

Create/consume API for getting AWS cost daily and monthly details

Service endpoint

The Cost Explorer API provides the following endpoint:

<https://ce.us-east-1.amazonaws.com>

1. You need to grant iam permissions for cost explorer to your account/iam user.

A user must be granted explicit permission to query the AWS Cost Explorer API. For the policy that grants the necessary permissions to a user

View costs and usage

To allow users to use the AWS Cost Explorer API, use the following policy to grant them access.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ce:*"
      ],
      "Resource": [
        "*"
      ]
    }
  ]
}
```

2. After that you are able to consume the api

Retrieves cost and usage metrics for your account. You can specify which cost and usage-related metric that you want the request to return. For example, you can

specify `BlendedCosts` or `UsageQuantity`. You can also filter and group your data by various dimensions, such as `SERVICE` or `AZ`, in a specific time range. For a complete list of valid dimensions, see the `GetDimensionValues` operation. Management account in an organization in AWS Organizations have access to all member accounts.

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters AWS costs by different dimensions. For example, you can specify `SERVICE` and `LINKED_ACCOUNT` and get the costs that are associated with that account's usage of that service. You can nest `Expression` objects to define any combination of dimension filters. For more information, see [Expression](#).

Valid values for `MatchOptions` for Dimensions are `EQUALS` and `CASE_SENSITIVE`.

Valid values for `MatchOptions` for CostCategories and Tags are `EQUALS`, `ABSENT`, and `CASE_SENSITIVE`. Default values are `EQUALS` and `CASE_SENSITIVE`.

Type: Expression object

Required: No

Granularity

Sets the AWS cost granularity to `MONTHLY` or `DAILY`, or `HOURLY`. If `Granularity` isn't set, the response object doesn't include the `Granularity`, either `MONTHLY` or `DAILY`, or `HOURLY`.

Type: String

Valid Values: `DAILY` | `MONTHLY` | `HOURLY`

Required: Yes

GroupBy

You can group AWS costs using up to two different groups, either dimensions, tag keys, cost categories, or any two group by types.

Valid values for the DIMENSION type

are AZ, INSTANCE_TYPE, LEGAL_ENTITY_NAME, INVOICING_ENTITY, LINKED_ACCOUNT, OPERATION, PLATFORM, PURCHASE_TYPE, SERVICE, TENANCY, RECORD_TYPE, and USAGE_TYPE.

When you group by the TAG type and include a valid tag key, you get all tag values, including empty strings.

Type: Array of GroupDefinition objects

Required: No

Metrics

Which metrics are returned in the query. For more information about blended and unblended rates, see [Why does the "blended" annotation appear on some line items in my bill?](#).

Valid values

are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, Normalized UsageAmount, UnblendedCost, and UsageQuantity.

Note

If you return the `UsageQuantity` metric, the service aggregates all usage numbers without taking into account the units. For example, if you aggregate `usageQuantity` across all of Amazon EC2, the results aren't meaningful because Amazon EC2 compute hours and data transfer are measured in different units (for example, hours and GB). To get more meaningful `UsageQuantity` metrics, filter by `UsageType` or `UsageTypeGroups`.

Metrics is required for GetCostAndUsage requests.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [`\S\s`]*

Required: No

TimePeriod

Sets the start date and end date for retrieving AWS costs. The start date is inclusive, but the end date is exclusive. For example, if start is 2017-01-01 and end is 2017-05-01, then the cost and usage data is retrieved from 2017-01-01 up to and including 2017-04-30 but not including 2017-05-01.

Type: DateInterval object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValueAttributes

The attributes that apply to a specific dimension value. For example, if the value is a linked account, the attribute is that account name.

Type: Array of DimensionValuesWithAttributes objects

GroupDefinitions

The groups that are specified by the Filter or GroupBy parameters in the request.

Type: Array of GroupDefinition objects

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [`\S\s`]*

ResultsByTime

The time period that's covered by the results in the response.

Type: Array of ResultByTime objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetCostAndUsage` operation that you can use to retrieve your Amazon S3 costs. For more complex examples, such as multi-level groupings, see [Expression](#).

Sample Request

```
POST / HTTP/1.1
```

```
Host: ce.us-east-1.amazonaws.com
```

```
x-amz-Date: <Date>
```

```
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,  
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-  
requestid,Signature=<Signature>
```

```
User-Agent: <UserAgentString>
```

```
Content-Type: application/x-amz-json-1.1
```

```
Content-Length: <PayloadSizeBytes>
```

```
Connection: Keep-Alive
```

```
X-Amz-Target: AWSInsightsIndexService.GetCostAndUsage
```

```
{
```

```
  "TimePeriod": {
```

```
    "Start": "2017-09-01",
```

```
    "End": "2017-10-01"
```

```
  },
```

```
  "Granularity": "MONTHLY",
```

```
"Filter": {
  "Dimensions": {
    "Key": "SERVICE",
    "Values": [
      "Amazon Simple Storage Service"
    ]
  }
},
"GroupBy": [
  {
    "Type": "DIMENSION",
    "Key": "SERVICE"
  },
  {
    "Type": "TAG",
    "Key": "Environment"
  }
],
"Metrics": ["BlendedCost", "UnblendedCost", "UsageQuantity"]
}
```

Sample Response

HTTP/1.1 200 OK

x-amzn-RequestId: <RequestId>

Content-Type: application/x-amz-json-1.1

Content-Length: <PayloadSizeBytes>

Date: <Date>

```
{
  "GroupDefinitions": [
    {
      "Key": "SERVICE",
      "Type": "DIMENSION"
    },
    {
      "Key": "Environment",
      "Type": "TAG"
    }
  ],
  "ResultsByTime": [
    {
      "Estimated": false,
      "Groups": [
        {
          "Keys": [
            "Amazon Simple Storage Service",
```



```
"Environment$Prod"

],

"Metrics": {

  "BlendedCost": {

    "Amount": "39.1603300457",

    "Unit": "USD"

  },

  "UnblendedCost": {

    "Amount": "39.1603300457",

    "Unit": "USD"

  },

  "UsageQuantity": {

    "Amount": "173842.5440074444",

    "Unit": "N/A"

  }

}

},

{

  "Keys": [

    "Amazon Simple Storage Service",

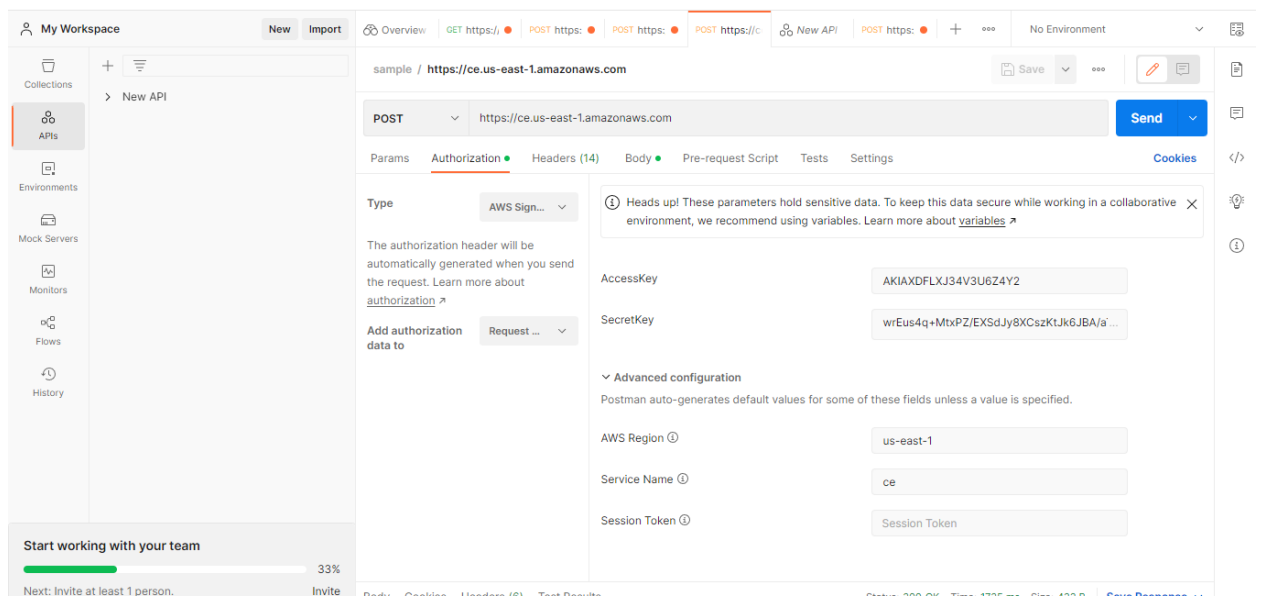
    "Environment$Test"

  ],
```

```
"Metrics": {  
  "BlendedCost": {  
    "Amount": "0.1337464807",  
    "Unit": "USD"  
  },  
  "UnblendedCost": {  
    "Amount": "0.1337464807",  
    "Unit": "USD"  
  },  
  "UsageQuantity": {  
    "Amount": "15992.0786663399",  
    "Unit": "N/A"  
  }  
}  
},  
"TimePeriod": {  
  "End": "2017-10-01",  
  "Start": "2017-09-01"  
},  
"Total": {}  
}
```

```
]
}
```

3. with postman



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NewImport

OverviewGET https://POST https://POST https://POST https://New APINew APIPOST https://+No Environment

Collections

New API

APIs

Environments

Mock Servers

Monitors

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sample / https://ce.us-east-1.amazonaws.com

Save

Send

POSThttps://ce.us-east-1.amazonaws.com

ParamsAuthorizationHeaders (14)BodyPre-request ScriptTestsSettingsCookies

HeadersHide auto-generated headers

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
<input checked="" type="checkbox"/>	Authorization	AWS4-HMAC-SHA256 Credential=AKIA...				
<input checked="" type="checkbox"/>	X-Amz-Content-Sha256	beaead3198f7da1e70d03ab969765e0821b24f...				
<input checked="" type="checkbox"/>	X-Amz-Date	20230308T074706Z				
<input checked="" type="checkbox"/>	Postman-Token	<calculated when request is sent>				
<input checked="" type="checkbox"/>	Content-Type	application/json				
<input checked="" type="checkbox"/>	Content-Length	<calculated when request is sent>				
<input checked="" type="checkbox"/>	Host	<calculated when request is sent>				
<input checked="" type="checkbox"/>	User-Agent	PostmanRuntime/7.31.1				
<input checked="" type="checkbox"/>	Accept	*/*				
<input checked="" type="checkbox"/>	Accept-Encoding	gzip, deflate, br				
<input checked="" type="checkbox"/>	Connection	keep-alive				
<input checked="" type="checkbox"/>	Content-Type	application/x-amz-json-1.1				

HomeWorkspacesAPI NetworkExplore

Search Postman

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Upgrade

My Workspace

NewImport

OverviewGET https://POST https://POST https://POST https://New APINew APIPOST https://+No Environment

Collections

New API

APIs

Environments

Mock Servers

Monitors

Flows

History

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sample / https://ce.us-east-1.amazonaws.com

Save

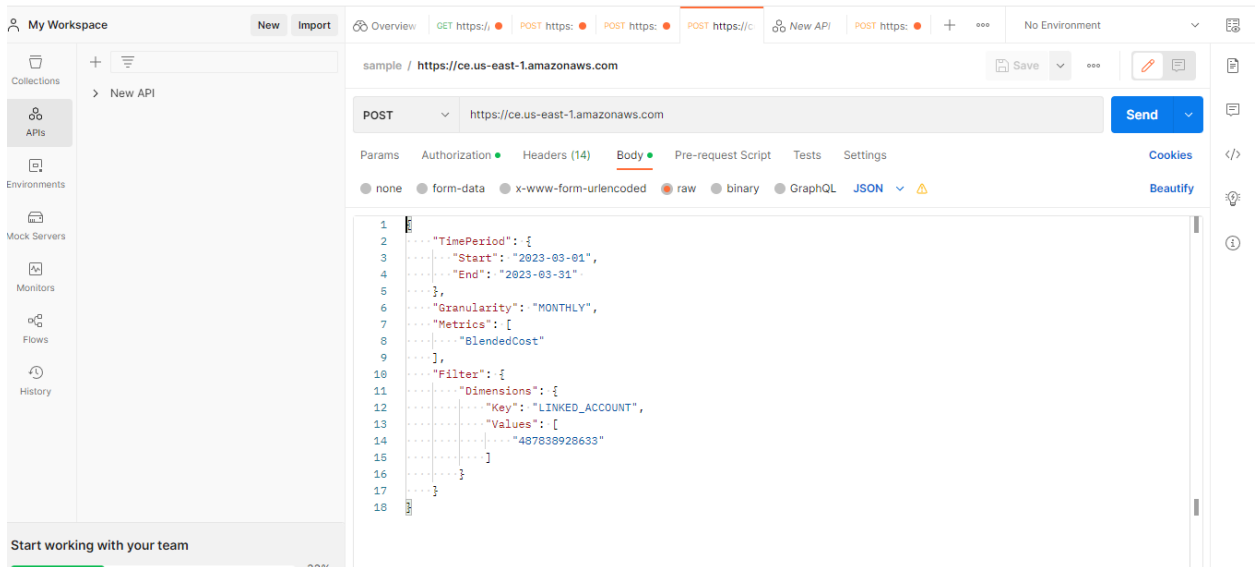
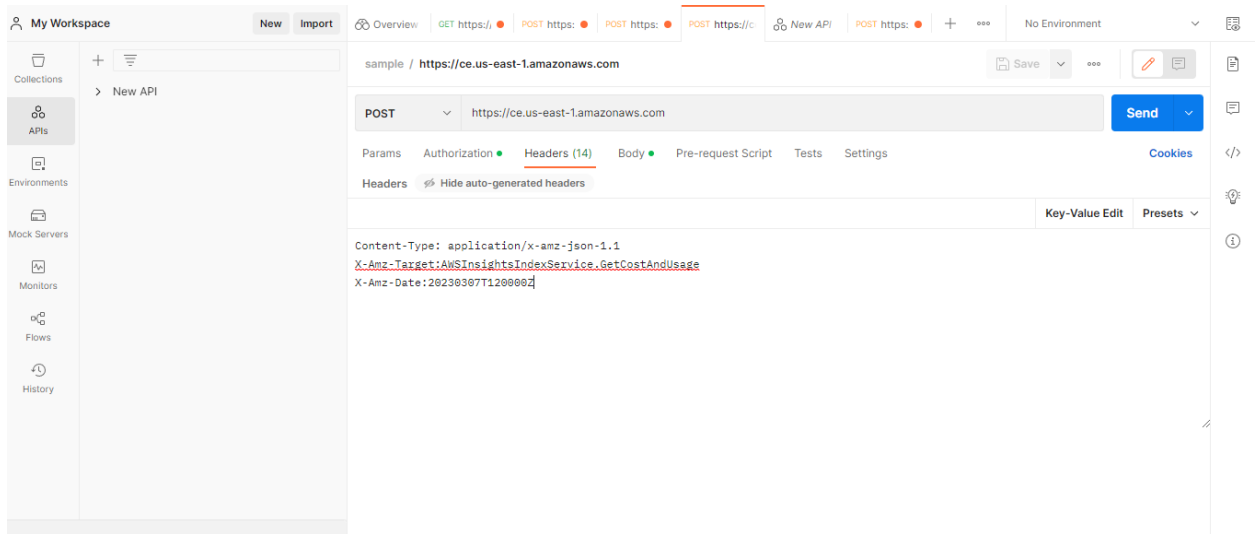
Send

POSThttps://ce.us-east-1.amazonaws.com

ParamsAuthorizationHeaders (14)BodyPre-request ScriptTestsSettingsCookies

HeadersHide auto-generated headers

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
<input checked="" type="checkbox"/>	X-Amz-Date	20230308T074706Z				
<input checked="" type="checkbox"/>	Postman-Token	<calculated when request is sent>				
<input checked="" type="checkbox"/>	Content-Type	application/json				
<input checked="" type="checkbox"/>	Content-Length	<calculated when request is sent>				
<input checked="" type="checkbox"/>	Host	<calculated when request is sent>				
<input checked="" type="checkbox"/>	User-Agent	PostmanRuntime/7.31.1				
<input checked="" type="checkbox"/>	Accept	*/*				
<input checked="" type="checkbox"/>	Accept-Encoding	gzip, deflate, br				
<input checked="" type="checkbox"/>	Connection	keep-alive				
<input checked="" type="checkbox"/>	Content-Type	application/x-amz-json-1.1				
<input checked="" type="checkbox"/>	X-Amz-Target	AWSInsightsIndexService.GetCostAndUsage				
<input checked="" type="checkbox"/>	X-Amz-Date	20230307T120000Z				
	Key	Value	Description			



Output

```
{
  "DimensionValueAttributes": [],
  "ResultsByTime": [
    {
      "Estimated": true,
      "Groups": [],
      "TimePeriod": {
        "End": "2023-03-31",
        "Start": "2023-03-01"
```

```
},
"Total": {
  "BlendedCost": {
    "Amount": "0.0100005139",
    "Unit": "USD"
  }
}
}
```

New Import Overview GET https:// POST https:// POST https:// POST https://c New API POST https:// + ... No Environment

sample / https://ce.us-east-1.amazonaws.com Save ...

POST https://ce.us-east-1.amazonaws.com Send

Params Authorization Headers (14) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
-----	-------	-------------	-----	-----------

Body Cookies Headers (6) Test Results Status: 200 OK Time: 1725 ms Size: 422 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "DimensionValueAttributes": [],
3   "ResultsByTime": [
4     {
5       "Estimated": true,
6       "Groups": [],
7       "TimePeriod": {
8         "End": "2023-03-31",
9         "Start": "2023-03-01"
10      },
11      "Total": {
12        "BlendedCost": {
13          "Amount": "0.0100005139",
14          "Unit": "USD"
15        }
16      }
17    }
18  ]
19 }
```

33% Invite