgets that you configure to display the meaningful data in your indicators and breakdowns.

In this lab you create a dashboard and use out-of-the-box widgets to visualize data on a dashboard. You also create a new widget to display data from indicators and breakdowns.

Create a New Dashboard

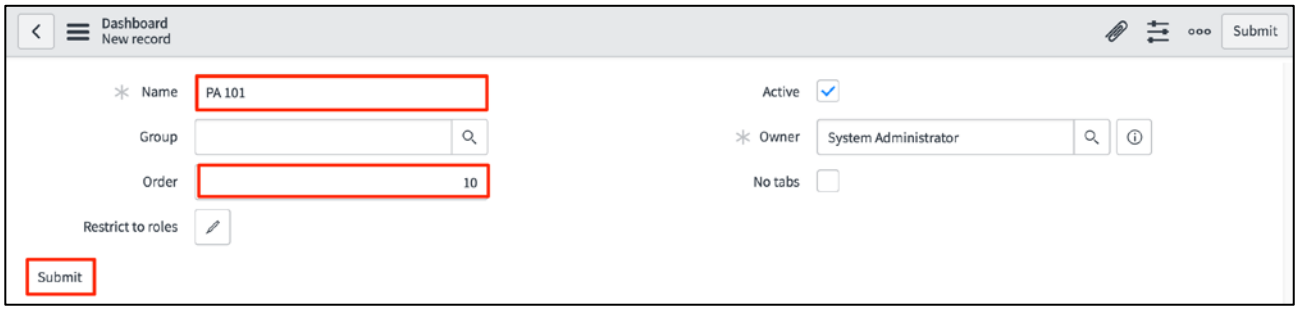
You must create the dashboard to use with this exercise.

1. In the left pane, navigate to **Performance Analytics > Dashboards**.
2. In the dashboard pane, click the menu button and select **New Dashboard**. The new dashboard screen opens.

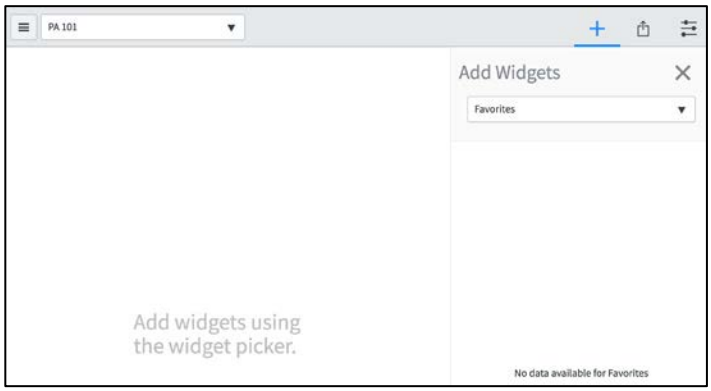


3. Fill in the following information in the **Dashboard** form:

   Name: **PA 101**
   Order: **10**



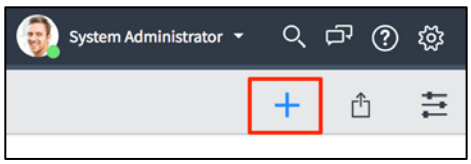
4. Click **Submit**. An empty dashboard appears.



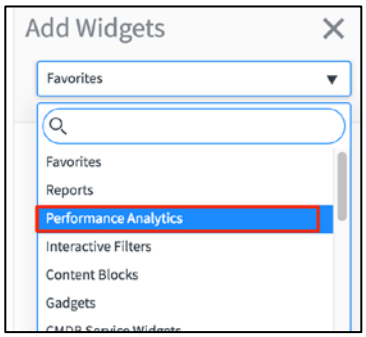
Add Standard Widgets to the Dashboard

In this section of the lab, you add standard (out-of-the-box) widgets to the clean dashboard. These widgets contain information about the Problem and Change Management processes.

1. If the Add Widget overlay is not present, click the **Add Widget** button.



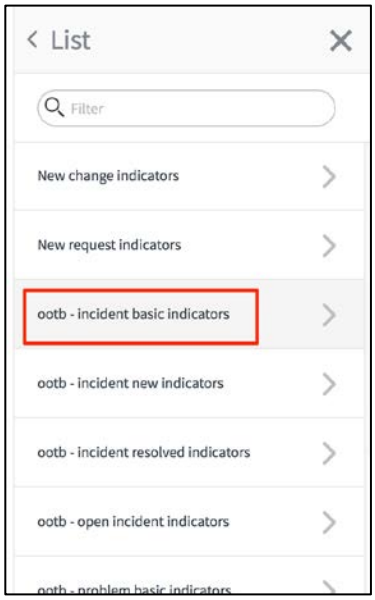
2. From the drop-down list, select Performance Analytics.



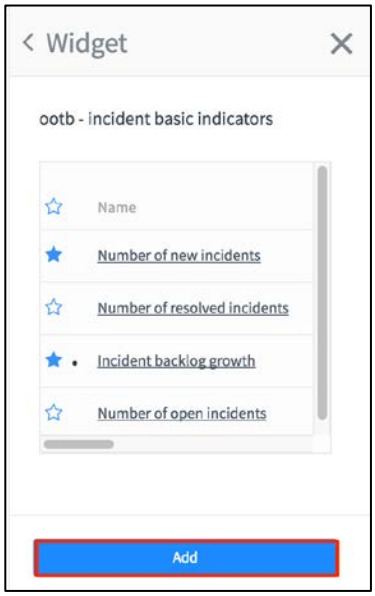
3. Select **List**.



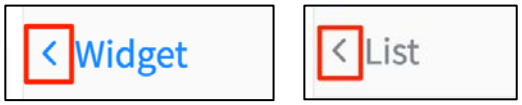
4. Select **ootb - incident basic Indicators**.



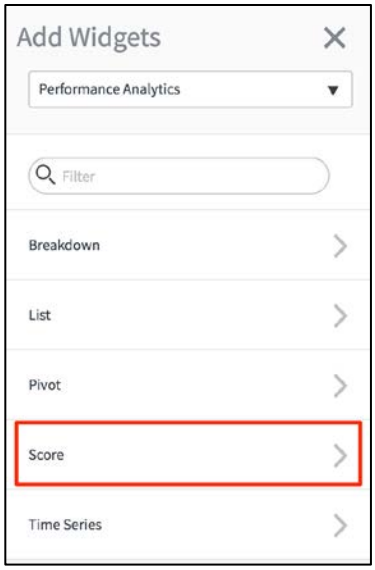
5. Click the **Add** button.



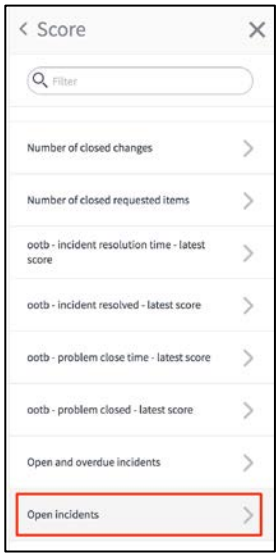
6. We want to add additional widgets. Click the back button twice.



7. Select **Score**.



8. Select **Open incidents**.



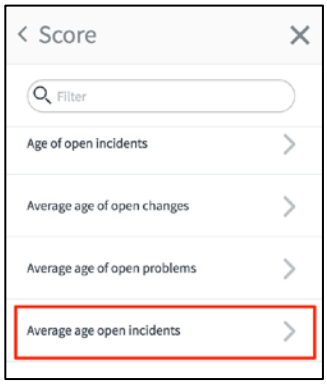
9. Click the **Add** button.



10. Click the back button once.



11. Select **Average age of open incidents**.



12. Click the **Add** button.



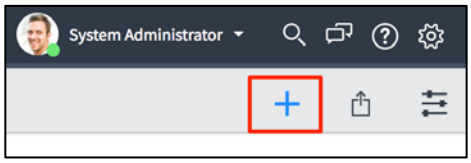
13. Click the close button.



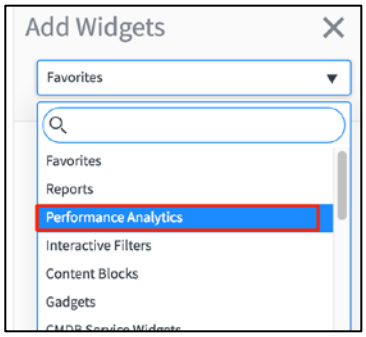
Create a New Widget

In this section of the lab, you create a new widget to display indicators you want to see, since a standard widget with that content is not available.

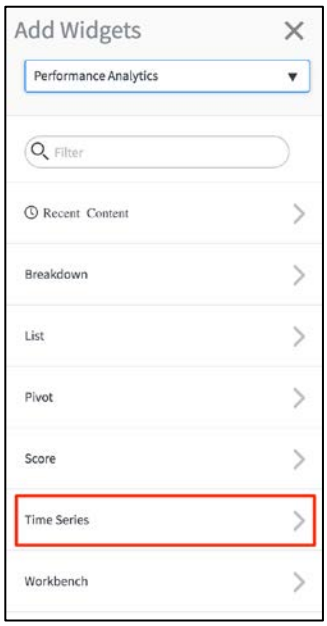
1. If the Add Widget overlay is not present, click the **Add Widget** button.



2. From the drop-down list, select Performance Analytics.



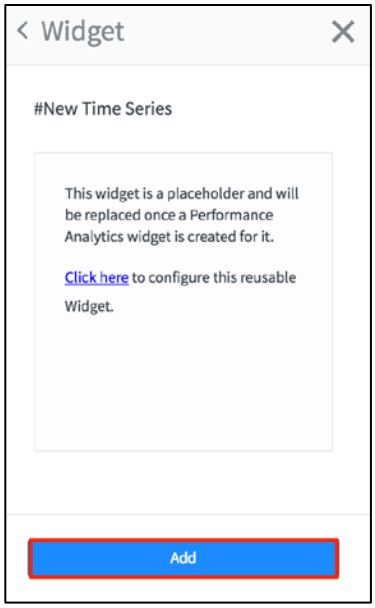
3. Select **Time Series**.



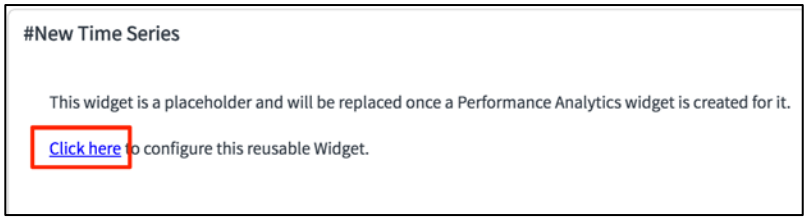
4. Select **#New Time Series**.



5. Click the **Add** button.

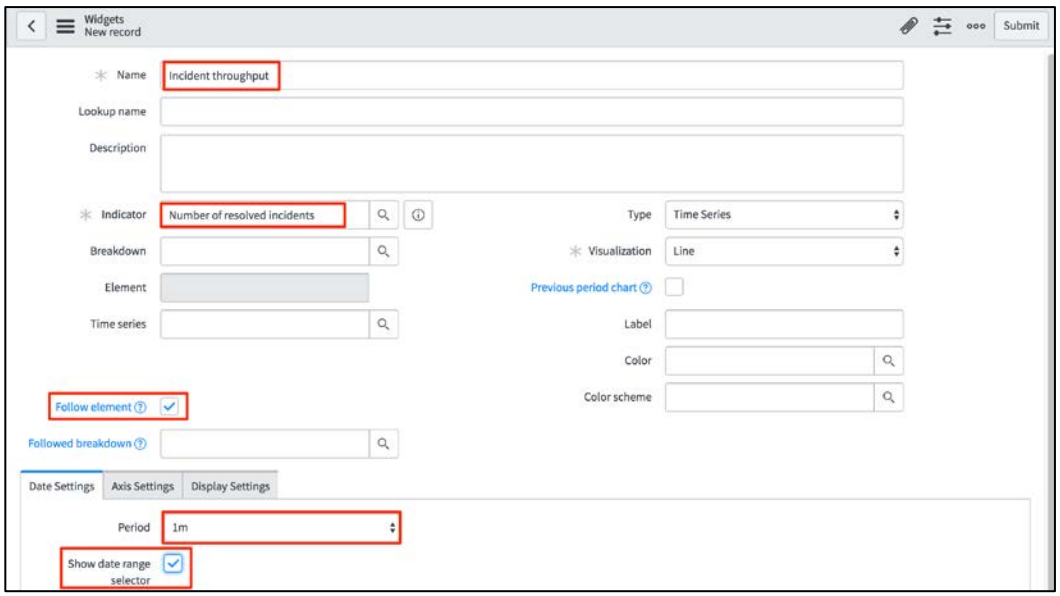


6. In the #New Time Series widget, click the **Click here** link.



7. Fill in the following information in the **Widgets** form:

   Name: **Incident throughput**
   Type: **Time Series**
   Visualization: **Line**
   Indicator: **Number of resolved incidents**
   Follow Element: **Checked**
   Period (under Date Settings form section): **1m**
   Show date range selector: **Checked**



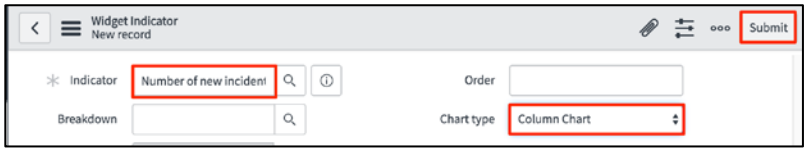
8. Right-click the top of the Widgets form and select **Save**. You remain on the form but the Widget Indicators related lists are now displayed at the bottom.

9. Scroll down to the **Widget Indicators** related list and click **New.** The Widget Indicator form appears.



10. Fill in the following information on the **Widget Indicators** form, and click **Submit**.

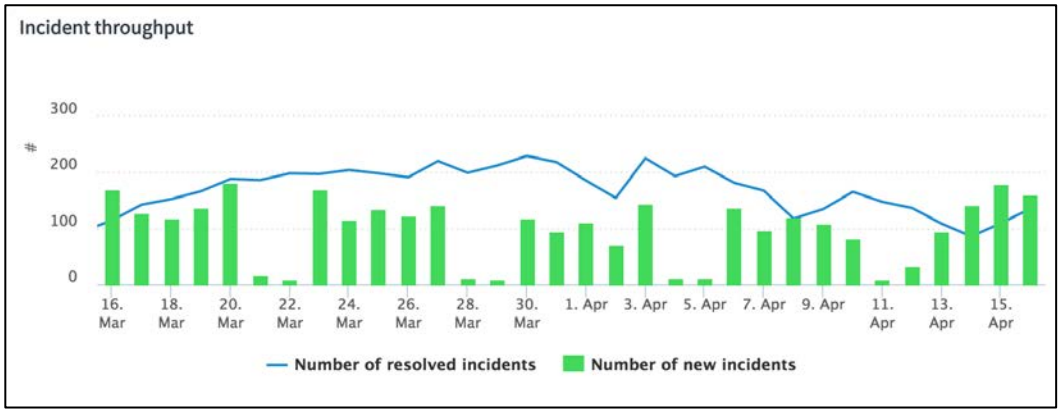
    Indicator: **Number of new incidents**
    Chart type: **Column Chart**



11. Click **Update**.



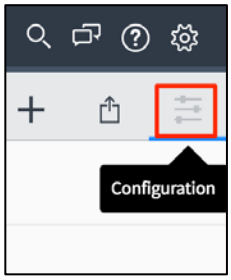
    Note: You may need to click **Update** multiple times to return to the Dashboard.



Style Dashboard Widgets

In this section of the lab, you customize the look and feel of some widgets on the dashboard. This allows you to create a cleaner look and feel for your stakeholders.

1. Click the **Configuration** button to enter configuration mode.



2. Hover over the **Incident throughput** widget and select the wheel cog icon. The Edit Widget dialog box appears.



3. In the **Edit Widget** dialog box, make the following configuration settings:

   Border: **Unchecked**
   Title Align: **Center**

4. Click **Done** to close the Edit Widget dialog box. The updated dashboard displays.



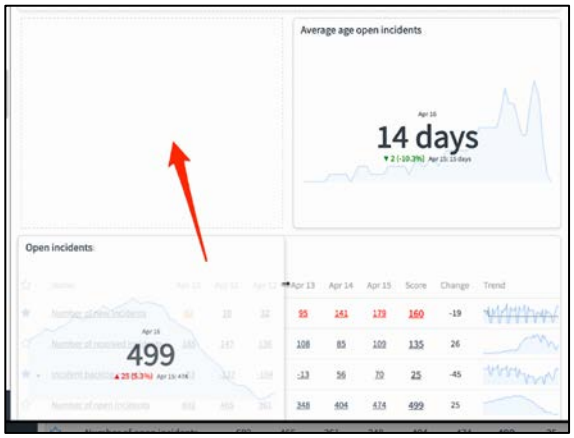
5. Scroll down the page to the **Average age of open incidents** widget. Move the mouse to the left edge of the widget so that the cursor turns into a left arrow.



6. Hold down the left mouse button and drag the widget so that it takes up roughly half the available width, and then release the mouse button.



7. Scroll down to the **Open incidents** widget, and click and drag the right side of the widget so that it takes up the left half of the above row. Notice how the preview of the widget moves up to take the available space.



8. Release the mouse, and the widget should move into the available space.

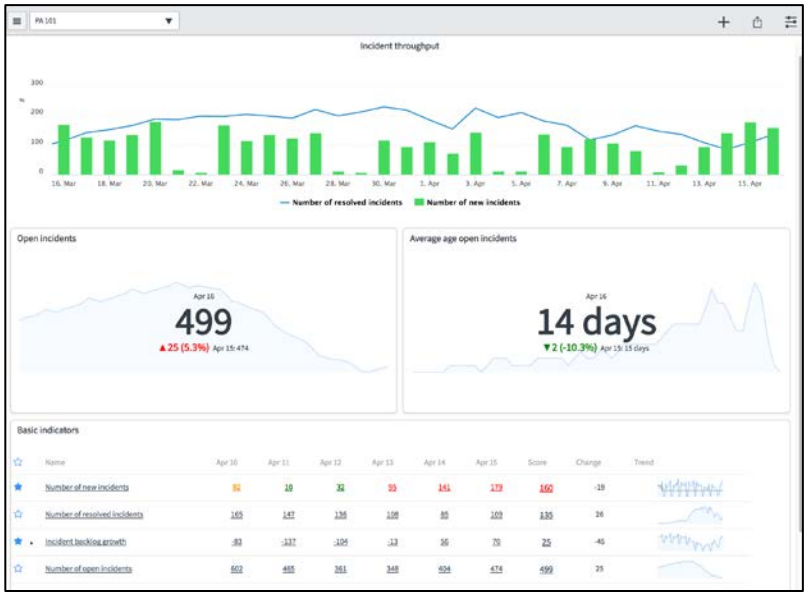


Lab Success Verification

1. Click the close button to close the **Configuration** overlay.



2. The **PA 101** dashboard should look similar to the example.



Lab Goal

In Lab 2.2, you learned about the detailed scorecard for an indicator and how to explore records and breakdowns. While there was a lot of meaningful information in the scorecard, you could not see relationships between indicators on the detailed scorecard. There is a type of widget in Performance Analytics that gives you the power of the detailed scorecard and the convenience of viewing multiple indicators and breakdowns. It is called the Workbench Widget.

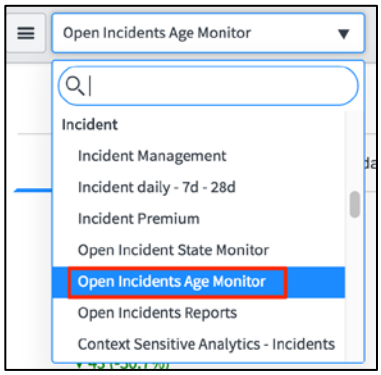
In this lab, you explore a standard workbench widget that is provided with Performance Analytics.

Lab 3.2
The Workbench Widget

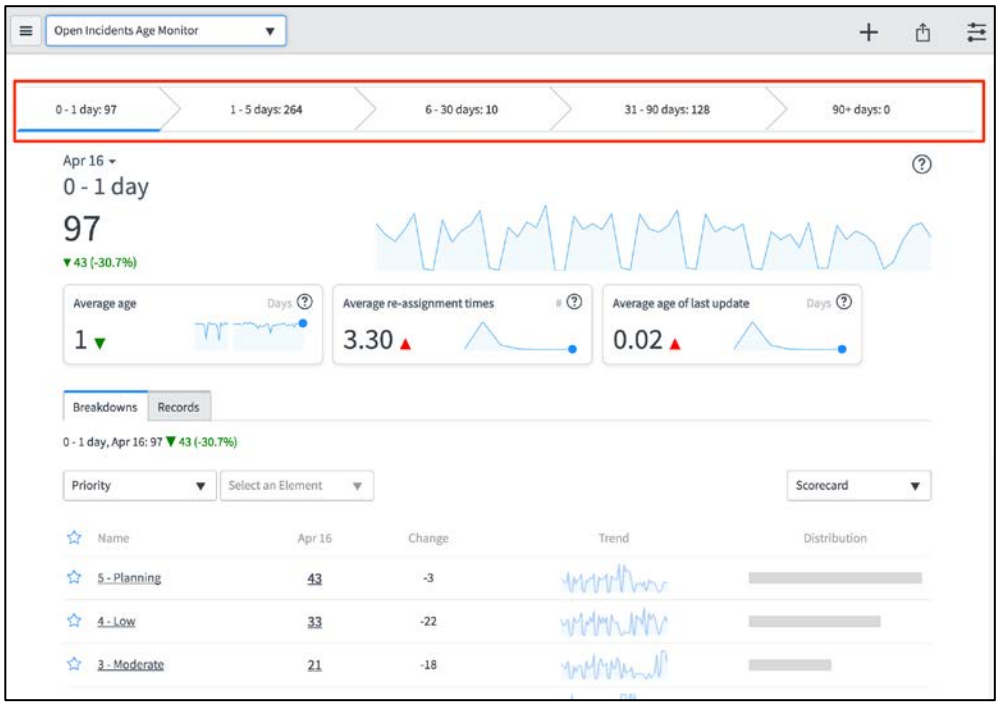
Navigate to Workbench Widget

In this section of the lab, you explore the workbench widget.

1. In the dashboard drop-down list, select **Incident > Open Incident Age Monitor**. The selected dashboard appears.



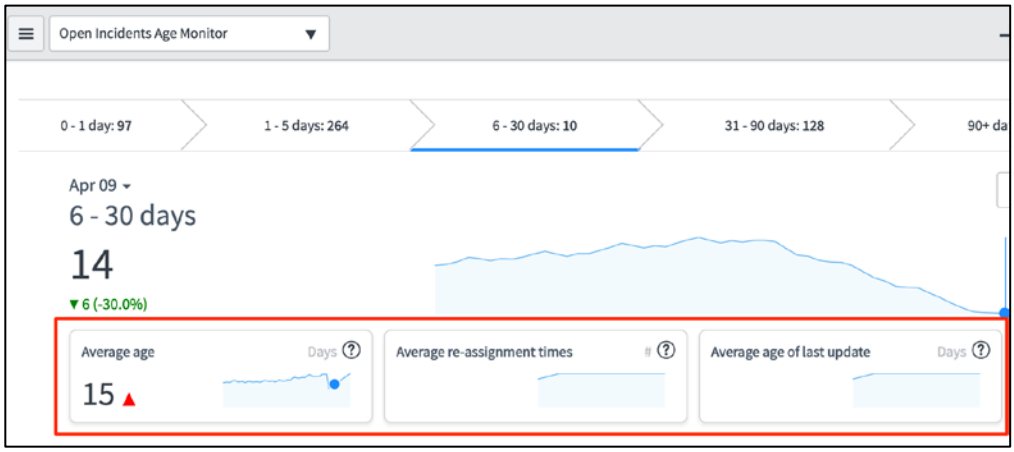
2. Review the **first-level breakdown in the chevrons** across the top of the page. Each chevron represents a specific element in the breakdown "Number of Open Incidents by Age."



3. Click the **6 – 30 days** chevron. The main indicator for this incident age range displays.



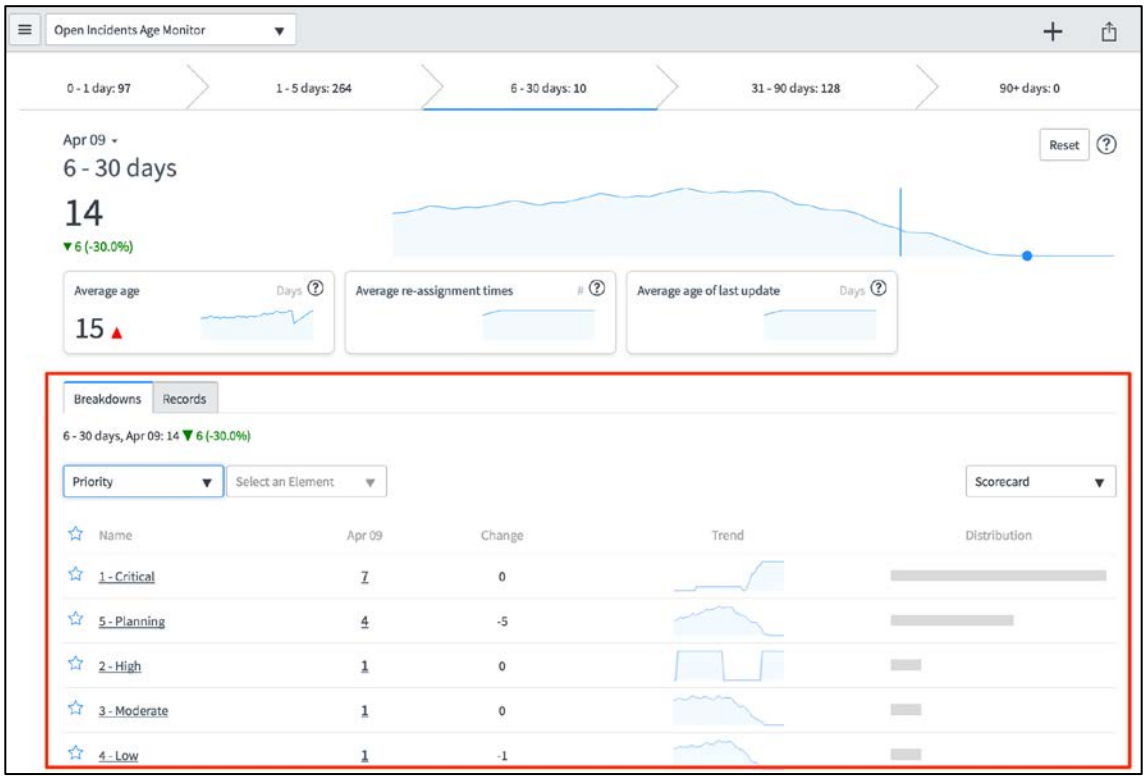
4. Review the supporting indicators for the main indicator.



Notes:

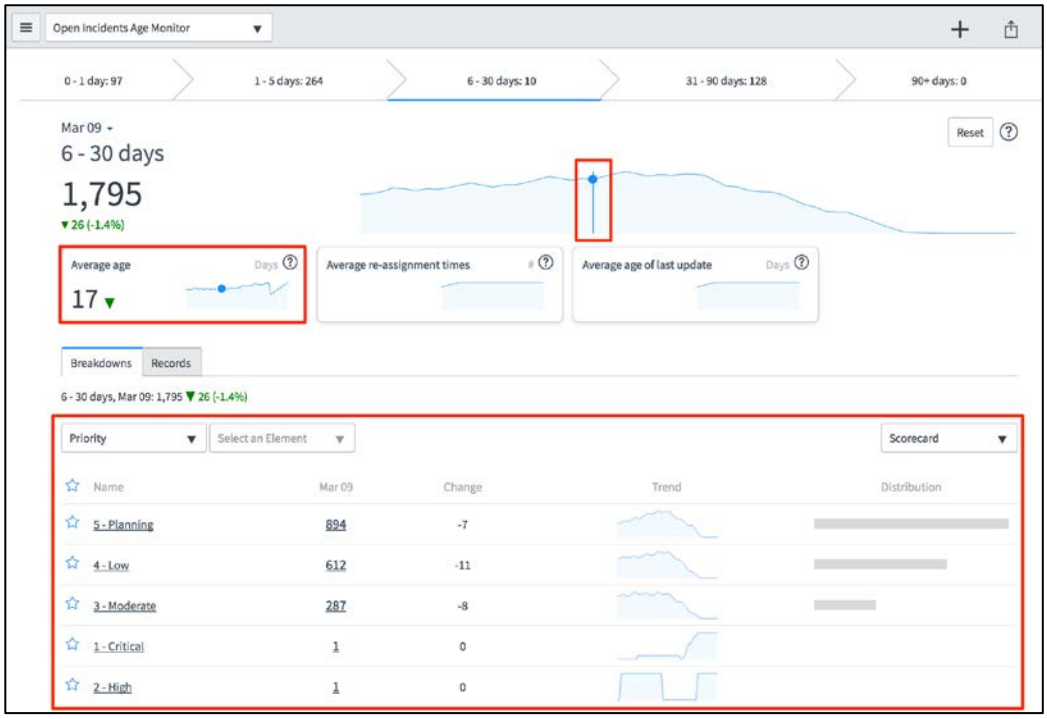
- The supporting indicators display data specific to the selected chevron, based on the collection date chosen on the line chart.
- Only the **Average Age** supporting indicator has data. The other indicators were not collected as part of our historical data collection job, which is why they report No Data Available.
- The supporting indicators are configurable. You can add or remove supporting indicators by editing the workbench widget (using the pencil icon in the upper-right corner).

5. Scroll to the bottom of the page to review the additional breakdowns available for the indicator.

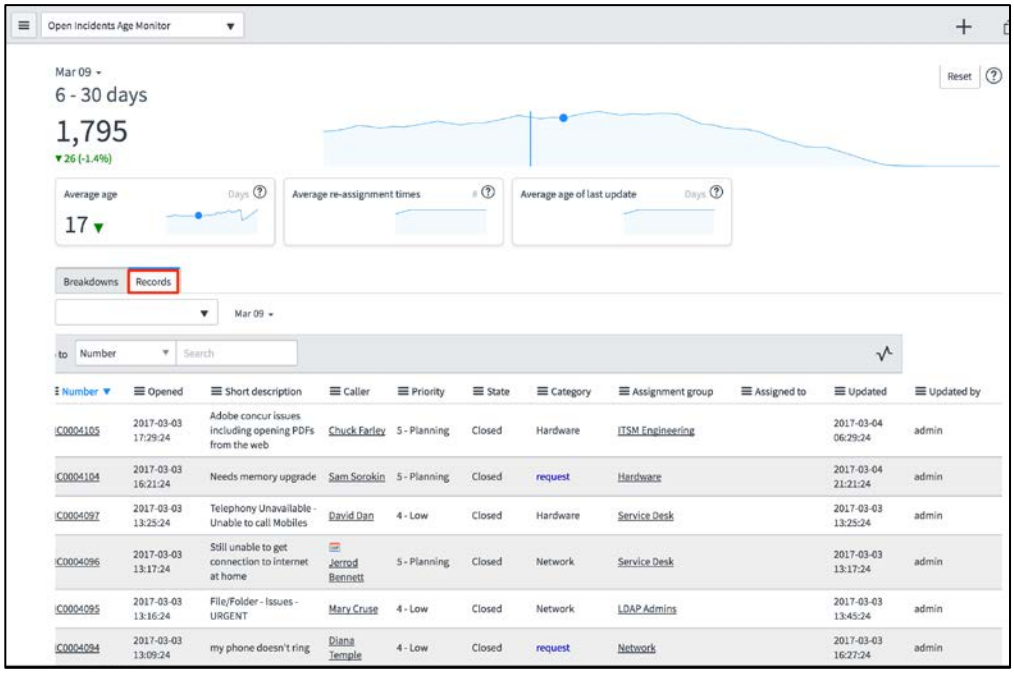


Note: The breakdowns here are actually second-level breakdowns for the indicator. In this case, you are looking at the Number of Open Incidents that are 6 – 30 Days Old by Priority.

6. Roll the mouse over the chart for the main indicator and click on a day to change the date focus. Notice the Average Age supporting indicator automatically updates for the highlighted day. The breakdowns for the main indicator also reflect the selected date.

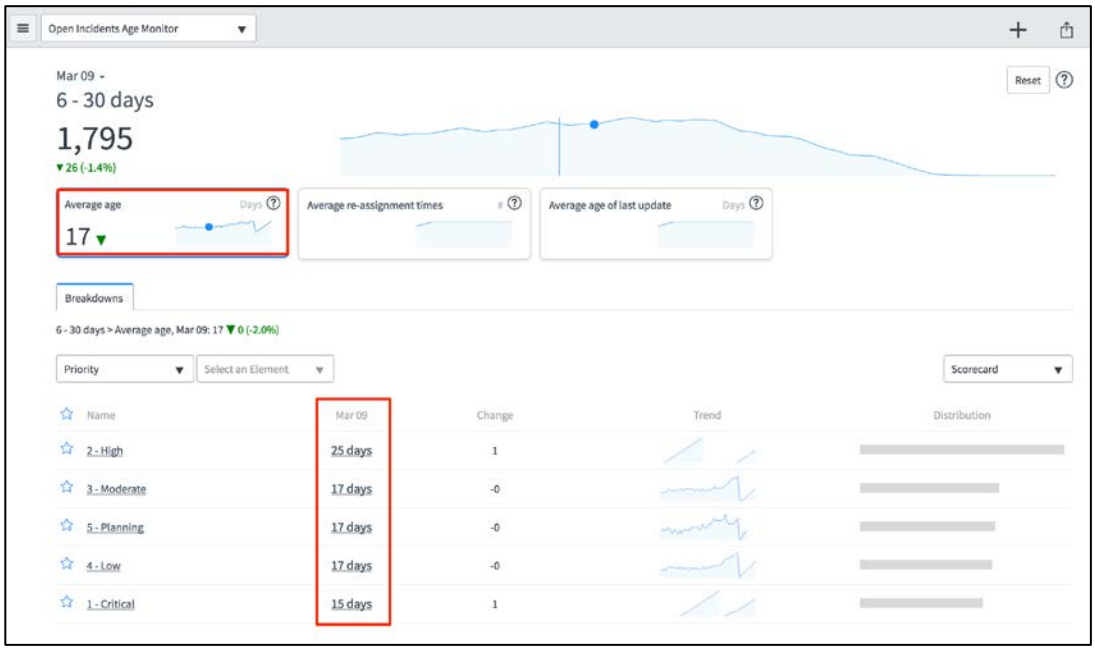


7. Click the **Records** tab to see the specific records associated with this main indicator.



Note: You can verify the number of records matches the value for the main indicator by scrolling to the bottom of the page.

8. Click in the **Average Age** supporting indicator box (but not on the Average Age title itself). Notice the Breakdowns tab now reflects data for the Average Age supporting indicator.



9. Click the **Reset** button in the upper-right corner to return the workbench widget to the latest collected score data.

Lab Success Verification

1. You have an understanding of how to navigate the workbench widget to review indicators and breakdowns on the same dashboard tab.

Lab Goal

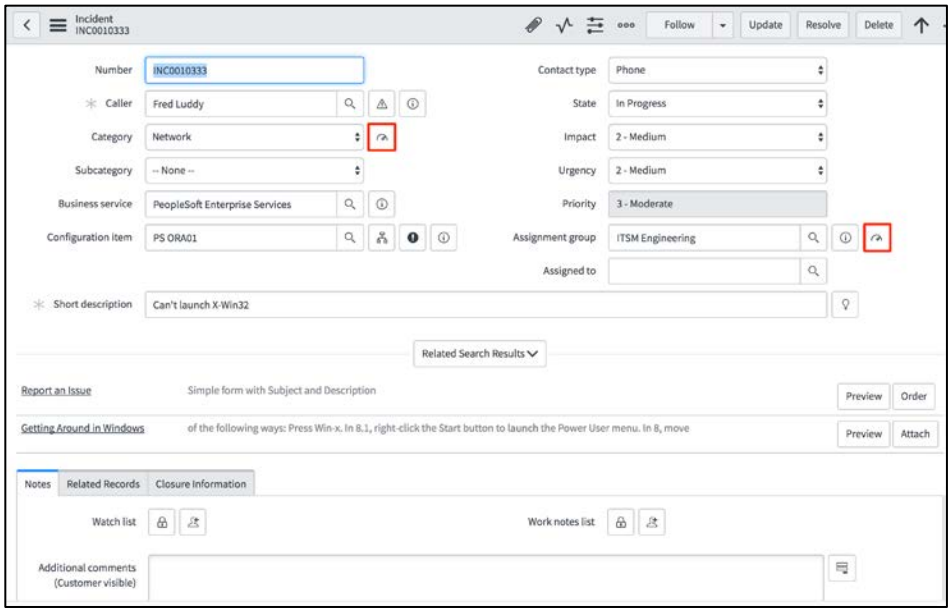
In-Form Analytics is a feature that allows you to provide analytics data to the people working tasks. The worker can view the data by clicking on a button in the form, and it brings up a dashboard with data related to the selected field.

In this lab, you learn the basics of In-Form Analytics and how to configure the dashboards provided with the standard Incident Management analytics buttons.

Lab 4.1
In-Form Analytics

Review In-Form Analytics Buttons

1. In the left pane, navigate to **Incident > Open**. A list of open incidents displays in the main content pane.
2. Click on Incident number **INC0010333** from the list of incidents. The Incident form appears.
3. Look for the **Analytics** buttons next to the **Category** and **Assignment Group** fields.

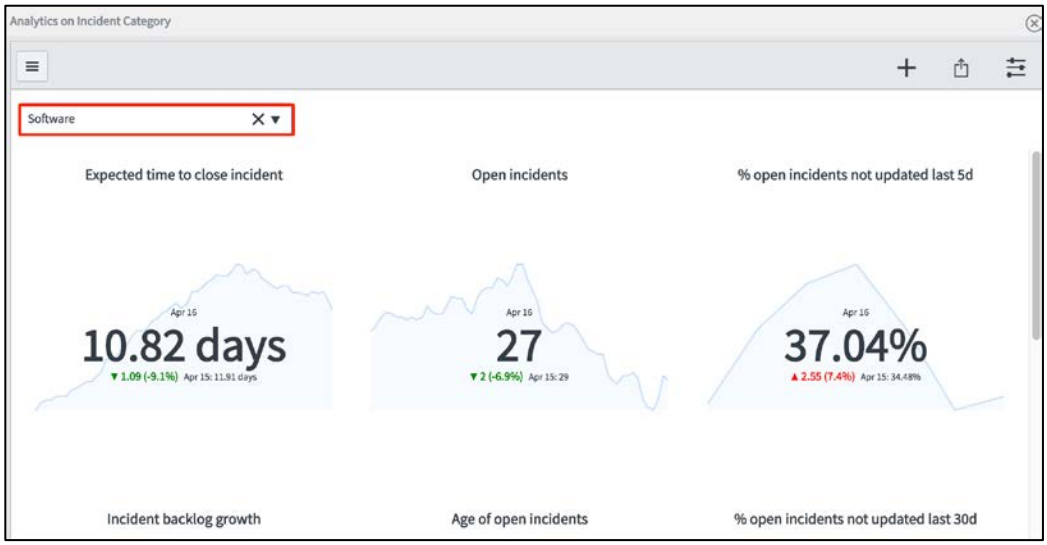


4. Click the **Analytics** button next to the **Category** field. The pop-up dashboard appears.



Note: The value of the Category field from the form is passed through the button to the Performance Analytics dashboard. The presented data is specific to the passed value—in this case the Network category.

5. Select **Software** from the drop-down list in the upper-left area of the pop-up window. The updated data displays.



Note: The pop-up window is an example of a Breakdown Dashboard. By selecting the value Software, you now see how all of those main indicators By Category = Software (i.e., Incident Backlog Growth where Category = Software).

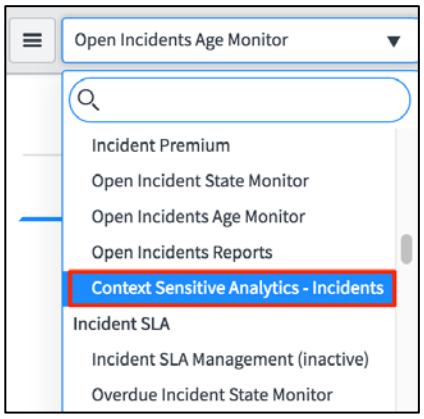
6. Close the pop-up window by clicking on the **x** in the upper-right corner. You return to the Incident form.

Modify In-Form Analytics Pop-up Dashboard

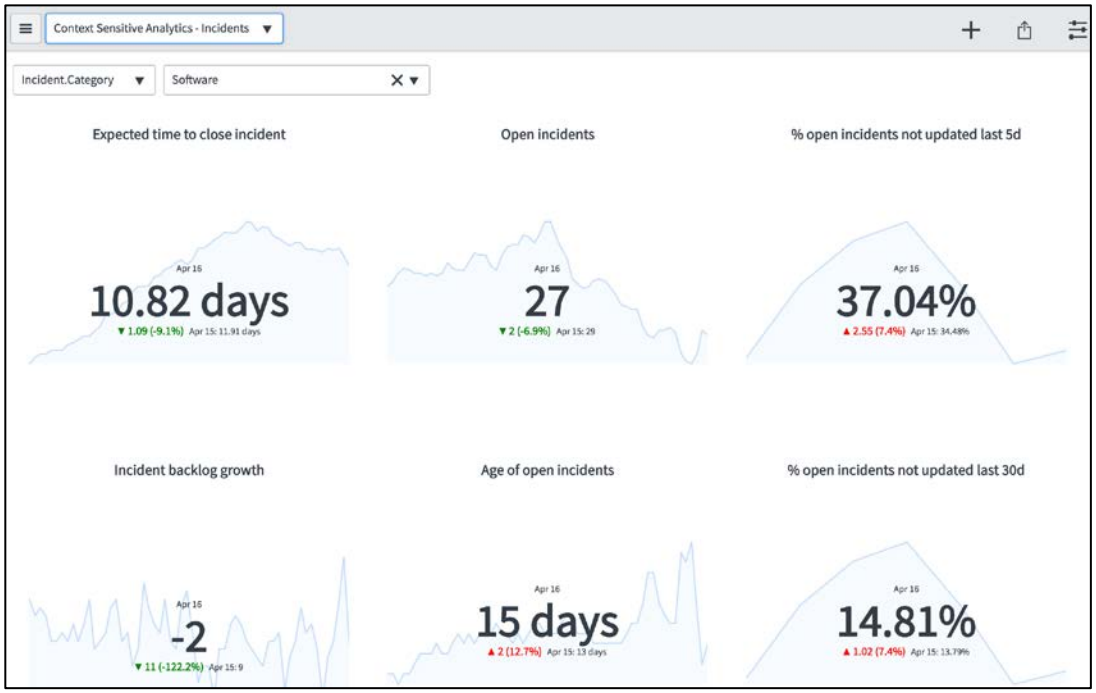
The pop-up dashboard is just another Performance Analytics dashboard that you can modify (as you already did in Lab 3.1). In this section of the lab, we will make modifications to the existing In-Form Analytics dashboard linked to the Category field button.

1. In the left pane, navigate to **Performance Analytics > Dashboards**.

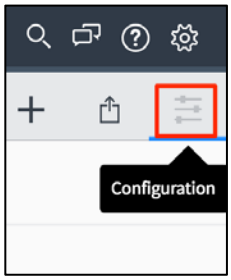
2. From the dashboard drop-down list, select **Incident > Context Sensitive Analytics – Incidents**. The dashboard appears in the content pane.



Note: This dashboard should be the same dashboard you saw in the pop-up window on the Incident form.



3. Click the **Configuration** button to enter configuration mode.



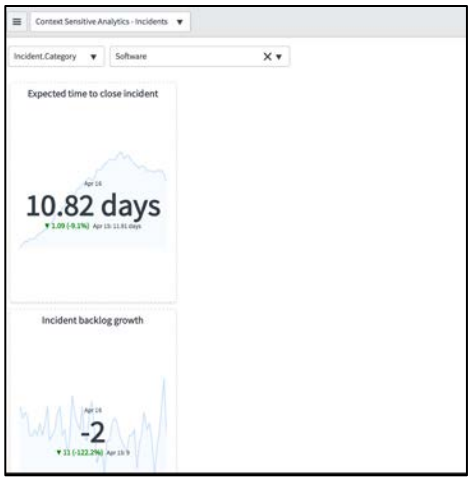
4. Hover over the **Open Incidents** widget and click the **X** to remove the widget from the dashboard.



5. Hover over the **% Open Incidents Not Updated Last 5d** widget and click the **X** to remove the widget from the dashboard.

6. Hover over the **Age of Open Incidents** widget and click the **X** to remove the widget from the dashboard.

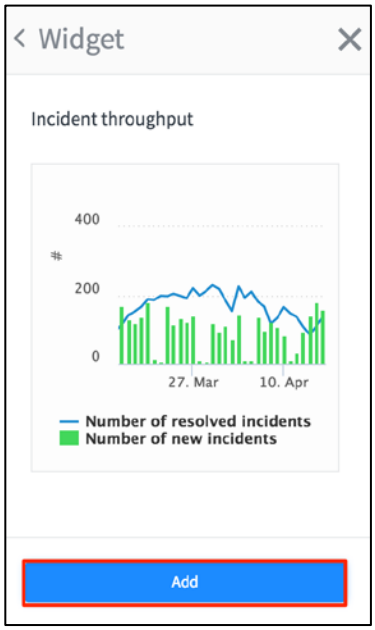
7. Hover over the % **Open Incidents Not Updated Last 30d** widget and click the **X** to remove the widget from the dashboard.



8. Click the Add Widgets button.

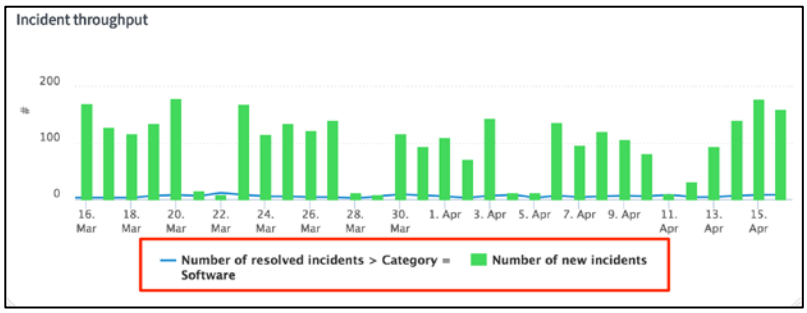


9. In the Add Content dialog box, select **Performance Analytics > Time Series > Incident throughput**, and click the **Add** button.

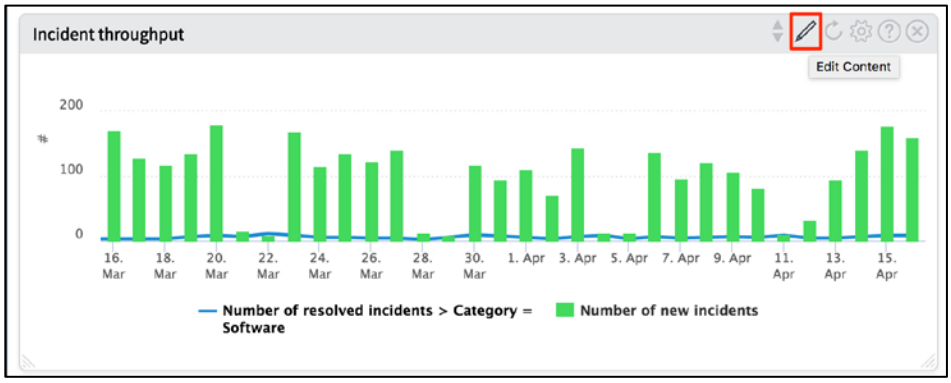


Note: This is the same widget you created in Lab 3.1.

10. Notice that the one of the indicators in the legend has the selected category applied, while the other indicator does not (Assuming that you completed Lab 3.1 correctly). We need to ensure that both indicators reflect the selected category.

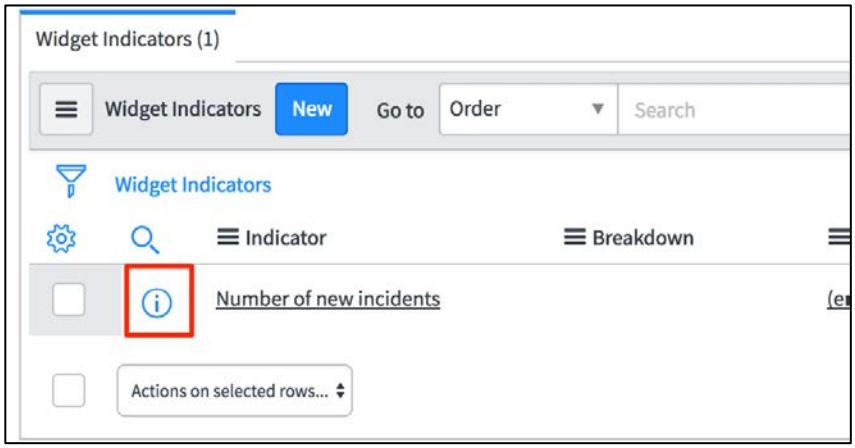


11. Hover over the **Incident throughput** widget and select the **Edit Content** (pencil) icon.

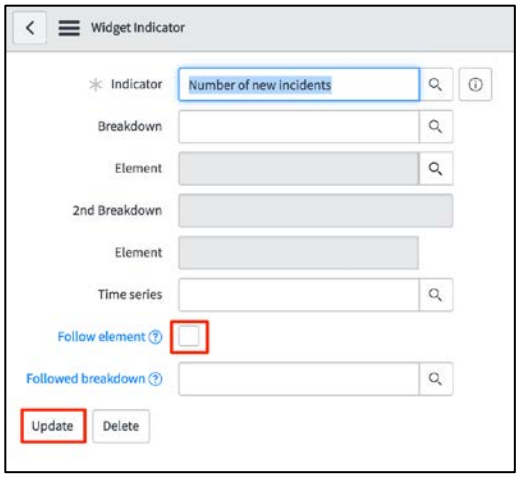


The Edit Widgets dialog box appears.

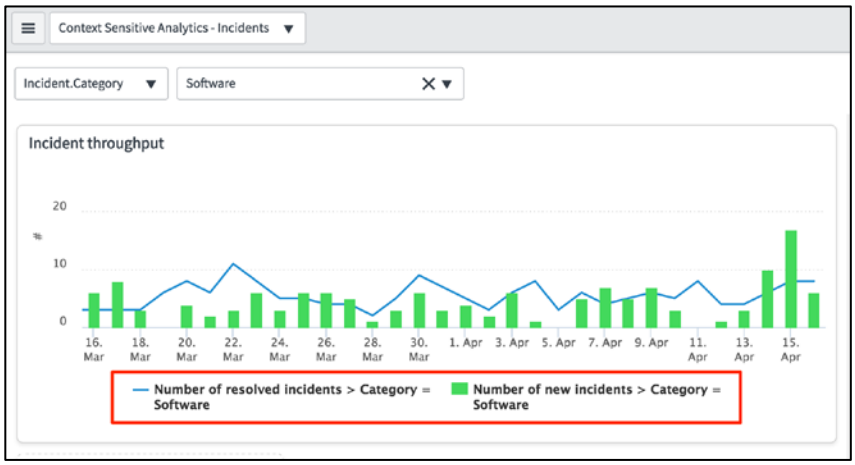
12. Scroll down the form to the Widget Indicators section, and click the information icon next to the **Number of new incidents** indicator.



13. On the Widget Indicator form, select the **Follow element** check box, and click the **Update** button.



14. Click the **Update** button again, and you should be returned to the dashboard. Note that selected category is now applied to both indicators.

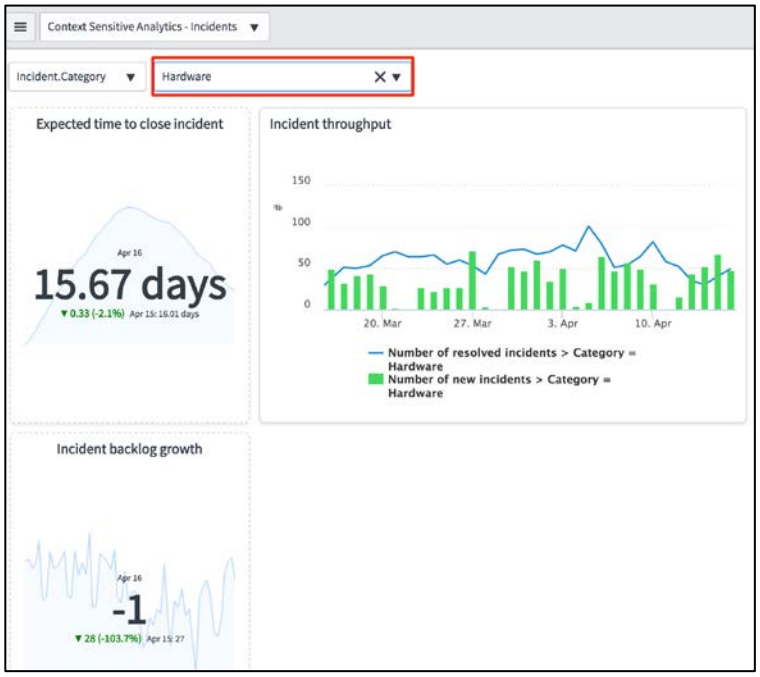


Note: Remember in Lab 3.1 you checked the **Follow element** box when creating the **Incident throughput** widget, but only on the **Number of resolved incidents** indicator. The **Follow element** setting tells the widget to change the displayed scores based on the breakdown element selected at the top of the dashboard page.

15. The dashboard isn't using the available space well. Drag the left side of the Incident throughput widget to the right, so that the **Expected time to close incident** widget moves up next to it.

16. Drag the bottom edge of the **Incident throughput** widget so that it lines up with the bottom of the **Expected time to close incident** widget.

17. Click on the Software drop-down list and select **Hardware**. Note that all of the widgets now reflect data for the Hardware category.



Review the In-Form Analytics Changes

In this section of the lab, you review the changes you made to the dashboard now reflected in the In-Form Analytics button.

1. In the left pane, navigate to **Incident > Open**. A list of open incidents displays in the main content pane.

2. Click Incident number **INC0010333** from the list of incidents. The Incident form appears.

3. Click the **Analytics** button next to the **Category** field. The pop-up dashboard appears.

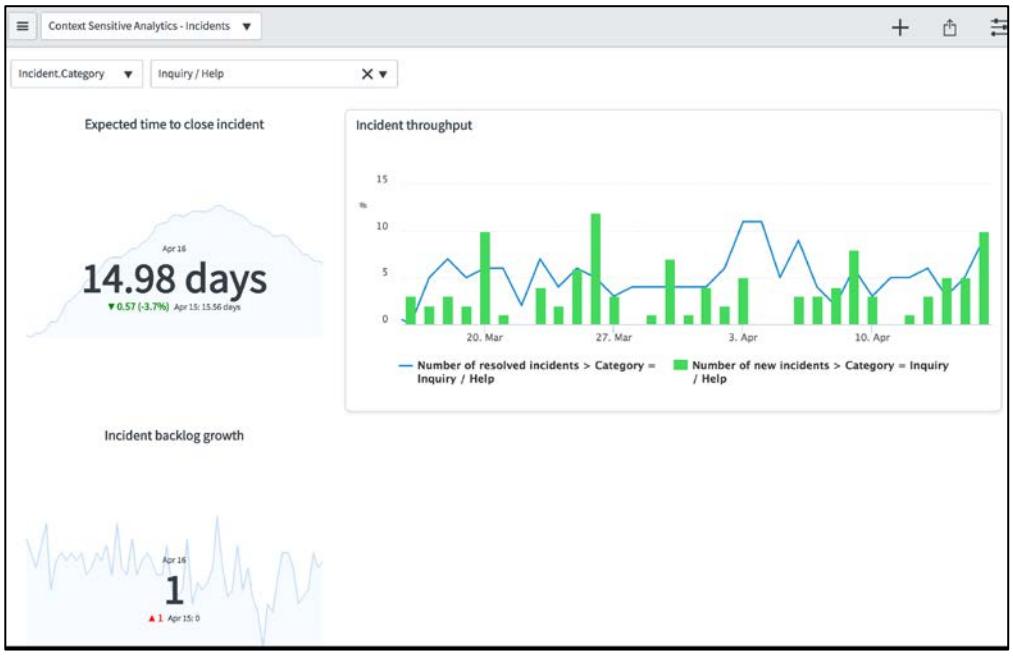


Note: You should see the changes you made to the dashboard.

4. Select **Inquiry / Help** from the drop-down list. The In-Form Analytics dashboard now reflects data related to the Inquiry / Help category.

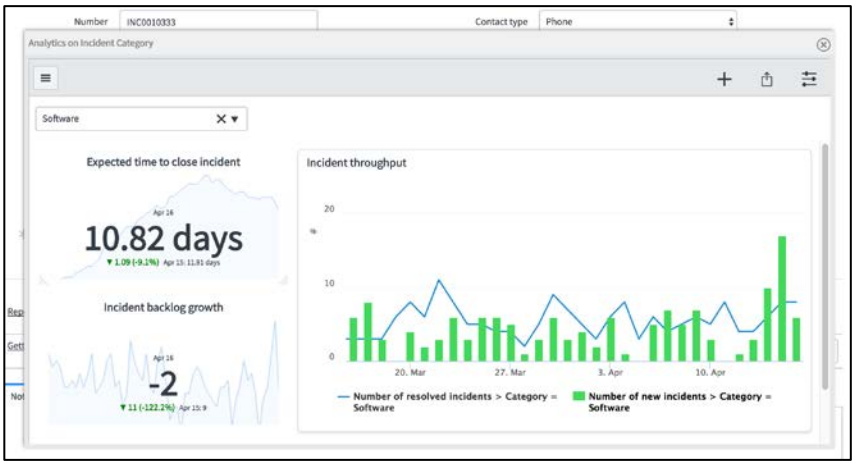
Lab Success Verification

1. The In-Form Analytics dashboard should look like the following at the end of the lab.



Extra Credit

Under **Step 3** on **page 58**, notice that not all the widgets appear in the In-form pop-up window. Style the In-Form Analytics dashboard so that the entire dashboard appears within the In-form window. When viewing the In-form window, the dashboard should appear similar to the following.



Lab Goal

While Performance Analytics comes with a lot of standard indicators, you may find a case where you need more data. Not to worry—Performance Analytics can be extended to collect analytics data on any table in the ServiceNow Platform. You can create additional indicators to measure exactly what is needed to gain insight into process performance.

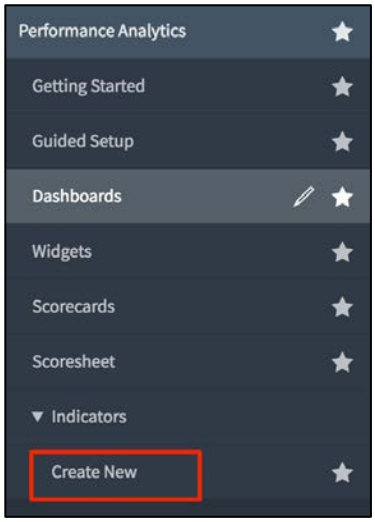
In this lab, you create a new automated indicator to collect data on your First Call Resolution (FCR) performance.

Lab 5.1 Create Automated Indicators

Create a New Automated Indicator

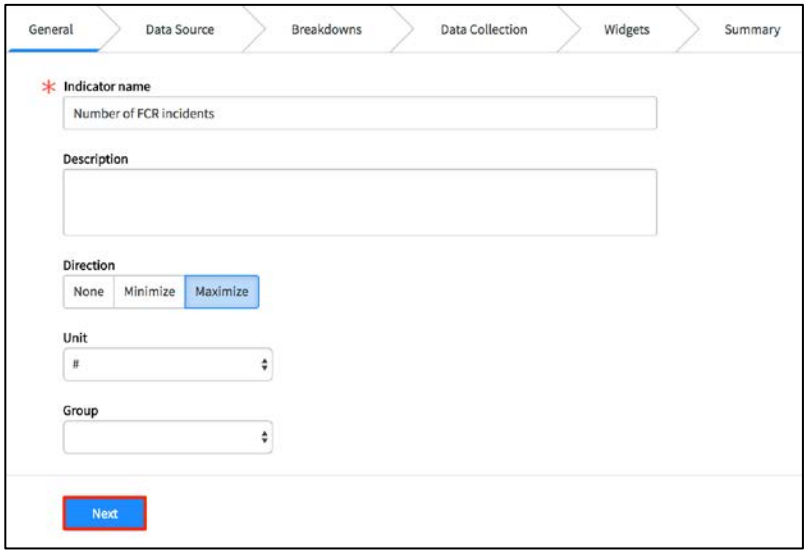
In this section of the lab, you create a new automated indicator using the Create New indicator guided setup. Once created, this indicator will store the scores for the First Call Resolution data.

1. In the left pane, navigate to **Performance Analytics > Indicators > Create New**. The Create a New Automated Indicator setup page appears.



2. Fill in the following information in the **General** form, and then click **Next**.

   Indicator Name: **Number of FCR incidents**
   Direction: **Maximize**
   Unit: **#**

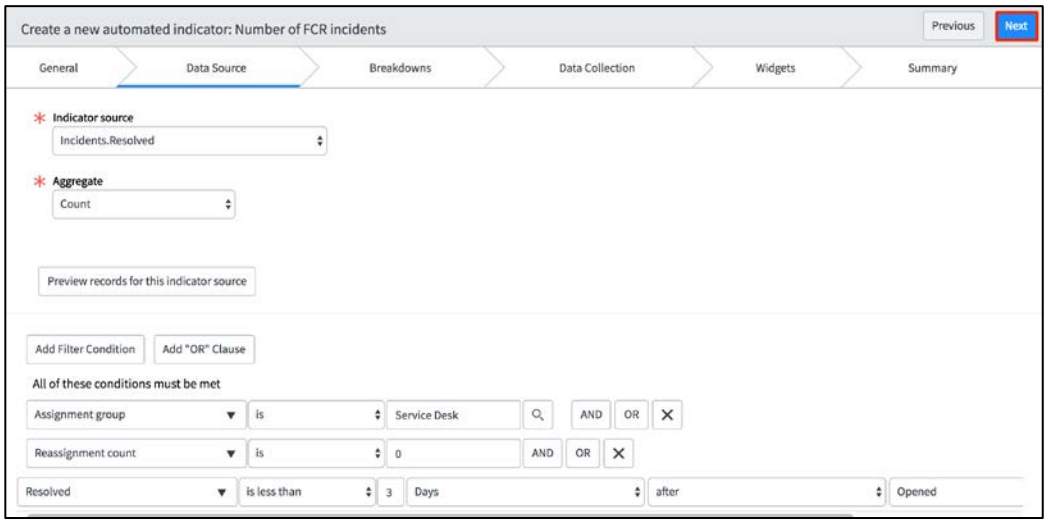


3. Fill in the following information in the **Data Source** form:

   Indicator source: **Incidents.Resolved**
   Aggregate: **Count**
   With the following conditions:

   Assignment group > is > Service Desk AND
   Reassignment count > is > 0 AND
   Resolved > is less than > 3 > Days > after > Opened

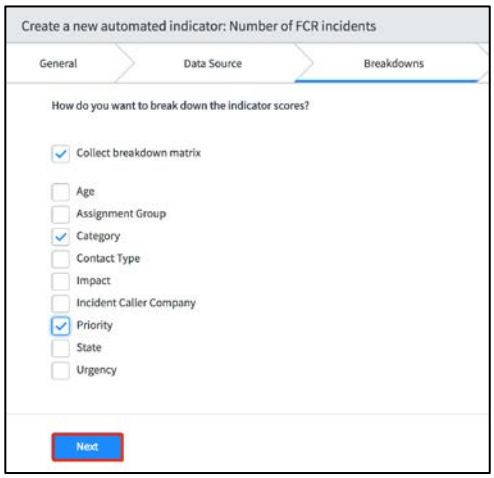
   … and then click **Next**.



4. Check the following boxes in the **Breakdowns** form:

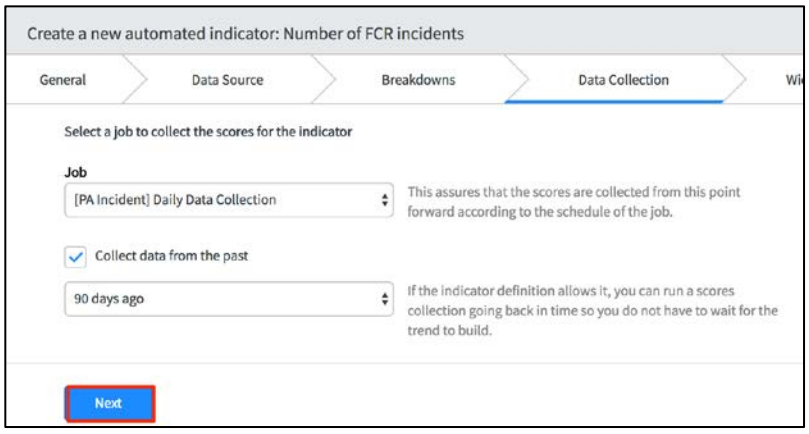
   Collect breakdown matrix
   Category
   Priority

   … and then click **Next**.



5. Fill in the following information in the **Data Collection** form:

   Job: **[PA Incident] Daily Data Collection**
   Collect data from the past: **Checked , 90 days ago**

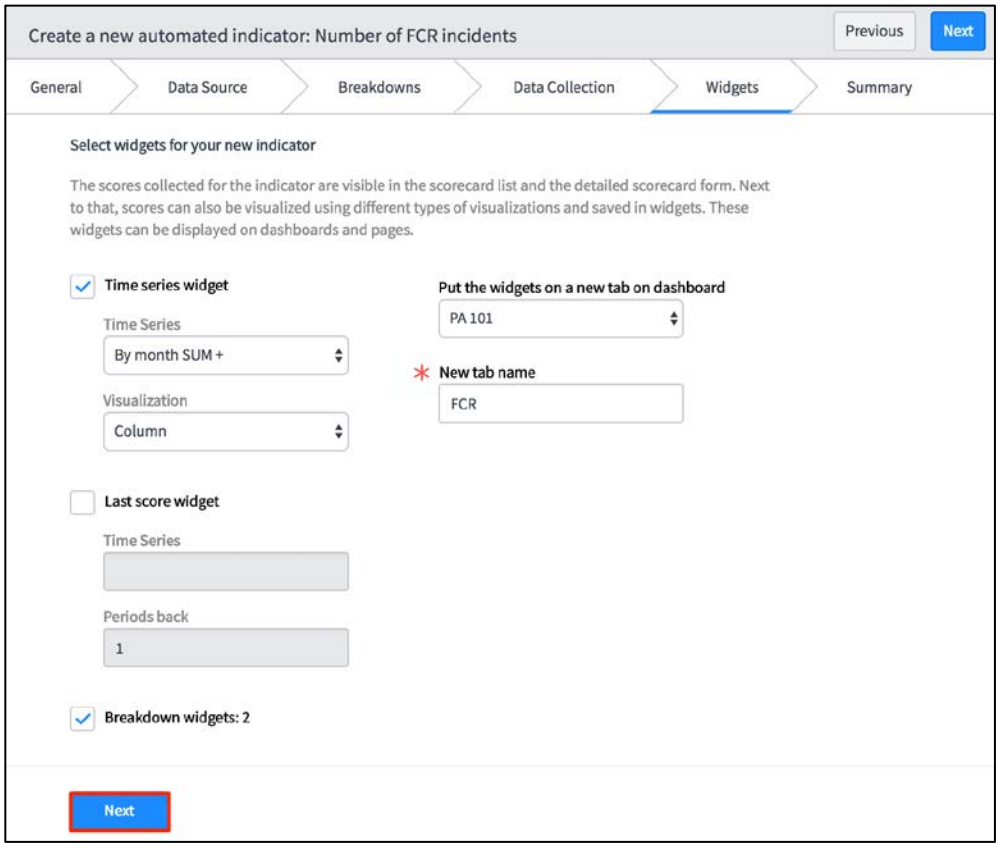


   … and then click **Next**.

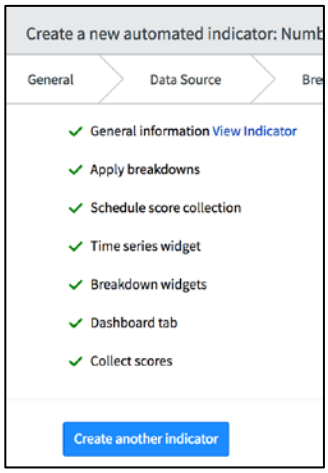
6. Fill in the following information in the **Widgets** form:

   Time series widget: **Checked**
   Time series: **By Month SUM+**
   Visualization**: Column**
   Breakdown widgets: **Checked**
   Put the widgets on a new tab on dashboard**: PA 101**
   New tab name: **FCR**

   … and then click **Next**.



7. On the Summary form, click Apply. The tasks all run. Wait for all tasks to be checked. This should take 15-30 seconds to complete.



Extra Credit

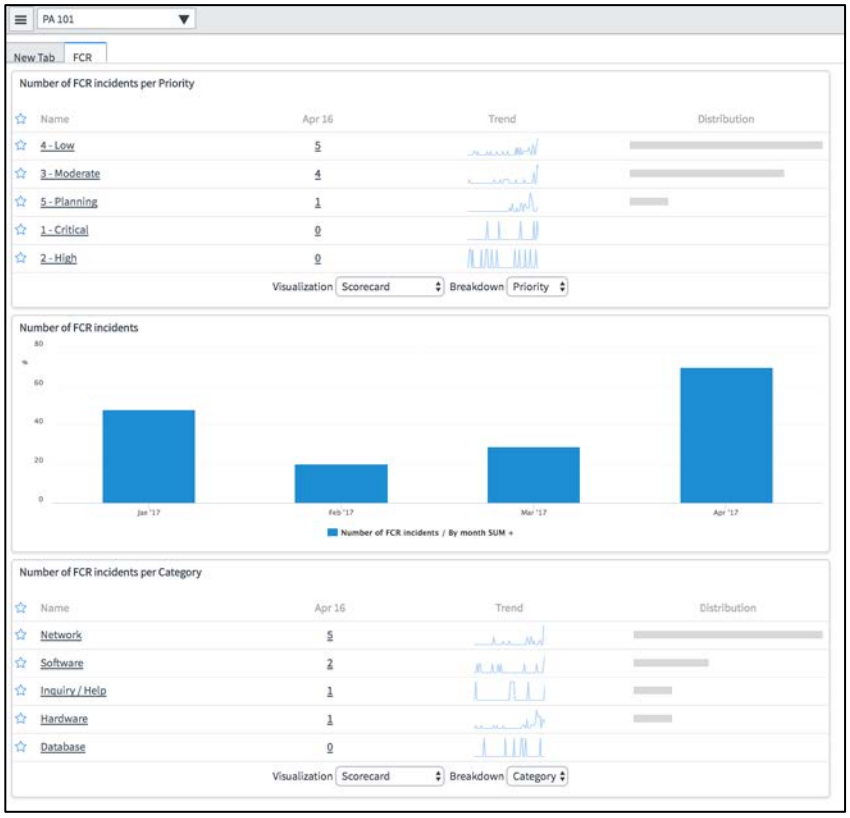
Using the **Number of FCR Incidents** widget as an example, modify the **Number of FCR incidents per Priority** widget to display with the time series **By Month SUM+**.

Hint: You need to navigate to the new dashboard tab created in this lab.

Lab Success Verification

1. In the left pane, navigate to **Performance Analytics > Dashboards**.
2. On the **Other > PA 101** dashboard, select the **FCR** tab.

3. The **FCR** tab should look similar to the example.



Lab Goal

Instead of collecting data from tables, you may need to calculate statistics on existing data. This is where the Formula Indicator is useful. You can apply mathematical operations to existing indicators to obtain a calculated result.

This lab explains how to create a new Formula Indicator for **% of FCR incidents** using the new **Number of FCR incidents** Indicator created in Lab 5.1.

Lab 5.2
Create Formula Indicators

Create a New Formula Indicator

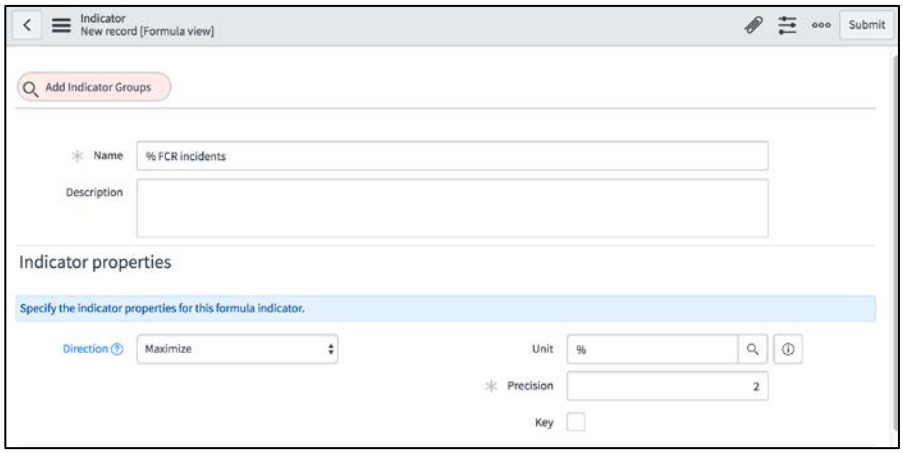
In this section of the lab, you create a new formula indicator based off of two existing indicators.

1. In the left pane, navigate to **Performance Analytics > Indicators > Formula Indicators**. The list of formula indicators appears on the page.

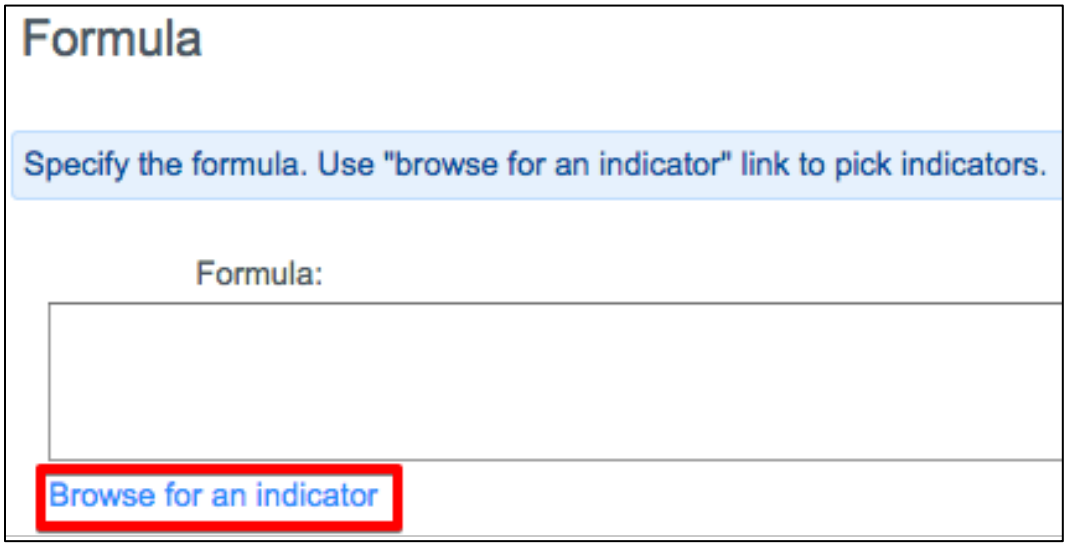
2. In the upper-left of the main content pane, click **New**. The New Indicator record form appears.

3. Fill in the following information in the **Indicator** form:

   Name: **% FCR incidents**
   Direction: **Maximize**
   Unit: **%**
   Precision: **2**



4. In the Formula section of the form, click the **Browse for an indicator** link below the formula box to open the overlay.



5. Fill in the following information in the overlay form:

   Indicator: **Number of FCR incidents**
   Time series: **By Month SUM+**
   Allow breakdowns: **Checked**

   … and then click **Select**. You return to the New Formula Indicator form.



6. Click the **Browse for an indicator** link below the formula box again.

7. Fill in the following information in the overlay form:

   Indicator: **Number of resolved incidents**
   Time series: **By Month SUM+**
   Allow breakdowns: **Checked**

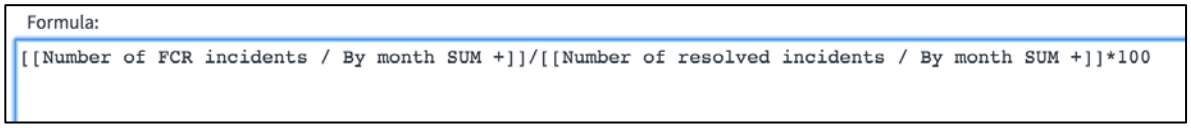
   … and then click **Select**. You return to the New Formula Indicator form.



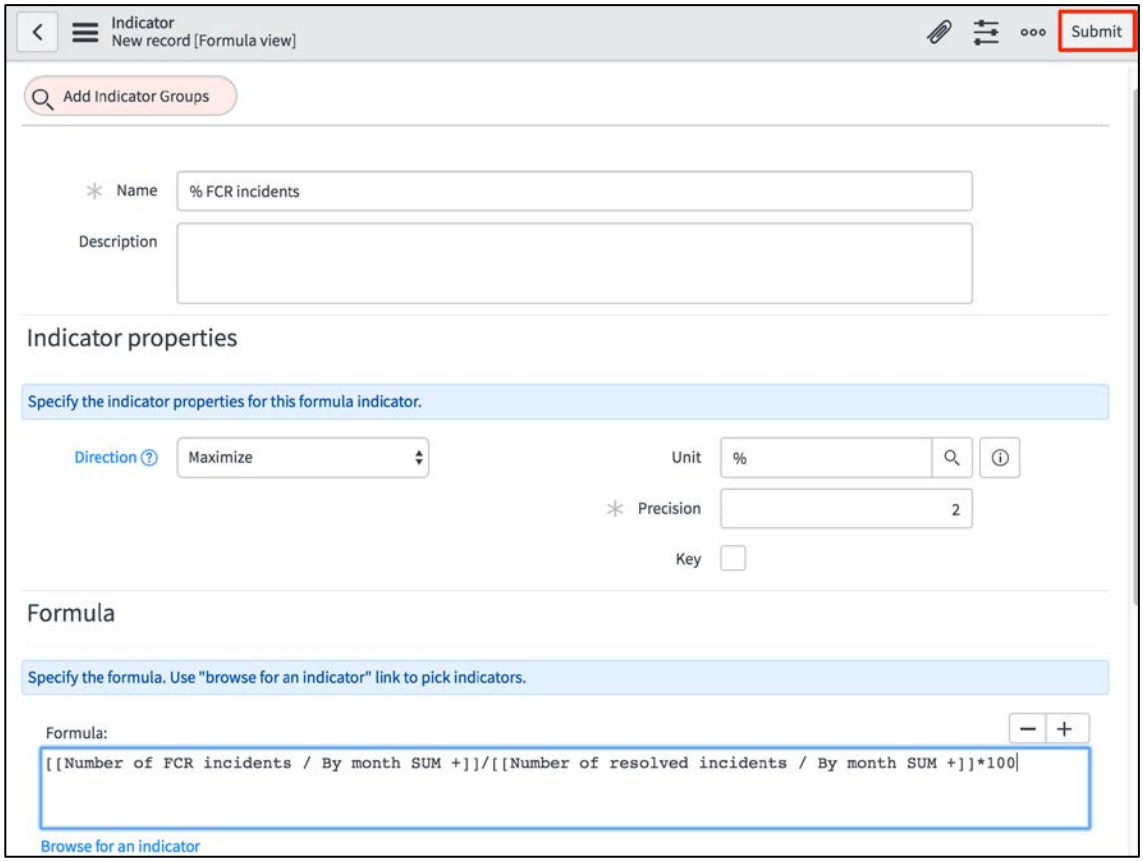
8. Between the Indicator names in the formula, insert the **/** operator.

9. Since you want the score to be a percentage, add *** 100** to the end of the formula.

   The formula should now read:



10. The form should look similar to the following.



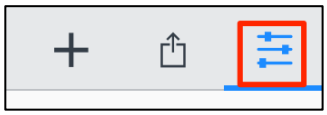
11. Click **Submit**. You return to the list of Formula Indicators.

Add the New Formula Widget to an Existing Widget

In this section of the lab, you add the new formula indicator to an existing widget in the PA 101 dashboard.

1. In the left pane, navigate to **Performance Analytics > Dashboard**.
2. Select the **Other > PA 101** dashboard from the drop-down list.
3. Click on the **FCR** tab.

4. Click the **Configuration** button in the upper-right of the main content pane to enable edit mode.



5. Hover over the **Number of FCR incidents** widget and click the  icon. The Widget form appears.



6. Scroll down to the **Widget Indicators** related list and click **New.** The Widget Indicator for appears.

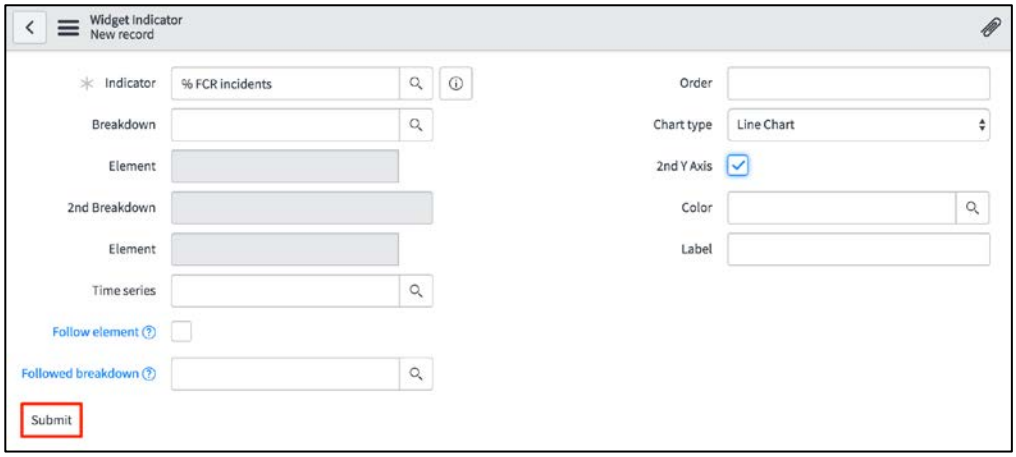


7. Fill in the following information on the **Widget Indicator** form.

   Indicator: **% FCR incidents**
   Chart type: **Line Chart**
   2nd Y Axis: **Checked**

   … and then click **Submit**.

   Note: You did not need to enter anything in the **Time series** box, because the formula definition created earlier already applies the By Month SUM+ time series.



8. Click **Update** on the Widget form. You return to the dashboard.



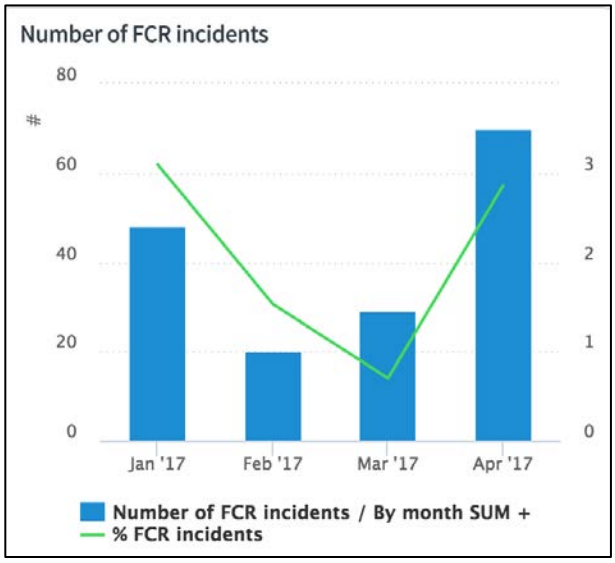
Note: You may need to click **Update** multiple times to return to the Dashboard.

Extra credit

Rearrange widgets on the dashboard tabs to your preference.

Lab Success Verification

1. The Number of FCR incidents should look similar to the following sample.



Lab Goal

In Labs 5.1 and 5.2, you created automated and formula indicators, respectively. As you know, indicators are the main building blocks of data you need to visualize data. But as you learned in Lab 2.1, there are breakdowns you can create to add an additional dimension of analysis.

Performance Analytics comes with a number of standard breakdowns for you to apply to indicators, but you may have a need to create a new breakdown. Performance Analytics allows you to do that, as well. In this lab, you create a new automated breakdown and associate it with some existing indicators.

Lab 5.3
Create Automated Breakdowns

Create a New Automated Breakdown

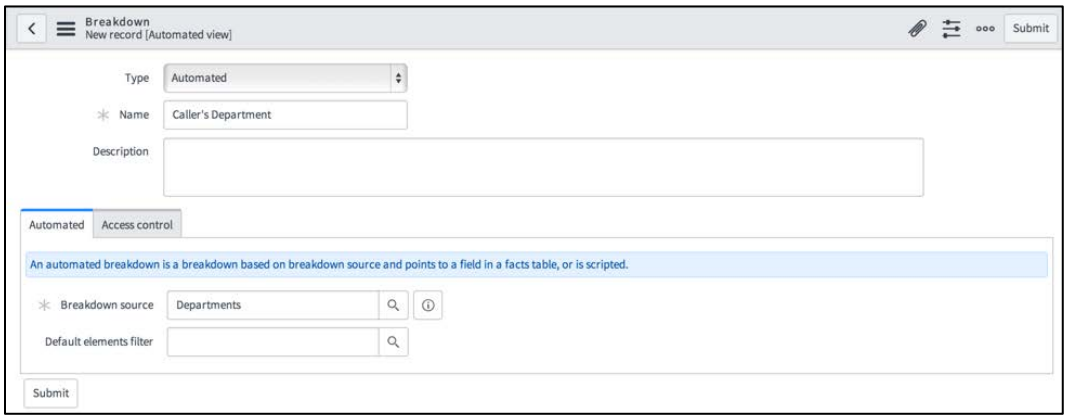
In this section of the lab, you create a new automated breakdown in Performance Analytics. These steps create the structure into which data gets stored.

1. In the left pane, navigate to **Performance Analytics > Breakdowns > Automated Breakdowns**. The list of automated breakdowns appears.

2. In the upper-left portion of the main content pane, click **New**.

3. Fill in the following information in the **Breakdown** form:

   Name: **Caller's Department**
   Breakdown source: **Departments**



4. Right-click the form header and select **Save**.

5. Even though the new breakdown has been defined, you also need to tell the system which table and field to use to match the breakdown with one or more indicators. To accomplish this, you need to create Breakdown Mappings to the facts table on which the indicator is based.

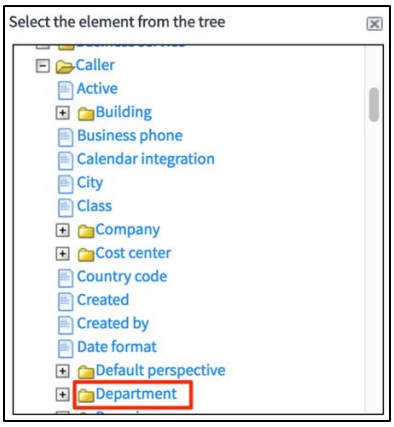
6. In the **Breakdown Mappings** related list, click **New**. The Breakdown Mapping form appears.



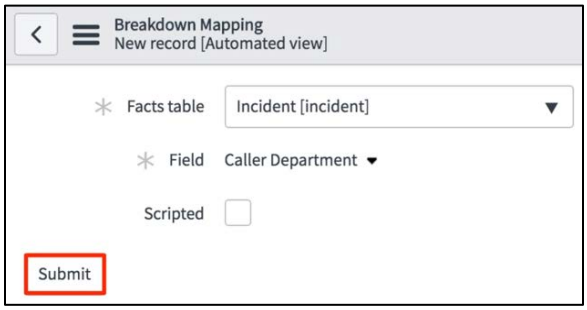
7. Fill in the following information in the **Breakdown Mapping** form:

   Facts Table: **Incident**
   Field: **Caller Department**

   Note: You need to dot walk to the Caller Department field.



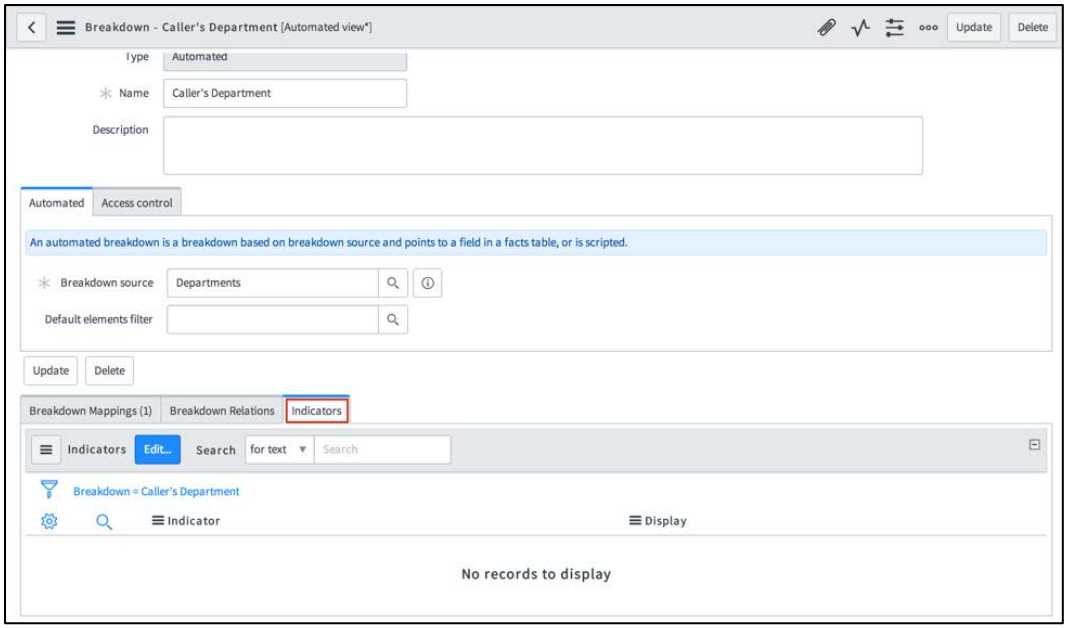
8. Click **Submit**. You return to the automated breakdown form.



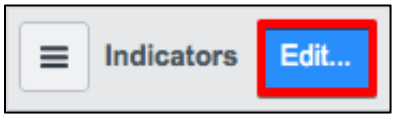
Relate Indicators to This New Breakdown

In this section of the lab, you define the relationships between the indicators and the newly created breakdown. This relationship is required to “link” the two structures together.

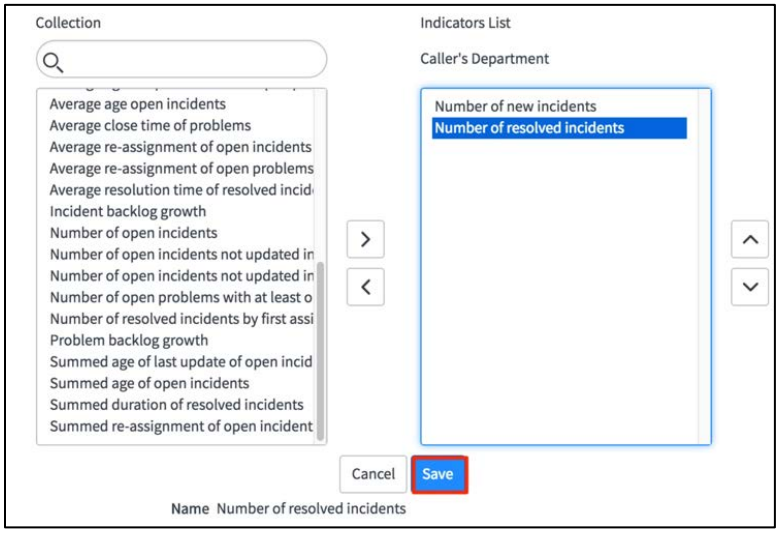
1. From the automated breakdown form, click the **Indicators** related list tab.



2. In the **Indicators** related list, click **Edit.** The Edit Members page appears.

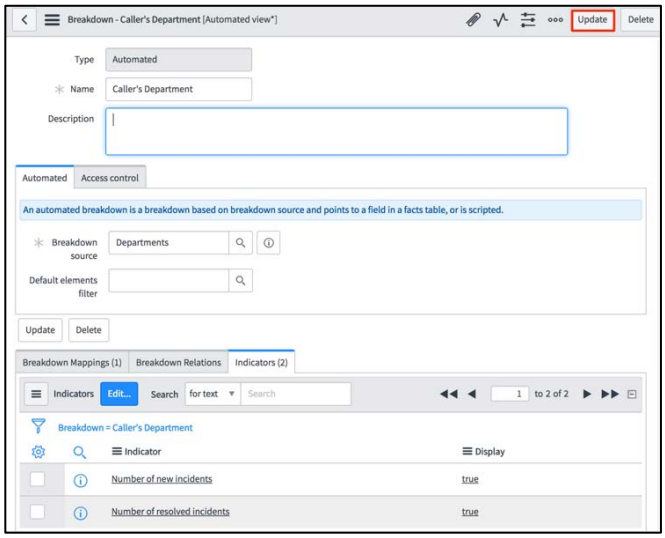


3. Add the **Number of new incidents** and **Number of resolved Incidents** Indicators to the **Indicators List** (right side of the slush bucket).



4. Click **Save**. You return to the automated breakdown form.

5. Click **Update**. You return to the list of automated breakdowns.



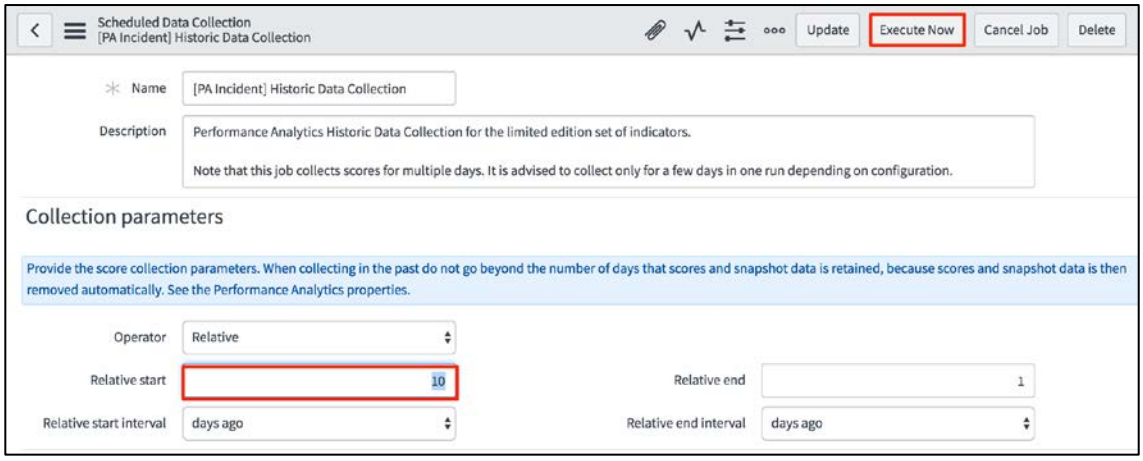
Run Collection to Update Indicators with New Breakdown

In this section of the lab, you collect the historic information related to the new breakdown you created.

1. In the left pane, navigate to **Performance Analytics > Data Collector > Jobs**. The list of jobs appears in the main content pane.

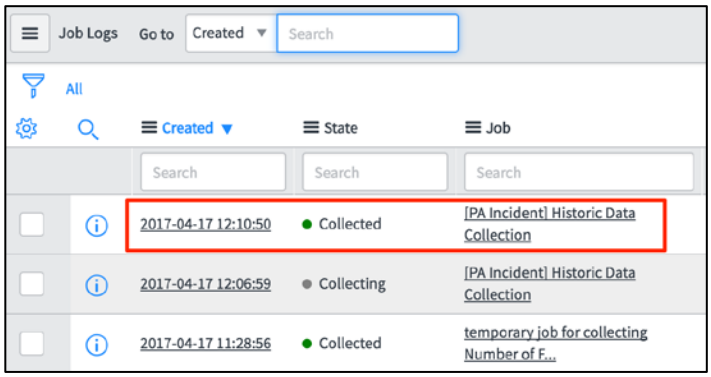
2. Click on the **[PA Incident] Historic Data Collection** job. The Scheduled Data Collection form appears.

3. Modify the Relative start to 10 days ago, and click Execute Now to start the job.



4. In the left pane, navigate to **Performance Analytics > Data Collector > Job Logs.** The list of job logs appears in the main content pane.

5. Refresh the list until the latest job displays as **Collected.** The job should take 1 minute or less to complete.



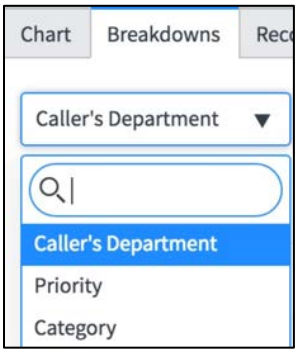
Lab Success Verification

1. In the left pane, navigate to **Performance Analytics > Scorecards**.
2. Open the **Number of new incidents** scorecard.
3. Click any date within the past 10 days, with a score > **0**.



4. Open the **Breakdowns** tab.

5. Select **Caller's Department** from the breakdown drop-down list.



6. The Caller's Department breakdown should look similar to the following sample.

