

Frequently Asked Questions:

AWS Cost Explorer vs. CloudCheckr

Question: Why doesn't AWS Cost Explorer and CloudCheckr match exactly?

Cost Explorer will almost never match CloudCheckr because Cost Explorer reflects how AWS treats costs in Consolidated Bills/Organizations. AWS treats all accounts in a single Organization as if they are a single customer who wants to maximize benefits to all accounts. CloudCheckr calculates what the true cost is for each linked account based on the actual consumption and Reserved Instances (RI) owned (if any), regardless of how AWS applies reservation and tier benefits.

Question: Why is AWS Cost Explorer showing a much lower amount than CloudCheckr?

Cost Explorer reflects accurate usage quantities but does NOT reflect accurate dollar amounts. This is because the dollar amounts are reflective of how costs are averaged across all accounts in a Consolidated Bill or Organization. For example, AWS applies any unused RIs that are purchased in Account 5 to any other account in the same Organization even if those accounts are not for the same end customer or project. These could include: RIs owned by another customer but only partially consumed by the owner, RIs owned by another customer but completely unused, or RIs owned by Ingram and unused by Ingram. Similar things happen with Data Transfer and S3 tiered rates. In these cases, AWS spreads the tiered benefits across all accounts so that a customer who only uses 2TB of S3 gets charged the same discounted rate as if they are using 20TB of S3.

Question: How do I know that I'm not being overcharged by Ingram?

Using Cost Explorer or CloudCheckr, if you compared the item being billed and the usage quantity to the AWS published pricing, you could potentially find very different results. For example, if you used 744 On-Demand hours of an m5.Xlarge Windows in US East and Cost Explorer is showing that your cost for those hours is less than \$279.744 (744hrs*\$0.376/hr), AWS has applied a RI to your account. If you didn't own that RI, CloudCheckr would charge the correct On-Demand amount to your account. In CloudCheckr, you would see that you were charged exactly \$279.744 for those 744 hours.

Note: All prices in CloudCheckr reflect the AWS pricing that was in effect at the time the costs were incurred.

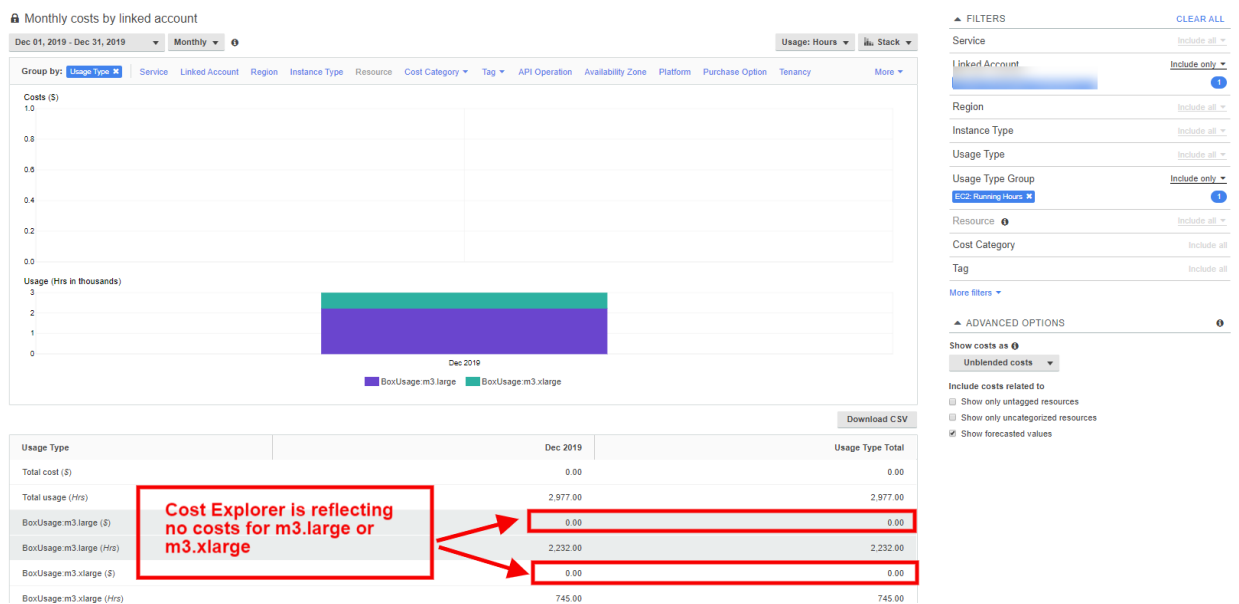
Question: Ok, I believe it. Now how do I prove it?

To see this, take a look at your EC2 data in Cost Explorer. If you do not own any RIs, but Cost Explorer is showing that all EC2 Box Usage has no cost, it means that another company's RI was applied to your account.

If you own one RI but are using two On-Demand Instances, and your EC2 data shows Heavy Usage with a cost and Box Usage with no cost, it means AWS has applied both your RI and another customer's RI to your Box Usage. If your Box Usage shows a cost, that means either no RI or only a few hours of a RI were applied to it.

This is the same with all RI types: EC2, RDS, Redshift, etc.

Below is a screenshot from Cost Explorer showing that, according to AWS, the m3.large and m3.xlarge did not have any costs associated with it.



Looking at this same account in CloudCheckr for the same criteria (month & EC2 usage), you can see the same hours that now reflects the On-Demand rate.

Total	Daily Max	Daily Min	Average
\$1,295.08	\$42.28 12/21/2019	\$41.76 12/1/2019	\$41.78

Account	Total	Usage Type	Cost	Usage Quantity
	\$1,295.08			
		BoxUsage.m3.large	\$909.17	2,232.00
		BoxUsage.m3.xlarge	\$385.91	745.00

Cost by Group

Reflects On Demand Cost for these Instances

Same quantity as Cost Explorer

To verify the AWS published pricing, go to:

<https://aws.amazon.com/ec2/pricing/reserved-instances/pricing/>.

Then, choose the correct region (e.g. US East, US Oregon, etc.) and operating system (e.g. RHEL, Windows, Linux, etc.) before searching for your instance family and size (i.e. T3 vs. C5, micro vs. large).

Note: All pricing shown on aws.amazon.com is current day pricing. If you are validating historical data, please note that AWS pricing may have changed.

Have further questions?

Contact our team at AWS@ingrammicro.com.