

IBM Cloud Pak for Business Automation

Demos and Labs

Operational Intelligence

IBM Business Automation Insights

Build Business Performance Center Dashboard

V 21.0.3 IF010 (2023-04-18)

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1 Lab Introduction

In the labs, you will learn how to build and use the Business Performance Center dashboard to provide insights into a Client Onboarding solution for a line of business users.

1.1 Introduction to IBM Business Automation Insights

IBM Business Automation Insights enables the capture of events generated by the operational systems implemented with the IBM Business Automation products. Captured events are aggregated into business-relevant KPIs, and presented in dashboards for lines of business to have a real-time view of their operations.

More technical information about BAI: <https://ibm.box.com/v/IBM-BAI-Tech-Intro>

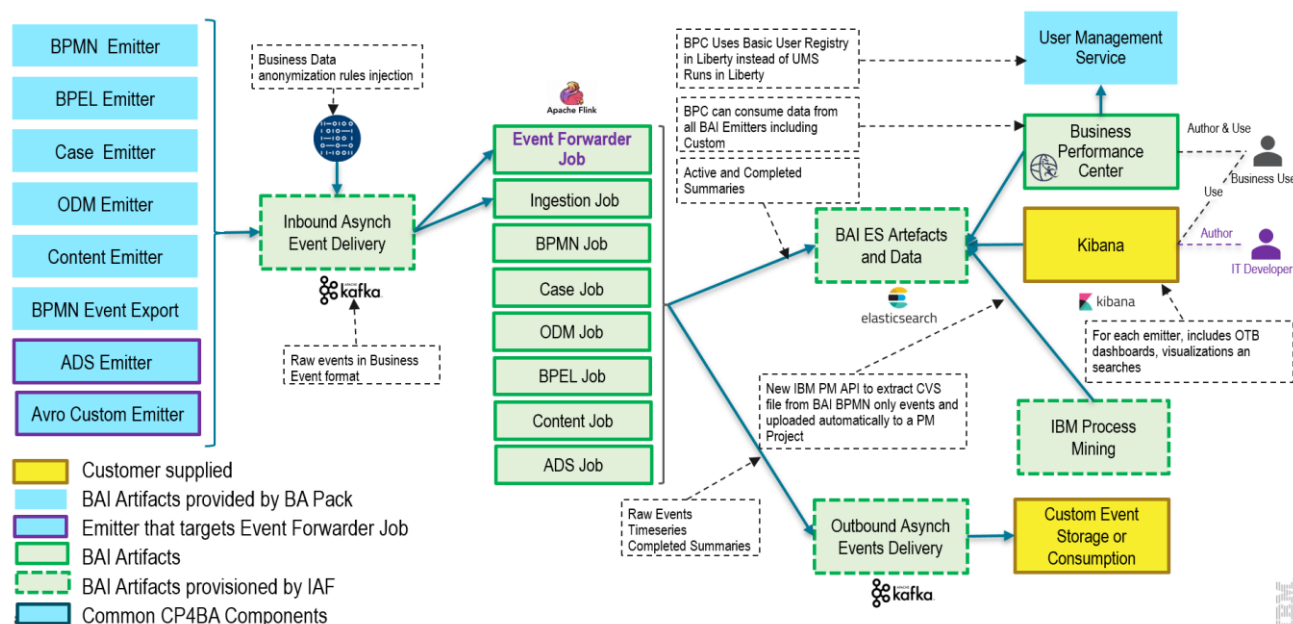


Figure 1. IBM Business Automation Insights 21.0.3 Architecture

Business Performance Center (BPC), shown in Figure 1 above, is the no-code business monitoring application native to IBM Cloud Pak for Business Automation. Using BPC business users (with no IT assistance) can:

- Design and share dashboards in minutes that capture business data in near real-time and provide awareness of essential business activities and processes.
- Prepare, track, and design visualizations of metrics, key performance indicators (KPIs), and other business performance measurements in customizable dashboards.

More information about BPC: <https://ibm.box.com/v/BusinessPerformanceCenter>

1.2 Lab Overview

The solution used during the labs is *Client Onboarding Workflow* automation implemented as a Case with several BPMN processes that implement Case Activities. The solution contains a single Case Type (*Client Onboarding Requests*), which includes activities that need to be performed, data, documents, and conditions driving the processing.

Client Onboarding Request

Case Type Properties Views Case Folders Stages Rules **Activities**

All activities ⓘ 🔒 View

Required activities

- Initialize Request**
File selected documents to the Case folder and handle pending
Precondition: Case Start
Set: <None>
- Notification**
Notify the client and client rep that the review has been
Precondition: Stage started: Notification
Set: <None>
- Perform Scoreboarding**
Scoreboard the client (Classifies them into a segment and assess
Precondition: Stage started: Scoreboarding
Set: <None>
- Update Backend Systems**
Update backend systems with client information
Precondition: Stage started: Backend Systems Up...
Set: <None>

Optional activities

- Review Client Documents**
Renew any new documents coming in from the client
Precondition: Documents: Any document
Property ...
Set: <None>

All five Case Activities above are implemented by BPMN Processes (shown below) in an automatically generated Process App (Client Onboarding)

IBM Automation

Business automations /

Client Onboarding

Process App Settings (Read-only)

Client Onboarding

Processes

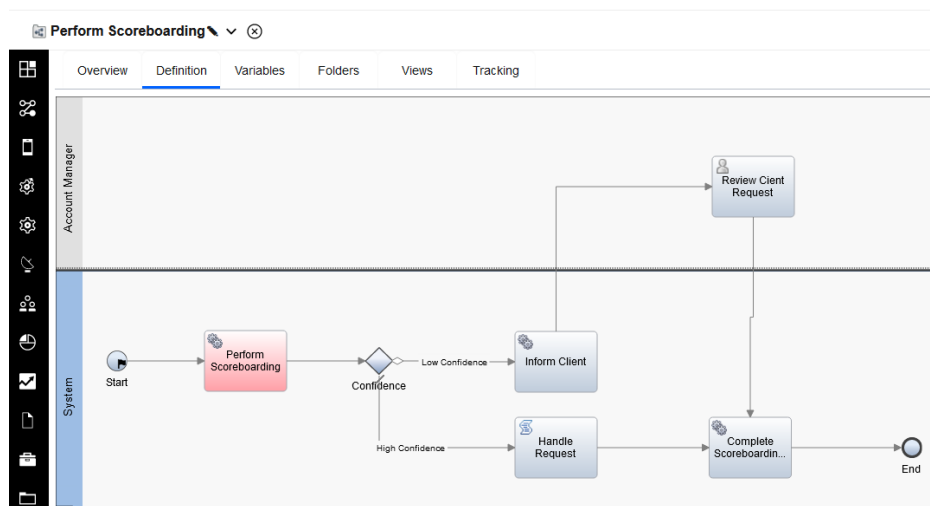
User interface

Exposed Automation Services

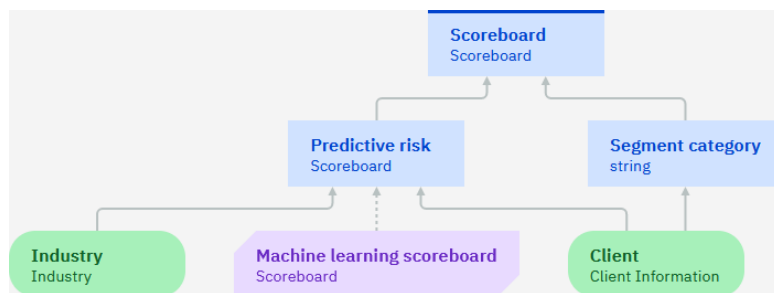
Type Processes 6

- Initialize Request
- New Client Onboarding Request
- Notification
- Perform Scoreboarding
- Review Client Documents
- Update Backend Systems

The *Perform Scoreboarding* Activity (shown in light red below) is particularly interesting. It uses Automation Services to invoke Scoreboard decisions implemented using Automation Decision Services.



The Scoreboard ADS Decision determines if a client is risky using an ML-based predictive model and classifies the client into a segment.



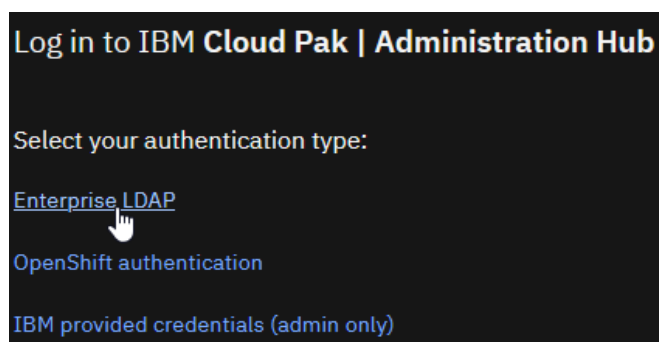
When authoring one of the Charts, you will be using data generated by the above decision.

1.3 Lab Setup Instructions

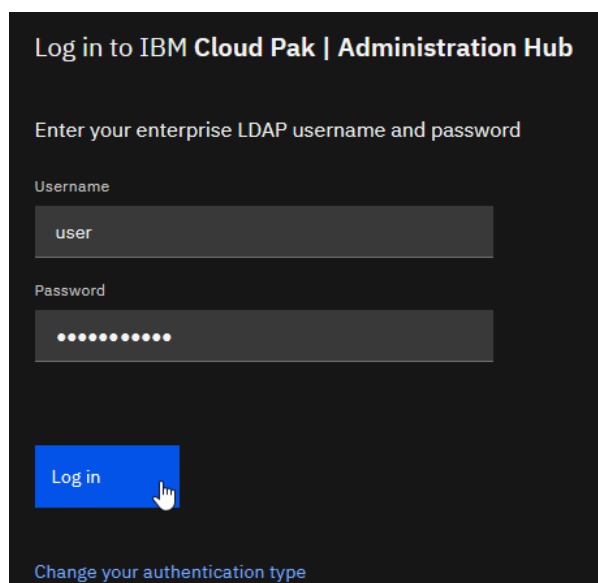
_1. If you are performing this lab as a part of an IBM event, access the document that lists the available systems and URLs along with login instructions. For this lab, you will need to access **IBM Business Performance Center**.

_2. Paste the Business Performance Center URL to your web browser.

_3. Select **Enterprise LDAP** login option



_4. Enter the supplied to you *Username* and *Password*, and then click **Log in**

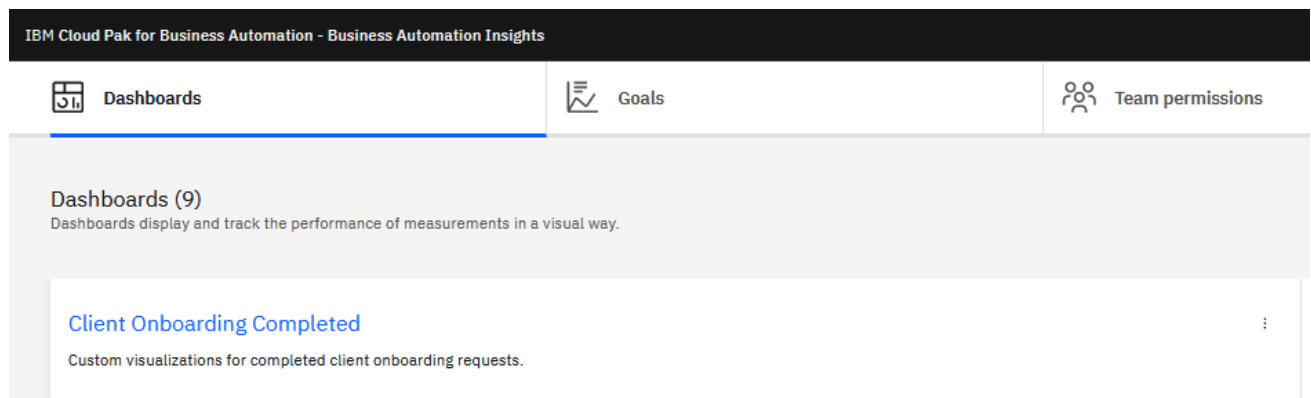


2 Exercise: Create Client Onboarding Workflow Dashboard

2.1 Introduction

In this lab exercise, you will use BPC to create a business dashboard that will enable a business user to get a real-time business insight into *Client Onboarding Workflow*.

In addition to built-in dashboards, a reference version of the dashboard you will be building in the lab exercise (called **Client Onboarding Completed**) has already been built for you.



If you like, you can refer to it when building your dashboard version.

Note that BAI events were already generated for you. But, since you are using a live shared environment with you and other users working on Client Onboarding cases, you may see new events arriving as you author your dashboard. Consequently, some of the screenshots in the lab instructions may not look as captured in the lab instructions.

2.2 Exercise Instructions

In this lab exercise, you will author and configure the following BPC artifacts:

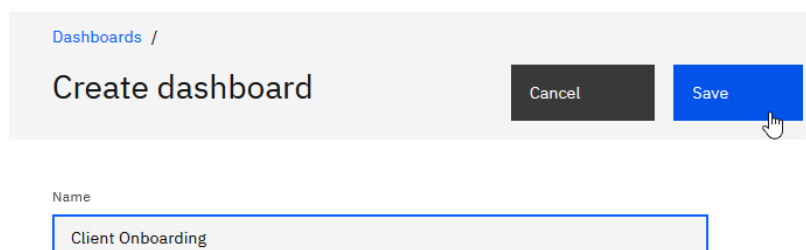
- Client Onboarding **Dashboard**
- **Charts** used in the Client Onboarding dashboard
- A Chart **Alert**
- A **Goal** to group related Charts

2.2.1 Create a Dashboard

_1. Click **Create +**



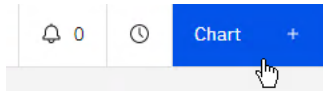
_2. For *Name*, enter **Client Onboarding** and click **Save**



2.2.2 Create an "Average Revenue from Service Fees for Approved Clients" Chart

This gauge chart will show the average revenue from service fees for approved clients.

_1. Click **chart +**



_2. Enter the following and then click **Create**

Item	Value
Name	Average Revenue from Service Fees for Approved Clients
Select measurement	KPI

Client Onboarding ×

Create chart

Name

Average Revenue from Service Fees for Approved Clients

Description (optional)

Select measurement

Metric

90%

A performance indicator based on data items, constants, and other metrics that helps you

Period metric

A representation of metric values measured over time.

KPI

A type of metric that shows the degree to which business objectives are on track.

Period KPI

A representation of KPI values measured over time so that you can spot historical trends.

Data

A set of data items presented in a table.

Cancel Create

2.2.2.1 Define Monitoring Information

_1. For *Monitoring source*, select **Workflow (Case) – Client Onboarding**

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding ▼

This will select events from the Client Onboarding Workflow.

_2. In *Aggregation*, for *Function* select **Average** and *Data item* select **CO_ServicesFee (data) – (long)**

Aggregation

Function

Average

Data item

CO_ServicesFee (data) - (long)

If you wonder how this Case Property got into BAI, look at these comments...

CO in CO_ServicesFee is the Client Onboarding Solution prefix.

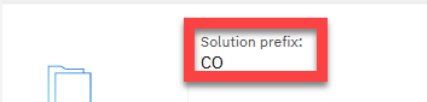
Client Onboarding

Overview

Properties

Roles

In-baskets



ServicesFee in CO_ServicesFee is the name of the Client Onboarding Case properties

Client Onboarding

Overview

Properties

Roles

In-baskets

Documents

Business Objects

Pages

Case Types

Property Definitions ⓘ

OK All ✓

Manage Choice Lists

Services Fee

Integer



Fee being chaged for the services requested

Services Requested

String



The services requested by the client

For BAI Case Emitter to add this property to the emitted events, we need to configure the Client Onboarding Audit Configuration

IBM Business Automation Workflow Case administration

Solutions × Manage Audit Configuration ×

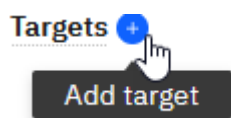
Back Next Save Apply Cancel

Add properties to audit

Add Remove

Object Type	Object Name	Property Name	Property Symbolic Name
Case	Client Onboarding Request	Services Fee	CO_ServicesFee
Case	Client Onboarding Request	Services Requested	CO_ServicesRequested

_3. Click **Targets +**



_4. For *Value*, enter **80000**

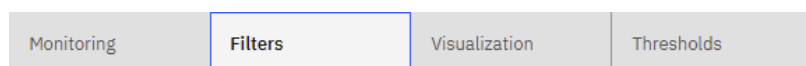
Targets +

Label	Value	
New target	80,000	

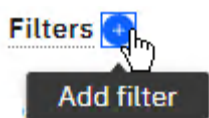
2.2.2.2 Define Filter Data

When selecting Monitoring source, you specified **Workflow (Case) – Client Onboarding**. This setting allows you to work with the instances of Client Onboarding Workflow. Filters allow you to select specific data you want to display in your chart.

_1. Select **Filters** tab



_2. Click the **Filter +** button.



_3. Select the following values from the dropdown list:

Item	Value
Data item	CO_ApprovalStatus (data) – (keyword)
Operator	=
Value	Approved

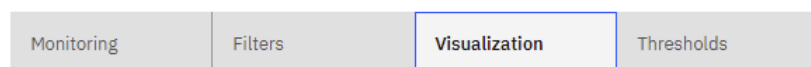
Your Filter setting should look exactly like this:

Data item	Operator	Value
CO_ApprovalStatus (data) - (keyword) ▼	= ▼	Approved

2.2.2.3 Define Visualization

This setting allows you to customize your Chart display settings.

_1. Select **Visualization** tab



_2. Enter the following values:

Item	Value
Min	0
Max	100,000
Unit	\$

Your Gauge setting should look exactly like this:

Gauge settings

Min	Max
<input type="text" value="0"/>	<input type="text" value="100,000"/>
Unit	
<input type="text" value="\$"/>	

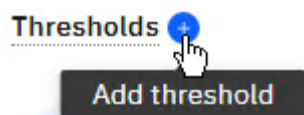
2.2.2.4 Define Thresholds

This setting allows you to customize the Gage threshold setting.

_1. Select **Thresholds** tab

Monitoring	Filters	Visualization	Thresholds
------------	---------	---------------	------------

_2. Click the **Thresholds +** button two times.






_3. For each group, select the following values from the dropdown list:


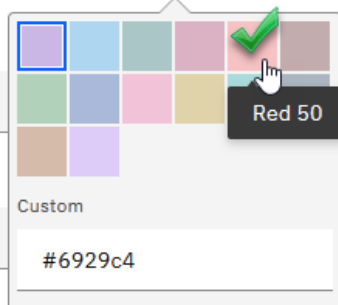
Threshold	Data item	Value
1	Threshold name	Below
	Value	30000
	Range name 1	Poor
	Range name 2	Good
2	Threshold name	Above
	Value	80000
	Range name	Excellent

Your Thresholds setting should look exactly like this:

Thresholds +

Threshold name	Value	Range name	Start	End	
Below	30,000	Poor	min	30,000	
		Range name	Start	End	
		Average	30,000	80,000	
Threshold name	Value	Range name	Start	End	
Above	80,000	Excellent	80,000	max	

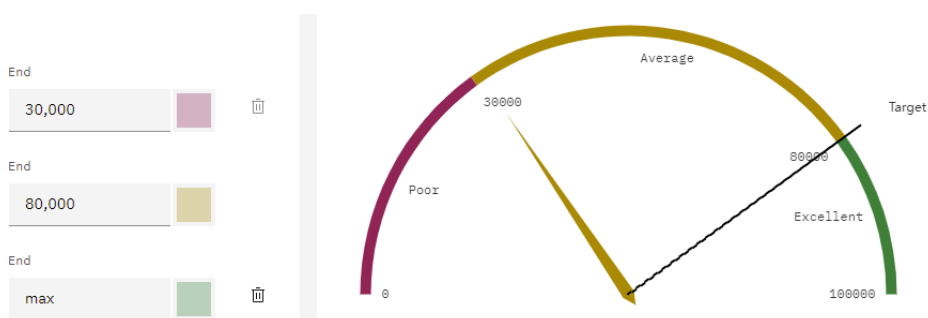
_4. Click **Purple Color patch** and then select **Red color patch** from the palette

Start	End	
min	30,000	
Start	End	
30,000	80,000	
Start	End	
80,000	max	Custom #6929c4

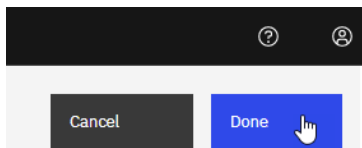
_5. Using the above steps, customize the other two colors

Item	Value
Orange	Yellow
Excellent Color	Green

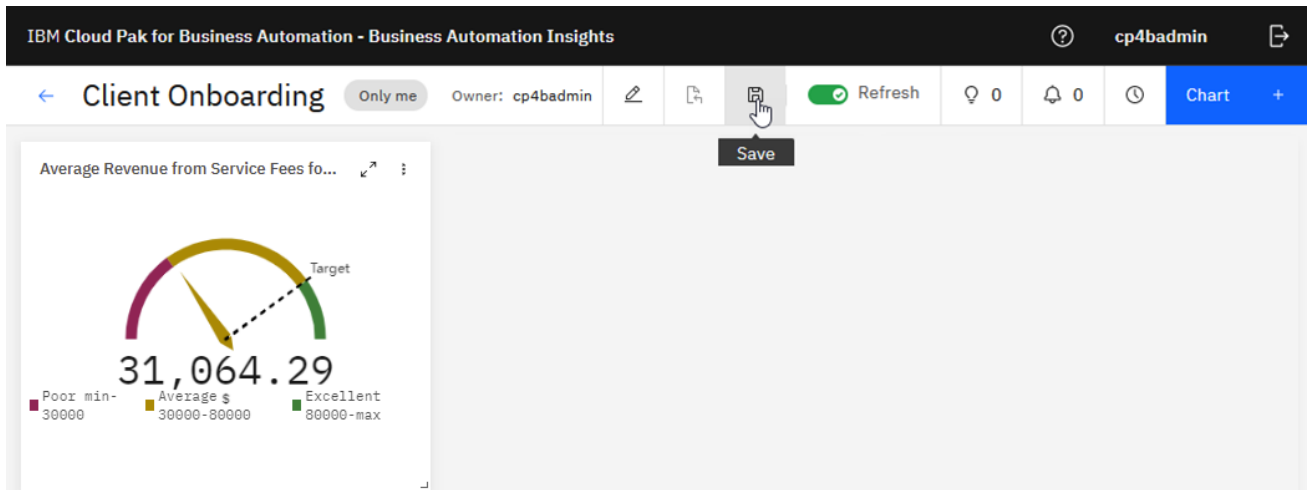
The color settings should look exactly like this:



_6. Click **Done**



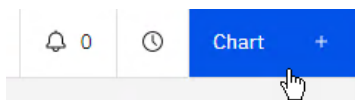
_7. On the Dashboard, Toolbar click the **Save** icon to save your work!



2.2.3 Create "Approvals by Industry" Chart

This hierarchical pie chart will show the state of the industry's approvals (Approved, Rejected, Under Review).

_1. Click **chart +**



_2. Enter the following and then click **Create**

Item	Value
Name	Approvals by Industry
Select measurement	Metric

Client Onboarding

×

Create chart

Name

Approvals by Industry ✓

Description (optional)

Select measurement

Metric

90%

A performance indicator based on data items, constants, and other metrics that helps you monitor your business activities.

Period metric

A representation of metric values measured over time.

KPI

A type of metric that shows the degree to which business objectives are on track.

Period KPI

A representation of KPI values measured over time so that you can spot historical trends.

Data

A set of data items presented in a table.

Cancel

Create ✓

2.2.3.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding ▼

_2. Click **Group by +** button **twice**

Group by +

_3. Enter the following keywords for the *Group by* entries:

Item	Value
1	CO_ApprovalStatus (data) – (keyword)
2	CO_Industry (data) – (keyword)

Group by +

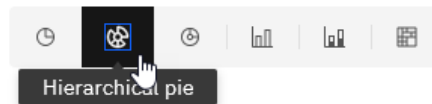
CO_ApprovalStatus (data) - (keyword) ▼

CO_Industry (data) - (keyword) ▼

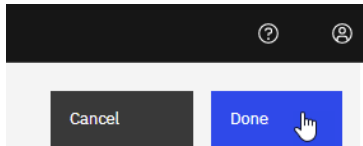
_4. For chart, type select **Hierarchical pie**

Metric

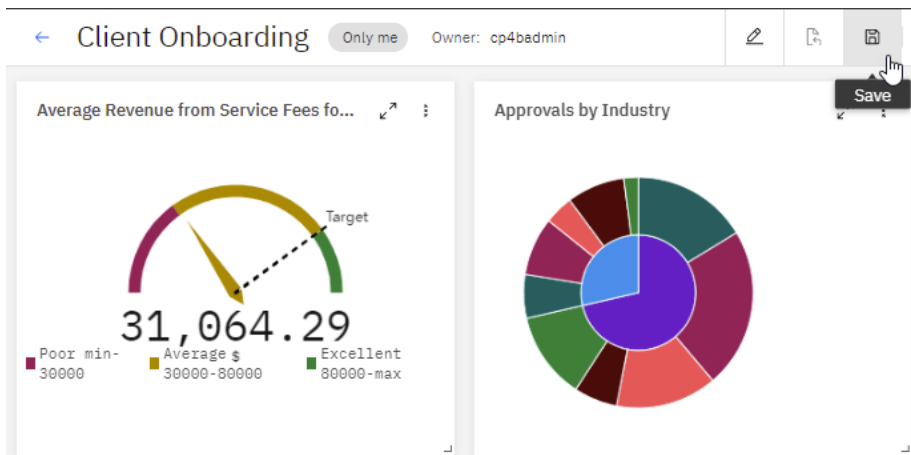
Hierarchical pie



_5. Click **Done**



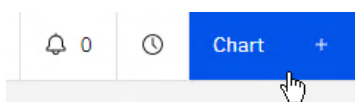
_6. On the Dashboard, Toolbar click the **Save** icon to save your work!



2.2.4 Create a "Services Subscription by Industry with Drilldowns" Chart

This pie chart will show the service subscriptions by industry. Another feature of this chart is drilling down by service > industry > country.

_1. Click **chart +**




_2. Enter the following and then click **Create**

Item	Value
Name	Services Subscription by Industry with Drilldowns
Select measurement	Metric

Client Onboarding ×


Create chart

Name

Services Subscription by Industry with Drilldowns 

Description (optional)

Select measurement

Metric 

A performance indicator based on data items, constants, and other metrics that helps you monitor your business activities.

Period metric

A representation of metric values measured over time.

KPI

A type of metric that shows the degree to which business objectives are on track.


Period KPI

A representation of KPI values measured over time so that you can spot historical trends.

Data

A set of data items presented in a table.

Cancel


Create 

2.2.4.1 Define Monitoring Information


_1. For *Monitoring source*, select **Workflow (Case) – Client Onboarding**

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding 


_2. Click **Group by +** button **three times**

Group by 

_3. Enter the following keywords for the *Group by* entries:

Item	Value
1	CO_Industry (data) – (keyword)
2	CO_ServiceRequested (data) – (keyword)
3	CO_AddressCountry (data) – (keyword)

Drill down groups should look exactly like his:

Group by 

You can drill-down to get the details of each group on the chart.

CO_Industry (data) - (keyword)	▼
--------------------------------	---

The following groups may be accessed by drilling-down into the chart:

CO_ServicesRequested (data) - (keyword)	▼
---	---

CO_AddressCountry (data) - (keyword)	▼
--------------------------------------	---

_4. For chart type, select **Pie**

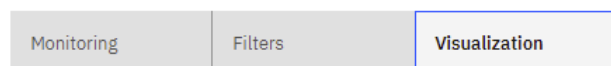
Metric

Pie



2.2.4.2 Define Visualization Information

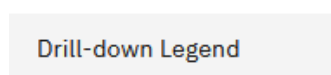
_1. Click **Visualization** tab



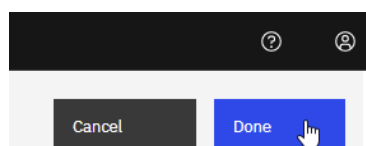
_2. For *Pie settings > unit*, enter **Drill-down Legend**

Pie settings

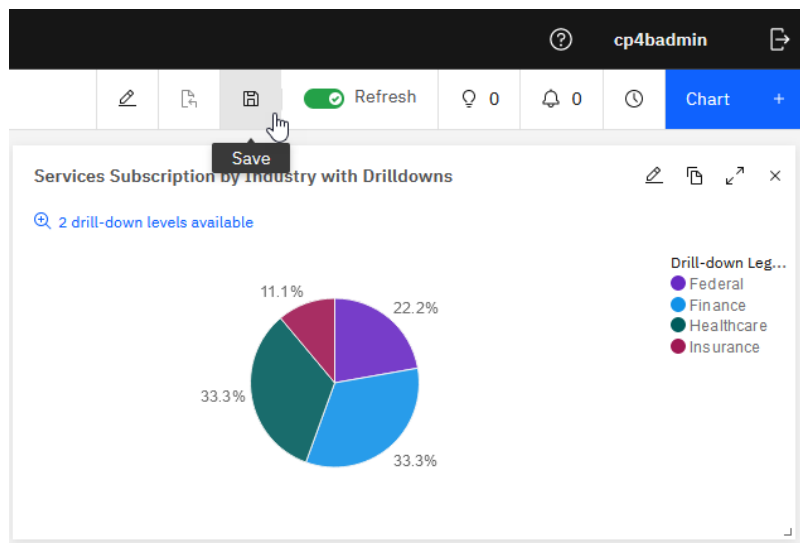
Unit



_3. Click **Done**

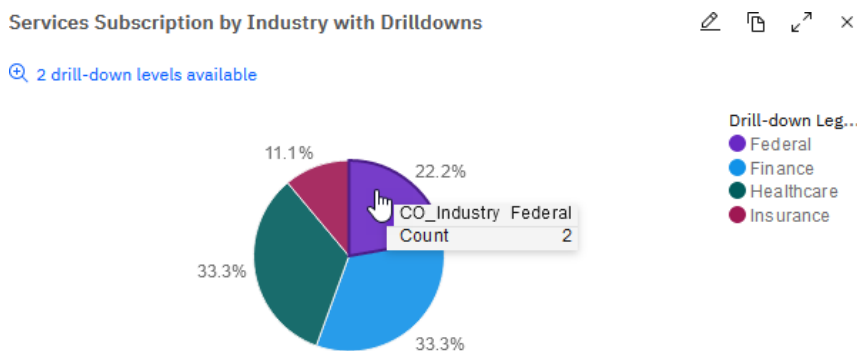


_4. On the Dashboard, Toolbar click the **Save** icon to save your work!

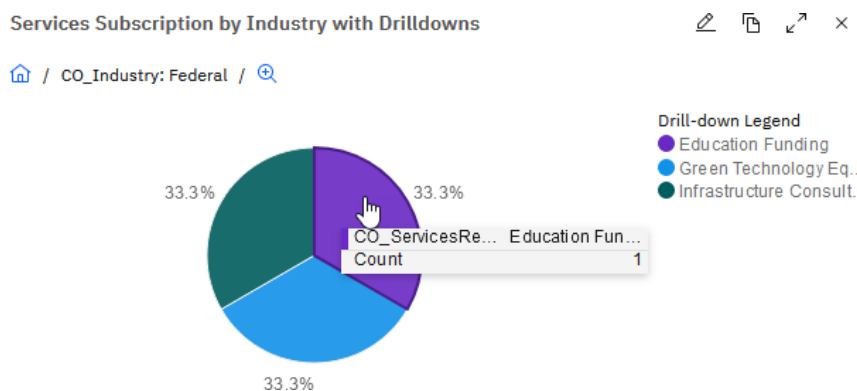


2.2.4.3 Explore Drill-down capability

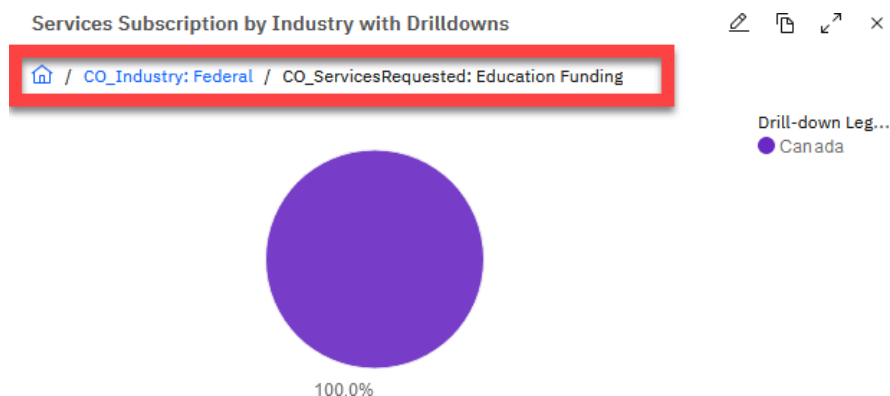
_1. Select the first drill-down level by clicking on **Federal** Industry



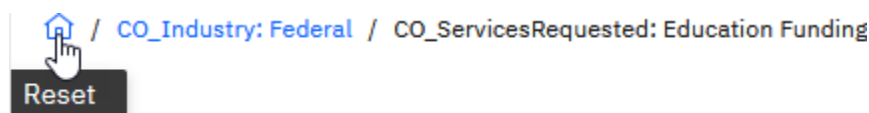
_2. Select the second drill-down level by clicking on **Education Funding** Service



_3. You should now see all the countries for *Federal > Education Funding* grouping.
Note the breadcrumbs,



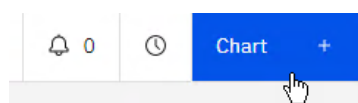
_4. Click **Reset** to get back to the original view



2.2.5 Create a "Highest Service Fee by Industry Sector" Chart

This bar chart will show the highest service fee by industry sector.

_1. Click **chart +**



_2. In *Client Onboarding- Create chart* window, enter the following, and then click **Create**:

Item	Value
Name	Highest Service Fee by Industry Sector
Select measurement	Metric

2.2.5.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

_2. In *Aggregation*, for *Function* select **Max** and for *Data item* select **CO_ServicesFee(data) – (long)**

Aggregation


Function

Max

Data item


CO_ServicesFee (data) - (long)

_3. Click **Group by +** button

Group by 

_4. Enter **CO_Industry (data) – (keyword)**

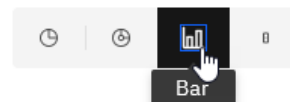
Group by 

CO_Industry (data) - (keyword) 

_5. For chart type, select **Bar**

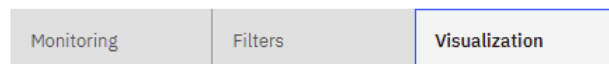
Metric

Bar



2.2.5.2 Define Visualization Information

_1. Click **Visualization** tab



_2. For Bar settings, enter:

Item	Value
X-axis label	Industry
Y-axis label	Maximum Service Fee [\$]

Bar settings

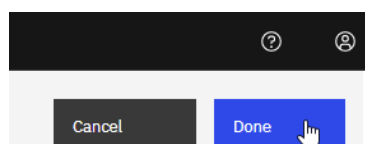
X axis label

Industry

Y axis label

Maximum Service Fee [\$]

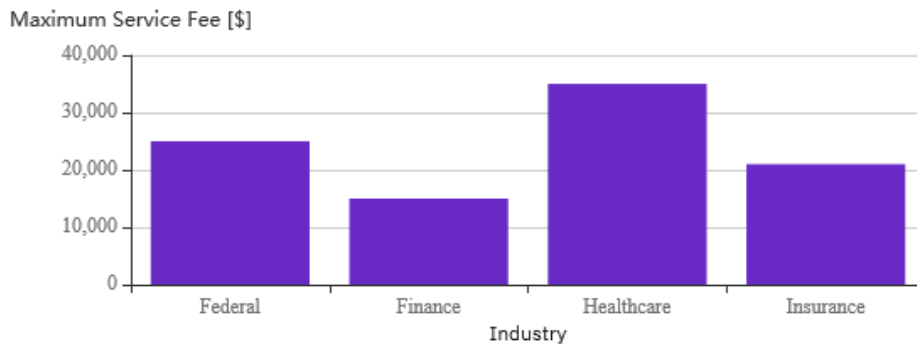
_3. Click **Done**



_4. On the Dashboard Toolbar, click the **Save** icon to save your work!

Your chart should look similar to this

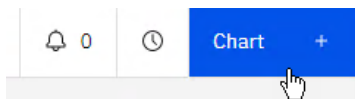
Highest Service Fee by Industry Sector



2.2.6 Create "Approval Count of High-Risk Cases" Chart

This bar chart will show the approval counts for high-risk cases in a given period. High-risk cases are identified by the decision service (which uses ML service to score risk level) and serve as a suggestion for approvers. This may be an essential metric, indicating that the approver overrode the ML model decision. Therefore, the ML model may not have been accurate and may need re-training.

_1. Click **chart +**



_2. In *Client Onboarding- Create chart* window, enter the following, and then click **Create**:

Item	Value
Name	Approval Count of High-Risk Cases
Select measurement	Period metric

2.2.6.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

_2. On *Interval*, change the setting to **Minutes(s)**

Interval

Time interval

Custom

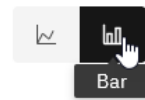
Every 1

Minute(s)

_3. For chart type, select **Bar**

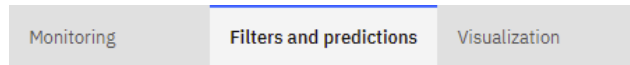
Period metric

Bar

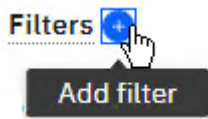


2.2.6.2 Define Filters and Predictions

_1. Select the **Filters and predictions** tab



_2. Click the **Filter +** button **twice** to add two Filters.



_3. For each group, select the following values from the dropdown list:

Group	Data item	Operator	Value
1	CO_HighRisk (data) – (boolean)	=	true
2	CO_ApprovalStatus (data) – (keyword)	=	Approved

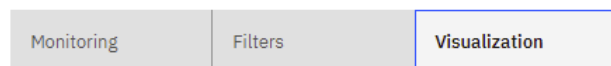
Your Filters setting should look exactly like this:

Filters +

Data item	Operator	Value
CO_HighRisk (data) - (boolean)	=	true
AND		
Data item	Operator	Value
CO_ApprovalStatus (data) - (keyword)	=	Approved

2.2.6.3 Define Visualization Information

_1. Click **Visualization** tab



_2. For Bar settings, enter:

Item	Value
X-axis label	Date
Y-axis label	Approvals

Trend settings

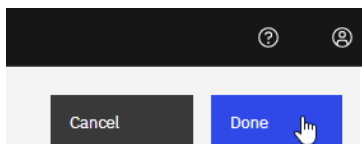
X axis label

Date

Y axis label

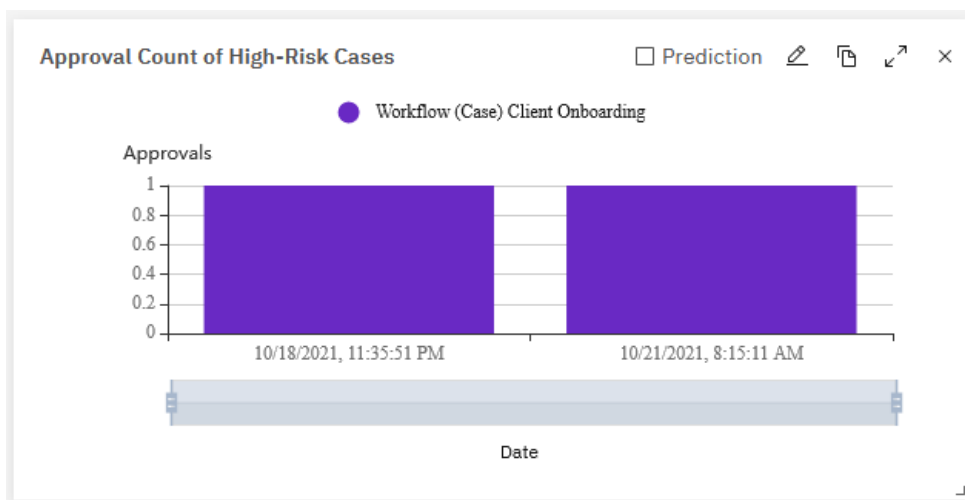
Approvals

_3. Click **Done**



_4. On the Dashboard Toolbar, click the **Save** icon to save your work!

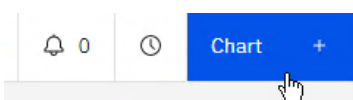
Your chart should look similar to this



2.2.7 Create an "Average Approval Confidence by Industry Sector and Revenue" Chart

You will be creating the Average Approval Confidence by Industry Sector and Revenue bubble chart. The bubble color will indicate the industry. The bubble size will indicate how many cases were handled by a given industry. The bubbles will be positioned in a grid with X-Axis as the average revenue and Y-Axis as the average approval confidence level.

_1. Click **chart +**



_2. In *Client Onboarding*- Create chart window, enter the following, and then click **Create**:

Item	Value
Name	Average Approval Confidence by Industry Sector and Revenue
Select measurement	Metric

2.2.7.1 Define Monitoring Information


_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

_2. Click **Group by +** button

Group by 

_3. Select **CO_Industry (data) – (keyword)**

CO_Industry (data) - (keyword)

_4. Click the **Aggregation +** button **twice** to add two Aggregations

Aggregation 


Note that two Aggregations were added below Count

Aggregation

Function	Data item
Count	Select a data item
Sum	CO_AnnualRevenue (data) - (long)
Sum	CO_CompanyAge (data) - (long)

_5. For the two new Aggregations, select the following values from the dropdown list:

Aggregation	Function	Data item
2	Average	CO_AnnualRvenue (data) – (long)
3	Average	CO_RiskConfidence(data) – (float)

_6. Use the **Down Arrow** on the Count Aggregation to move it to the bottom (make it the last Aggregation).

Function	Data item		
Count	Select a data item	↑	↓

Your Aggregations setting should look exactly like this:

Aggregation

Function	Data item			
Average	CO_AnnualRevenue (data) - (long)	↑	↓	🗑
Average	CO_RiskConfidence (data) - (float)	↑	↓	🗑
Count	Select a data item	↑	↓	🗑

2.2.7.2 Define Visualization Information

_1. Click **Visualization** tab

Monitoring	Filters	Visualization
------------	---------	---------------

_2. For Bubble settings, enter:

Item	Value
X-axis label	Average Company Revenue
Y-axis label	Average Approval Confidence Level

Bubble settings

X axis label

Y axis label

_3. Click **Done**

?

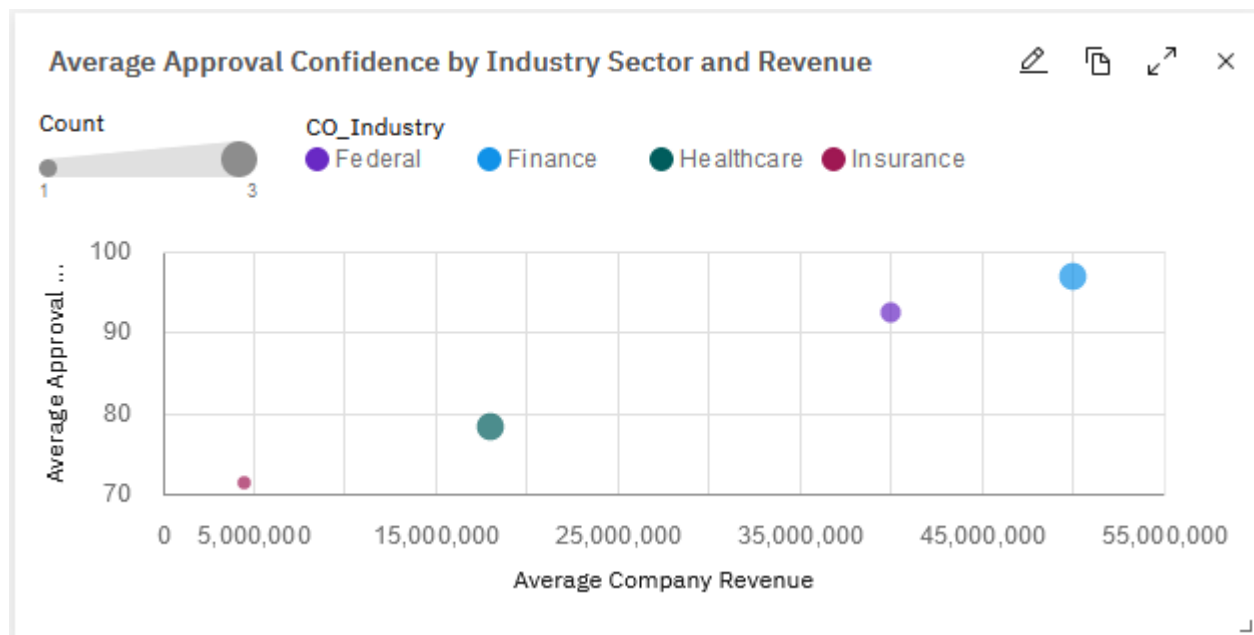
👤

Cancel

Done

_4. On the Dashboard Toolbar, click the **Save** icon to save your work!

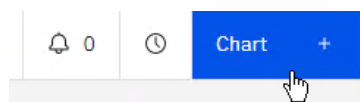
Your chart should look similar to this



2.2.8 Create an "Activity Duration Distribution in Case Completion" Chart

This doughnut chart will show the average time distribution among all activities required to complete a case.

_1. Click **chart +**



_2. In *Client Onboarding- Create chart* window, enter the following, and then click **Create**:

Item	Value
Name	Activity Duration Distribution in Case Completion
Select measurement	Metric

2.2.8.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

_2. Change the Aggregation values by setting *Function* to **Average** and *Data item* to **duration-seconds – (long)**

Aggregation +

Function	Data item
Average	duration-seconds - (long)

_3. Click **Group by +** button

Group by +

_4. Select **task-name – (keyword)**

Group by +

task-name - (keyword)

_5. Set visualization type to **Donut**

Metric

Donut



2.2.8.2 Define Visualization Information

_1. Click **Visualization** tab

Monitoring	Filters	Visualization
------------	---------	---------------

_2. For *Donut settings*, set *Unit* to **Activity**

Donut settings

Unit

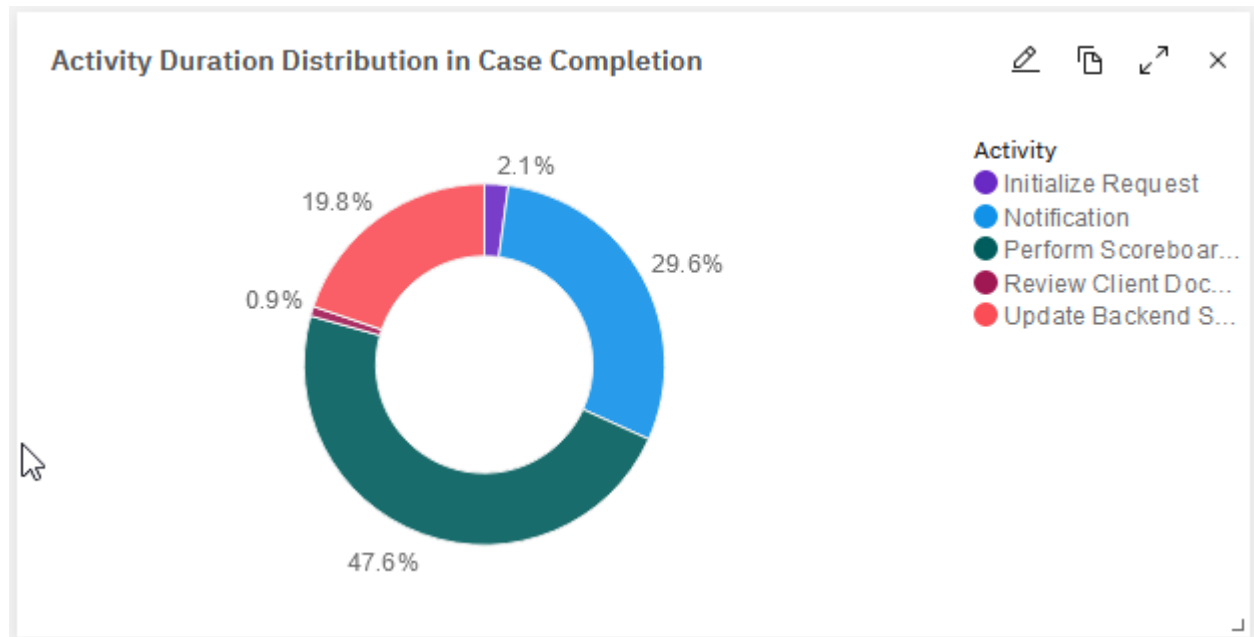
Activity

_3. Click **Done**

Cancel Done

_4. On the Dashboard, Toolbar click the **Save** icon to save your work!

Your chart should look similar to this



2.2.9 Create a "Completed Cases per Day" Chart

This bar chart will show the number of cases completed in a time period.

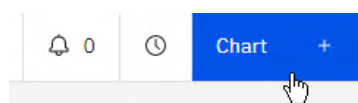
Note that the title states "per Day," but given the data set used for this lab, the scale set "per Minute".

This chart will also include two advanced features:

1. Predictions – predicts the number of cases completed in the future. This is a very valuable tool to enable capacity human resources planning.
2. Alerts – provide visual indications when the number of cases completed falls below 2 in a given period.

Note that the KPI Predictions are not based on ML. Depending on the data, KPI Prediction uses the following algorithms: ARIMA, Seasonal ARIMA, or Exponential Smoothing.

_1. Click **chart +**



_2. In *Client Onboarding- Create chart* window, enter the following, and then click **Create**:

Item	Value
Name	Completed Cases per Day
Select measurement	Period KPI

2.2.9.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

_2. On *Interval*, change the setting to **Minutes(s)**

Interval

Time interval

Custom Every 1 Minute(s)

_3. Click **Targets +** button



_4. For *Label*, enter **Target** and for *Value*, enter **3**

Targets +

Label

Target

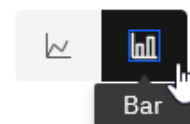
Value

3

_5. For visualization, select **Bar**

Period KPI

Bar

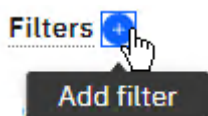


2.2.9.2 Define Filters

_1. Select the **Filters and predictions** tab

Monitoring Filters and predictions Visualization Thresholds

_2. Click the **Filter +** button **twice** to add two Filters



_3. Select the following values for each Filter:

Filter	Data item	Operator	Value
1	type – (keyword)	=	case
2	state – (keyword)	=	Complete

Your Filter setting should look exactly like this:

Filters

Data item	Operator	Value
type - (keyword) ▼	= ▼	case
AND		
Data item	Operator	Value
state - (keyword) ▼	= ▼	Complete

_4. Click **Prediction on** to enable Predictions

Prediction

 Prediction on

2.2.9.3 Define Visualization Information

_1. Click **Visualization** tab

Monitoring	Filters	Visualization
------------	---------	---------------

_2. For Trend settings, enter:

Item	Value
X-axis label	Date
Y-axis label	Completed Cases

Trend settings

X axis label

Date

Y axis label

Completed Cases

2.2.9.4 Define Thresholds

This setting allows you to customize the Gage threshold setting.

_1. Select **Thresholds** tab

Monitoring	Filters	Visualization	Thresholds
------------	---------	---------------	------------

_2. Click the **Thresholds +** button **twice** to add two thresholds



_3. For each group select the following values from the dropdown list:

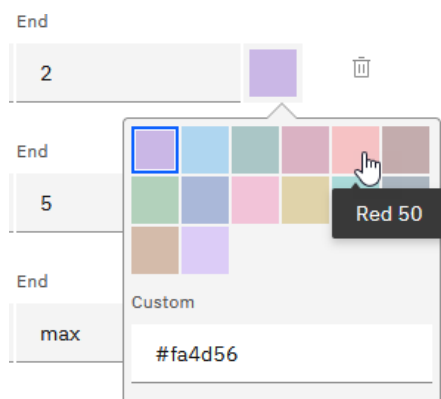
Threshold	Data item	Value
1	Threshold name	Case Completion Rate
	Value	2
	Range name 1	Low
	Range name 2	Normal
2	Threshold name	T2
	Value	5
	Range name	High

Your Thresholds setting should look exactly like this:

Thresholds +

Threshold name	Value	Range name	Start	End
Case Completion Rate	2	Low	min	2
		Range name	Start	End
		Normal	2	5
Threshold name	Value	Range name	Start	End
T2	5	High	5	max

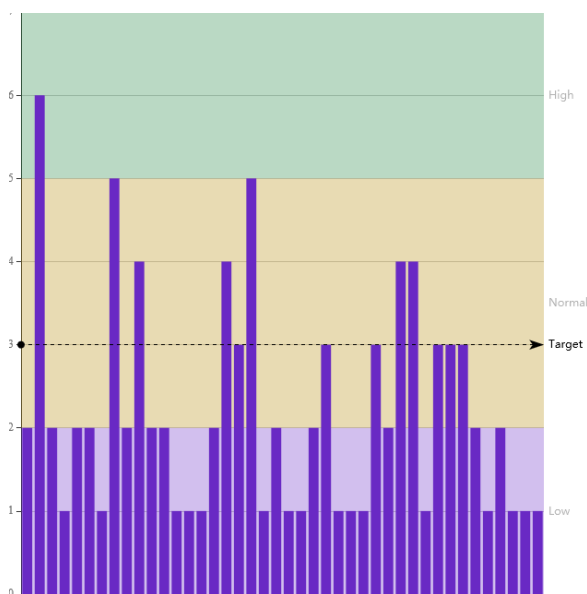
_4. Click **Purple Color patch** and then select **Red color patch** from the palette



_5. Using the above steps, customize the other two colors

Item	Value
Normal	Yellow
High	Green

_6. The color settings should look exactly like this:



2.2.9.5 Define Alert


This setting allows you to customize the Gage threshold setting.

_1. Click Alerts +



_2. Make sure the threshold **Case Completion Rate** is selected


Alerts 

Case Completion Rate 


_3. Configure the alert using input values shown below

Item	Value
Alert if the value	Drops to or below the threshold
Message	The case completion rate is low.


Alerts 

Case Completion Rate 

Alert if the value

drops to or below the threshold 

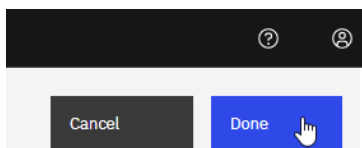
Message

Case completion rate is low. 

Priority

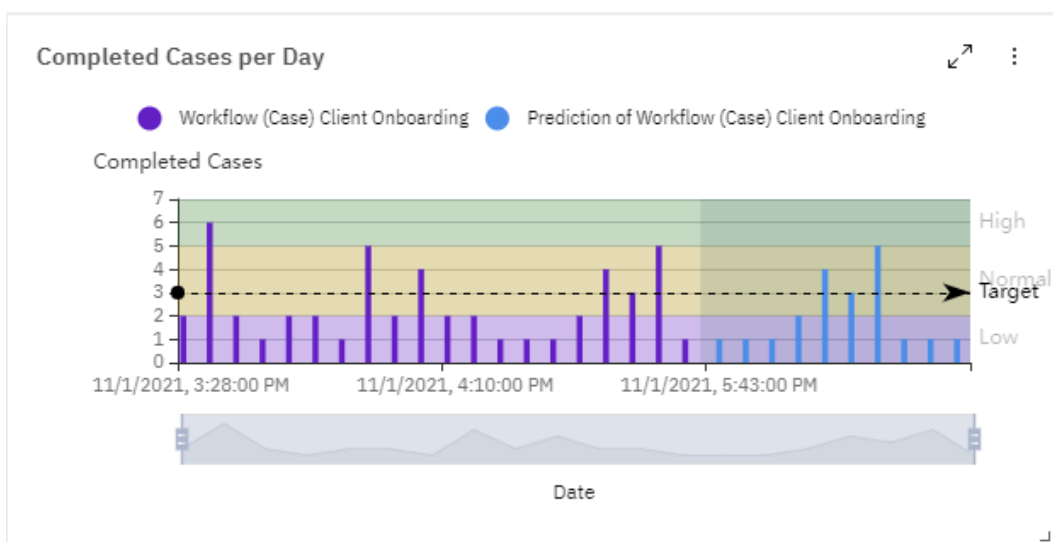
High 

_4. Click **Done**



_5. On the Dashboard Toolbar, click the **Save** icon to save your work!

Your chart should look similar to this



2.2.10 Create "Approvals by Industry Heatmap" Chart

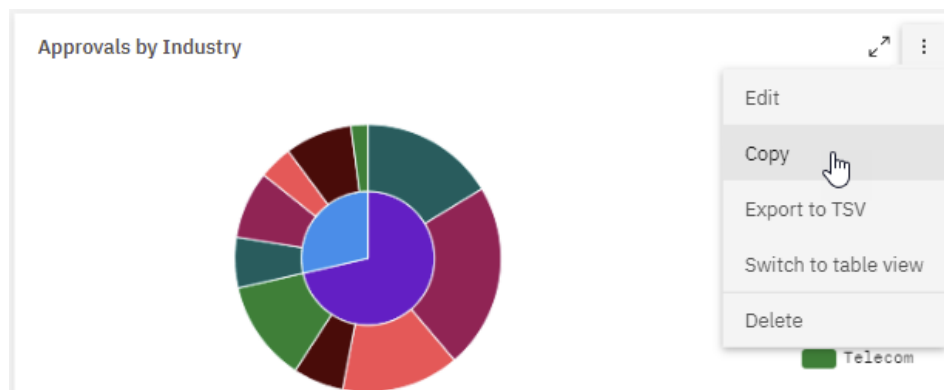
You will be creating Approvals by Industry heatmap chart.

The chart will contain two tiles for each industry: an approved and Rejected tile. The tile color intensity will indicate the count (the deeper the color, the higher the count).

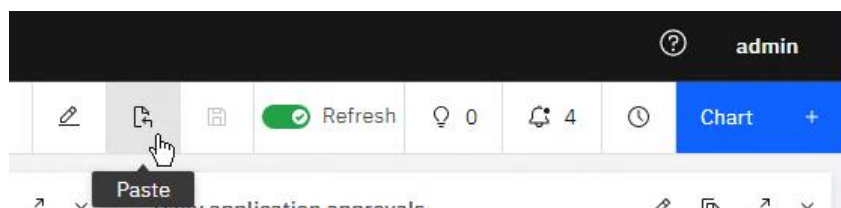
The tiles will be positioned in a grid with the X-Axis indicating the approvals (approved/rejected/approval pending), and the Y-Axis the industry.

Since this chart is almost identical to the *Approval by Industry* chart, we will use the copy-and-paste technique to create this chart from the *Approvals by Industry* chart.

_1. On the *Approvals by Industry* chart, click the **ellipses** and select **Copy**

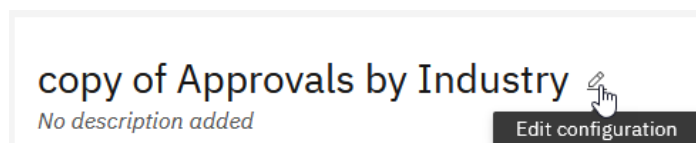


_2. On the *BPC main toolbar*, click **Paste**



_3. On the copy of the *Approval by Industry* chart, click **Edit**

_4. Click **Edit configuration**




_5. For *Name*, enter **Approvals by Industry Heatmap** and then click **Apply**

Client Onboarding Completed ×


Edit chart


Name

Approvals by Industry Heatmap 

Description (optional)

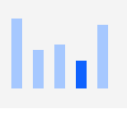
Select measurement

Metric 




A performance indicator based on data items, constants, and other metrics that help you

Period metric




A representation of metric values measured over time.

KPI




A type of metric that shows the degree to which business objectives are on track.

Period KPI




A representation of KPI values measured over time so that you can spot historical trends.

Data



A set of data items presented in a table.


Cancel Apply 

2.2.10.1 Define Monitoring Information

_1. For visualization, select **Heat Map**



Metric


Heat Map



Heat Map

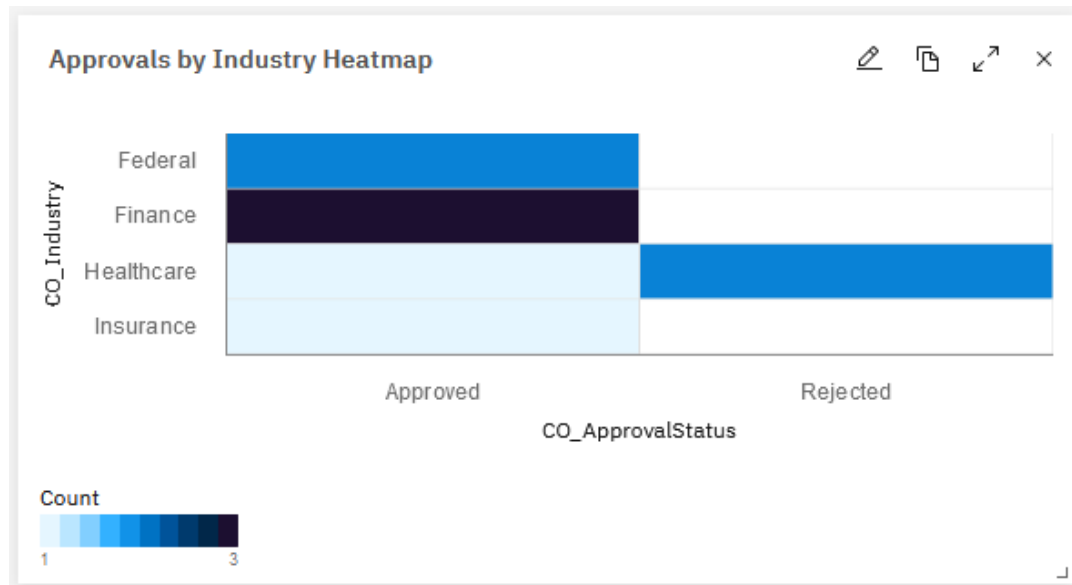
_2. Click **Done**



Cancel Done 

_3. On the Dashboard Toolbar, click the **Save** icon to save your work!

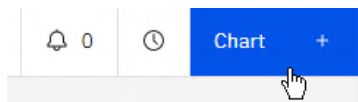
Your chart should look similar to this



2.2.11 Create a "Client Onboarding Data" Chart

You will be creating a Client Onboarding data chart. The data chart will contain columns representing selected Client Onboarding case properties.

_1. Click **chart +**



_2. In *Client Onboarding- Create chart* window, enter the following, and then click **Create**:

Item	Value
Name	Client Onboarding Data
Select measurement	Data

Client Onboarding Completed

Edit chart

Name
Client Onboarding Data

Description (optional)

Select measurement

Metric

90%

A performance indicator based on data items, constants, and other metrics that helps you monitor your business activities.

Period metric

A representation of metric values measured over time.

KPI

A type of metric that shows the degree to which business objectives are on track.

Period KPI

A representation of KPI values measured over time so that you can spot historical trends.

Data

A set of data items presented in a table.

2.2.11.1 Define Monitoring Information

_1. For *Monitoring source*, select Workflow (Case) – Client Onboarding

Monitoring context

Monitoring source

Workflow (Case) - Client Onboarding

2.2.11.2 Define Filters

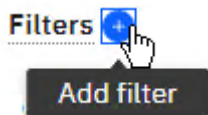
_1. Select **Filters** tab

Monitoring

Filters

Visualization

_2. Click the **Filter +** button **three times** to add three Filters.



_3. For each group, select the following values from the dropdown list:

Group	Data item	Operator	Value
1	category – (keyword)	=	icm
2	type – (keyword)	=	case
3	state – (keyword)	=	Complete

Your Filters setting should look exactly like this:

Filters +

Data item	Operator	Value
category - (keyword)	=	icm
AND		
Data item	Operator	Value
type - (keyword)	=	case
AND		
Data item	Operator	Value
state - (keyword)	=	Complete

2.2.11.3 Define Visualization

_1. Select **Visualization** tab

Monitoring

Filters

Visualization

_2. Click the **Data columns +** button **5 times** to add five data columns



_3. For each group, select the following values from the dropdown list:

Data column	Data item	Label
1	CO_ServiceFee (data)	Service Fee
2	CO_Industry (data)	Industry
3	CO_AddressCountry (data)	Country
4	CO_ApprovalStatus (data)	Approved?
5	duration-seconds	Duration

Your *Data columns* setting should look exactly like this:

Data columns +		
Data item	Label	
CO_ServicesFee (data) ▼	Service Fee	↑ ↓ 🗑️
CO_Industry (data) ▼	Industry	↑ ↓ 🗑️
CO_AddressCountry (data) ▼	Country	↑ ↓ 🗑️
CO_ApprovalStatus (data) ▼	Approved?	↑ ↓ 🗑️
duration-seconds ▼	Duration	↑ ↓ 🗑️

_4. Click the **Service Fee** column to sort the data by the Service Fee column.

Data

5 columns, 12 rows

Service Fee	Industry	Country	Approved?	Duration
-------------	----------	---------	-----------	----------

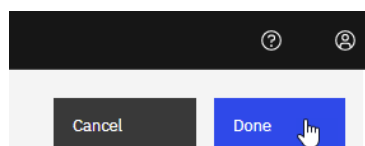
The data in the Data Chart should look similar to this

Data

5 columns, 12 rows

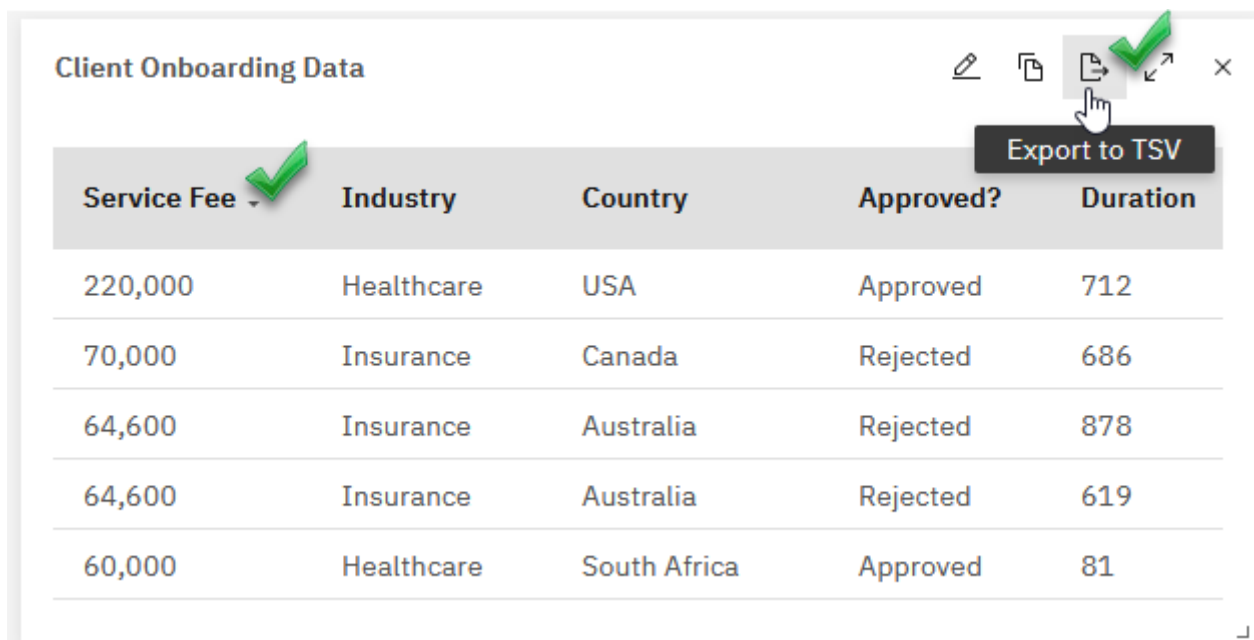
Service Fee	Industry	Country	Approved?	Duration
35,000	Healthcare	United States of America	Rejected	60
25,000	Federal	United States of America	Approved	71
21,000	Healthcare	United States of America	Approved	76
21,000	Healthcare	United States of America	Rejected	84
15,000	Finance	United States of America	Approved	51
15,000	Finance	United States of America	Approved	59
15,000	Federal	Canada	Approved	52
15,000	Finance	United States of America	Approved	59

_5. Click **Done**



_6. On the Dashboard, Toolbar click the **Save** icon to save your work!

The chart should look similar to this



Service Fee	Industry	Country	Approved?	Duration
220,000	Healthcare	USA	Approved	712
70,000	Insurance	Canada	Rejected	686
64,600	Insurance	Australia	Rejected	878
64,600	Insurance	Australia	Rejected	619
60,000	Healthcare	South Africa	Approved	81

Note:

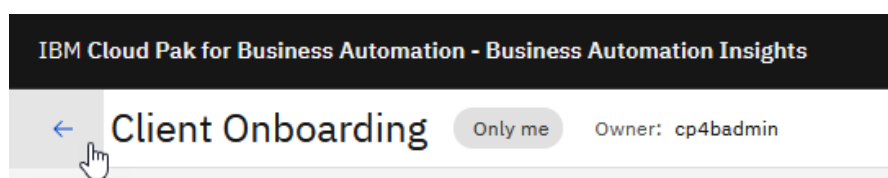
- You can sort the data in the chart. For example, in the screenshot above, the chart is sorted by Service Fee column
- You can export the data in the chart as a spreadsheet in the TSV format.

2.2.12 Create a Configure Goal

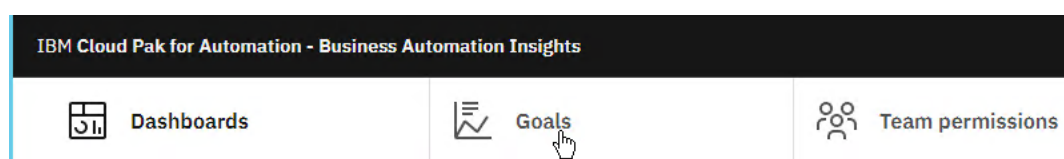
A Goal is a business statement that brings purpose and scope to your dashboards. Goals are used to aggregate charts within a dashboard and to give dashboards a business purpose. A Goal's definition includes the details of a specific objective you want to achieve, the time frame for achieving an objective, and identifiers (categories and colors) for the goal.

2.2.12.1 Create a Goal

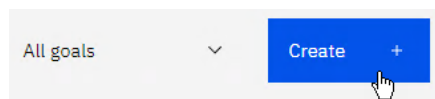
_1. Click the **Arrow** to the left of the Client Onboarding dashboard



_2. Click **Goals**



_3. Click **Create**



_4. For *Name*, enter Focus Corp's top Client Onboarding KPI

_5. For *Description*, enter Focus on the three top KPIs identified by the senior management team.

_6. For *Priority*, select **High**

_7. Click *Goal color* to **Red**

_8. Your Goal definition should look exactly like this:

Details

Name

Focus Corp's top Client Onboarding KPI ✓

Description (optional)

Focus on the three top KPI identified by senior management team. ✓

Goal color



_9. Click **Save**



Goal specification

Goal classification (optional)

Enter category

Priority

☐ Low ☐ Medium ☒ High ✓

Start date

☒ Now

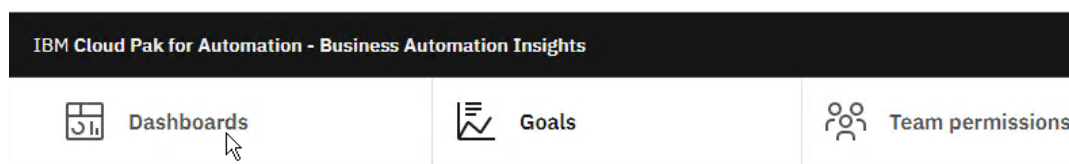
☐ Custom

10/25/2021

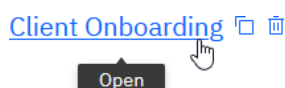


2.2.12.2 Set business goal for selected charts

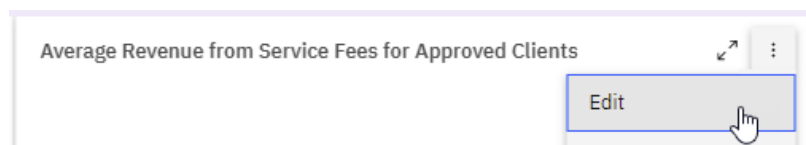
_1. Click **Dashboards**



_2. Click **Client Onboarding** dashboard

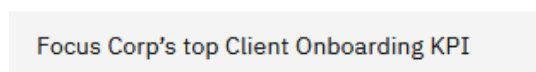


_3. On Average Revenue from Service Fees for Approved Clients, dashboard click the **ellipses** and select **Edit**

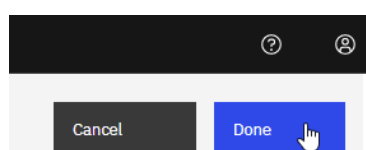


_4. For Business goal, from the dropdown list, select **Focus Corp's top Client Onboarding KPI**

Business goal

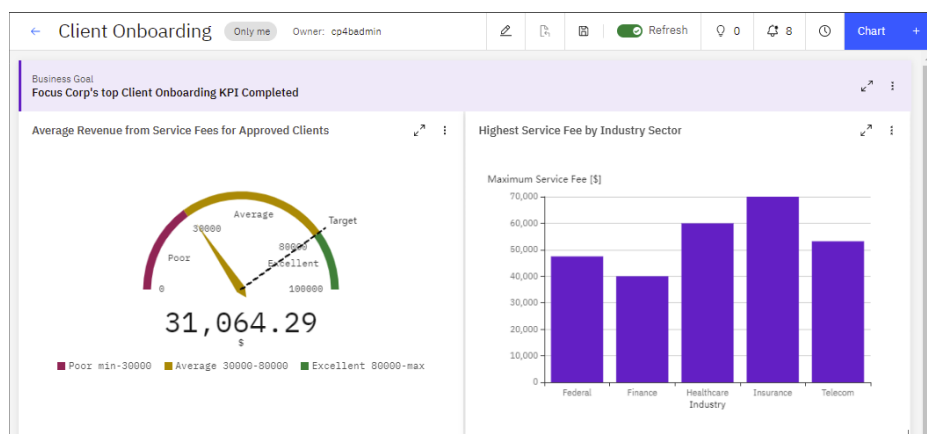


_5. Click **Done**



_6. Repeat the above steps to add a *Business Goal* to **Highest Service Fee by Industry Sector**

Your dashboard should now look similar to this:

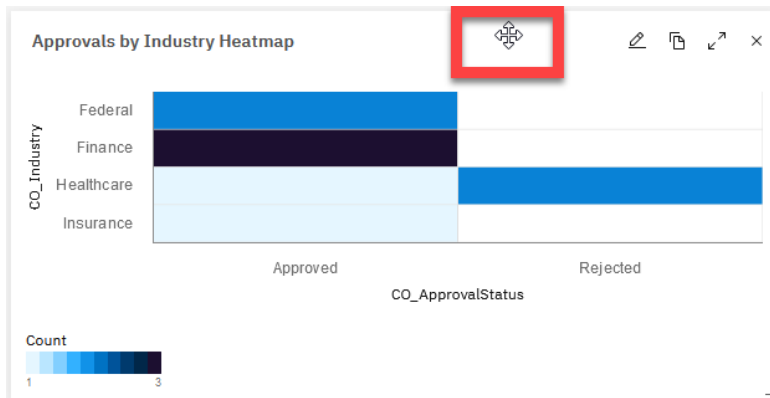


2.2.13 Change Dashboard Layout

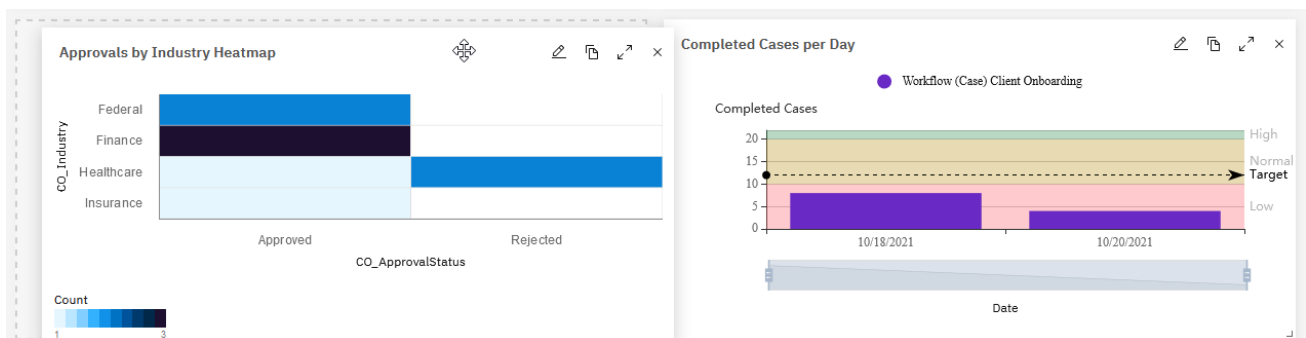
You will now customize your dashboard by moving and changing chart sizes.

2.2.13.1 Move Approvals by Industry Heatmap Chart

_1. Click the **title area** on the *Approvals by Industry Heatmap* chart:

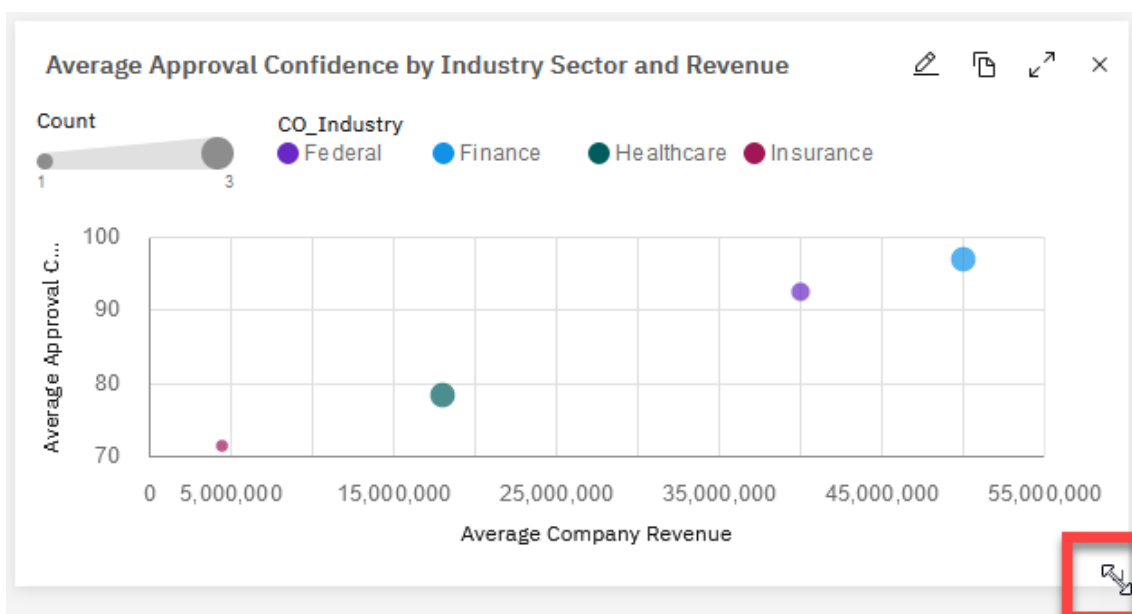


_2. **Drag** the chart to the empty area to the left of the Completed Cases per Day chart

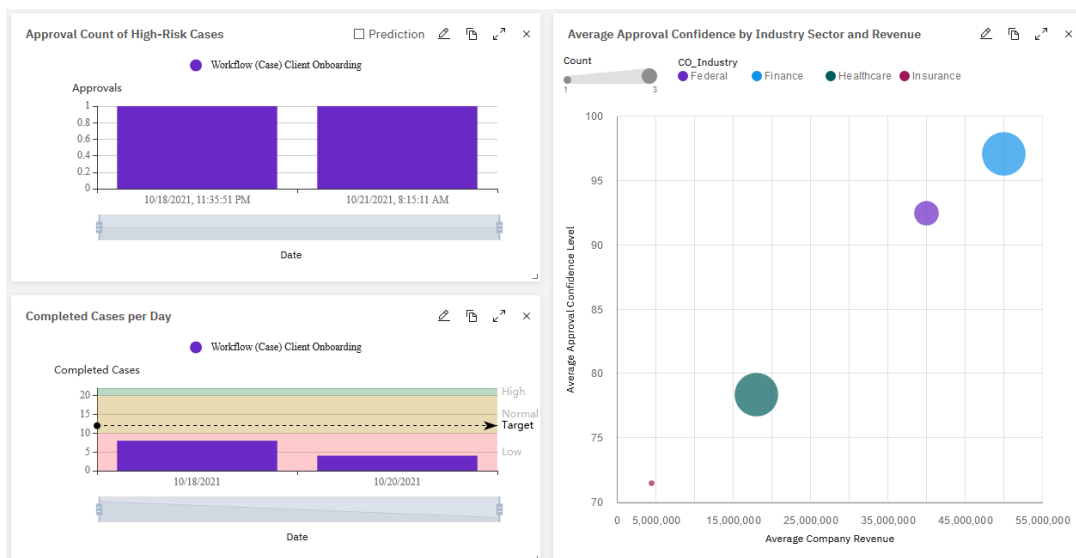


2.2.13.2 Expand Chart Average Approval Confidence by Industry Sector and Revenue

_1. Grab the image expander in the bottom right corner of the **Average Approval Confidence by Industry Sector and Revenue** chart

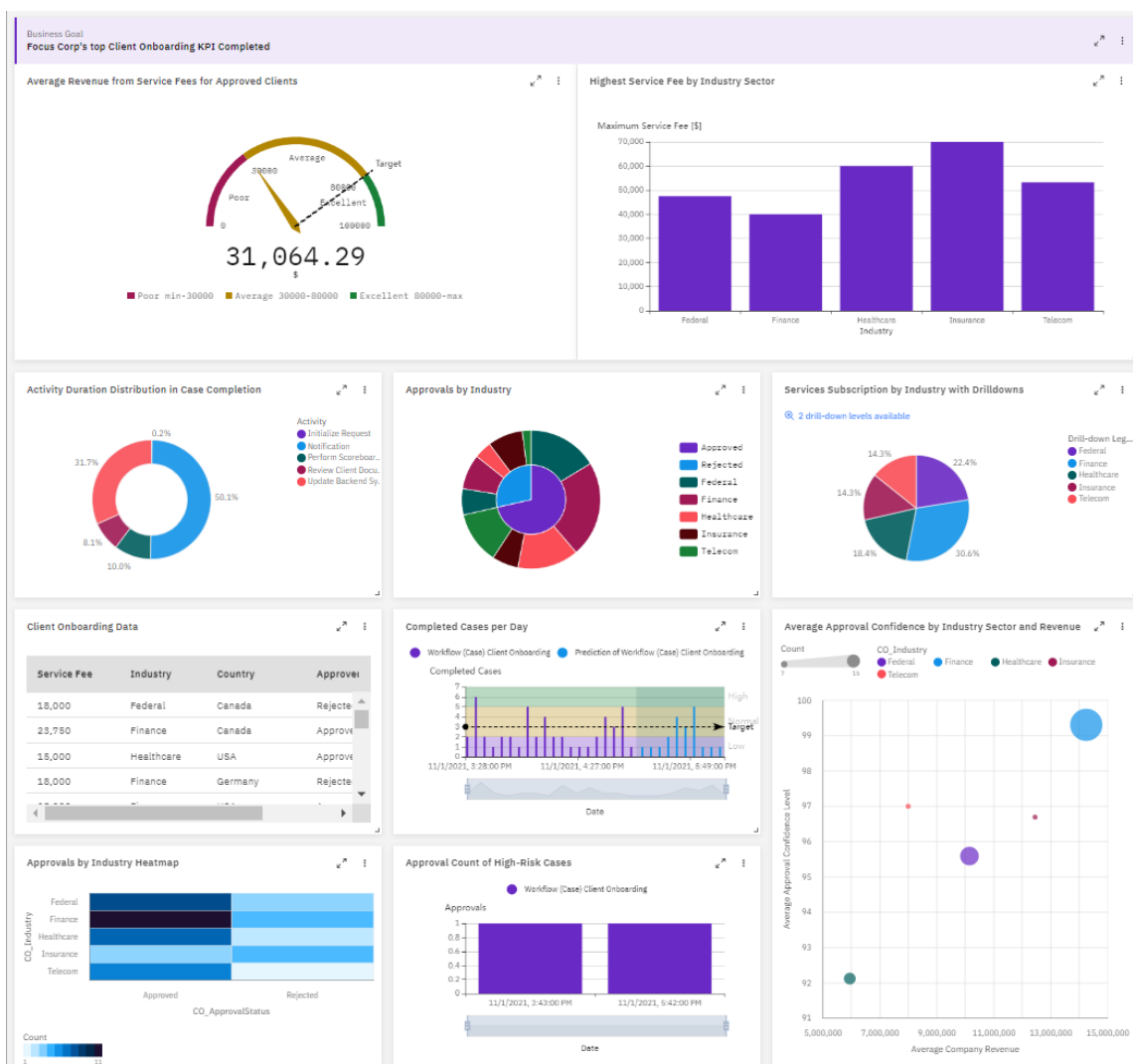


_2. **Stretch** the chart downwards until it achieves the height of two charts



_3. On the Dashboard Toolbar, click the **Save** icon to save your work!

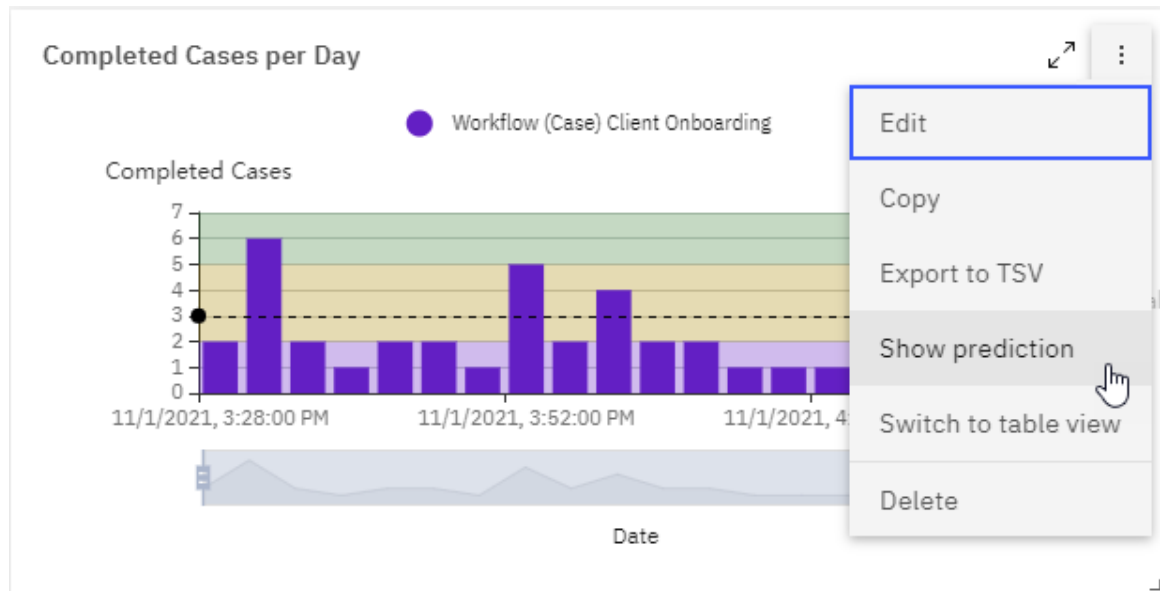
Your final version of the Client Onboarding Dashboard should now look similar to this:



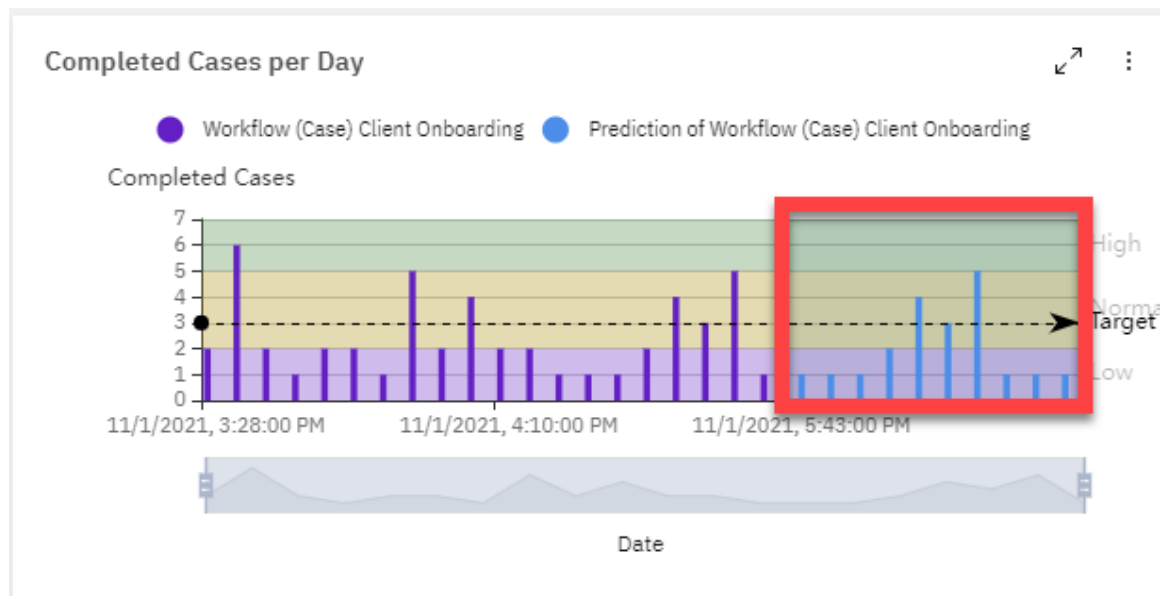
2.2.14 Explore Advanced Dashboard Features

2.2.14.1 KPI Predictions

_1. On the *Completed Cases per Day*, Chart click the **ellipses** and then select **Show Predictions**

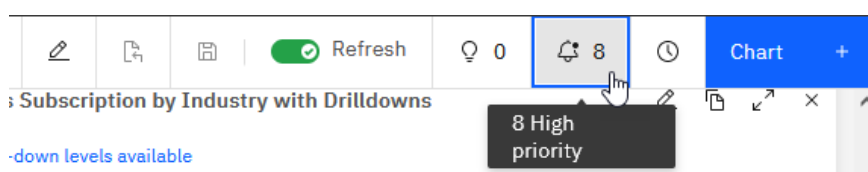


You should now see the predicted case completion rate information

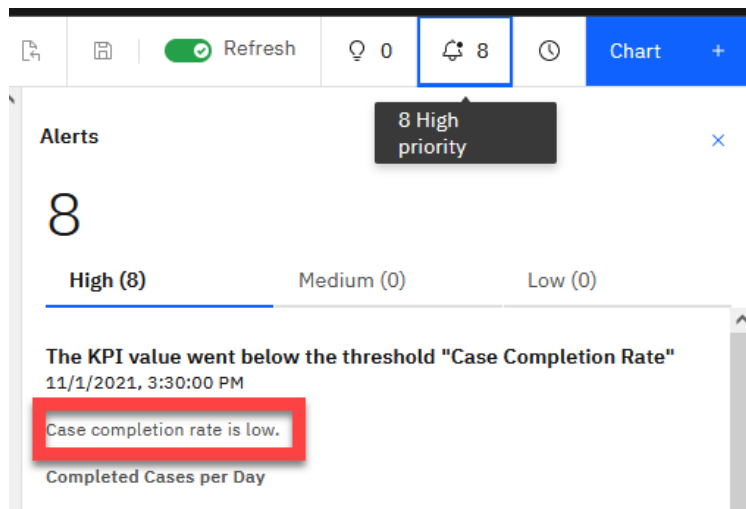


2.2.14.2 Dashboard Alerts

_1. Click the **Alert** icon in the toolbar on top of the Dashboard



You should now see all the alerts generated whenever the Case Completion Rate just reached or went below the lower threshold (2) you defined in the Completed Cases per Day Chart.



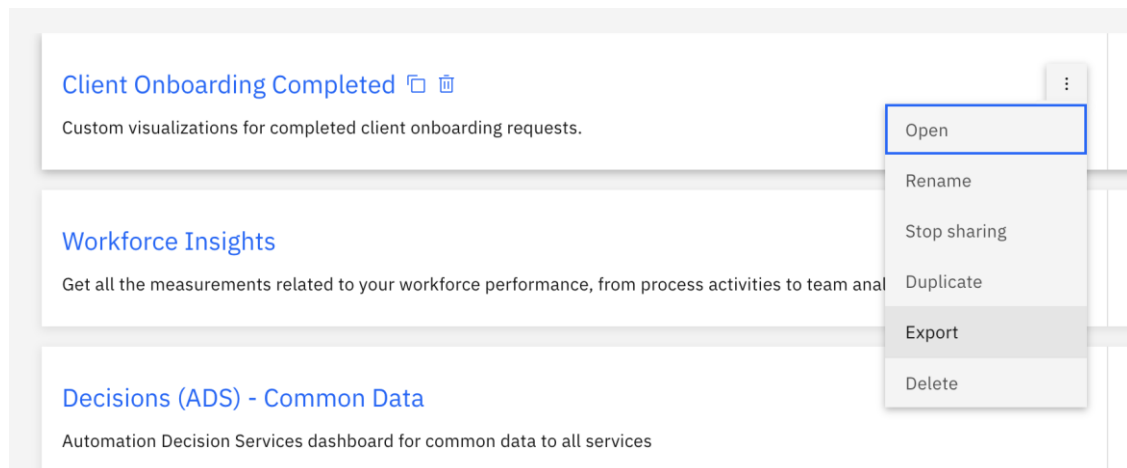
Because this is a shared environment, you may see more alerts generated when other users work on the Client Onboarding case.

2.3 Summary

In the labs, you learned how to build and use the Business Performance Center dashboard to provide insights into a Client Onboarding solution for a line of business users. Specifically, you learned how to create and configure the following BPC artifacts: Dashboards, Charts, Chart Alerts, and Goals.

2.4 Reusing the Asset

You can export the Dashboard you built (see screenshot), but it won't mean much without any data.



We have instructions on how you can import data along with pre-built dashboards available here: <https://github.com/IBM/cp4ba-client-onboarding-scenario/blob/main/22.0.1/Step%207%20-%20Business%20Automation%20Insights.md>