aws

API Reference

Amazon Managed Blockchain

API Version 2018-09-24

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Amazon Managed Blockchain: API Reference

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Welcome

Amazon Managed Blockchain is a fully managed service for creating and managing blockchain networks using open-source frameworks. Blockchain allows you to build applications where multiple parties can securely and transparently run transactions and share data without the need for a trusted, central authority.

Managed Blockchain supports the Hyperledger Fabric and Ethereum open-source frameworks. Because of fundamental differences between the frameworks, some API actions or data types may only apply in the context of one framework and not the other. For example, actions related to Hyperledger Fabric network members such as `CreateMember` and `DeleteMember` don't apply to Ethereum.

The description for each action indicates the framework or frameworks to which it applies. Data types and properties that apply only in the context of a particular framework are similarly indicated.

This document was last published on September 9, 2026.

Actions

The following actions are supported:

- CreateAccessor
- CreateMember
- CreateNetwork
- CreateNode
- CreateProposal
- DeleteAccessor
- DeleteMember
- DeleteNode
- GetAccessor
- GetMember
- GetNetwork
- GetNode
- GetProposal
- ListAccessors
- ListInvitations
- ListMembers
- ListNetworks
- ListNodes
- ListProposals
- ListProposalVotes
- ListTagsForResource
- RejectInvitation
- TagResource
- UntagResource
- UpdateMember
- UpdateNode
- VoteOnProposal

CreateAccessor

Creates a new accessor for use with Amazon Managed Blockchain service that supports token based access. The accessor contains information required for token based access.

Request Syntax

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

{
   "AccessorType": "string",
   "ClientRequestToken": "string",
   "NetworkType": "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.

AccessorType

The type of accessor.

> **Note**
>
> Currently, accessor type is restricted to `BILLING_TOKEN`.

Type: String

Valid Values: `BILLING_TOKEN`

Required: Yes

ClientRequestToken

This is a unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once. This identifier is required only if you make a service request directly using an HTTP client. It is generated automatically if you use an AWS SDK or the AWS AWS CLI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

NetworkType

The blockchain network that the `Accessor` token is created for.

> **Note**
>
> - Use the actual `networkType` value for the blockchain network that you are creating the `Accessor` token for.
> - With the shut down of the *Ethereum Goerli* and *Polygon Mumbai Testnet* networks the following `networkType` values are no longer available for selection and use.
>   - `ETHEREUM_MAINNET_AND_GOERLI`
>   - `ETHEREUM_GOERLI`
>   - `POLYGON_MUMBAI`
>
>   However, your existing `Accessor` tokens with these `networkType` values will remain unchanged.

Type: String

Valid Values: `ETHEREUM_GOERLI | ETHEREUM_MAINNET | ETHEREUM_MAINNET_AND_GOERLI | POLYGON_MAINNET | POLYGON_MUMBAI`

Required: No

Tags

Tags to assign to the Accessor.

Each tag consists of a key and an optional value. You can specify multiple key-value pairs in a single request with an overall maximum of 50 tags allowed per resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Response Syntax

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

{
   "AccessorId": "string",
   "BillingToken": "string",
   "NetworkType": "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.

AccessorId

The unique identifier of the accessor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

BillingToken

The billing token is a property of the Accessor. Use this token to when making calls to the blockchain network. The billing token is used to track your accessor token for billing requests.

Type: String

Length Constraints: Fixed length of 42.

NetworkType

The blockchain network that the accessor token is created for.

Type: String

Valid Values: `ETHEREUM_GOERLI | ETHEREUM_MAINNET | ETHEREUM_MAINNET_AND_GOERLI | POLYGON_MAINNET | POLYGON_MUMBAI`

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceAlreadyExistsException

A resource request is issued for a resource that already exists.

HTTP Status Code: 409

ResourceLimitExceededException

The maximum number of resources of that type already exist. Ensure the resources requested are within the boundaries of the service edition and your account limits.

HTTP Status Code: 429

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateMember

Creates a member within a Managed Blockchain network.

Applies only to Hyperledger Fabric.

Request Syntax

```
POST /networks/networkId/members HTTP/1.1
Content-type: application/json

{
   "ClientRequestToken": "string",
   "InvitationId": "string",
   "MemberConfiguration": {
      "Description": "string",
      "FrameworkConfiguration": {
         "Fabric": {
            "AdminPassword": "string",
            "AdminUsername": "string"
         }
      },
      "KmsKeyArn": "string",
      "LogPublishingConfiguration": {
         "Fabric": {
            "CaLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            }
         }
      },
      "Name": "string",
      "Tags": {
         "string" : "string"
      }
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network in which the member is created.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time. This identifier is required only if you make a service request directly using an HTTP client. It is generated automatically if you use an AWS SDK or the AWS CLI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

InvitationId

The unique identifier of the invitation that is sent to the member to join the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

MemberConfiguration

Member configuration parameters.

Type: MemberConfiguration object

Required: Yes

Response Syntax

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

{
   "MemberId": "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.

MemberId

The unique identifier of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceAlreadyExistsException

A resource request is issued for a resource that already exists.

HTTP Status Code: 409

ResourceLimitExceededException

The maximum number of resources of that type already exist. Ensure the resources requested are within the boundaries of the service edition and your account limits.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateNetwork

Creates a new blockchain network using Amazon Managed Blockchain.

Applies only to Hyperledger Fabric.

Request Syntax

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

{
   "ClientRequestToken": "string",
   "Description": "string",
   "Framework": "string",
   "FrameworkConfiguration": {
      "Fabric": {
         "Edition": "string"
      }
   },
   "FrameworkVersion": "string",
   "MemberConfiguration": {
      "Description": "string",
      "FrameworkConfiguration": {
         "Fabric": {
            "AdminPassword": "string",
            "AdminUsername": "string"
         }
      },
      "KmsKeyArn": "string",
      "LogPublishingConfiguration": {
         "Fabric": {
            "CaLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            }
         }
      },
      "Name": "string",
      "Tags": {
         "string" : "string"
      }
```

```
   },
   "Name": "string",
   "Tags": {
      "string" : "string"
   },
   "VotingPolicy": {
      "ApprovalThresholdPolicy": {
         "ProposalDurationInHours": number,
         "ThresholdComparator": "string",
         "ThresholdPercentage": number
      }
   }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

ClientRequestToken

This is a unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once. This identifier is required only if you make a service request directly using an HTTP client. It is generated automatically if you use an AWS SDK or the AWS CLI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

Description

An optional description for the network.

Type: String

Length Constraints: Maximum length of 128.

Required: No

Framework

The blockchain framework that the network uses.

Type: String

Valid Values: `HYPERLEDGER_FABRIC | ETHEREUM`

Required: Yes

FrameworkConfiguration

Configuration properties of the blockchain framework relevant to the network configuration.

Type: NetworkFrameworkConfiguration object

Required: No

FrameworkVersion

The version of the blockchain framework that the network uses.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8.

Required: Yes

MemberConfiguration

Configuration properties for the first member within the network.

Type: MemberConfiguration object

Required: Yes

Name

The name of the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\S.*`

Required: Yes

Tags

Tags to assign to the network.

Each tag consists of a key and an optional value. You can specify multiple key-value pairs in a single request with an overall maximum of 50 tags allowed per resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

VotingPolicy

The voting rules used by the network to determine if a proposal is approved.

Type: VotingPolicy object

Required: Yes

Response Syntax

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

{
   "MemberId": "string",
   "NetworkId": "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.

MemberId

The unique identifier for the first member within the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

NetworkId

The unique identifier for the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceAlreadyExistsException

A resource request is issued for a resource that already exists.

HTTP Status Code: 409

ResourceLimitExceededException

The maximum number of resources of that type already exist. Ensure the resources requested are within the boundaries of the service edition and your account limits.

HTTP Status Code: 429

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateNode

Creates a node on the specified blockchain network.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
POST /networks/networkId/nodes HTTP/1.1
Content-type: application/json

{
   "ClientRequestToken": "string",
   "MemberId": "string",
   "NodeConfiguration": {
      "AvailabilityZone": "string",
      "InstanceType": "string",
      "LogPublishingConfiguration": {
         "Fabric": {
            "ChaincodeLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            },
            "PeerLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            }
         }
      },
      "StateDB": "string"
   },
   "Tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network for the node.

Ethereum public networks have the following `NetworkIds`:

- `n-ethereum-mainnet`

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time. This identifier is required only if you make a service request directly using an HTTP client. It is generated automatically if you use an AWS SDK or the AWS CLI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

MemberId

The unique identifier of the member that owns this node.

Applies only to Hyperledger Fabric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NodeConfiguration

The properties of a node configuration.

Type: NodeConfiguration object

Required: Yes

Tags

Tags to assign to the node.

Each tag consists of a key and an optional value. You can specify multiple key-value pairs in a single request with an overall maximum of 50 tags allowed per resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Response Syntax

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

{
   "NodeId": "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.

NodeId

The unique identifier of the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceAlreadyExistsException

A resource request is issued for a resource that already exists.

HTTP Status Code: 409

ResourceLimitExceededException

The maximum number of resources of that type already exist. Ensure the resources requested are within the boundaries of the service edition and your account limits.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateProposal

Creates a proposal for a change to the network that other members of the network can vote on, for example, a proposal to add a new member to the network. Any member can create a proposal.

Applies only to Hyperledger Fabric.

Request Syntax

```
POST /networks/networkId/proposals HTTP/1.1
Content-type: application/json

{
   "Actions": {
      "Invitations": [
         {
            "Principal": "string"
         }
      ],
      "Removals": [
         {
            "MemberId": "string"
         }
      ]
   },
   "ClientRequestToken": "string",
   "Description": "string",
   "MemberId": "string",
   "Tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network for which the proposal is made.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

Actions

The type of actions proposed, such as inviting a member or removing a member. The types of `Actions` in a proposal are mutually exclusive. For example, a proposal with `Invitations` actions cannot also contain `Removals` actions.

Type: ProposalActions object

Required: Yes

ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time. This identifier is required only if you make a service request directly using an HTTP client. It is generated automatically if you use an AWS SDK or the AWS CLI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

Description

A description for the proposal that is visible to voting members, for example, "Proposal to add Example Corp. as member."

Type: String

Length Constraints: Maximum length of 128.

Required: No

MemberId

The unique identifier of the member that is creating the proposal. This identifier is especially useful for identifying the member making the proposal when multiple members exist in a single AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Tags

Tags to assign to the proposal.

Each tag consists of a key and an optional value. You can specify multiple key-value pairs in a single request with an overall maximum of 50 tags allowed per resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Response Syntax

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

{
   "ProposalId": "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.

ProposalId

The unique identifier of the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteAccessor

Deletes an accessor that your AWS account owns. An accessor object is a container that has the information required for token based access to your Ethereum nodes including, the `BILLING_TOKEN`. After an accessor is deleted, the status of the accessor changes from `AVAILABLE` to `PENDING_DELETION`. An accessor in the `PENDING_DELETION` state can't be used for new WebSocket requests or HTTP requests. However, WebSocket connections that were initiated while the accessor was in the `AVAILABLE` state remain open until they expire (up to 2 hours).

Request Syntax

```
DELETE /accessors/AccessorId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

AccessorId

The unique identifier of the accessor.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteMember

Deletes a member. Deleting a member removes the member and all associated resources from the network. `DeleteMember` can only be called for a specified `MemberId` if the principal performing the action is associated with the AWS account that owns the member. In all other cases, the `DeleteMember` action is carried out as the result of an approved proposal to remove a member. If `MemberId` is the last member in a network specified by the last AWS account, the network is deleted also.

Applies only to Hyperledger Fabric.

Request Syntax

```
DELETE /networks/networkId/members/memberId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

memberId

The unique identifier of the member to remove.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

networkId

The unique identifier of the network from which the member is removed.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteNode

Deletes a node that your AWS account owns. All data on the node is lost and cannot be recovered.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
DELETE /networks/networkId/nodes/nodeId?memberId=MemberId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MemberId

The unique identifier of the member that owns this node.

Applies only to Hyperledger Fabric and is required for Hyperledger Fabric.

Length Constraints: Minimum length of 1. Maximum length of 32.

networkId

The unique identifier of the network that the node is on.

Ethereum public networks have the following `NetworkIds`:

- `n-ethereum-mainnet`

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

nodeId

The unique identifier of the node.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAccessor

Returns detailed information about an accessor. An accessor object is a container that has the information required for token based access to your Ethereum nodes.

Request Syntax

```
GET /accessors/AccessorId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

AccessorId

The unique identifier of the accessor.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Accessor": {
      "Arn": "string",
      "BillingToken": "string",
      "CreationDate": "string",
      "Id": "string",
      "NetworkType": "string",
      "Status": "string",
      "Tags": {
```

```
            "string" : "string"
        },
        "Type": "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.

Accessor

The properties of the accessor.

Type: Accessor object

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetMember

Returns detailed information about a member.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /networks/networkId/members/memberId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

memberId

The unique identifier of the member.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

networkId

The unique identifier of the network to which the member belongs.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Member": {
      "Arn": "string",
```

```
      "CreationDate": "string",
      "Description": "string",
      "FrameworkAttributes": {
         "Fabric": {
            "AdminUsername": "string",
            "CaEndpoint": "string"
         }
      },
      "Id": "string",
      "KmsKeyArn": "string",
      "LogPublishingConfiguration": {
         "Fabric": {
            "CaLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            }
         }
      },
      "Name": "string",
      "NetworkId": "string",
      "Status": "string",
      "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.

Member

The properties of a member.

Type: Member object

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetNetwork

Returns detailed information about a network.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
GET /networks/networkId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network to get information about.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Network": {
      "Arn": "string",
      "CreationDate": "string",
      "Description": "string",
      "Framework": "string",
      "FrameworkAttributes": {
         "Ethereum": {
            "ChainId": "string"
         },
```

```
         "Fabric": {
            "Edition": "string",
            "OrderingServiceEndpoint": "string"
         }
      },
      "FrameworkVersion": "string",
      "Id": "string",
      "Name": "string",
      "Status": "string",
      "Tags": {
         "string" : "string"
      },
      "VotingPolicy": {
         "ApprovalThresholdPolicy": {
            "ProposalDurationInHours": number,
            "ThresholdComparator": "string",
            "ThresholdPercentage": number
         }
      },
      "VpcEndpointServiceName": "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.

Network

An object containing network configuration parameters.

Type: Network object

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetNode

Returns detailed information about a node.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
GET /networks/networkId/nodes/nodeId?memberId=MemberId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MemberId

The unique identifier of the member that owns the node.

Applies only to Hyperledger Fabric and is required for Hyperledger Fabric.

Length Constraints: Minimum length of 1. Maximum length of 32.

networkId

The unique identifier of the network that the node is on.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

nodeId

The unique identifier of the node.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Node": {
      "Arn": "string",
      "AvailabilityZone": "string",
      "CreationDate": "string",
      "FrameworkAttributes": {
         "Ethereum": {
            "HttpEndpoint": "string",
            "WebSocketEndpoint": "string"
         },
         "Fabric": {
            "PeerEndpoint": "string",
            "PeerEventEndpoint": "string"
         }
      },
      "Id": "string",
      "InstanceType": "string",
      "KmsKeyArn": "string",
      "LogPublishingConfiguration": {
         "Fabric": {
            "ChaincodeLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            },
            "PeerLogs": {
               "Cloudwatch": {
                  "Enabled": boolean
               }
            }
         }
      },
      "MemberId": "string",
      "NetworkId": "string",
      "StateDB": "string",
      "Status": "string",
      "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.

Node

Properties of the node configuration.

Type: Node object

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetProposal

Returns detailed information about a proposal.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /networks/networkId/proposals/proposalId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network for which the proposal is made.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

proposalId

The unique identifier of the proposal.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
   "Proposal": {
      "Actions": {
         "Invitations": [
            {
               "Principal": "string"
            }
         ],
         "Removals": [
            {
               "MemberId": "string"
            }
         ]
      },
      "Arn": "string",
      "CreationDate": "string",
      "Description": "string",
      "ExpirationDate": "string",
      "NetworkId": "string",
      "NoVoteCount": number,
      "OutstandingVoteCount": number,
      "ProposalId": "string",
      "ProposedByMemberId": "string",
      "ProposedByMemberName": "string",
      "Status": "string",
      "Tags": {
         "string" : "string"
      },
      "YesVoteCount": number
   }
}
```

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.

Proposal

Information about a proposal.

Type: Proposal object

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAccessors

Returns a list of the accessors and their properties. Accessor objects are containers that have the information required for token based access to your Ethereum nodes.

Request Syntax

```
GET /accessors?maxResults=MaxResults&networkType=NetworkType&nextToken=NextToken
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

The maximum number of accessors to list.

Valid Range: Minimum value of 1. Maximum value of 50.

NetworkType

The blockchain network that the `Accessor` token is created for.

> **Note**
>
> Use the value `ETHEREUM_MAINNET_AND_GOERLI` for all existing `Accessors` tokens that were created before the `networkType` property was introduced.

Valid Values: `ETHEREUM_GOERLI | ETHEREUM_MAINNET | ETHEREUM_MAINNET_AND_GOERLI | POLYGON_MAINNET | POLYGON_MUMBAI`

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Accessors": [
      {
         "Arn": "string",
         "CreationDate": "string",
         "Id": "string",
         "NetworkType": "string",
         "Status": "string",
         "Type": "string"
      }
   ],
   "NextToken": "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.

Accessors

An array of AccessorSummary objects that contain configuration properties for each accessor.

Type: Array of AccessorSummary objects

NextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

ListInvitations

Returns a list of all invitations for the current AWS account.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /invitations?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

The maximum number of invitations to return.

Valid Range: Minimum value of 1. Maximum value of 100.

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Invitations": [
      {
         "Arn": "string",
         "CreationDate": "string",
         "ExpirationDate": "string",
         "InvitationId": "string",
```

```
         "NetworkSummary": {
            "Arn": "string",
            "CreationDate": "string",
            "Description": "string",
            "Framework": "string",
            "FrameworkVersion": "string",
            "Id": "string",
            "Name": "string",
            "Status": "string"
         },
         "Status": "string"
      }
   ],
   "NextToken": "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.

Invitations

The invitations for the network.

Type: Array of Invitation objects

NextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceLimitExceededException

The maximum number of resources of that type already exist. Ensure the resources requested are within the boundaries of the service edition and your account limits.

HTTP Status Code: 429

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListMembers

Returns a list of the members in a network and properties of their configurations.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /networks/networkId/members?
isOwned=IsOwned&maxResults=MaxResults&name=Name&nextToken=NextToken&status=Status
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

IsOwned

An optional Boolean value. If provided, the request is limited either to members that the current AWS account owns (`true`) or that other AWS accountsn own (`false`). If omitted, all members are listed.

MaxResults

The maximum number of members to return in the request.

Valid Range: Minimum value of 1. Maximum value of 20.

Name

The optional name of the member to list.

networkId

The unique identifier of the network for which to list members.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Status

An optional status specifier. If provided, only members currently in this status are listed.

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | UPDATING | DELETING | DELETED | INACCESSIBLE_ENCRYPTION_KEY`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Members": [
      {
         "Arn": "string",
         "CreationDate": "string",
         "Description": "string",
         "Id": "string",
         "IsOwned": boolean,
         "Name": "string",
         "Status": "string"
      }
   ],
   "NextToken": "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.

Members

An array of `MemberSummary` objects. Each object contains details about a network member.

Type: Array of MemberSummary objects

NextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListNetworks

Returns information about the networks in which the current AWS account participates.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
GET /networks?
framework=Framework&maxResults=MaxResults&name=Name&nextToken=NextToken&status=Status
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

Framework

An optional framework specifier. If provided, only networks of this framework type are listed.

Valid Values: `HYPERLEDGER_FABRIC | ETHEREUM`

MaxResults

The maximum number of networks to list.

Valid Range: Minimum value of 1. Maximum value of 10.

Name

The name of the network.

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Status

An optional status specifier. If provided, only networks currently in this status are listed.

Applies only to Hyperledger Fabric.

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | DELETING | DELETED`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "Networks": [
      {
         "Arn": "string",
         "CreationDate": "string",
         "Description": "string",
         "Framework": "string",
         "FrameworkVersion": "string",
         "Id": "string",
         "Name": "string",
         "Status": "string"
      }
   ],
   "NextToken": "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.

Networks

An array of `NetworkSummary` objects that contain configuration properties for each network.

Type: Array of NetworkSummary objects

NextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListNodes

Returns information about the nodes within a network.

Applies to Hyperledger Fabric and Ethereum.

Request Syntax

```
GET /networks/networkId/nodes?
maxResults=MaxResults&memberId=MemberId&nextToken=NextToken&status=Status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

The maximum number of nodes to list.

Valid Range: Minimum value of 1. Maximum value of 20.

MemberId

The unique identifier of the member who owns the nodes to list.

Applies only to Hyperledger Fabric and is required for Hyperledger Fabric.

Length Constraints: Minimum length of 1. Maximum length of 32.

networkId

The unique identifier of the network for which to list nodes.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Status

An optional status specifier. If provided, only nodes currently in this status are listed.

Valid Values: `CREATING | AVAILABLE | UNHEALTHY | CREATE_FAILED | UPDATING | DELETING | DELETED | FAILED | INACCESSIBLE_ENCRYPTION_KEY`

Request Body

The request does not have a request body.

Response Syntax

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

{
   "NextToken": "string",
   "Nodes": [
      {
         "Arn": "string",
         "AvailabilityZone": "string",
         "CreationDate": "string",
         "Id": "string",
         "InstanceType": "string",
         "Status": "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

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Nodes

An array of `NodeSummary` objects that contain configuration properties for each node.

Type: Array of NodeSummary objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2

- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListProposals

Returns a list of proposals for the network.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /networks/networkId/proposals?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

The maximum number of proposals to return.

Valid Range: Minimum value of 1. Maximum value of 100.

networkId

The unique identifier of the network.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

Request Body

The request does not have a request body.

Response Syntax

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

```
{
   "NextToken": "string",
   "Proposals": [
      {
         "Arn": "string",
         "CreationDate": "string",
         "Description": "string",
         "ExpirationDate": "string",
         "ProposalId": "string",
         "ProposedByMemberId": "string",
         "ProposedByMemberName": "string",
         "Status": "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

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

Proposals

The summary of each proposal made on the network.

Type: Array of ProposalSummary objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListProposalVotes

Returns the list of votes for a specified proposal, including the value of each vote and the unique identifier of the member that cast the vote.

Applies only to Hyperledger Fabric.

Request Syntax

```
GET /networks/networkId/proposals/proposalId/votes?
maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

MaxResults

The maximum number of votes to return.

Valid Range: Minimum value of 1. Maximum value of 100.

networkId

The unique identifier of the network.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

NextToken

The pagination token that indicates the next set of results to retrieve.

Length Constraints: Maximum length of 128.

proposalId

The unique identifier of the proposal.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "NextToken": "string",
   "ProposalVotes": [
      {
         "MemberId": "string",
         "MemberName": "string",
         "Vote": "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

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Maximum length of 128.

ProposalVotes

The list of votes.

Type: Array of VoteSummary objects

Errors

For information about the errors that are common to all actions, see Common Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

ListTagsForResource

Returns a list of tags for the specified resource. Each tag consists of a key and optional value.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: Yes

Request Body

The request does not have a request body.

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

The tags assigned to the resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Errors

For information about the errors that are common to all actions, see Common Error Types.

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

RejectInvitation

Rejects an invitation to join a network. This action can be called by a principal in an AWS account that has received an invitation to create a member and join a network.

Applies only to Hyperledger Fabric.

Request Syntax

```
DELETE /invitations/invitationId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

invitationId

The unique identifier of the invitation to reject.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request does not have a request body.

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

IllegalActionException

HTTP Status Code: 400

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Adds or overwrites the specified tags for the specified Amazon Managed Blockchain resource. Each tag consists of a key and optional value.

When you specify a tag key that already exists, the tag value is overwritten with the new value. Use `UntagResource` to remove tag keys.

A resource can have up to 50 tags. If you try to create more than 50 tags for a resource, your request fails and returns an error.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json

{
   "Tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: Yes

Request Body

The request accepts the following data in JSON format.

Tags

The tags to assign to the specified resource. Tag values can be empty, for example, `"MyTagKey" : ""`. You can specify multiple key-value pairs in a single request, with an overall maximum of 50 tags added to each resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

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 Error Types.

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

TooManyTagsException

ResourceName

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Removes the specified tags from the Amazon Managed Blockchain resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Request Syntax

```
DELETE /tags/resourceArn?tagKeys=TagKeys HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The Amazon Resource Name (ARN) of the resource. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: Yes

TagKeys

The tag keys.

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Request Body

The request does not have a request body.

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 Error Types.

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but isn't in a status that can complete the operation.

HTTP Status Code: 409

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateMember

Updates a member configuration with new parameters.

Applies only to Hyperledger Fabric.

Request Syntax

```
PATCH /networks/networkId/members/memberId HTTP/1.1
Content-type: application/json

{
   "LogPublishingConfiguration": {
      "Fabric": {
         "CaLogs": {
            "Cloudwatch": {
               "Enabled": boolean
            }
         }
      }
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

memberId

The unique identifier of the member.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

networkId

The unique identifier of the Managed Blockchain network to which the member belongs.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

LogPublishingConfiguration

Configuration properties for publishing to Amazon CloudWatch Logs.

Type: MemberLogPublishingConfiguration object

Required: No

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateNode

Updates a node configuration with new parameters.

Applies only to Hyperledger Fabric.

Request Syntax

```
PATCH /networks/networkId/nodes/nodeId HTTP/1.1
Content-type: application/json

{
   "LogPublishingConfiguration": {
      "Fabric": {
         "ChaincodeLogs": {
            "Cloudwatch": {
               "Enabled": boolean
            }
         },
         "PeerLogs": {
            "Cloudwatch": {
               "Enabled": boolean
            }
         }
      }
   },
   "MemberId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network that the node is on.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

nodeId

The unique identifier of the node.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

LogPublishingConfiguration

Configuration properties for publishing to Amazon CloudWatch Logs.

Type: NodeLogPublishingConfiguration object

Required: No

MemberId

The unique identifier of the member that owns the node.

Applies only to Hyperledger Fabric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

VoteOnProposal

Casts a vote for a specified `ProposalId` on behalf of a member. The member to vote as, specified by `VoterMemberId`, must be in the same AWS account as the principal that calls the action.

Applies only to Hyperledger Fabric.

Request Syntax

```
POST /networks/networkId/proposals/proposalId/votes HTTP/1.1
Content-type: application/json

{
   "Vote": "string",
   "VoterMemberId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

networkId

The unique identifier of the network.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

proposalId

The unique identifier of the proposal.

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Request Body

The request accepts the following data in JSON format.

Vote

The value of the vote.

Type: String

Valid Values: YES | NO

Required: Yes

VoterMemberId

The unique identifier of the member casting the vote.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

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 Error Types.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 403

IllegalActionException

HTTP Status Code: 400

InternalServiceErrorException

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

HTTP Status Code: 500

InvalidRequestException

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

HTTP Status Code: 400

ResourceNotFoundException

A requested resource doesn't exist. It may have been deleted or referenced incorrectly.

ResourceName

A requested resource doesn't exist. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is creating resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources if possible.

HTTP Status Code: 429

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Amazon Managed Blockchain 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:

- Accessor
- AccessorSummary
- ApprovalThresholdPolicy
- Invitation
- InviteAction
- LogConfiguration
- LogConfigurations
- Member
- MemberConfiguration
- MemberFabricAttributes
- MemberFabricConfiguration
- MemberFabricLogPublishingConfiguration
- MemberFrameworkAttributes
- MemberFrameworkConfiguration
- MemberLogPublishingConfiguration
- MemberSummary
- Network
- NetworkEthereumAttributes
- NetworkFabricAttributes
- NetworkFabricConfiguration

- NetworkFrameworkAttributes
- NetworkFrameworkConfiguration
- NetworkSummary
- Node
- NodeConfiguration
- NodeEthereumAttributes
- NodeFabricAttributes
- NodeFabricLogPublishingConfiguration
- NodeFrameworkAttributes
- NodeLogPublishingConfiguration
- NodeSummary
- Proposal
- ProposalActions
- ProposalSummary
- RemoveAction
- VoteSummary
- VotingPolicy

Accessor

The properties of the Accessor.

Contents

Arn

The Amazon Resource Name (ARN) of the accessor. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

BillingToken

The billing token is a property of the Accessor. Use this token to when making calls to the blockchain network. The billing token is used to track your accessor token for billing requests.

Type: String

Length Constraints: Fixed length of 42.

Required: No

CreationDate

The creation date and time of the accessor.

Type: Timestamp

Required: No

Id

The unique identifier of the accessor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NetworkType

The blockchain network that the Accessor token is created for.

Type: String

Valid Values: `ETHEREUM_GOERLI | ETHEREUM_MAINNET | ETHEREUM_MAINNET_AND_GOERLI | POLYGON_MAINNET | POLYGON_MUMBAI`

Required: No

Status

The current status of the accessor.

Type: String

Valid Values: `AVAILABLE | PENDING_DELETION | DELETED`

Required: No

Tags

The tags assigned to the Accessor.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Type

The type of the accessor.

> **Note**
>
> Currently, accessor type is restricted to `BILLING_TOKEN`.

Type: String

Valid Values: `BILLING_TOKEN`

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 Java V2
- AWS SDK for Ruby V3

AccessorSummary

A summary of accessor properties.

Contents

Arn

The Amazon Resource Name (ARN) of the accessor. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The creation date and time of the accessor.

Type: Timestamp

Required: No

Id

The unique identifier of the accessor.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NetworkType

The blockchain network that the Accessor token is created for.

Type: String

Valid Values: `ETHEREUM_GOERLI | ETHEREUM_MAINNET | ETHEREUM_MAINNET_AND_GOERLI | POLYGON_MAINNET | POLYGON_MUMBAI`

Required: No

Status

The current status of the accessor.

Type: String

Valid Values: `AVAILABLE | PENDING_DELETION | DELETED`

Required: No

Type

The type of the accessor.

> **Note**
>
> Currently accessor type is restricted to `BILLING_TOKEN`.

Type: String

Valid Values: `BILLING_TOKEN`

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 Java V2
- AWS SDK for Ruby V3

ApprovalThresholdPolicy

A policy type that defines the voting rules for the network. The rules decide if a proposal is approved. Approval may be based on criteria such as the percentage of YES votes and the duration of the proposal. The policy applies to all proposals and is specified when the network is created.

Applies only to Hyperledger Fabric.

Contents

ProposalDurationInHours

The duration from the time that a proposal is created until it expires. If members cast neither the required number of YES votes to approve the proposal nor the number of NO votes required to reject it before the duration expires, the proposal is EXPIRED and ProposalActions aren't carried out.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 168.

Required: No

ThresholdComparator

Determines whether the vote percentage must be greater than the ThresholdPercentage or must be greater than or equal to the ThresholdPercentage to be approved.

Type: String

Valid Values: GREATER_THAN | GREATER_THAN_OR_EQUAL_TO

Required: No

ThresholdPercentage

The percentage of votes among all members that must be YES for a proposal to be approved. For example, a ThresholdPercentage value of 50 indicates 50%. The ThresholdComparator determines the precise comparison. If a ThresholdPercentage value of 50 is specified on a network with 10 members, along with a ThresholdComparator value of GREATER_THAN, this indicates that 6 YES votes are required for the proposal to be approved.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

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 Java V2
- AWS SDK for Ruby V3

Invitation

An invitation to an AWS account to create a member and join the network.

Applies only to Hyperledger Fabric.

Contents

Arn

The Amazon Resource Name (ARN) of the invitation. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the invitation was created.

Type: Timestamp

Required: No

ExpirationDate

The date and time that the invitation expires. This is the `CreationDate` plus the `ProposalDurationInHours` that is specified in the `ProposalThresholdPolicy`. After this date and time, the invitee can no longer create a member and join the network using this `InvitationId`.

Type: Timestamp

Required: No

InvitationId

The unique identifier for the invitation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NetworkSummary

A summary of network configuration properties.

Type: NetworkSummary object

Required: No

Status

The status of the invitation:

- `PENDING` - The invitee hasn't created a member to join the network, and the invitation hasn't yet expired.
- `ACCEPTING` - The invitee has begun creating a member, and creation hasn't yet completed.
- `ACCEPTED` - The invitee created a member and joined the network using the `InvitationID`.
- `REJECTED` - The invitee rejected the invitation.
- `EXPIRED` - The invitee neither created a member nor rejected the invitation before the `ExpirationDate`.

Type: String

Valid Values: `PENDING | ACCEPTED | ACCEPTING | REJECTED | EXPIRED`

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 Java V2
- AWS SDK for Ruby V3

InviteAction

An action to invite a specific AWS account to create a member and join the network. The `InviteAction` is carried out when a `Proposal` is `APPROVED`.

Applies only to Hyperledger Fabric.

Contents

Principal

The AWS account ID to invite.

Type: String

Required: Yes

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 Java V2
- AWS SDK for Ruby V3

LogConfiguration

A configuration for logging events.

Contents

Enabled

Indicates whether logging is enabled.

Type: Boolean

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 Java V2
- AWS SDK for Ruby V3

LogConfigurations

A collection of log configurations.

Contents

Cloudwatch

Parameters for publishing logs to Amazon CloudWatch Logs.

Type: LogConfiguration object

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 Java V2
- AWS SDK for Ruby V3

Member

Member configuration properties.

Applies only to Hyperledger Fabric.

Contents

Arn

The Amazon Resource Name (ARN) of the member. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the member was created.

Type: Timestamp

Required: No

Description

An optional description for the member.

Type: String

Length Constraints: Maximum length of 128.

Required: No

FrameworkAttributes

Attributes relevant to a member for the blockchain framework that the Managed Blockchain network uses.

Type: MemberFrameworkAttributes object

Required: No

Id

The unique identifier of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

KmsKeyArn

The Amazon Resource Name (ARN) of the customer managed key in AWS Key Management Service (AWS KMS) that the member uses for encryption at rest. If the value of this parameter is "AWS Owned KMS Key", the member uses an AWS owned KMS key for encryption. This parameter is inherited by the nodes that this member owns.

For more information, see Encryption at Rest in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String

Required: No

LogPublishingConfiguration

Configuration properties for logging events associated with a member.

Type: MemberLogPublishingConfiguration object

Required: No

Name

The name of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$

Required: No

NetworkId

The unique identifier of the network to which the member belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

Status

The status of a member.

- `CREATING` - The AWS account is in the process of creating a member.
- `AVAILABLE` - The member has been created and can participate in the network.
- `CREATE_FAILED` - The AWS account attempted to create a member and creation failed.
- `UPDATING` - The member is in the process of being updated.
- `DELETING` - The member and all associated resources are in the process of being deleted. Either the AWS account that owns the member deleted it, or the member is being deleted as the result of an `APPROVED PROPOSAL` to remove the member.
- `DELETED` - The member can no longer participate on the network and all associated resources are deleted. Either the AWS account that owns the member deleted it, or the member is being deleted as the result of an `APPROVED PROPOSAL` to remove the member.
- `INACCESSIBLE_ENCRYPTION_KEY` - The member is impaired and might not function as expected because it cannot access the specified customer managed key in AWS KMS for encryption at rest. Either the KMS key was disabled or deleted, or the grants on the key were revoked.

  The effect of disabling or deleting a key or of revoking a grant isn't immediate. It might take some time for the member resource to discover that the key is inaccessible. When a resource is in this state, we recommend deleting and recreating the resource.

Type: String

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | UPDATING | DELETING | DELETED | INACCESSIBLE_ENCRYPTION_KEY`

Required: No

Tags

Tags assigned to the member. Tags consist of a key and optional value.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

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 Java V2
- AWS SDK for Ruby V3

MemberConfiguration

Configuration properties of the member.

Applies only to Hyperledger Fabric.

Contents

FrameworkConfiguration

Configuration properties of the blockchain framework relevant to the member.

Type: MemberFrameworkConfiguration object

Required: Yes

Name

The name of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$`

Required: Yes

Description

An optional description of the member.

Type: String

Length Constraints: Maximum length of 128.

Required: No

KmsKeyArn

The Amazon Resource Name (ARN) of the customer managed key in AWS Key Management Service (AWS KMS) to use for encryption at rest in the member. This parameter is inherited by any nodes that this member creates. For more information, see Encryption at Rest in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Use one of the following options to specify this parameter:

- **Undefined or empty string** - By default, use an AWS KMS key that is owned and managed by AWS on your behalf.
- **A valid symmetric customer managed KMS key** - Use the specified KMS key in your account that you create, own, and manage.

  Amazon Managed Blockchain doesn't support asymmetric keys. For more information, see Using symmetric and asymmetric keys in the *AWS Key Management Service Developer Guide*.

  The following is an example of a KMS key ARN: `arn:aws:kms:us-east-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

LogPublishingConfiguration

Configuration properties for logging events associated with a member of a Managed Blockchain network.

Type: MemberLogPublishingConfiguration object

Required: No

Tags

Tags assigned to the member. Tags consist of a key and optional value.

When specifying tags during creation, you can specify multiple key-value pairs in a single request, with an overall maximum of 50 tags added to each resource.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

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 Java V2
- AWS SDK for Ruby V3

MemberFabricAttributes

Attributes of Hyperledger Fabric for a member in a Managed Blockchain network using the Hyperledger Fabric framework.

Contents

AdminUsername

The user name for the initial administrator user for the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

Pattern: `^[a-zA-Z][a-zA-Z0-9]*$`

Required: No

CaEndpoint

The endpoint used to access the member's certificate authority.

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 Java V2
- AWS SDK for Ruby V3

MemberFabricConfiguration

Configuration properties for Hyperledger Fabric for a member in a Managed Blockchain network that is using the Hyperledger Fabric framework.

Contents

AdminPassword

The password for the member's initial administrative user. The `AdminPassword` must be at least 8 characters long and no more than 32 characters. It must contain at least one uppercase letter, one lowercase letter, and one digit. It cannot have a single quotation mark (‘), a double quotation marks (“), a forward slash(/), a backward slash(\), @, or a space.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 32.

Pattern: `^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?!.*[@'\\"/])[a-zA-Z0-9\S]*$`

Required: Yes

AdminUsername

The user name for the member's initial administrative user.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

Pattern: `^[a-zA-Z][a-zA-Z0-9]*$`

Required: Yes

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 Java V2

- AWS SDK for Ruby V3

MemberFabricLogPublishingConfiguration

Configuration properties for logging events associated with a member of a Managed Blockchain network using the Hyperledger Fabric framework.

Contents

CaLogs

Configuration properties for logging events associated with a member's Certificate Authority (CA). CA logs help you determine when a member in your account joins the network, or when new peers register with a member CA.

Type: LogConfigurations object

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 Java V2
- AWS SDK for Ruby V3

MemberFrameworkAttributes

Attributes relevant to a member for the blockchain framework that the Managed Blockchain network uses.

Contents

Fabric

Attributes of Hyperledger Fabric relevant to a member on a Managed Blockchain network that uses Hyperledger Fabric.

Type: MemberFabricAttributes object

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 Java V2
- AWS SDK for Ruby V3

MemberFrameworkConfiguration

Configuration properties relevant to a member for the blockchain framework that the Managed Blockchain network uses.

Contents

Fabric

Attributes of Hyperledger Fabric for a member on a Managed Blockchain network that uses Hyperledger Fabric.

Type: MemberFabricConfiguration object

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 Java V2
- AWS SDK for Ruby V3

MemberLogPublishingConfiguration

Configuration properties for logging events associated with a member of a Managed Blockchain network.

Contents

Fabric

Configuration properties for logging events associated with a member of a Managed Blockchain network using the Hyperledger Fabric framework.

Type: MemberFabricLogPublishingConfiguration object

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 Java V2
- AWS SDK for Ruby V3

MemberSummary

A summary of configuration properties for a member.

Applies only to Hyperledger Fabric.

Contents

Arn

The Amazon Resource Name (ARN) of the member. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the member was created.

Type: Timestamp

Required: No

Description

An optional description of the member.

Type: String

Length Constraints: Maximum length of 128.

Required: No

Id

The unique identifier of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

IsOwned

An indicator of whether the member is owned by your AWS account or a different AWS account.

Type: Boolean

Required: No

Name

The name of the member.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$`

Required: No

Status

The status of the member.

- `CREATING` - The AWS account is in the process of creating a member.
- `AVAILABLE` - The member has been created and can participate in the network.
- `CREATE_FAILED` - The AWS account attempted to create a member and creation failed.
- `UPDATING` - The member is in the process of being updated.
- `DELETING` - The member and all associated resources are in the process of being deleted. Either the AWS account that owns the member deleted it, or the member is being deleted as the result of an `APPROVED PROPOSAL` to remove the member.
- `DELETED` - The member can no longer participate on the network and all associated resources are deleted. Either the AWS account that owns the member deleted it, or the member is being deleted as the result of an `APPROVED PROPOSAL` to remove the member.
- `INACCESSIBLE_ENCRYPTION_KEY` - The member is impaired and might not function as expected because it cannot access the specified customer managed key in AWS Key Management Service (AWS KMS) for encryption at rest. Either the KMS key was disabled or deleted, or the grants on the key were revoked.

The effect of disabling or deleting a key or of revoking a grant isn't immediate. It might take some time for the member resource to discover that the key is inaccessible. When a resource is in this state, we recommend deleting and recreating the resource.

Type: String

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | UPDATING | DELETING | DELETED | INACCESSIBLE_ENCRYPTION_KEY`

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 Java V2
- AWS SDK for Ruby V3

Network

Network configuration properties.

Contents

Arn

The Amazon Resource Name (ARN) of the network. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the network was created.

Type: Timestamp

Required: No

Description

Attributes of the blockchain framework for the network.

Type: String

Length Constraints: Maximum length of 128.

Required: No

Framework

The blockchain framework that the network uses.

Type: String

Valid Values: `HYPERLEDGER_FABRIC | ETHEREUM`

Required: No

FrameworkAttributes

Attributes of the blockchain framework that the network uses.

Type: NetworkFrameworkAttributes object

Required: No

FrameworkVersion

The version of the blockchain framework that the network uses.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8.

Required: No

Id

The unique identifier of the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

Name

The name of the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\S.*`

Required: No

Status

The current status of the network.

Type: String

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | DELETING | DELETED`

Required: No

Tags

Tags assigned to the network. Each tag consists of a key and optional value.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

VotingPolicy

The voting rules that the network uses to decide if a proposal is accepted.

Type: VotingPolicy object

Required: No

VpcEndpointServiceName

The VPC endpoint service name of the VPC endpoint service of the network. Members use the VPC endpoint service name to create a VPC endpoint to access network resources.

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 Java V2
- AWS SDK for Ruby V3

NetworkEthereumAttributes

Attributes of Ethereum for a network.

Contents

ChainId

The Ethereum `CHAIN_ID` associated with the Ethereum network. Chain IDs are as follows:

- mainnet = 1

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 Java V2
- AWS SDK for Ruby V3

NetworkFabricAttributes

Attributes of Hyperledger Fabric for a network.

Contents

Edition

The edition of Amazon Managed Blockchain that Hyperledger Fabric uses. For more information, see Amazon Managed Blockchain Pricing.

Type: String

Valid Values: `STARTER | STANDARD`

Required: No

OrderingServiceEndpoint

The endpoint of the ordering service for the network.

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 Java V2
- AWS SDK for Ruby V3

NetworkFabricConfiguration

Hyperledger Fabric configuration properties for the network.

Contents

Edition

The edition of Amazon Managed Blockchain that the network uses. For more information, see Amazon Managed Blockchain Pricing.

Type: String

Valid Values: `STARTER | STANDARD`

Required: Yes

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 Java V2
- AWS SDK for Ruby V3

NetworkFrameworkAttributes

Attributes relevant to the network for the blockchain framework that the network uses.

Contents

Ethereum

Attributes of an Ethereum network for Managed Blockchain resources participating in an Ethereum network.

Type: NetworkEthereumAttributes object

Required: No

Fabric

Attributes of Hyperledger Fabric for a Managed Blockchain network that uses Hyperledger Fabric.

Type: NetworkFabricAttributes object

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 Java V2
- AWS SDK for Ruby V3

NetworkFrameworkConfiguration

Configuration properties relevant to the network for the blockchain framework that the network uses.

Contents

Fabric

Hyperledger Fabric configuration properties for a Managed Blockchain network that uses Hyperledger Fabric.

Type: NetworkFabricConfiguration object

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 Java V2
- AWS SDK for Ruby V3

NetworkSummary

A summary of network configuration properties.

Contents

Arn

The Amazon Resource Name (ARN) of the network. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the network was created.

Type: Timestamp

Required: No

Description

An optional description of the network.

Type: String

Length Constraints: Maximum length of 128.

Required: No

Framework

The blockchain framework that the network uses.

Type: String

Valid Values: `HYPERLEDGER_FABRIC | ETHEREUM`

Required: No

FrameworkVersion

The version of the blockchain framework that the network uses.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8.

Required: No

Id

The unique identifier of the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

Name

The name of the network.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\S.*`

Required: No

Status

The current status of the network.

Type: String

Valid Values: `CREATING | AVAILABLE | CREATE_FAILED | DELETING | DELETED`

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 Java V2
- AWS SDK for Ruby V3

Node

Configuration properties of a node.

Contents

Arn

The Amazon Resource Name (ARN) of the node. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

AvailabilityZone

The Availability Zone in which the node exists. Required for Ethereum nodes.

Type: String

Required: No

CreationDate

The date and time that the node was created.

Type: Timestamp

Required: No

FrameworkAttributes

Attributes of the blockchain framework being used.

Type: NodeFrameworkAttributes object

Required: No

Id

The unique identifier of the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

InstanceType

The instance type of the node.

Type: String

Required: No

KmsKeyArn

The Amazon Resource Name (ARN) of the customer managed key in AWS Key Management Service (AWS KMS) that the node uses for encryption at rest. If the value of this parameter is `"AWS Owned KMS Key"`, the node uses an AWS owned KMS key for encryption. The node inherits this parameter from the member that it belongs to.

For more information, see Encryption at Rest in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Applies only to Hyperledger Fabric.

Type: String

Required: No

LogPublishingConfiguration

Configuration properties for logging events associated with a peer node on a Hyperledger Fabric network on Managed Blockchain.

Type: NodeLogPublishingConfiguration object

Required: No

MemberId

The unique identifier of the member to which the node belongs.

Applies only to Hyperledger Fabric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NetworkId

The unique identifier of the network that the node is on.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

StateDB

The state database that the node uses. Values are `LevelDB` or `CouchDB`.

Applies only to Hyperledger Fabric.

Type: String

Valid Values: `LevelDB | CouchDB`

Required: No

Status

The status of the node.

- `CREATING` - The AWS account is in the process of creating a node.
- `AVAILABLE` - The node has been created and can participate in the network.
- `UNHEALTHY` - The node is impaired and might not function as expected. Amazon Managed Blockchain automatically finds nodes in this state and tries to recover them. If a node is recoverable, it returns to `AVAILABLE`. Otherwise, it moves to `FAILED` status.
- `CREATE_FAILED` - The AWS account attempted to create a node and creation failed.
- `UPDATING` - The node is in the process of being updated.
- `DELETING` - The node is in the process of being deleted.
- `DELETED` - The node can no longer participate on the network.
- `FAILED` - The node is no longer functional, cannot be recovered, and must be deleted.
- `INACCESSIBLE_ENCRYPTION_KEY` - The node is impaired and might not function as expected because it cannot access the specified customer managed key in AWS KMS for

encryption at rest. Either the KMS key was disabled or deleted, or the grants on the key were revoked.

The effect of disabling or deleting a key or of revoking a grant isn't immediate. It might take some time for the node resource to discover that the key is inaccessible. When a resource is in this state, we recommend deleting and recreating the resource.

Type: String

Valid Values: `CREATING | AVAILABLE | UNHEALTHY | CREATE_FAILED | UPDATING | DELETING | DELETED | FAILED | INACCESSIBLE_ENCRYPTION_KEY`

Required: No

Tags

Tags assigned to the node. Each tag consists of a key and optional value.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

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 Java V2
- AWS SDK for Ruby V3

NodeConfiguration

Configuration properties of a node.

Contents

InstanceType

The Amazon Managed Blockchain instance type for the node.

Type: String

Required: Yes

AvailabilityZone

The Availability Zone in which the node exists. Required for Ethereum nodes.

Type: String

Required: No

LogPublishingConfiguration

Configuration properties for logging events associated with a peer node on a Hyperledger Fabric network on Managed Blockchain.

Type: NodeLogPublishingConfiguration object

Required: No

StateDB

The state database that the node uses. Values are `LevelDB` or `CouchDB`. When using an Amazon Managed Blockchain network with Hyperledger Fabric version 1.4 or later, the default is `CouchDB`.

Applies only to Hyperledger Fabric.

Type: String

Valid Values: `LevelDB | CouchDB`

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 Java V2
- AWS SDK for Ruby V3

NodeEthereumAttributes

Attributes of an Ethereum node.

Contents

HttpEndpoint

The endpoint on which the Ethereum node listens to run Ethereum API methods over HTTP connections from a client. Use this endpoint in client code for smart contracts when using an HTTP connection. Connections to this endpoint are authenticated using Signature Version 4.

Type: String

Required: No

WebSocketEndpoint

The endpoint on which the Ethereum node listens to run Ethereum JSON-RPC methods over WebSocket connections from a client. Use this endpoint in client code for smart contracts when using a WebSocket connection. Connections to this endpoint are authenticated using Signature Version 4.

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 Java V2
- AWS SDK for Ruby V3

NodeFabricAttributes

Attributes of Hyperledger Fabric for a peer node on a Hyperledger Fabric network on Managed Blockchain.

Contents

PeerEndpoint

The endpoint that identifies the peer node for all services except peer channel-based event services.

Type: String

Required: No

PeerEventEndpoint

The endpoint that identifies the peer node for peer channel-based event services.

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 Java V2
- AWS SDK for Ruby V3

NodeFabricLogPublishingConfiguration

Configuration properties for logging events associated with a peer node owned by a member in a Managed Blockchain network.

Contents

ChaincodeLogs

Configuration properties for logging events associated with chaincode execution on a peer node. Chaincode logs contain the results of instantiating, invoking, and querying the chaincode. A peer can run multiple instances of chaincode. When enabled, a log stream is created for all chaincodes, with an individual log stream for each chaincode.

Type: LogConfigurations object

Required: No

PeerLogs

Configuration properties for a peer node log. Peer node logs contain messages generated when your client submits transaction proposals to peer nodes, requests to join channels, enrolls an admin peer, and lists the chaincode instances on a peer node.

Type: LogConfigurations object

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 Java V2
- AWS SDK for Ruby V3

NodeFrameworkAttributes

Attributes relevant to a node on a Managed Blockchain network for the blockchain framework that the network uses.

Contents

Ethereum

Attributes of Ethereum for a node on a Managed Blockchain network that uses Ethereum.

Type: NodeEthereumAttributes object

Required: No

Fabric

Attributes of Hyperledger Fabric for a peer node on a Managed Blockchain network that uses Hyperledger Fabric.

Type: NodeFabricAttributes object

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 Java V2
- AWS SDK for Ruby V3

NodeLogPublishingConfiguration

Configuration properties for logging events associated with a peer node on a Hyperledger Fabric network on Managed Blockchain.

Contents

Fabric

Configuration properties for logging events associated with a node that is owned by a member of a Managed Blockchain network using the Hyperledger Fabric framework.

Type: NodeFabricLogPublishingConfiguration object

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 Java V2
- AWS SDK for Ruby V3

NodeSummary

A summary of configuration properties for a node.

Contents

Arn

The Amazon Resource Name (ARN) of the node. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

AvailabilityZone

The Availability Zone in which the node exists.

Type: String

Required: No

CreationDate

The date and time that the node was created.

Type: Timestamp

Required: No

Id

The unique identifier of the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

InstanceType

The EC2 instance type for the node.

Type: String

Required: No

Status

The status of the node.

Type: String

Valid Values: `CREATING | AVAILABLE | UNHEALTHY | CREATE_FAILED | UPDATING | DELETING | DELETED | FAILED | INACCESSIBLE_ENCRYPTION_KEY`

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 Java V2
- AWS SDK for Ruby V3

Proposal

Properties of a proposal on a Managed Blockchain network.

Applies only to Hyperledger Fabric.

Contents

Actions

The actions to perform on the network if the proposal is APPROVED.

Type: ProposalActions object

Required: No

Arn

The Amazon Resource Name (ARN) of the proposal. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the proposal was created.

Type: Timestamp

Required: No

Description

The description of the proposal.

Type: String

Length Constraints: Maximum length of 128.

Required: No

ExpirationDate

The date and time that the proposal expires. This is the `CreationDate` plus the `ProposalDurationInHours` that is specified in the `ProposalThresholdPolicy`. After this date and time, if members haven't cast enough votes to determine the outcome according to the voting policy, the proposal is `EXPIRED` and `Actions` aren't carried out.

Type: Timestamp

Required: No

NetworkId

The unique identifier of the network for which the proposal is made.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

NoVoteCount

The current total of `NO` votes cast on the proposal by members.

Type: Integer

Required: No

OutstandingVoteCount

The number of votes remaining to be cast on the proposal by members. In other words, the number of members minus the sum of `YES` votes and `NO` votes.

Type: Integer

Required: No

ProposalId

The unique identifier of the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

ProposedByMemberId

The unique identifier of the member that created the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

ProposedByMemberName

The name of the member that created the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$`

Required: No

Status

The status of the proposal. Values are as follows:

- `IN_PROGRESS` - The proposal is active and open for member voting.
- `APPROVED` - The proposal was approved with sufficient `YES` votes among members according to the `VotingPolicy` specified for the `Network`. The specified proposal actions are carried out.
- `REJECTED` - The proposal was rejected with insufficient `YES` votes among members according to the `VotingPolicy` specified for the `Network`. The specified `ProposalActions` aren't carried out.
- `EXPIRED` - Members didn't cast the number of votes required to determine the proposal outcome before the proposal expired. The specified `ProposalActions` aren't carried out.
- `ACTION_FAILED` - One or more of the specified `ProposalActions` in a proposal that was approved couldn't be completed because of an error. The `ACTION_FAILED` status occurs even if only one ProposalAction fails and other actions are successful.

Type: String

Valid Values: `IN_PROGRESS | APPROVED | REJECTED | EXPIRED | ACTION_FAILED`

Required: No

Tags

Tags assigned to the proposal. Each tag consists of a key and optional value.

For more information about tags, see Tagging Resources in the *Amazon Managed Blockchain Ethereum Developer Guide*, or Tagging Resources in the *Amazon Managed Blockchain Hyperledger Fabric Developer Guide*.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

YesVoteCount

The current total of YES votes cast on the proposal by members.

Type: Integer

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 Java V2
- AWS SDK for Ruby V3

ProposalActions

The actions to carry out if a proposal is APPROVED.

Applies only to Hyperledger Fabric.

Contents

Invitations

The actions to perform for an APPROVED proposal to invite an AWS account to create a member and join the network.

Type: Array of InviteAction objects

Required: No

Removals

The actions to perform for an APPROVED proposal to remove a member from the network, which deletes the member and all associated member resources from the network.

Type: Array of RemoveAction objects

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 Java V2
- AWS SDK for Ruby V3

ProposalSummary

Properties of a proposal.

Applies only to Hyperledger Fabric.

Contents

Arn

The Amazon Resource Name (ARN) of the proposal. For more information about ARNs and their format, see Amazon Resource Names (ARNs) in the *AWS General Reference*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Pattern: `^arn:.+:.+:.+:.+:.+`

Required: No

CreationDate

The date and time that the proposal was created.

Type: Timestamp

Required: No

Description

The description of the proposal.

Type: String

Length Constraints: Maximum length of 128.

Required: No

ExpirationDate

The date and time that the proposal expires. This is the `CreationDate` plus the `ProposalDurationInHours` that is specified in the `ProposalThresholdPolicy`. After this

date and time, if members haven't cast enough votes to determine the outcome according to the voting policy, the proposal is `EXPIRED` and `Actions` aren't carried out.

Type: Timestamp

Required: No

ProposalId

The unique identifier of the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

ProposedByMemberId

The unique identifier of the member that created the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

ProposedByMemberName

The name of the member that created the proposal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$`

Required: No

Status

The status of the proposal. Values are as follows:

- `IN_PROGRESS` - The proposal is active and open for member voting.
- `APPROVED` - The proposal was approved with sufficient `YES` votes among members according to the `VotingPolicy` specified for the `Network`. The specified proposal actions are carried out.

- `REJECTED` - The proposal was rejected with insufficient `YES` votes among members according to the `VotingPolicy` specified for the `Network`. The specified `ProposalActions` aren't carried out.
- `EXPIRED` - Members didn't cast the number of votes required to determine the proposal outcome before the proposal expired. The specified `ProposalActions` aren't carried out.
- `ACTION_FAILED` - One or more of the specified `ProposalActions` in a proposal that was approved couldn't be completed because of an error.

Type: String

Valid Values: `IN_PROGRESS | APPROVED | REJECTED | EXPIRED | ACTION_FAILED`

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 Java V2
- AWS SDK for Ruby V3

RemoveAction

An action to remove a member from a Managed Blockchain network as the result of a removal proposal that is APPROVED. The member and all associated resources are deleted from the network.

Applies only to Hyperledger Fabric.

Contents

MemberId

The unique identifier of the member to remove.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

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 Java V2
- AWS SDK for Ruby V3

VoteSummary

Properties of an individual vote that a member cast for a proposal.

Applies only to Hyperledger Fabric.

Contents

MemberId

The unique identifier of the member that cast the vote.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

MemberName

The name of the member that cast the vote.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^(?!-|[0-9])(?!.*-$)(?!.*?--)[a-zA-Z0-9-]+$`

Required: No

Vote

The vote value, either `YES` or `NO`.

Type: String

Valid Values: `YES | NO`

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 Java V2
- AWS SDK for Ruby V3

VotingPolicy

The voting rules for the network to decide if a proposal is accepted

Applies only to Hyperledger Fabric.

Contents

ApprovalThresholdPolicy

Defines the rules for the network for voting on proposals, such as the percentage of YES votes required for the proposal to be approved and the duration of the proposal. The policy applies to all proposals and is specified when the network is created.

Type: ApprovalThresholdPolicy object

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 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 Signing AWS API requests in the *IAM User Guide*.

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 Create a signed AWS API request in the *IAM User Guide*.

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'T'HHMMSS'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 Elements of an AWS API request signature in the *IAM User Guide*.

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 STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, 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 Create a signed AWS API request in the *IAM User Guide*.

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 Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

IncompleteSignature

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

InternalFailure

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

MalformedHttpRequestException

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

NotAuthorized

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

OptInRequired

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

RequestAbortedException

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

RequestEntityTooLargeException

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

RequestTimeoutException

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

ServiceUnavailable

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

ThrottlingException

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

UnknownOperationException

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

UnrecognizedClientException

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

ValidationError

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400