AWS Billing Setup Guide

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1. Overview

This document details the steps involved in setting up your AWS account to deliver billing reports which will then be fetched by the CloudBilling system to be showcased as purchases on your CloudBilling account.

2. AWS Setup

- 2.1. Setup S3 bucket
- Go to https://console.aws.amazon.com/s3
- Click on 'Create Bucket'
- Follow the steps to setup a new S3 bucket

2.2. Enable reports

- Go to <u>https://console.aws.amazon.com/billing/home</u> (can be accessed through the dropdown option 'My Billing Dashboard' beside your profile username on the menu).
- Click on Cost & Usage Report on the navigation pane on the left.
- Click 'Create report' and follow the steps outlined. Sample inputs can be found in the images below.

Penert name required	
Report name - required	
dailyreport	Valid report name
Report includes	
Account identifiers	
 Invoice and Bill Information 	
Usage Amount and Unit	
Rates and Cost	
Product Attributes (e.g., instance type, operat	ing system, and region)
Pricing Attributes (e.g., offer types, and lease	lengths)
Reservation identifiers and related details (for	reserved instances only)
Additional report details	
Include resource IDs 1	
Data refresh settings ()	
Automatically refresh your Cost & Usage Rep	ort when charges are detected for previous months with closed bills.
	Cancel

S3 bucket - required					
cloudbilling-billingreports	Configure	Verify	Valid Bucket		
Report path prefix					
billingmanagement		6			
Time granularity					
Hourly	on	ly 'Daily' rep	oorting is supporte	ed by CloudBilling	g!
O Daily					
The time granularity on which repo	ort data are measured	and displayed.			
Report versioning					
Oreate new report versior	ı				
Overwrite existing report					
Enable report data integrati	on for				
Amazon Athena					
Amazon Redshift					
Amazon QuickSight					
-					
Compression type					
Compression type					
Compression type ZIP File format					
Compression type ZIP File format text/csv					
Compression type ZIP File format text/csv					

Review your report details below. You can use the Edit button to go back and make changes to any section.				
Report content		Edit		
Report name				
dailyreport				
Report includes				
Account identifiers				
 Invoice and Bill Information 				
Usage Amount and Unit				
Rates and Cost				
Product Attributes (e.g., instance type, operating syste	em, and region)			
Pricing Attributes (e.g., offer types, and lease lengths)				
Reservation identifiers and related details (for reserved	l instances only)			
Data refresh settings				
Opted in				
S2 huglest				
so pucket				
oloudbining-biningreports				
Report path prefix				
billingmanagement/dailyreport/date-range/				
Time granularity				
Daily				
Daily Report versioning				
Daily Report versioning Create new report version				
Daily Report versioning Create new report version				
Daily Report versioning Create new report version Compression type				
Daily Report versioning Create new report version Compression type ZIP				
Daily Report versioning Create new report version Compression type ZIP File format				
Daily Report versioning Create new report version Compression type ZIP File format text/csv				
Daily Report versioning Create new report version Compression type ZIP File format text/csv				
Daily Report versioning Create new report version Compression type ZIP File format text/csv				

• Click on 'Review and Complete' if the settings are in order.

2.3. Create Policy

A CloudBilling user requires certain permissions to be enabled to access the billing reports from your S3 bucket and the AWS pricing lists.

- Go to <u>https://console.aws.amazon.com/iam</u> (can be accessed through the dropdown option 'My Security Credentials' beside your profile username on the menu).
- Click on 'Policies' on the left-hand side navigation pane.
- Click on 'Create policy'

plicy defines the AWS permissions that ve	bu can assion to a user. group, or role. You can create and edit a policy in the visual editor and using JS	ON. Learn more
		Impart managed pa
isual editor JSON		import managed po
band all Collapse all		
 Billing (4 actions) 		Clone Remove
► Servi	ce Billing	
✓ Action	ns Specify the actions allowed in Billing \odot	Switch to deny permissions
cio	Q Filter actions	
	Manual actions (add actions)	
	Access level	Expand all Collapse
	Read (4 selected)	
	Write	
Resourc	All resources have been selected for you because this service does not allow you to choose spec	ific resources.
Request condition	ns Specify request conditions (optional)	
		Add additional permission
		Cancel Review polic

- Select the Service 'Billing' and select the 'Access level' under Actions as 'Read'
 Click 'Add additional permissions'

Create policy		1 2
A policy defines the AWS permissions that you o	can assign to a user, group, or role. You can create and edit a policy in the visual editor and u	sing JSON. Learn more
Visual editor JSON		Import managed policy
Expand all Collapse all		
Billing (4 actions)		Clone Remove
- Cost and Usage Report (1 action)		Clone Remove
➤ Service	Cost and Usage Report	
- Actions close	Specify the actions allowed in Cost and Usage Report ⑦ Q. Filter actions Manual actions (add actions) All Cost and Usage Report actions (cur:*) Access level ▶ ♥ Read (1 selected) ▶ ₩rite	Switch to deny permissions () Expand all Collapse all
Resources	The actions you chose support all resources.	
		Add additional permissions
		Cancel Review policy

Figure 5: Create Policy – Step 1b

- Select the Service 'Cost and Usage Report' and select the 'Access level' under Actions as 'Read'
- Click 'Add additional permissions'

Freate policy		1 2
policy defines the AWS permissions that you	an assign to a user, group, or role. You can create and edit a policy in the visu	al editor and using JSON. Learn more
Visual editor JSON		Import managed po
xpand all Collapse all		
Billing (4 actions)		Clone Remove
Cost and Usage Report (1 action)		Clone Remove
▼ \$3 (36 actions)		Clone Remove
▶ Service	\$3	
- Actions close	Specify the actions allowed in S3 ⑦	Switch to deny permissions
	Q Filter actions Manual actions (add actions) All S3 actions (s3:")	
	Access level	Expand all Collapse a
	 Prevention (SS selected) Write Permissions management 	
▶ Resources	All resources	
 Request conditions 	Specify request conditions (optional)	
		Cancel Review policy

- Select the Service 'S3' and select the 'Access level' under Actions as 'Read' and 'List'
- Under Resources, select 'All resources'
- Click 'Review policy'

Create policy							1 2)
Review policy								
Name*	BillingViewAccess							
Description Used to provide users with view access to billing information								
	Maximum 1000 characters. Use alp	hanumeric and '+=,.@' charact	ers.					J
Summary	Q Filter							
	Service 👻	Access level		Resource	Req	uest condition		
	Allow (3 of 171 services) St	now remaining 168						
1	Billing	Full: Read		All resources	Non	IÐ		
	Cost and Usage Report	Full: Read		All resources	Non	le		
	S3	Full: List, Read		All resources	Non	le		
* Required					Cancel	Previous	Create policy	

- On this screen type in the Name 'BillingViewAccess'. Give it a description.
- Click 'Create policy'
- 2.4. Create Groups
- Go to https://console.aws.amazon.com/iam (can be accessed through the dropdown option 'My Security Credentials' beside your profile username on the menu).
- Click on 'Groups' on the left-hand side navigation pane.
- Click on 'Create New Group'

Set Group Name				
Specify a group name. Group names can be edited any time.				
Group Name:	Product			
	Example: Developers or ProjectAlpha Maximum 128 characters			
igure 8: Create Group	- Step 1			

- Give the group a name, say, 'Product'Click on 'Next Step'

ect c	ne or	more policies to attach. Each group can have up to	10 policies attached.		
ilter:	Poli	icy Type - Search			Showing 430 resul
		Policy Name 🗢	Attached Entities \$	Creation Time \$	Edited Time \$
	Û	AWSPriceListServiceFullAccess	1	2017-11-22 01:36 UTC+0100	2017-11-22 01:36 UTC+0100
		BillingViewAccess	1	2019-03-06 11:20 UTC+0100	2019-03-12 17:07 UTC+0100
	Û	AdministratorAccess	0	2015-02-06 19:39 UTC+0100	2015-02-06 19:39 UTC+0100
	Û	AlexaForBusinessDeviceSetup	0	2017-11-30 17:47 UTC+0100	2017-11-30 17:47 UTC+0100
	Û	AlexaForBusinessFullAccess	0	2017-11-30 17:47 UTC+0100	2018-06-26 01:53 UTC+0100
	Û	AlexaForBusinessGatewayExecution	0	2017-11-30 17:47 UTC+0100	2017-11-30 17:47 UTC+0100
	Û	AlexaForBusinessReadOnlyAccess	0	2017-11-30 17:47 UTC+0100	2018-06-26 01:52 UTC+0100
	Û	AmazonAPIGatewayAdministrator	0	2015-07-09 19:34 UTC+0100	2015-07-09 19:34 UTC+0100
	Ũ	AmazonAPIGatewayInvokeFullAccess	0	2015-07-09 19:36 UTC+0100	2018-12-18 19:25 UTC+0100
	Û	AmazonAPIGatewayPushToCloudWatchLogs	0	2015-11-12 00:41 UTC+0100	2015-11-12 00:41 UTC+0100
	Û	AmazonAppStreamFullAccess	0	2015-02-06 19:40 UTC+0100	2018-09-10 19:29 UTC+0100
	Û	AmazonAppStreamReadOnlyAccess	0	2015-02-06 19:40 UTC+0100	2016-12-07 22:00 UTC+0100
	Û	AmazonAppStreamServiceAccess	0	2016-11-19 05:17 UTC+0100	2019-01-17 21:22 UTC+0100
	Û	AmazonAthenaFullAccess	0	2016-11-30 17:46 UTC+0100	2019-02-19 01:13 UTC+0100
	Û	AmazonChimeFullAccess	0	2017-11-01 23:15 UTC+0100	2017-11-01 23:15 UTC+0100
	Û	AmazonChimeReadOnly	0	2017-11-01 23:04 UTC+0100	2018-03-30 18:24 UTC+0100
	Û	AmazonChimeUserManagement	0	2017-11-01 23:17 UTC+0100	2018-12-19 22:29 UTC+0100
	Û	AmazonCloudDirectoryFullAccess	0	2017-02-25 01:41 UTC+0100	2017-02-25 01:41 UTC+0100
	Û	AmazonCloudDirectoryReadOnlyAccess	0	2017-03-01 00:42 UTC+0100	2017-03-01 00:42 UTC+0100

Figure 9: Create Group - Step 2

- Select the following permissions on this screen. Use the Search box to search for them.
 - AWSPriceListServiceFullAccess
 - BillingViewAccess
- Click 'Next Step'

n, then click Create Group to proceed.	
Product	Edit Group Name
arn:aws:iam::aws:policy/AWSPriceListServiceFullAccess arn:aws:iam::079149000170:policy/BillingViewAccess	Edit Policies
	n, then click Create Group to proceed. Product arn:aws:iam::aws:policy/AWSPriceListServiceFullAccess arn:aws:iam::079149000170:policy/BillingViewAccess

• Click 'Create Group' if the settings are in order.

2.5. Create User

- Go to https://console.aws.amazon.com/iam (can be accessed through the dropdown option 'My Security Credentials' beside your profile username on the menu).
- Click on 'Users' on the left-hand side navigation pane.
- Click 'Add user'

Add user			1 2 3 4 5	
Set user details				
You can add multiple users at once with the same access type and permissions. Learn more User name* cloudbilling-biller				
Select AWS access type				
Select how these users will access AW	S. Access keys and autogene	ated passwords are provided in the	last step. Learn more	
Access type*	 Programmatic access Enables an access key other development tools 	D and secret access key for the AV	NS API, CLI, SDK, and	
	AWS Management Cor Enables a password that	sole access t allows users to sign-in to the AWS	Management Console.	
Give the user a name Click 'Next: Permissio	e, say, 'cloudbillin ons'	g-biller'		
Add user			1 2 3 4 5	
- Set permissions				
Add user to group	Copy permissions from existing user	Attach existing polic directly	ies	
Add user to an existing group or create a	new one. Using groups is a b	est-practice way to manage user's p	permissions by job functions. Learn more	
Add user to group				
Create group 2 Refresh				
Q Search			Showing 1 result	
Group 👻		Attached policies		

- Figure 12: Add User Step 2
- Select the group that you created for the purpose of CloudBilling, 'Product' in this case.

AWSPriceListServiceFullAccess and 2 more

Click 'Next Tags' •

Product

н

Add user			1 2 3	4 5
Add tags (optior	nal)			
IAM tags are key-value patitle. You can use the tage	airs you can add s to organize, tra	to your user. Tags can include user information, such as an email a ck, or control access for this user. Learn more	ddress, or can be descriptiv	e, such as a job
Кеу		Value (optional)		Remove
Add new key				
You can add 50 more ta	ags.			
igure 13: Add User	- Step 3			
 Set any tage Click 'Next: 	s, if requii Review'	red.		
Add user			1 2 3	4 5
Review				
Review your choices. A User details	fter you create th	ne user, you can view and download the autogenerated password a	nd access key.	
	User name	cloudbilling-biller		
AWS	access type	Programmatic access - with an access key		
Permissio	ons boundary	Permissions boundary is not set		
Permissions summ	nary			
The user shown above	will be added to	the following groups.		
Туре	Name			
Group	Product			
Tags				
No tags were added.				
igure 14: Add User	- Step 4			

• Click 'Create user' if the settings are in order.

2.6. Create User Security Keys

- Go to https://console.aws.amazon.com/iam (can be accessed through the dropdown option 'My Security Credentials' beside your profile username on the menu).
- Click on 'Users' on the left-hand side navigation pane.
- Under the 'User name' column in the table, click on the user that you just created, 'cloudbilling-biller' in this case.

Immary						Delete user	
ermissions	Cr Groups (1)	User ARN Path eation time Tags (1)	arn:aws:iam::09008765 / 2019-03-06 10:07 UTC Security credentials	4321:user/cloudbillin +0100 Access Advisor	g-biller (2)		
Permissio	ons policies (3	policies a	oplied)			O Add inline poli	icv
Policy n	ame 👻				Policy type 👻		-,
Attached from	n group						
 AWS 	PriceListService	FullAccess			AWS managed policy from group Product		×
 Billir 	gViewAccess				Managed policy from group Product		×
🕨 🥫 AWS	OrganizationsFu	IAccess			AWS managed policy from group Product		×
Permissio	ons boundary	(not set)					



- The list of permissions assigned to the user show up underneath the Permissions tab.
- Click on the 'Security credentials' tab.
- Click on 'Create access key'

the only time	e that the secret access keys can be viewed or downloaded. You cannot recover them	
lowever you		
lowevel, you	can create new access keys at any time.	
csv file		
	Secret access key	
	csv file	csv file Secret access key

Figure 16: User - Access Key

- A popup shows up that shows the freshly created 'Access Key ID' and 'Secret access key'.
- Please make sure to click on the 'Download .csv file' button to keep a copy of the keys with you. You will need it later on while configuring your AWS account on CloudBilling! The file should download as 'accessKeys.csv'.

2.7. Enabling Tags

AWS offers you the ability to tag individual resources. A tag is a label that you assign to an AWS resource. Each tag consists of a *key* and an optional *value*, both of which you define.

Tags enable you to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. This is useful when you have many resources of the same type—you can quickly identify a specific resource based on the tags you've assigned to it. For example, you could define a set of tags for your account's Amazon EC2 instances that helps you track each instance's owner and stack level.

Once you have assigned the required tags, <u>activate</u> these tags by navigating to the <u>Cost</u> <u>allocation tags</u> section.

Home	Cost Allocation Tags				0		
Cost Management	AWS-Generated Cost Allocation Tags						
Cost Explorer Budgets	A resource created by tag is an AWS-generated cost allocation tag containing resource creator information that is automatically applied to the resources that you create. This feature is only available in the Billing & Cost Management console, and will not appear anywhere else in the AWS console, including the Tag Editor.						
Budgets Reports	Deacu	Descrivate					
Cost allocation tags	User-D	User-Defined Cost Allocation Tags					
Billing	Activating	tags for cost allocatio	n tells AV	S that the associated cost data for these tags should be made available throughout the billing pipeline. Once activated, cost allocation tags can be used as a dime	ension	of grouping	
Bills	Clicking t	he Refresh button will	prioritize	in remaining ways budget criteria.	/ 24 hc	ours.	
Orders and invoices						Defeat	
Credits	Activa	Deactivate	Undo		Re		
Preferences	Filter:	All tags	• 0	Search for a tag key Tags per page:	100	¢ 0	
Billing preferences Payment methods Consolidated billing		Tag key*		•	SI	tatus 🌲	
Tax settings		user:Owner			A	ctive	
		Tag.environment			A	ctive	
✓ user:Purpose			A	ctive			
l		user:Customtagtest			A	ctive	
ı I		user:Department			A	ctive	
✓ user:name					A	ctive	
1		Tag.resourceGroup			A	ctive	
		user:Creator			A	ctive	
		project			A	ctive	
Figure 17: Activa	iting/	'Deactivatir	ng To	qs			

3. CloudBilling Setup

3.1. AWS Connector

3.1.1. Account Configuration

To setup the CloudBilling AWS connector

- In the menu bar go to Connectors > Amazon Web Services
- Click on 'Connector Settings'
- Click 'Add'

Amazon Web Service Account	×
Name	
Access Key	
Secret Key	
Bucket Name	
Region	•
Poport Broßy	
Report Name	

In the popup, fill in the user account details that you configured on your AWS account. Region information - <u>https://docs.aws.amazon.com/general/latest/gr/rande.html</u>

Field	Sample Value
Name	cloudbilling-biller
Access key	ABCDEFGHI51738GFRES
Secret key	<as accesskeys.csv="" in="" listed="" the=""></as>
Region	<select account="" region="" your=""></select>
Report Prefix	billingmanagement
Report Name	dailyreport

3.1.2. LineItemType Mapping

AWS billing reports are in CSV format and each line in a CSV corresponds to a purchase on CloudBilling. There are 11 different LineItemTypes that tell you what type of usage record it is. Each record falls into either one of these LineItemTypes.

- **Usage** Any usage that is charged at On-Demand Instance rates.
- **DiscountedUsage** The rate for any instances for which you had Reserved Instance (RI) benefits.

CloudBilling processes DiscountedUsage lineitemtypes based on the ReservationARN, i.e. the account that made the RI purchase. If the account corresponding to the DiscountedUsage is the one who purchased the RI as well, it gets charged the LineItemUnblendedRate otherwise, the PublicOnDemandRate is used.

- **Credit** Any credits that AWS applied to your bill. Check the **Description** column for details. AWS might update reports after they have been finalized if AWS applies a credit to your account for the month after finalizing your bill.
- Tax Any taxes that AWS applied to your bill: for example, VAT or US sales tax.

- **Refund** Negative charges that AWS refunded money to you for. Check the **Description** column for details. AWS might update reports after they have been finalized if AWS applies a refund to your account for the month after finalizing your bill.
- Fee Any upfront annual fee that you paid for subscriptions. For example, the upfront fee that you paid for an All Upfront RI or a Partial Upfront RI.
- **RIFee** The monthly recurring fee for subscriptions. For example, the recurring fee for **Partial Upfront RIs** and **No Upfront RIs** that you pay every month.
- SavingsPlanUpfrontFee Any upfront fee you paid for your Savings Plans. For example, the upfront fee that you paid for an All Upfront Savings Plan or a Partial Upfront Savings Plan.

CloudBilling assigns the fee to whatever account it is reported on, so the using account.

• SavingsPlanRecurringFee – The monthly recurring fee for your Savings Plans related subscriptions. For example, the recurring monthly fee for a Partial Upfront Savings Plan or No Upfront Savings Plan.

CloudBilling assigns the fee to whatever account it is reported on, so the using account.

- **SavingsPlanCoveredUsage** The instances that received benefits from a Savings Plan subscription.
- CloudBilling assigns the usage to whatever account it is reported on, so the using account.
 SavingsPlanNegation The Savings Plans discount applied. The line item contains negative costs (discounts). This enables you to find the net cost after Savings Plans discounts, using the total sum of the Unblended Cost.

CloudBilling assigns the negation to the using account if and only if that account is also the account that purchased the SavingsPlan, otherwise it is assigned to the master account. This is determined using the SavingsPlanARN.

Usage Type	Customer Mapping	Product Mapping	
Credit	As Reported	\$ As Reported	\$
DiscountedUsage	As Reported	\$ As Reported	\$
Fee	As Reported	\$ Use Type	\$
Refund	As Reported	\$ Use Type	\$
RIFee	As Reported	\$ As Reported	\$
Tax	As Reported	\$ Use Type	\$
Usage	As Reported	\$ As Reported	\$
SavingsPlanUpfrontFee	As Reported	\$ As Reported	\$
SavingsPlanRecurringFee	As Reported	\$ As Reported	\$
SavingsPlanCoveredUsage	As Reported	\$ As Reported	\$
SavingsPlanNegation	As Reported	\$ As Reported	\$

Figure 19: AWS Connector - LineItemType Mapping

It is possible to map these LineItemTypes to a purchase entity on CloudBilling in the following ways.

	Product	Customer
LineItemType	As Reported	As Reported
LineItemType	As Reported	Use Type

LineItemType	Map to Master	As Reported
LineItemType	Map to Master	Use Type

- As Reported The purchase would map to the product/customer as reported in the billing report. DiscountedUsage and Usage use this mapping for both product and customer.
- Use Type These are used for LineItemTypes that do not have a corresponding SKU in the billing report. Tax, Refund and Fee fall in this category.
- Map to Master Instead of mapping to the actual customer reported in the report, you can also map the LineItemType to the master account. Commonly used in the case of Tax and/or Credit, where the purchase normally shouldn't show up on a customer's invoice.

3.1.3. Enable

- Don't forget to select the 'Enabled' checkbox!
- Click Save to complete the configuration.

3.1.4. Customer Mapping

Within 24 hours CloudBilling will start retrieving the customers corresponding to your AWS account configuration. Once that happens, you need to map your AWS customers to CloudBilling customers.

- In the menu bar go to Connectors > Amazon Web Services
- Click on 'Customer Mapping'
- Make sure you have CloudBilling customer entities created
- Map the AWS account IDs to CloudBilling customers and click on Approve one by one.

Within 24 hours of successfully completing this step, you should see AWS usage information flow into your CloudBilling account in the form of purchases.

3.2. Pricing Rules

The connector creates 3 pricing rules per product, 1 PRICE rule, 1 ADJUSTPERCENTAGE rule and 1 SUM rule.

- Although a PRICE rule is created, the actual price is fetched from the purchases it is applied to, thereby negating the need to constantly update the PRICE rule with the latest available prices from the AWS Price List Service API.
- The ADJUSTPERCENTAGE rule setups up the option to add a margin to the base price. This rule gives you the option to:
 - Set a global margin for (AWS) All Products across All Customers.
 - Set a customer specific margin for (AWS) All Products.
 - Set a product specific margin for All Customers.
- The SUM rule brings the total of the individual price + margin results together.

3.3. Purchases

CloudBilling processes each line item on a billing report as a standard purchase with the column values translating to either mandatory fields on a CB purchase entity or as metadata on the purchase. Not all columns on the billing reports are available at all times. It depends largely on the **lineItem/LineItemType** and other primary fields.

ļ	Edit Purchase					
	Reference	zhwax6wb3bwwt7mh7dcgw24lem5hhmqnhv	gydogdmnatovfxu2la-2018-12-21T16:00:00Z/2018-12-21T17:00:00Z			
į.	Ad-hoc	Yes				
į.	Product Label	TUSXZSTYY6YJH244				
į.	Product Cluster	0 ×				
į.	Customer	CloudBilling Customer 2				
į.	Quantity	1.000000000				
į.	Override Unit Price					
į.	Override Cost	0.000004300				
i	Override Total Purchase Price					
ł	Purchase Date	2018/12/21 16:00 +00:00				
ł	End Date	2018/12/21 17:00 +00:00				
į.	Bill In Advance?	Yes				
į.	Recurrence	None Second Minute Hour Day	Month Year			
i	Metadata					
ł	Numbers					
ł	UnblendedRate	0.0000004300				
ł	UnblendedCost	0.0000004300				
ł	BlendedRate	0.0000004300				
ł	BlendedCost	0.0000004300				
ł	PublicOnDemandCost	0.000004300				
ł	PublicOnDemandRate	0.0000004300				
ſ			~~~~~~			
ł	Strings ItemTvoe		Usage			
ł	ItemProductCode		AmazonS3			
ł			FIICI Bequests Tisc2			
ł	Itemusage i ype		EUC1-Requests-Tierz			
ł	ItemOperation	ReadBucketPublicAccessBlock				
ł	ItemResourceId	fabric-pool-c9a1f66b-d7af-4a1b-b1e1-b1c1d529f601				
ł	CurrencyCode		USD			
ł	Description		\$0.0043 per 10,000 GET and all other requests			
ł	ProductName		Amazon Simple Storage Service			
ł	ProductGroup		S3-API-Tier2			
ł	ProductGroupDescription GET and all other requests					
ł	Location	EU (Frankfurt)				
ł	LocationType	AWS Region				
ł	ProductFamily		API Request			
ł	ProductRegion		eu-central-1			
ł	ServiceCode		AmazonS3			
ł	ServiceName		Amazon Simple Storage Service			
ł	• SKU		TUSXZSTYY6YJH244			
ł	UsageType		EUC1-Requests-Tier2			
ł	PricingTerm		OnDemand			
ł	PricingUnit		Requests			
ł	ReservationSubscriptionId		671122744			
ł			AWSConnector			
ł			5-1-4002566726408-80-00			
ł			201446935101/D0098682606			
ł	CUSTOMER_MAPPING_ID	5c1a46fb47fb29023000d321				
ł	CUSTOMER_REFERENCE 593671902748					
ł	METER_REFERENCE					
ł	METER_NAME					
ł	METER_TYPE	TUSXZSTYY6YJH244				
ł	STATE		Active			
	Dates					
ł	bill/BillingPeriodStartDate		2018/12/01 00:00			
ł	bill/BillingPeriodEndDate		2019/01/01 00:00			
j]						
ł	* Add					

Figure 20: Sample AWS Resource Purchase

3.3.1. Processing Based on LineItemType

Product Label

Case 1: If Product Mapping is "As Reported", then ProductLabel = <SKU> - <ProductFamily> - <ServiceContext> ServiceContext = product/serviceCode (if available), otherwise lineitem/productcode

Case 2: If Product Mapping is "Use Type", then the *ProductLabel = LineItemType*.

LineltemType	Quantity	Unit Cost
Credit	1	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
DiscountedUsage	LineItemUsageAmount	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty OR
		PublicOnDemandRate OR
		PublicOnDemandCost/Qty
Fee	1	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
Refund	1	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
RIFee	1	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
Тах	1	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
Usage	LineItemUsageAmount	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
SavingsPlanUpfrontFee	LineItemUsageAmount	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
SavingsPlanRecurringFee	LineItemUsageAmount	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
SavingsPlanCovered Isage	LineItemUsageAmount	LineItemUnblendedRate OR
		LineItemUnblendedCost/Qty
SavingsPlanNegation	LineItemUsageAmount	LineItemUnblendedRate OR
Savingsriantegation		LineItemUnblendedCost/Qty

Table 1: LineItemType Processing

4. Additional

4.1. References

- Getting Started
- <u>Reports</u>
- <u>Reports 2</u>
- <u>Pricing</u>
- Usage Report
- <u>Account Identifiers</u>
- <u>Users</u>
- Best practices
- Bulk API
- Query API

4.2. Report Format

<example-report-prefix>/<example-report-name>/yyyymmdd-yyyymmdd/<assemblyId>/<example-reportname>-<file-number>.csv.<zip|gz>

- report-prefix = The prefix that you assign to the report.
- report-name = The name that you assign to the report.
- yyyymmdd-yyyymmdd = The range of dates that the report covers. Reports are finalized at the end of the date range.
- assemblyId = An ID that AWS creates each time that the report is updated.
- file-number = If the update includes a large file, AWS might split it into multiple files. The file-number tracks the different files in an update.
- csv = The format of the report files.
- zip or gz = The type of compression applied to the report files.

For example, your report could be delivered as a collection of the following files.

<example-report-prefix>/<example-report-name>/20160101-20160131/<123456789>/<example-report-name>-<1>.csv.<zip>

<example-report-prefix>/<example-report-name>/20160101-20160131/<123456789>/<example-report-name>-<2>.csv.<zip>

<example-report-prefix>/<example-report-name>/20160101-20160131/<123456789>/<example-report-name>-<3>.csv.<zip>

<example-report-prefix>/<example-report-name>/20160101-20160131/<123456789>/<example-reportname>-Manifest.json

<example-report-prefix>/<example-report-name>/20160101-20160131/<example-report-name>-Manifest.json