Cost Intelligence Dashboard

Last Updated: July 26th 2020

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Overview

The Cost Intelligence Dashboard is an interactive, customizable and accessible QuickSight dashboard to help customers create the foundation for their own Cost Management and Optimization reporting tool.

Notes:

- *This QuickSight dashboard is not an official AWS dashboard and should be used as a self-service tool. We recommend validating your data by comparing the aggregate ungrouped Payer and Linked Account spend for a prior month.*
- *The Athena views are updated to reflect any additions in the cost and usage report. Periodically check the lab to confirm you are using the latest views.*

Field List

The table below provides a list of all fields in the Dashboard Template

Field	Field From	Data Set(s)	Notes – Added for All QuickSight Calculated Fields
year	Athena View	1|2|3|4	
month	Athena View	1|2|3|4	
billing_period	Athena View	1|2|3|4	
usage_date	Athena View	1|2|3|4	
payer_account_id	Athena View	1|2|3|4	
linked_account_id	Athena View	1|2|3|4	
invoice_id	Athena View	1	
charge_type	Athena View	1|4	
charge_category	Athena View	1	
purchase_option	Athena View	1|2	
ri_sp_arn	Athena View	1	
ri_sp_end_date	Athena View	1	
ri_sp_term	Athena View	1	
ri_sp_offering	Athena View	1	
ri_sp_payment	Athena View	1	
product_code	Athena View	1|4	
product_name	Athena View	1	
service	Athena View	1	
product_family	Athena View	1	
usage_type	Athena View	1	
operation	Athena View	1|4	
item_description	Athena View	1	
availability_zone	Athena View	1	
region	Athena View	1|4	
instance_type_family	Athena View	1	
instance_type	Athena View	1	
platform	Athena View	1	
tenancy	Athena View	1	
processor	Athena View	1	
processor features	Athena View	1	
database_engine	Athena View	1	
product_group	Athena View	1	
product_from location	Athena View	1	
product_to_location	Athena View	1	
current_generation	Athena View	1	
legal_entity	Athena View	1	
billing_entity	Athena View	1	
pricing_unit	Athena View	1|4	
resource_id_count	Athena View	1	
resource_id	Athena View	4	
usage_quantity	Athena View	1|2	
unblended_cost	Athena View	1|3|4	

amortized_cost	Athena View	1|2	
ri_sp_trueup	Athena View	1	
ri_sp_upfront_fees	Athena View	1	
public_cost	Athena View	1|4	
billing_period_mapping	Athena View	1	
payer_account_id_mapping	Athena View	1	
ri_sp_arn_mapping	Athena View	1	
Cost_Unblended	QuickSight Calculation	1	Invoiced cost
Cost_Amortized	QuickSight Calculation	1	Amortized cost (i.e. RI/SP upfront fees spread over the life time of the term)
Cost	QuickSight Calculation	1|2|3|4	The Cost field is used in all aggregate cost visualizations except the billing summary that calls out the Invoiced and Amortized Cost
Cost_Public	QuickSight Calculation	1|4	Public OnDemand cost equivalent – Note that this value is not populated for all services and you will want to validate if using for any new visuals
RI_SP True Up Cost	QuickSight Calculation	1	Returns any RI/SP upfront fees to the account that purchased the pricing model to eliminate double billing
RI_SP Upfront Fees	QuickSight Calculation	1	The upfront fee for an RI/SP
% Coverage	QuickSight Calculation	1|2	Used to show the % Coverage by Usage Quantity. Create or update this field if you want to change the field to use Cost instead of usage
Account	QuickSight Calculation	1|2|3|4	Update this field from linked_account_id to your account name after you add in your mapping document
Avg Daily Run Rate	QuickSight Calculation	1	Avg daily cost for each month by the number of days
Days	QuickSight Calculation	1	Calculates the days in each month
EBS Volume	QuickSight Calculation	1	Removes the region from the usage_type to provide a clean list of EBS Volume types
Group By Fields	QuickSight Calculation	1	Calculated off of the GroupBy Parameter for use in the OPTICS Explorer
Product_Family Group	QuickSight Calculation	1	Combines the product_family and the product_group field so that any field that if an item doesn't have a product_family it pulls the product_group field
RI_SP % savings	QuickSight Calculation	1	% Savings over On Demand you can filter to include or exclude unused costs
RI_SP Savings	QuickSight Calculation	1	Savings over On Demand for the used portion of an RI or SP
RI_SP Terms	QuickSight Calculation	1	Combines the various terms (payment type, purchase option, etc.) together into a single field
RI_SP Type	QuickSight Calculation	1	Combines the identifier for the type of RI or SP into a single field

RI_SP Unused Cost	QuickSight Calculation	1	Cost of the unused portion of an RI or SP. *NOTE: Unused SP/RI does not mean waste and can be cheaper to have some unused at times.*
RI_SP Fees	QuickSight Calculation	1	Upfront costs of an RI or SP
S3 Storage Class	QuickSight Calculation	1|4	Separates the storage class from the operation field for a single S3 storage class field
Total RI_SP Savings	QuickSight Calculation	1	RI_Unused Cost combined with the RI_SP Savings
Unit Cost	QuickSight Calculation	1	Divides your cost by usage_quantity
Avg Hourly Cost	QuickSight Calculation	2	Calculates your average compute hourly cost for an EC2 instance
Avg Spot Savings	QuickSight Calculation	2	Estimates your average Spot savings over On Demand. Note that Spot doesn't have a public cost so we use the average On Demand Cost as an estimate
On Demand Unit Cost	QuickSight Calculation	2	Divides your On Demand cost by usage_quantity
RI/SP Unit Cost	QuickSight Calculation	2	Divides your RI and SP cost by usage_quantity
Spot Unit Cost	QuickSight Calculation	2	Divides your Spot cost by usage_quantity

Notes:

- *All QuickSight Calculated Fields will have a "=" next to them in the field list. To view the calculation, follow the steps 3 in the Advanced Setup 2 – Customize your summary_view Cost Value of the Modify Cost Intelligence Dashboard.*
- *Add any additional tag values or fields into your queries by including them before the first sum or approx_distinct field and then add another group by field at the bottom.*

Customizing the Cost Fields in the Dashboard

The Cost Intelligence dashboard uses calculated fields for all cost related fields used in the visual to allow you to customize to your organizations requirements without having to edit every visual. If interested in customizing the cost values simply edit the following cost fields below and all others will update accordingly. For example, if you wanted to add a 0.5% service fee you would edit the fields below to include ({Field} * 0.005).

Fields:

- Cost_Unblended
- Cost_Amortized
- Cost_Public
- RI_SP True Up Cost
- RI_SP Upfront Fees

Notes

- *Review the field list table to see the corresponding data sets*
- *Cost Unblended = Cost_Amortized + RI_SP True Up Cost + RI_SP Upfront Fees*

Understanding the Visuals

To understand what each visual represents you can click on the visual to see the following information:

- Select **Visualize** on the left navigation to see the data set used.
- Select **Field wells** in the top center bar to drop down the field wall and see the various fields in the visual and update to include any additional groupings.
- Select **Filter** on the left navigation to see the various filters for that visual and click on the various filters to see the logic used.

Customizing the OPTICS Explorer Controls

The OPTICS Explorer uses QuickSight controls to allow your teams to Group or Filter fields.

- Customizing the **Filter by:** controls
- The **Filter by:** controls uses the standard process documented in the Setting Up Parameter in Amazon QuickSight User Guide.
- Customizing the **Group by:** Control
  - To update the **Group by:** Control first select the drop-down arrow next to the **Group by** header in the Controls field and select **Edit**
  - Next add your desired values to the **Define specific values** box with **one value per line** then select **Apply**
- Finally edit the **Group By Fields** calculated field by scrolling to the bottom of the calculation and adding the following between **{charge_category},** and service)
  - ${GroupBy}=('*Your added grouping defined in the previous step*'),({*corresponding field to map to*}),

Note:

- *Parameters and Controls can be used on any report. We recommend adding a control for the full dashboard for your business units or organization groupings.*

Additional Resources

For more information visit the following User Guides:

- Cost and Usage Reports User Guide
- QuickSight User Guide