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# AWS Savings Plans

## API Reference

**API Version 2019-06-28**



## **AWS Savings Plans: API Reference**

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# Welcome

Savings Plans are a pricing model that offer significant savings on AWS usage (for example, on Amazon EC2 instances). You commit to a consistent amount of usage, in USD per hour, for a term of 1 or 3 years, and receive a lower price for that usage. For more information, see the [AWS Savings Plans User Guide](#).

This document was last published on March 3, 2021.

# Actions

The following actions are supported:

- [CreateSavingsPlan](#) (p. 3)
- [DeleteQueuedSavingsPlan](#) (p. 6)
- [DescribeSavingsPlanRates](#) (p. 8)
- [DescribeSavingsPlans](#) (p. 11)
- [DescribeSavingsPlansOfferingRates](#) (p. 15)
- [DescribeSavingsPlansOfferings](#) (p. 19)
- [ListTagsForResource](#) (p. 24)
- [TagResource](#) (p. 26)
- [UntagResource](#) (p. 28)

# CreateSavingsPlan

Creates a Savings Plan.

## Request Syntax

```
POST /CreateSavingsPlan HTTP/1.1
Content-type: application/json

{
  "clientToken": "string",
  "commitment": "string",
  "purchaseTime": number,
  "savingsPlanOfferingId": "string",
  "tags": {
    "string" : "string"
  },
  "upfrontPaymentAmount": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### **clientToken** (p. 3)

Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Required: No

### **commitment** (p. 3)

The hourly commitment, in USD. This is a value between 0.001 and 1 million. You cannot specify more than three digits after the decimal point.

Type: String

Required: Yes

### **purchaseTime** (p. 3)

The time at which to purchase the Savings Plan, in UTC format (YYYY-MM-DDTHH:MM:SSZ).

Type: Timestamp

Required: No

### **savingsPlanOfferingId** (p. 3)

The ID of the offering.

Type: String

Required: Yes



### tags (p. 3)

One or more tags.

Type: String to string map

Required: No

### upfrontPaymentAmount (p. 3)

The up-front payment amount. This is a whole number between 50 and 99 percent of the total value of the Savings Plan. This parameter is supported only if the payment option is `Partial Upfront`.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "savingsPlanId": "string"
}
```

## 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.

### savingsPlanId (p. 4)

The ID of the Savings Plan.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### InternalServerErrorException

An unexpected error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

The specified resource was not found.

HTTP Status Code: 404

### ServiceQuotaExceededException

A service quota has been exceeded.

HTTP Status Code: 402

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteQueuedSavingsPlan

Deletes the queued purchase for the specified Savings Plan.

## Request Syntax

```
POST /DeleteQueuedSavingsPlan HTTP/1.1
Content-type: application/json

{
  "savingsPlanId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### savingsPlanId (p. 6)

The ID of the Savings Plan.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### InternalServerErrorException

An unexpected error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

The specified resource was not found.

HTTP Status Code: 404

### **ServiceQuotaExceededException**

A service quota has been exceeded.

HTTP Status Code: 402

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSavingsPlanRates

Describes the specified Savings Plans rates.

## Request Syntax

```
POST /DescribeSavingsPlanRates HTTP/1.1
Content-type: application/json

{
  "filters": [
    {
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string",
  "savingsPlanId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### filters (p. 8)

The filters.

Type: Array of [SavingsPlanRateFilter \(p. 48\)](#) objects

Required: No

### maxResults (p. 8)

The maximum number of results to return with a single call. To retrieve additional results, make another call with the returned token value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### nextToken (p. 8)

The token for the next page of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

Required: No

### savingsPlanId (p. 8)

The ID of the Savings Plan.

Type: String

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "savingsPlanId": "string",
  "searchResults": [
    {
      "currency": "string",
      "operation": "string",
      "productType": "string",
      "properties": [
        {
          "name": "string",
          "value": "string"
        }
      ],
      "rate": "string",
      "serviceCode": "string",
      "unit": "string",
      "usageType": "string"
    }
  ]
}
```

## 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.

### nextToken (p. 9)

The token to use to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

### savingsPlanId (p. 9)

The ID of the Savings Plan.

Type: String

### searchResults (p. 9)

Information about the Savings Plans rates.

Type: Array of [SavingsPlanRate \(p. 46\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSavingsPlans

Describes the specified Savings Plans.

## Request Syntax

```
POST /DescribeSavingsPlans HTTP/1.1
Content-type: application/json

{
  "filters": [
    {
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string",
  "savingsPlanArns": [ "string" ],
  "savingsPlanIds": [ "string" ],
  "states": [ "string" ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### filters (p. 11)

The filters.

Type: Array of [SavingsPlanFilter \(p. 36\)](#) objects

Required: No

### maxResults (p. 11)

The maximum number of results to return with a single call. To retrieve additional results, make another call with the returned token value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### nextToken (p. 11)

The token for the next page of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+\-]+$`



Required: No

### [savingsPlanArns \(p. 11\)](#)

The Amazon Resource Names (ARN) of the Savings Plans.

Type: Array of strings

Array Members: Maximum number of 100 items.

Pattern: `arn:aws:[a-z]+:(?:[a-z]{2}-[a-z]+\-\d{1}|):(\d{12}):savingsplan\/(?:[0-9a-f]{8}-[0-9a-f]{4}-[1-5][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12})$`

Required: No

### [savingsPlanIds \(p. 11\)](#)

The IDs of the Savings Plans.

Type: Array of strings

Required: No

### [states \(p. 11\)](#)

The states.

Type: Array of strings

Valid Values: `payment-pending` | `payment-failed` | `active` | `retired` | `queued` | `queued-deleted`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "savingsPlans": [
    {
      "commitment": "string",
      "currency": "string",
      "description": "string",
      "ec2InstanceFamily": "string",
      "end": "string",
      "offeringId": "string",
      "paymentOption": "string",
      "productTypes": [ "string" ],
      "recurringPaymentAmount": "string",
      "region": "string",
      "savingsPlanArn": "string",
      "savingsPlanId": "string",
      "savingsPlanType": "string",
      "start": "string",
      "state": "string",
      "tags": {
        "string" : "string"
      },
      "termDurationInSeconds": number,
      "upfrontPaymentAmount": "string"
    }
  ]
}
```

```
}  
  ]  
}
```

## 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.

### **nextToken** (p. 12)

The token to use to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+\ ]+$`

### **savingsPlans** (p. 12)

Information about the Savings Plans.

Type: Array of [SavingsPlan](#) (p. 33) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 52).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# DescribeSavingsPlansOfferingRates

Describes the specified Savings Plans offering rates.

## Request Syntax

```
POST /DescribeSavingsPlansOfferingRates HTTP/1.1
Content-type: application/json

{
  "filters": [
    {
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string",
  "operations": [ "string" ],
  "products": [ "string" ],
  "savingsPlanOfferingIds": [ "string" ],
  "savingsPlanPaymentOptions": [ "string" ],
  "savingsPlanTypes": [ "string" ],
  "serviceCodes": [ "string" ],
  "usageTypes": [ "string" ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### **filters** (p. 15)

The filters.

Type: Array of [SavingsPlanOfferingRateFilterElement](#) (p. 44) objects

Required: No

### **maxResults** (p. 15)

The maximum number of results to return with a single call. To retrieve additional results, make another call with the returned token value.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

### **nextToken** (p. 15)

The token for the next page of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

Required: No

#### **operations (p. 15)**

The specific AWS operation for the line item in the billing report.

Type: Array of strings

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]*$`

Required: No

#### **products (p. 15)**

The AWS products.

Type: Array of strings

Valid Values: `EC2 | Fargate | Lambda`

Required: No

#### **savingsPlanOfferingIds (p. 15)**

The IDs of the offerings.

Type: Array of strings

Pattern: `^(([0-9a-f]+)(-?))+$`

Required: No

#### **savingsPlanPaymentOptions (p. 15)**

The payment options.

Type: Array of strings

Valid Values: `All Upfront | Partial Upfront | No Upfront`

Required: No

#### **savingsPlanTypes (p. 15)**

The plan types.

Type: Array of strings

Valid Values: `Compute | EC2Instance`

Required: No

#### **serviceCodes (p. 15)**

The services.

Type: Array of strings

Valid Values: `AmazonEC2 | AmazonECS | AWSLambda`

Required: No

### [usageTypes \(p. 15\)](#)

The usage details of the line item in the billing report.

Type: Array of strings

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "searchResults": [
    {
      "operation": "string",
      "productType": "string",
      "properties": [
        {
          "name": "string",
          "value": "string"
        }
      ],
      "rate": "string",
      "savingsPlanOffering": {
        "currency": "string",
        "durationSeconds": number,
        "offeringId": "string",
        "paymentOption": "string",
        "planDescription": "string",
        "planType": "string"
      },
      "serviceCode": "string",
      "unit": "string",
      "usageType": "string"
    }
  ]
}
```

## 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.

### [nextToken \(p. 17\)](#)

The token to use to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

[searchResults](#) (p. 17)

Information about the Savings Plans offering rates.

Type: Array of [SavingsPlanOfferingRate](#) (p. 42) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 52).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSavingsPlansOfferings

Describes the specified Savings Plans offerings.

## Request Syntax

```
POST /DescribeSavingsPlansOfferings HTTP/1.1  
Content-type: application/json
```

```
{  
  "currencies": [ "string" ],  
  "descriptions": [ "string" ],  
  "durations": [ number ],  
  "filters": [  
    {  
      "name": "string",  
      "values": [ "string" ]  
    }  
  ],  
  "maxResults": number,  
  "nextToken": "string",  
  "offeringIds": [ "string" ],  
  "operations": [ "string" ],  
  "paymentOptions": [ "string" ],  
  "planTypes": [ "string" ],  
  "productType": "string",  
  "serviceCodes": [ "string" ],  
  "usageTypes": [ "string" ]  
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### **currencies** (p. 19)

The currencies.

Type: Array of strings

Valid Values: CNY | USD

Required: No

### **descriptions** (p. 19)

The descriptions.

Type: Array of strings

Pattern: `^[a-zA-Z0-9_\-\ ]+$`

Required: No

### **durations** (p. 19)

The durations, in seconds.



Type: Array of longs

Valid Range: Minimum value of 0.

Required: No

#### **filters (p. 19)**

The filters.

Type: Array of [SavingsPlanOfferingFilterElement \(p. 40\)](#) objects

Required: No

#### **maxResults (p. 19)**

The maximum number of results to return with a single call. To retrieve additional results, make another call with the returned token value.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

#### **nextToken (p. 19)**

The token for the next page of results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

Required: No

#### **offeringsIds (p. 19)**

The IDs of the offerings.

Type: Array of strings

Pattern: `^(([0-9a-f]+)(-?))+$`

Required: No

#### **operations (p. 19)**

The specific AWS operation for the line item in the billing report.

Type: Array of strings

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]*$`

Required: No

#### **paymentOptions (p. 19)**

The payment options.

Type: Array of strings

Valid Values: All Upfront | Partial Upfront | No Upfront

Required: No

#### **planTypes (p. 19)**

The plan type.

Type: Array of strings

Valid Values: Compute | EC2Instance

Required: No

#### **productType (p. 19)**

The product type.

Type: String

Valid Values: EC2 | Fargate | Lambda

Required: No

#### **serviceCodes (p. 19)**

The services.

Type: Array of strings

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z]+$`

Required: No

#### **usageTypes (p. 19)**

The usage details of the line item in the billing report.

Type: Array of strings

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "searchResults": [
    {
      "currency": "string",
      "description": "string",
      "durationSeconds": number,
      "offeringId": "string",
      "operation": "string",
      "paymentOption": "string",
      "planType": "string",
      "productTypes": [ "string" ],
    }
  ]
}
```

```
    "properties": [  
      {  
        "name": "string",  
        "value": "string"  
      }  
    ],  
    "serviceCode": "string",  
    "usageType": "string"  
  }  
]
```

## 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.

### [nextToken \(p. 21\)](#)

The token to use to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[A-Za-z0-9/=\+]+$`

### [searchResults \(p. 21\)](#)

Information about the Savings Plans offerings.

Type: Array of [SavingsPlanOffering \(p. 37\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
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- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTagsForResource

Lists the tags for the specified resource.

### Request Syntax

```
POST /ListTagsForResource HTTP/1.1
Content-type: application/json

{
  "resourceArn": "string"
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [resourceArn \(p. 24\)](#)

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws:[a-z]+:(?:[a-z]{2}-[a-z]+\d{1}|):(\d{12}):savingsplan\/(?:[0-9a-f]{8}-[0-9a-f]{4}-[1-5][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12})$`

Required: Yes

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "tags": {
    "string" : "string"
  }
}
```

### 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.

#### [tags \(p. 24\)](#)

Information about the tags.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# TagResource

Adds the specified tags to the specified resource.

## Request Syntax

```
POST /TagResource HTTP/1.1
Content-type: application/json

{
  "resourceArn": "string",
  "tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [resourceArn \(p. 26\)](#)

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws:[a-z]+:(?:[a-z]{2}-[a-z]+-\d{1}|):(\d{12}):savingsplan\/([0-9a-f]{8}-[0-9a-f]{4}-[1-5][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12})$`

Required: Yes

### [tags \(p. 26\)](#)

One or more tags. For example, `{"tags": {"key1": "value1", "key2": "value2"}}`.

Type: String to string map

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 52\)](#).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

### **ServiceQuotaExceededException**

A service quota has been exceeded.

HTTP Status Code: 402

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UntagResource

Removes the specified tags from the specified resource.

## Request Syntax

```
POST /UntagResource HTTP/1.1
Content-type: application/json

{
  "resourceArn": "string",
  "tagKeys": [ "string" ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### **resourceArn** (p. 28)

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws:[a-z]+:(?:[a-z]{2}-[a-z]+-\d{1}|):(\d{12}):savingsplan\/([0-9a-f]{8}-[0-9a-f]{4}-[1-5][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12})$`

Required: Yes

### **tagKeys** (p. 28)

The tag keys.

Type: Array of strings

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 52).

### **InternalServerErrorException**

An unexpected error occurred.

HTTP Status Code: 500

### **ResourceNotFoundException**

The specified resource was not found.

HTTP Status Code: 404

### **ValidationException**

One of the input parameters is not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# Data Types

The AWS Savings Plans API contains several data types that various actions use. This section describes each data type in detail.

**Note**

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [ParentSavingsPlanOffering](#) (p. 31)
- [SavingsPlan](#) (p. 33)
- [SavingsPlanFilter](#) (p. 36)
- [SavingsPlanOffering](#) (p. 37)
- [SavingsPlanOfferingFilterElement](#) (p. 40)
- [SavingsPlanOfferingProperty](#) (p. 41)
- [SavingsPlanOfferingRate](#) (p. 42)
- [SavingsPlanOfferingRateFilterElement](#) (p. 44)
- [SavingsPlanOfferingRateProperty](#) (p. 45)
- [SavingsPlanRate](#) (p. 46)
- [SavingsPlanRateFilter](#) (p. 48)
- [SavingsPlanRateProperty](#) (p. 49)

# ParentSavingsPlanOffering

Information about a Savings Plan offering.

## Contents

### **currency**

The currency.

Type: String

Valid Values: `CNY` | `USD`

Required: No

### **durationSeconds**

The duration, in seconds.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **offeringId**

The ID of the offering.

Type: String

Pattern: `^([0-9a-f]+)(-?)+$`

Required: No

### **paymentOption**

The payment option.

Type: String

Valid Values: `All Upfront` | `Partial Upfront` | `No Upfront`

Required: No

### **planDescription**

The description.

Type: String

Pattern: `^[a-zA-Z0-9_\- ]+$`

Required: No

### **planType**

The plan type.

Type: String

Valid Values: `Compute` | `EC2Instance`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlan

Information about a Savings Plan.

## Contents

### **commitment**

The hourly commitment, in USD.

Type: String

Required: No

### **currency**

The currency.

Type: String

Valid Values: CNY | USD

Required: No

### **description**

The description.

Type: String

Required: No

### **ec2InstanceFamily**

The EC2 instance family.

Type: String

Required: No

### **end**

The end time.

Type: String

Required: No

### **offeringId**

The ID of the offering.

Type: String

Required: No

### **paymentOption**

The payment option.

Type: String

Valid Values: All Upfront | Partial Upfront | No Upfront

Required: No

**productTypes**

The product types.

Type: Array of strings

Valid Values: `EC2` | `Fargate` | `Lambda`

Required: No

**recurringPaymentAmount**

The recurring payment amount.

Type: String

Required: No

**region**

The AWS Region.

Type: String

Required: No

**savingsPlanArn**

The Amazon Resource Name (ARN) of the Savings Plan.

Type: String

Pattern: `arn:aws:[a-z]+:(?:[a-z]{2}-[a-z]+\-\d{1}|):(\d{12}):savingsplan\/((?:[0-9a-f]{8}-[0-9a-f]{4}-[1-5][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12}))$`

Required: No

**savingsPlanId**

The ID of the Savings Plan.

Type: String

Required: No

**savingsPlanType**

The plan type.

Type: String

Valid Values: `Compute` | `EC2Instance`

Required: No

**start**

The start time.

Type: String

Required: No

**state**

The state.

Type: String

Valid Values: `payment-pending` | `payment-failed` | `active` | `retired` | `queued` | `queued-deleted`

Required: No

**tags**

One or more tags.

Type: String to string map

Required: No

**termDurationInSeconds**

The duration of the term, in seconds.

Type: Long

Required: No

**upfrontPaymentAmount**

The up-front payment amount.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SavingsPlanFilter

Information about a filter.

## Contents

### **name**

The filter name.

Type: String

Valid Values: `region` | `ec2-instance-family` | `commitment` | `upfront` | `term` | `savings-plan-type` | `payment-option` | `start` | `end`

Required: No

### **values**

The filter value.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanOffering

Information about a Savings Plan offering.

## Contents

### **currency**

The currency.

Type: String

Valid Values: CNY | USD

Required: No

### **description**

The description.

Type: String

Pattern: `^[a-zA-Z0-9_\-\ ]+ $\$$`

Required: No

### **durationSeconds**

The duration, in seconds.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **offeringId**

The ID of the offering.

Type: String

Pattern: `^(([0-9a-f]+)(-?)) $\$$`

Required: No

### **operation**

The specific AWS operation for the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]* $\$$`

Required: No

### **paymentOption**

The payment option.

Type: String

Valid Values: All Upfront | Partial Upfront | No Upfront

Required: No

#### **planType**

The plan type.

Type: String

Valid Values: Compute | EC2Instance

Required: No

#### **productTypes**

The product type.

Type: Array of strings

Valid Values: EC2 | Fargate | Lambda

Required: No

#### **properties**

The properties.

Type: Array of [SavingsPlanOfferingProperty \(p. 41\)](#) objects

Required: No

#### **serviceCode**

The service.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z]+$`

Required: No

#### **usageType**

The usage details of the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# SavingsPlanOfferingFilterElement

Information about a filter.

## Contents

### **name**

The filter name.

Type: String

Valid Values: `region` | `instanceFamily`

Required: No

### **values**

The filter values.

Type: Array of strings

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanOfferingProperty

Information about a property.

## Contents

### **name**

The property name.

Type: String

Valid Values: `region` | `instanceFamily`

Required: No

### **value**

The property value.

Type: String

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanOfferingRate

Information about a Savings Plan offering rate.

## Contents

### **operation**

The specific AWS operation for the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/\.: -]*$`

Required: No

### **productType**

The product type.

Type: String

Valid Values: `EC2` | `Fargate` | `Lambda`

Required: No

### **properties**

The properties.

Type: Array of [SavingsPlanOfferingRateProperty \(p. 45\)](#) objects

Required: No

### **rate**

The Savings Plan rate.

Type: String

Required: No

### **savingsPlanOffering**

The Savings Plan offering.

Type: [ParentSavingsPlanOffering \(p. 31\)](#) object

Required: No

### **serviceCode**

The service.

Type: String

Valid Values: `AmazonEC2` | `AmazonECS` | `AWSLambda`

Required: No

### **unit**

The unit.

Type: String

Valid Values: `Hrs` | `Lambda-GB-Second` | `Request`

Required: No

### **usageType**

The usage details of the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SavingsPlanOfferingRateFilterElement

Information about a filter.

## Contents

### name

The filter name.

Type: String

Valid Values: `region` | `instanceFamily` | `instanceType` | `productDescription` | `tenancy` | `productId`

Required: No

### values

The filter values.

Type: Array of strings

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+ $\$$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanOfferingRateProperty

Information about a property.

## Contents

### **name**

The property name.

Type: String

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+$`

Required: No

### **value**

The property value.

Type: String

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanRate

Information about a Savings Plan rate.

## Contents

### **currency**

The currency.

Type: String

Valid Values: `CNY` | `USD`

Required: No

### **operation**

The specific AWS operation for the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]*$`

Required: No

### **productType**

The product type.

Type: String

Valid Values: `EC2` | `Fargate` | `Lambda`

Required: No

### **properties**

The properties.

Type: Array of [SavingsPlanRateProperty \(p. 49\)](#) objects

Required: No

### **rate**

The rate.

Type: String

Required: No

### **serviceCode**

The service.

Type: String

Valid Values: `AmazonEC2` | `AmazonECS` | `AWSLambda`

Required: No

**unit**

The unit.

Type: String

Valid Values: `Hrs` | `Lambda-GB-Second` | `Request`

Required: No

**usageType**

The usage details of the line item in the billing report.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9_ \/. :-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanRateFilter

Information about a filter.

## Contents

### **name**

The filter name.

Type: String

Valid Values: `region` | `instanceType` | `productDescription` | `tenancy` | `productType` | `serviceCode` | `usageType` | `operation`

Required: No

### **values**

The filter values.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SavingsPlanRateProperty

Information about a property.

## Contents

### name

The property name.

Type: String

Valid Values: `region` | `instanceType` | `instanceFamily` | `productDescription` | `tenancy`

Required: No

### value

The property value.

Type: String

Pattern: `^[a-zA-Z0-9_ \/. \: \- \(\)]+ $\$$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signature Version 4 Signing Process](#) in the *Amazon Web Services General Reference*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: `access_key/YYYYMMDD/region/service/aws4_request`.

For more information, see [Task 2: Create a String to Sign for Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

## X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'THHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Handling Dates in Signature Version 4](#) in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

#### **X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to [AWS Services That Work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, you must include the security token.

Type: string

Required: Conditional

#### **X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

#### **X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Task 1: Create a Canonical Request For Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional



# Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

## **InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

## **InvalidParameterCombination**

Parameters that must not be used together were used together.

HTTP Status Code: 400

## **InvalidParameterValue**

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

## **InvalidQueryParameter**

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

## **MalformedQueryString**

The query string contains a syntax error.

HTTP Status Code: 404

## **MissingAction**

The request is missing an action or a required parameter.

HTTP Status Code: 400

**MissingAuthenticationToken**

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

**MissingParameter**

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

**NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

**OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400